

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



**Impact of Female Representation in  
Board of Directors and Audit  
Committee on Financial Reporting  
Quality: Moderating Role of Family  
Ownership**

by

**Sanober Shaheen**

A thesis submitted in partial fulfillment for the  
degree of Doctor of Philosophy

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**Impact of Female Representation in Board of Directors  
and Audit Committee on Financial Reporting Quality:  
Moderating Role of Family Ownership**

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*I dedicated this work to my beloved father,  
mother, and daughter.*



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## *List of Publications*

It is certified that following publication(s) have been made out of the research work that has been carried out for this thesis:-

1. Shaheen, S., & Iqbal, M. M. (2022). The Impact of Demographic Characteristics of Board of Directors and Audit Committee on Financial Reporting Quality: An Empirical Study from Pakistan. *Journal of Asian Finance, Economics and Business*, 9(1), 345-352.

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## *Abstract*

This study examines the impact of female representation in the Board of Director (BOD) and Audit Committee (AC) on Financial Reporting Quality (FRQ) and also analyzes the moderating effect of family ownership among them. The data is balanced panel, using a sample of 256 listed companies for a period of thirteen years, i.e., 2008 to 2020, from the Pakistan Stock Exchange. Techniques such as descriptive statistics, correlation matrix, panel data regression, and dynamic generalized method of moment (GMM) estimator are used.

The findings reveal that female representation in BOD has a negative significant impact on FRQ. The results showed that female presence in the AC has a positive and significant impact on FRQ. Further it investigate that FRQ is better in family ownership as compared to non-Family ownership. The study results further revealed that family ownership mitigates the relationship among female representation in the BOD and FRQ; And also among female representation in the AC and FRQ. Findings of the study suggest that specific criteria (such as business skills, knowledge, experience, and monitoring skills) should be used to appoint females to company boards and ACs rather than family connections.

**Keywords:** Female Representation, Board of Directors, Audit committee, Financial Reporting Quality, Accrual Quality, Value Relevance, Family ownership.

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# Abbreviations

<b>FRQ</b>	Financial Reporting Quality
<b>BODs</b>	Board of Directors
<b>AC</b>	Audit Committee
<b>FO</b>	Family Ownership
<b>FBD</b>	Female Representation in Board of Directors
<b>FAC</b>	Female Representation in Audit Committee
<b>PSX</b>	Pakistan Stock Exchange
<b>SECP</b>	Securities and Exchange Commission of Pakistan

# Chapter 1

## Introduction

### 1.1 Background

Financial reporting serves as a source of communication between an organization and its stakeholders. Financial reporting quality (FRQ) is considered good if its reported figures are reliable, compatible, comparable, meaningful, verifiable, and relevant (Bala, Amran, & Shaari, 2021). Martínez-Ferrero, Garcia-Sanchez, and Cuadrado-Ballesteros (2015) also defined FRQ as the accuracy, authenticity, and faithfulness of information conveyed in the financial reporting procedures. As per Nwanyanwu (2017), financial reports give a means for providing information related to the financial dealings of a corporation to its concerned stakeholders. According to Jonas and Blanchet (2000), better FRQ means having full and transparent data of financial reporting is not considered to confuse or mislead users. It is necessary to investigate those factors which make and keep FRQ better and free from manipulation. Scandals of several well-known companies, leading to their liquidation, like WorldCom, Enron, BCCI, and Mirror Group of Newspaper have raised serious questions about the reliability, relevance, and effectiveness of their financial reporting. Another reason for companies' failure has been a weak and ineffective governance structure, i.e. board of directors (BOD) and audit committee (AC), as seen in companies like IBM, Kodak, Honeywell, etc (Hauwa, Badru, & Abdulmumini, 2015). Pakistanis companies are no exception, as companies like Taj Group, Exact, and financial institutions like Islamic Investment Bank, and Indus

Bank, were victims of financial frauds, arising principally from poor governance structure.

For making governance structure i.e. BODs and AC effective and efficient, there is needed to make it diverse. Diversity is of different forms e.g. professional experts, gender, age, education, racism, social and ethnic background. Nowadays, gender diversity is considered a researched area globally. Therefore it is required to study the presence of gender diversity in the context of emerging economies like Pakistan. According to Dobija, Hryckiewicz, Zaman, and Puławska (2021), the presence of gender diversity in BODs and ACs has resulted in more skills, experiences, knowledge, and professionals in their team. Due to gender diversity in boards and audit committee has more capability to fulfill tasks and responsibilities for following up on the interests of shareholders.

As early as 1934, Lettie Pate Whitehead became the first female to be appointed as a board member in a prominent company, namely Coca-Cola Company. But the trend did not improve significantly, leading to formal interventions by regulators in different parts of the world. For the last two decades, European Union has worked on an agenda of implementing a gender quota, i.e. 40% for all companies within the territory of the European Union. In 2012, European Union imposed a fine on those companies that failed to have at least 40% females on their board. The main objective behind gender quota is to benefit from the skills of highly qualified females, utilization of their talent, and again economic growth potential. Norway has implemented a quota system that mandates at least 40% of public company boards to be made up of women. In 2015, France's parliament passed legislation in which board of directors of publicly listed companies must have fifty percent of females' presence. After European Union, many other countries are also mandating gender quotas in their law. India imposes a quota of at least one female director on the board of listed companies. In Australia, there is a 30% female quota. In 1999, Israel legislated a gender quota requiring one female board director. And Pakistan has prescribed a quota of at least one female director on the board of listed companies. These facts point to awareness among regulators of the importance of female representation on corporate boards.

The arguments behind having gender diversity in the BODs and AC are: Firstly, it increases the understanding of the marketplace by matching the diversity of a firm's directors to the diversity of its potential customers and employees, thereby increasing its ability to penetrate markets (Bennouri, Chtioui, Nagati, & Nekhili, 2018). Second, it is argued that diversity increases creativity and innovation as these characteristics are not randomly distributed in the population but tend to vary systematically with demographic variables such as gender. Third, it is argued that diversity can enhance problem-solving as the variety of perspectives that emerges from a more diverse board means that more alternatives are evaluated (Campbell & Mínguez-Vera, 2007). Other reasons described by Abbasi, Alam, and Bhuiyan (2020) are that females are more sensitive to ethics, given that they are likely to be more considerate due to distinct socialization, expected to be more confident, make more ethical decisions and be less likely to engage in immoral behavior, be less tolerant of opportunistic behavior, be more sensitive to retaining company reputation, be less likely to be involved in fraud, be more risk-averse, be more cautious. All these characteristics could make female directors more effective in terms of monitoring and checking financial reports. According to Dunn (2012a), more female representation on the BODs means more talents at the boardroom table. Moreover, more women on corporate boards have improved intra-board communication and brand image and improved employee motivation and customer satisfaction (Dobija et al., 2021). Huse and Solberg (2006) opine that female directors are more committed and prepared for board activities than male directors, resulting in improved board behavior and effectiveness.

Ethical values, leadership styles, and a higher level of risk aversion held by females mitigate the practice of financial reporting fraud in a firm (Dobija et al., 2021). Srinidhi, Gul, and Tsui (2011) find that females are more likely to unveil fake and fraudulent practices and disclose the correct situation in financial reports. The history of female practices in corporate boards and ACs may not be so well documented but names like Sherron Watkins (Enron) and Cynthia Cooper (WorldCom) will always be remembered. Both females acted as whistle-blowers and raised their voices against financial reporting frauds. Sherron Watkins exposed earlier dubious accounting policies of Enron and wrote a memo to the board chairman, but he

took her message lightly and failed to take any decision on the issues raised. After Enron's collapse, shareholders started losing their confidence in the assurance services of an external auditor. The AC has resurfaced as a key tool for preventing fraud and ensuring sound financial management (Thiruvadi & Huang, 2011).

Contradictory views towards female presence in the BODs and AC have also been noted in the previous research literature. According to Wahid (2019), boards or committees having no gender diversity are likely to communicate more frequently because they can easily share the same opinion. Similarly, (Abbott, Parker, & Presley, 2012) suggest that corporations with no female representation in their BODs or ACs are more cooperative and experience fewer emotional conflicts. It can be said that if greater gender diversity among board members generates more opinions and critical questions, and thus raises more conflicts, decision-making will be more time-consuming and less effective (Campbell & Mínguez-Vera, 2008).

In Pakistan's corporate culture, theoretical and empirical evidence on female presence in a BOD or as an AC member is very limited. In their culture, men are considered a bread-earners while females are responsible for running and managing the household (Velte, 2017a). But with time, all cultures come to change. Now, the presence of females can be seen in practice, due to a steady increase in the number of females holding management degrees. This has made it possible for companies to comply with the legal requirement for female representation on the boards.

In Pakistan, females have fewer opportunities for bagging important jobs and empowerment. To work toward gender equality and greater female empowerment, international humanitarian organizations (IHO), United Nations Development Programme (UNDP) and Women on Board (WOB) are working with Pakistani organizations like the Securities and Exchange Commission of Pakistan (SECP) and Pakistan Institute of Corporate Governance (PICG). A few years back, most executive seats in the corporations are held and controlled by males (Ashraf & Ghani, 2005). But now this study can see the change due to the education, especially business and management degrees given to the females. And Second reason for females involved in the upper management team is due to the corporate governance

law of Pakistan (Younis, Hashmi, Khalid, & Nazir, 2016). According to Pakistan corporate governance law and Companies Act 2017, it has prescribed a quota of at least one female director on the board of listed companies; in others, governance structure like AC also reflects female representation (Z. Ali, Ali, & Khan, 2020). Another significant factor responsible for female representation in corporate boards and ACs is the “ownership structure” of the companies. In Pakistan, the family ownership structure is quite prevalent among the listed companies on the Pakistan Stock Exchange. Family-owned companies are more concerned about FRQ because most owners trained their family members regarding managing and running their business matters. Therefore, boards of these companies have deeper business knowledge, direct monitoring of employees, more managerial integration, and an understanding of the relationship between customers, suppliers, and business owners (Kao, Hodgkinson, & Jaafar, 2019). Moreover, the governance (BODs and AC) of those firms works efficiently to have fewer chances of manipulating financial statements and reporting. In the contradictory view, in family businesses, it is the common practice that all upper management positions or controlling authorities in the corporation are held and controlled by family members. In such cases, it is not seen whether the family member is male or female. The family members hold all the decision-making and controlling authority. Therefore family members’ involvement may influence the chances of manipulation in financial reporting (Shamsul Nahar Abdullah & Ismail, 2016). According to Arioglu (2020), most female directors are members or representatives of family companies or large business groups that are the ultimate owners of companies. In such a setting, female directors are likely elected to boards not because of their attributes but rather as a result of their ties to these business groups. Another unfortunate aspect of the situation is the fact that female directors are often not granted enough authority to differ from the elders of the family in matters of importance for the company. Thus, the real advantage of their being a female member of the board is lost.

In Pakistan, the presence of females in BODs or ACs is not large in number. But mostly, the females in BODs or AC belong to the controlling family and due to the need for compliance with the legal requirement as imposed by the Company

Act and Code of Corporate Governance. Various families award directorship to their female members only to seize the brawny hold of their family on business and crack the inheritance predicament to the next generation (Saidat, Seaman, Silva, Al-Haddad, & Marashdeh, 2019). As per the ACCA global survey 2010, regarding the appointment or nomination of females on board in Pakistan, 55 percent of respondents answered family links to be the most important factor in appointing women to corporate boards. Other factors included the desire to have a balanced board, the adoption of international best practices, their qualifications, the fact that gender diversity is a company policy, and women's professional experience. According to the literature, as more women enter the workforce, women with the requisite skills, expertise, professionalism, and knowledge will rise to the top on their own. This may be overly optimistic, but developing and advocating for a business case for board diversity could help to increase the number of qualified, experienced, and professionally competent women on boards.

## 1.2 Problem Statement

The financial reporting fraud scandals have increases the critics on FRQ. World-Com, Enron, Parmalat, Marconi, and other well-known companies were all involved in the scandal (Agrawal & Chadha, 2005; Brown, Falaschetti, & Orlando, 2010; Campa, Deville, & Gendron, 2019; Klai & Omri, 2011). The lack of financial transparency has necessitated the improvement of the FRQ, as well as the requirement for strong manager accountability to maintain a strong governing structure. It is essential to make financial reporting error-free, and have a true and fair view. For better quality of financial reports, corporations hire a diverse team in corporate governance structure (Agrawal & Cooper, 2017; Awolowo, Garrow, Clark, & Chan, 2018; Nor, Nawawi, & Salin, 2017). Main issue arises which type of diversification is effective. For this reason gender diversity is new debate. Gender diversity can be used to make the BOD and AC more diverse. Because of differences in abilities, talents, experience, and monitoring roles, gender diversity plays a major role. The existence of female representation helps to improve the

firm's performance by reducing financial reporting manipulation and improving its quality (Compton, Kang, & Zhu, 2019).

The presence of female representation in practice can be increased from time being, i.e. due to females holding management degrees and secondly due to the gender quota imposed by the corporate governance code of Pakistan (Ashraf & Ghani, 2005; Qamar, Khalil, & Akhtar, 2016; Farhan Shahzad, Shaikh, Qazi, & Sattar, 2019; Sheikh, Shah, & Akbar, 2018; Ullah, Fang, & Jebran, 2019). The main problem arises how females in BOD/AC of family owned companies behave regarding FRQ. For this reason, it is required to focus on family ownership structure too. The family ownership structure is different from other ownership structures because, in this ownership structure, family members have a strong influence and controlling role in business matters. Pakistan is one of those economies in which family-owned businesses have more in numbers. Therefore, this study focused to examine the role of family ownership between female representation in BOD & AC and FRQ and also examine this relationship in circumstances of the Emerging economy like Pakistan. The corporate market of Pakistan is expanding day by day; therefore it is a desire to study this model in Pakistan's economy.

### 1.3 Research Gap

There are certain gaps in the literature on this topic. The first research gap is regarding the dependent variable that is FRQ proxies. Previous research has mostly employed accrual quality or value relevance as proxies for FRQ. Pucheta-Martínez, Bel-Oms, and Olcina-Sempere (2018), employed only a proxy of accrual quality to measure FRQ, and many other studies used only accrual quality as well, e.g. (Aifuwa & Embele, 2019; Houcine, 2017). Other researchers exclusively employed value relevance as a proxy for FRQ (Gowda, 2018; M. Ibrahim, 2017; Kewo & Afiah, 2017; Miralles-Quirós, Miralles-Quirós, & Valente Gonçalves, 2018). Accrual quality is focused on accounting measure of FRQ (Herath & Albarqi, 2017; Tasios & Bekiaris, 2012) whereas value relevance is focused on marketing measure

of FRQ (Huang, Lee, Lyu, & Zhu, 2016). Therefore mostly scholars used one measure in their studies, but this study used both measures of FRQ.

The second gap is regarding independent variable that is female presence in BODs and AC. There are very limited theoretical and empirical studies available that have focused on the impact of female representation either in BODs or in AC on FRQ but not in both. They have ignored one of them (Almaqoushi & Powell, 2021; Sanan, Jaisinghani, & Yadav, 2019; Vitolla, Raimo, & Rubino, 2020). It is, however desirable to study the role of female representation both in BODs and AC on FRQ. The reason is that recently, many listed companies have appointed females in their BOD and AC for fulfilling the gender quota law. This trend is also observed in Pakistan. Therefore it is required to study female presence both in BOD and AC in context of Pakistan.

The third research gap is regarding the family ownership structure as a moderating variable. Family ownership has not been investigated as a moderating factor between governance structure and FRQ in prior studies. If it is investigated as a moderator in any study, the dependent and independent variables will not be the same as they are in this study. Vitolla, Raimo, Marrone, and Rubino (2020) focused on board characteristics and FRQ, however, they ignore family ownership. Sakawa and Watanabel (2018) used a model to look at family ownership, company governance, and FRQ, but they didn't use it as a moderator. In their study, they used family ownership as an independent variable but not as a moderator variable. Bhagat and Bolton (2019), focused solely on director ownership, ignoring family ownership. In the Pakistan scenario, family ownership structure has also been observed along with other ownerships. There are limited studies done in an emerging economy in the context of family and non-family ownerships (Al-Absy, Ismail, & Ch, 2019; Arujunan, Hashim, & Jamaludin, 2018; Iskandar, Hassan, Sanusi, & Mohamed, 2017; A. Saeed, Mukarram, & Belghitar, 2019; E. S. Vieira, 2018). Females' roles in the BOD or AC of family ownership differ from those of non-family ownership; females do not have complete rights or decision-making powers. Therefore, emphasis needs to be placed on family ownership. This debate is yet open and it requires additional and further analysis in different features in emerging economies like Pakistan. It is emphasized and argued that the studies

on moderating role of family ownership have not properly accounted in Emerging economy. This study will contribute to fill the area of financial literature on studying the moderating role of family ownership structure among the presence of female representation in BODs and AC and FRQ. This contribution to the Emerging economy has not been researched to a great extent which is why this research will add knowledge to financial research and literature.

The fourth gap is that there are very limited studies done using the data for emerging economies. Particularly there is no study done in Pakistan in the same context using the latest data sample. Almaqoushi and Powell (2021) studied AC attributes and FRQ in US firms. A. Saeed, Yousaf, and Alharbi (2017), studied board gender diversity in India's economy. Pakistan is considered an excellent and best research place to study the stated relationships and research problems for at least three purposes. Firstly, increasing trend of females in practical life; Secondly, the majority of Pakistan's corporate world consists of family-owned businesses (M. S. Malik & Zahoor, 2016; M. B. Saeed, 2018; Ullah et al., 2019; Younis et al., 2016); Thirdly, introducing of board gender quota in corporate governance law by Securities and Exchange Commission of Pakistan. Therefore, it is understandable from the research information that still; there is a gap to study the role of women's participation in corporate management in Pakistan and its effect on corporate reporting quality and performance of a company. This research aims to address a gap in the Pakistani financial literature. This contribution to the Emerging economy has not been researched to a great extent which is why this research will add knowledge to financial research and literature.

## 1.4 Research Questions

This thesis aims to explore the impact of female presence in BODs & AC on FRQ in the context of Pakistan-listed companies. It will further investigate the moderating role of family ownership among these variables. Thus based on the variables discussed above this research will endeavor to answer the following research questions:

1. Does the presence of female representation in BODs enhance FRQ?
2. Does the presence of female representation in AC enhance FRQ?
3. Does the FO enhance FRQ?
4. Does Family ownership enhance the impact of female representation in BODs on FRQ?
5. Does Family ownership enhance the impact of female representation in AC on FRQ?

## 1.5 Research Objectives

In the context of Pakistani listed firms, to investigate the influence of female presence in BODs and AC on FRQ, as well as the moderating role of family ownership, the major research objectives of this study are listed below:

1. To investigate the impact of female representation in BODs on FRQ.
2. To investigate the impact of female representation in AC on FRQ.
3. To investigate the impact of FO on FRQ.
4. To investigate the moderating role of Family ownership between female representation in BODs and FRQ.
5. To examine the moderating role of Family ownership between female representation in AC and FRQ.

## 1.6 Contributions of this Study

In male-dominated sectors, breaking the glass ceiling is an ongoing challenge. Now, this is a time to change old trends. Females' presence in the corporate world is one of these trends. This study focuses on three main domains of corporate governance; i.e. female as a member of the board or AC, FRQ, and family ownership.

Therefore all its contributions are related to these three domains. This study contributes to the current literature by filling in the gaps in the existing literature on Female representation in BODs and AC, FRQ (accrual quality and value relevance), and family ownership as a moderating role. Contributions of this study can be described in five-folds, which can be expressed as follows:

Firstly, This study adds to the growing body of theoretical literature on i) the FRQ, ii) female representation in BOD and AC, and iii) family ownership as a moderator role. This is one of the first studies to look at the disparities in FRQ between family and non-family businesses in a developing economy like Pakistan. Pakistan is one of those economies where family-owned companies exist more as compared to other ownership structures. This study also adds to the growing body of knowledge by offering new evidence that supports the widely held belief that women in high-profile positions perform equally to their male colleagues. This study contributes to the literature by providing an overview of how gender biases may impair the effectiveness of monitoring the role of female directors, which can be evaluated in future studies.

Secondly, this study also contributes to the theoretical knowledge of different theories like agency theory, human capital theory, resource dependence theory, accounting theory, and information asymmetry theory in the context of FRQ, female representation in BODs and AC, and family ownership in Pakistan scenario. Thirdly, this study empirically contributes to enriching the research on the gender diversity of BODs & AC on FRQ and moderating the role of family ownership in Pakistan-listed companies. Based on the current stage of the Pakistan Stock Exchange, this paper attempts to do systematic empirical research on gender diversity among family and non-family-owned companies. This study expect our research outcome can provide effective evidence for the understanding board and AC monitoring mechanisms will impose a constraint on better FRQ and enrich the research on governance structure and FRQ.

Fourthly, this study contributes practically to promoting Pakistan listed companies to improve board and AC, effectively imposing constraints on better FRQ, and improving transparency of Pakistani listed companies' financial reporting. This

study contributes to understanding the practical situation of gender diversity of BODs and AC and FRQ of Pakistani listed companies.

Fifth, this study contributes to a better understanding of family ownership structures. Because family-owned firms account for the majority of Pakistan's businesses, it is necessary to research family ownership in Pakistan both theoretically and empirically. In addition, the impact of having a female on the BODs and the AC of a family-owned business will be investigated. It also contributes to the policies or new rules and guidelines made by Policymakers, regulatory agencies, and others from the findings of this research study.

## 1.7 Significances of this Study

This study will be useful not only to researchers, academicians, and managers but also to policymakers and regulatory bodies in understanding the role of female representation in BODs and AC, as well as analyzing the impact of this role on FRQ and the moderating role of family ownership among them in the context of Pakistani listed companies. The major significance of this study is listed below:

- From the analysis of this study, it may be beneficial for corporations to realize the function of the governance body corporate and its effect on FRQ. It is also beneficial to understand how to make their governance structure strong, and also how to make the FRQ good in terms of numbers, policies and law too. It will assist business executives in focusing on the information required by diverse annual report users, resulting in improved annual report quality.
- It is beneficial for corporations to understand the moderating role of ownership structure among the presence of female representation in BODs and AC and FRQ.
- This research study is predictable to guide corporate managers in developing proper and complete policies and strategies with information relating to the FRQ and management structure

- Moreover, it is to be expected that the outcomes of this study will add to the development of practical work for management, creditors, investors, advisors, and research work scholars.
- This study also assists regulatory bodies like SECP in bringing about development in compliance with the “Code of Corporate Governance, 2002” of Pakistan.
- This study is also significant for Researchers, academics, and students, as they contribute to the focus groups. The study boost and assist them to get new knowledge, literature, better ideas, plans, and suggestions regarding corporate governance culture and practice and how to improve this in developed countries like Pakistan.

## 1.8 Structure of Study

There are five chapters in this thesis. The first chapter of the thesis contains the background, objective, research question, and significance of the study. The second chapter deals with the literature review, as well as supporting theories and hypothesis development. The methodology techniques utilized in the research are discussed in the third chapter, which comprises data sample, empirical model, variable formulation, and research techniques. The fourth chapter discusses the findings of the research and how they were interpreted. The conclusion and recommendations are discussed in the fifth chapter of the thesis, which also contains the study limitations. All the references are mentioned at the end of the document.

## **Chapter 2**

# **Literature Review, Hypothesis Development and Theoretical Framework**

This chapter relates to the literature review, hypothesis development, and theoretical perspective. The first section of this chapter deals with the literature review in the context of all variables that is FRQ, female representation in BOD and AC and then a literature review on family ownership. The next section is about hypothesis development and the last section of this chapter consists of theories related to these variables.

### **2.1 Literature Review on Financial Reporting Quality**

FRQ is the financial language of any organization. Verdi (2006) defines FRQ as how financial information shows, the objective of which is to inform a company's stakeholders about its operations and business activity. FRQ is also defined as the level at which accounting statements and financial reporting provide us with information that is true, fair, accurate, and reliable about the financial performance and

position of a corporation (Martínez-Ferrero, 2014). It can also be defined as having high-quality features, such as true and fair information, realistic, accurate, or authentic reporting, to keep shareholders, investors, and other stakeholders aware of the company's present financial and economic status (S. U. Hassan, 2013; Mahboub, 2017). Martínez-Ferrero et al. (2015) also defined FRQ as the accuracy, authenticity, and faithfulness of information conveyed in the financial reporting procedures. As per Nwanyanwu (2017), financial reports give a means for providing information related to the financial dealings of the corporation to its concerned stakeholders. According to Jonas and Blanchet (2000), better FRQ means having full and transparent data of financial reporting is not considered to confuse or mislead users. Salehi, Rostami, and Mogadam (2010), stated that a provision of FRQ is not only significant for the organization but also concerned industry and economy.

Better income qualities can be obtained in one of two ways: first, through the firm's economic performance, and second, through its FRQ (Martínez-Ferrero, 2014). Therefore FRQ plays a strong role in organizational success. FRQ is considered good if its reported figures are reliable, compatible, comparable, meaningful, verifiable, and relevant (E. S. S. Alzoubi, 2018; S. U. Hassan, 2013). Also, Compliance with different regulatory and accounting standards like timely dissemination and error-free is the attribute that enhances FRQ (Ball, Robin, & Wu, 2003; Forker, 1992; Habib, Ranasinghe, Muhammadi, & Islam, 2018; Roychowdhury, Shroff, & Verdi, 2019). As an outcome, investors have come to expect better FRQ. FRQ explained to what degree an economic infrastructure of a corporation can be fairly revealed and reported (Deng, Hu, Tian, & Zhong, 2021; Lobo, Xie, & Zhang, 2018). Indeed, financial reporting gives a company outlook; how it can run, and also the way to monitor and check the business units; and analyze & examine a corporation's activities through the viewpoint of management and governance structure (Herath & Albarqi, 2017). Accuracy of financial information raises the FRQ through reliability, relevance, timeliness, conservative, and comparability. As a result, Companies' stakeholders including shareholders, creditors, and investors can gain a competitive edge based on accurate financial reporting data (Beest, Braam, & Boelens, 2009; Saudagaran & Diga, 1997).

Financial reporting serves as a source of a company's operations information between an organization and its stakeholders. This reporting information updates employees, shareholders, government, public, creditors, suppliers, bankers, and other stakeholders regarding the financial position and other corporations' financial actions (Bello, 2011; S. U. Hassan, 2013; Kantudu & Samaila, 2015; T. C. Omer, Shelley, & Tice, 2019). For that reason, good FRQ facilitates Investor's decision-making and other stakeholders' decisions (Abidin, Kamal, & Jusoff, 2009; Bushee, Goodman, & Sunder, 2019; Pucheta-Martínez & García-Meca, 2014). Good FRQ means a good image of the corporate in the market. All corporations or business units need to prepare a good quality financial information report. It is the responsibility of corporations to prepare and show true and fair financial reports because this information's are later on used by decision-makers to forecast the outcomes of present operations or rectify their expectations (S. U. Hassan, 2013).

According to Herath and Albarqi (2017), financial statements and reports express both quantitative and qualitative financial and accounting information to assist stakeholders in making better and more beneficial economic decisions. According to International Accounting Standards, better qualities of financial reporting are those that are free from any material misrepresentation or misstatements that enhance the decision making the quality of users. As per International Accounting Standard Board (IASB-2008) the aim of preparation and presentation of financial reports is to give better accounting information relating to businesses; primarily financial; beneficial for corporation performance; useful for economic decision making by users as cited in the different research literature (Bajra & Čadež, 2018; Bala et al., 2021; Beest et al., 2009; Mwangi, Oluoch, Muturi, & Florence, 2017). According to Mwangi et al. (2017), the provision of better FRQ information is very significant for the organization because it influences investors or capital providers, or other stakeholders in making future decisions regarding capital investment, credit, and similar resource allocation. Financial reports occupied a significant position in users' decision-making process, especially for investors (Almaqtari, Hashed, Shamim, & Al-ahdal, 2021; Bala et al., 2021; E. Vieira & Madaleno, 2019). Financial reporting's main goal is to provide information that

reflects financial impacts, activities, and financial events that affect a business unit's financial position and results of operations; thus, variables that affect FRQ are crucial (Ball, 2006). According to Saghafi and Arabmazar (2011), better financial reporting could be a barrier to effective earnings management practice. It is based on the idea that organizations with high FRQ have more data, more content, better performance, and higher earnings quality. Three important questions are considered when it comes to the FRQ: How comprehensive, accurate, and sufficient is the financial statement? How informative are the offered numbers and figures? And do the numbers reported correspond to widely accepted accounting principles? Financial statements that are more informative are often regarded as the most important of all the considerations (Schipper & Vincent, 2003).

There were numerous accounting and financial scandals during the first decade of the twenty-first century. With time, there have been a lot of frauds cases observed globally, which record and report fake financial reports or manipulate information to hide financial losses by overestimating the amount or value of accounts or having an inefficient governance structure. Before committing fraud, Hasnan, Rahman, and Mahenthiran (2013) revealed that organizations involved in fraudulent operations had inadequate financial reporting. This research also implies that due to accounting flaws and weak corporate governance, businesses may be implicated in fraudulent operations. WorldCom, Enron, HealthSouth, Beekes to AIG, Bernie Madoff, Lehman Brothers, Parmalat Satyam, Afribank, and Intercontinental Bank PLC, Tyco Intl Company, Adelphia Company, the Olympus Corporation, the Axta fraud case, and Transmile and Megan Media are among the most prominent examples of financial reporting manipulation scandals (Agrawal & Chadha, 2005; Al-Shaer, Salama, & Toms, 2017; Awolowo et al., 2018; Camfferman & Wielhouwer, 2019; Grant & Visconti, 2006; Petra & Spieler, 2020). In most of these cases, the management of the organization had manipulated the books of accounts & financial reports and presented & reported fake values and earnings to boost the share prices (Markham, 2015). These are high-profile scandals involving widespread deception and falsification of financial statements. These fraud scandals have also been observed in Pakistan, which indicates fake and poor FRQ

like Taj Group, Exact, and financial institutions like Islamic Investment Bank and Indus Bank, which were victims of financial fraud.

After all these corporate scandals, all corporations should focus on improving their FRQ. For this purpose, it is calculated as nearly all those proper factors and attributes in the financial process that make and keep FRQ good and error-free and that is free from manipulation (Awolowo et al., 2018; Campa et al., 2019). Since then, researchers have investigated the causes of these large corporations' financial frauds, failures, and scams and have linked them to a lack of corporate reporting ethical standards and poor governance structure (Agrawal & Chadha, 2005; Agrawal & Cooper, 2017; Aifuwa, Embele, & Saidu, 2018; Camfferman & Wielhouwer, 2019; Enofe, Edemenya, & Osunbor, 2015; Grant & Visconti, 2006; Markham, 2015; Petra & Spieler, 2020). Inappropriate behavior financial misreporting or misrepresentation is unethical because management intends to misguide or give the wrong figures to some stakeholders or impact contractual results by changing the books of accounts of a corporation (Healy & Wahlen, 1999). If facts and figures in financial reports are found to be significantly erroneous and deceptive, the firm and the management may face a crisis, which could lead to litigation, liquidation, and winding-up (N. O. Omoro, 2020). However, as several recent scandals have demonstrated, the contents of financial reports and accounting information remain a cause of concern for users. Therefore, it is desirable to investigate and study those factors of the firm which have an effective, strong, and significant impact on the FRQ.

## **2.2 Literature Review on Corporate Governance Structure**

One of the reasons for poor FRQ is having an ineffective, inefficient, poor, and weak governance structure of the corporation (Kalyani, Mathur, & Gupta, 2019; Rostami & Rezaei, 2021; Tran, Lam, & Luu, 2020). That means, to make a good FRQ, there is also a need to focus on the governance structure of a corporation.

To comprehend the corporation's governance structure, it is desirable to understand its meaning, definition, and description. There is no universally accepted definition of corporate governance exists, various researchers have provided their definitions. According to the words of H. Abdullah and Valentine (2009), the corporate governance structure is defined as "a set of processes and structures for controlling and directing an organization". It's a set of rules and principles that regulate how company owners, management, employees, investors, shareholders, and other stakeholders interact (H. Abdullah & Valentine, 2009; Ching, Firth, & Rui, 2006).

The word "corporate governance" comes from the Greek language word "cyberman," which is defined as "to steer, guide, or govern". It evolved from a Greek term to Latin (where it was known as "gubernare") and French (where it was known as "governor") (Abu-Tapanjeh, 2009). It might refer to the governance structure that oversees the decision-making process and the implementation of decisions. Habib and Azim (2008b) explained and described corporate governance practices into the following points: solid foundations for management and supervisors; enhancing the value of board and executive committees structure; respecting the rights of shareholders and concerned stakeholders; encouraging and enhancing performance techniques; ethical and responsible decision-making process and campaigns; recognizing and managing risk; making timely and balanced disclosures; ensuring integrity in financial reporting; executive remuneration that matches executives' interests with those of shareholders; and acknowledging shareholders' and stakeholders' legal interests (Aifuwa et al., 2018; Glover, Bumpus, Sharp, & Munchus, 2002; Ho, Li, Tam, & Zhang, 2015).The corporate governance team is accountable to prepare financial reporting which is later used by decision-makers to make decisions and to forecast better future outcomes and performance based on present operations (S. U. Hassan, 2013; M. Y. Ibrahim, Ahmad, Johl, & Rahman, 2016).

Appropriate governance structures are a crucial goal in organizational performance in developing economies, reducing the likelihood of managerial conflicts and financial crises (Gompers, Ishii, & Metrick, 2003). Corporate governance serves as

a means for relationships between company employees, owners, and other stakeholders. The structure that directs and controls enterprises is known as corporate governance. Their BODs and executive committees (such as the AC, Human Resource Committee, etc.) are responsible for their companies' governance. Shareholders are liable for appointing members of BODs, as well as verifying that the firm has an appropriate governance structure (Abdallah & Ismail, 2017; Al-Jaifi, 2020; Rostami & Rezaei, 2021; Sanan et al., 2019).

Several cases of poor corporate governance have been reported around the world. The company's governance body manipulates the company's annual reports and records to hide the actual financial position of the corporation by using different techniques like writing assets' values, sometimes more and sometimes less (over or under-estimation) for their purposes (Pcheta-Martínez, Bel-Oms, & Olcina-Sempere, 2018; Yasser & Al Mamun, 2016). There are a lot of large organizations that are examples of poor corporate governance globally (Javeed & Azeem, 2014; K. Siddiqui & Fahim, 2013). During the period of the 1990s, many researchers focused on the reasons behind the Asian financial crisis. According to E. S. Alzoubi (2012), weak and non-diverse governance structures are one of the reasons for these financial crises and also the reason for increasing fraud in the financial reporting of several large corporations such as Enron, WorldCom, Inc., Barings, HIH Insurance, One Tel, and Harris Scarfe, Taj Company, Crescent Bank, Engro Foods, Mehran Bank, Khanani and Kalia Exchange Company, Parmalat, HealthSouth, Bernie Madoff, Beekes to AIG, Lehman Bros, Tyco Intl Company, Aldelphia Company, Satyam, the Olympus Corporation and Axaact fraud case are all said to have used the same type of corporate governance (Agrawal & Chadha, 2005; Camfferman & Wielhouwer, 2019; Grant & Visconti, 2006; Petra & Spieler, 2020; Sorensen & Miller, 2017). The majority of these cases include fraudulent practices, but others include non-compliance with the law, exploitation of minority shareholders, nepotism, and accounting errors. A number of corporate governance violations are reported in these cases. These organizations did not follow any of the corporate governance values and principles. They have violated all four main principles of corporate governance, namely disclosure, responsibility, transparency and accountability (R. Ali, Mumtaz, Kibria, & Sajid, 2014; Farrukh Shahzad, Ahmed,

Fareed, Zulfiqar, & Naeem, 2015). According to Markham (2015), the reasons behind these accounting and financial scandals are manipulations in financial reporting and an ineffective, non-diverse governance structure (Arun, Almahrog, & Aribi, 2015; Mahboub, 2017). As discussed earlier, an effective and efficient governance structure is the reason for good FRQ. The BODs and the AC are parts of the corporate governance structure that are closely related to the preparation and publication of financial reports. BOD and AC must confirm that company financial reports are according to the accounting standard or company's laws and standards, and make sure that the reporting of financial statements is transparent (Y. Liu, Wei, & Xie, 2014). Therefore, there is a need to study and explore these two main attributes of the corporate governance structure, i.e., the BODs and the AC (Chijoke-Mgbame, Boateng, & Mgbame, 2020a; He, Labelle, Piot, & Thornton, 2009; Kantudu & Samaila, 2015; Mohammad & Wasiuzzaman, 2019).

### **2.2.1 Board of Directors**

A BOD is a group of persons who are elected to serve themselves on a company's Board. The BODs is the governing body of the company, which meets frequently to determine management and supervision requirements (Pugliese et al., 2009). A BOD is a mandatory requirement for any public firm. BODs have the fiduciary duty and responsibility to act in the best interests of the shareholders (Fama & Jensen, 1983b). A corporation's decision-making and control mechanism is centered on the BODs (Dobija et al., 2021; Song, Yoon, & Kang, 2020). Boards are supposed to execute a variety of tasks such as monitoring management for the purpose to reduce agency costs, providing resources, recruiting and firing executives and management, grooming management, dividend & option policies, and providing strategic direction for the betterment of the organization, reporting on the company's stewardship to stakeholders, overseeing business leadership and management skills, and determining the strategic goals of the company (Wong, Chan, Hee, Lee, & Yeoh, 2011). A corporation's BODs are also responsible for assisting it in formulating broad goals, supporting executive functions, and ensuring that it has enough, well-managed resources (Miller & Le Breton-Miller, 2006). Another

critical responsibility of the BODs as a monitor is to ensure that the company's financial reporting and governance structure are in accordance with existing laws, principles and regulations of that country (Carter, D'Souza, Simkins, & Simpson, 2010; Kanakriyah, 2021).

According to economic theory, the BODs serve an important internal purpose and are an important corporate governance instrument for major corporations (Kanakriyah, 2021; Rose, 2007; Ullaha, Chandb, Akramc, & Inam, 2021). The agency theory is the most often utilized economics theoretical framework for describing the relationship between the BODs and the value & performance of organizations. The BODs, in this concept, are the governance mechanism for controlling and monitoring managers, to represent shareholders' interests through boosting shareholder value and prohibiting managers from engaging in opportunistic behavior (Finkelstein, Hambrick, & Cannella, 1996; Kanakriyah, 2021; Magnanelli, Nasta, & Raoli, 2020; Velte, 2017a). Thus, the board's responsibility is to resolve agency issues between managers and shareholders by making successful strategic decisions, such as setting compensation and dismissing self-serving managers (Baysinger & Butler, 1985; Holtz & Sarlo, 2014; Kao et al., 2019; A. W. Khan & Abdul Subhan, 2019; Poletti-Hughes & Briano-Turrent, 2019; Salleh & Othman, 2016; Schmidt, 2019; Song et al., 2020)

In practice, the BODs outsource the majority of functions to various committees, such as the AC and the Human Resource & remuneration committee (Adams, Hermalin, & Weisbach, 2010; Fernández-Temprano & Tejerina-Gaite, 2020). Board committees improve the efficiency of corporate and management (Jiraporn, Singh, & Lee, 2009). According to Harrison (1987), Board committees are divided into two categories: monitoring & oversight and other is management support & operations. Operating committees provide critical business advice to management and the BODs. Their monitoring counterparts are tasked with safeguarding the interests of shareholders by conducting goals, audits of corporate activities, and executives' work. A major primary role of the BODs is to ensure adequate financial and non-financial audits of business activities, as well as appropriate hiring and recruiting of the top management team and member of BODs (Henke, 1986; Leduc & Block, 1985; Martinez-Jimenez, Hernández-Ortiz María, & Cabrera Fernández

Ana, 2020; Zayyana, 2018). The Cadbury Report (1992), which agreed with the agency model, suggested that BODs and executive committees are an extra controlling and managing tool to encourage better accountability and optimal financial management of enterprises, as well as increased shareholder protection (Hasnan & Marzuki, 2017). According to the PICG survey report 2019, boards generally have directors with skills/knowledge in finance and general management, and this is followed by legal and marketing know-how.

Some of these committees are formed on the spot for a specific purpose, while others are assigned specific, narrowly defined responsibilities (Harrison, 1987). These committees begin important board decisions, and there is evidence that delegating responsibility to committees enhances successful governance (Kolev, Wangrow, Barker III, & Schepker, 2019; McMullen, 1974). These committees' recommendations are presented to the entire board for consideration (Carter et al., 2010). The number of these committees and their functions vary by firm, and positions are occasionally mixed. The AC, nominating committee, pay committee, and Human Resource & Remuneration committee are the most common of these committees (Vafeas & Vlittis, 2019).

### **2.2.2 Audit Committee**

The AC is defined as a group of appointed board members who are accountable for monitoring and supervising the Company's financial reporting and accounting processes including policies and practices (Aminul Amin, Lukviarman, Suhardjanto, & Setiany, 2018; Menon & Williams, 1994). Due to its special responsibility of defending shareholders' interests concerning financial supervision and control, the AC is the single most significant board sub-committee (Aldamen, Duncan, Kelly, McNamara, & Nagel, 2012). It is a committee (or equivalent body) formed by and among members of an issuer's BODs for the aim of assessing the financial reporting and accounting processes of the issuer, as well as financial statement audits (Gerayli, Pitenoei, & Abdollahi, 2021; Khalid, Abbas, Malik, & Ali, 2020).

The AC's primary responsibility is to keep meeting with external and internal auditors to review accounting records and reporting, regular audits, and internal control systems. AC oversight reduces the risk of financial fraud, resulting in increased investor confidence, corporate performance, and value. ACs requires greater accountability from management, which improves the quality of financial records, particularly to shareholders, and thereby mitigates agency conflicts (Eyenubo, Mohammed, & Ali, 2017; Gerayli et al., 2021; Moses, 2019; Umobong & Ibanichuka, 2017). An AC's understanding of the internal control review process is critical for assessing aspects such as the audit plan and detecting undesirable behaviors (such as fraudulent activities) and errors (Al-Shaer et al., 2017; He et al., 2009; Menon & Williams, 1994; Oradi & Izadi, 2019; Thiruvadi & Huang, 2011; Zalata, Tauringana, & Tingbani, 2018).

An AC's responsibilities, according to the Smith Committee (2003), including reviewing the financial reports' reliability and monitoring the propriety of financial report disclosures (Tanyi & Smith, 2015); monitoring the acceptability of internal financial controls (Ud Din et al., 2021); evaluating the internal audit function's procedures; reviewing the systems and procedures for employees to confidentially report any unlawful techniques and procedures related to accounting and financial data; reviewing the firm's relationship with the auditor (Egan & Yanxi Xu, 2020; Powell & Almaqoushi, 2019). This includes recommending to the board their appointment or termination, finalizing the audit fees, monitoring and evaluating the engagement conditions, evaluating their effectiveness, objectivity, and independence, evaluating the plan in place at the beginning of the audit, and assessing whether the audit performed is adequate. Eyenubo et al. (2017) states that one of the most important roles and responsibilities of the AC is to evaluate the company's financial information on a regular basis and to strengthen the internal control system in order to improve the financial reports' reliability and integrity. Among the roles of AC is to ensure that financial statement prepared by accountants and audited by external auditors are free from material misstatement in order to help users to make quality decision (Bala et al., 2021; Chijoke-Mgbame, Boateng, & Mgbame, 2020b; Kantudu & Samaila, 2015; Kusnadi, Leong, Suwardy, & Wang, 2016; Ud Din et al., 2021).

The purpose of ACs, according to Anderson, Mansi, and Reeb (2004), is to ensure the integrity and reliability of financial statements, internal bookkeeping, and implementation of control measures. The AC is a standing committee that works with internal auditors and management to improve and enhance an organization's accounting and financial reporting practices, as well as ensure proper corporate governance in compliance with generally accepted accounting principles (GAAP) and ethical and legal corporate standards (Alqatamin, 2018). ACs help to reduce errors, enhance regulatory compliance, and increase voluntary disclosures by overseeing risk management and internal control systems (Abbasi et al., 2020; Chijoke-Mgbame et al., 2020b; Gerayli et al., 2021).

The AC focuses on methods and techniques of financial reporting preparation. According to (Masmoudi, 2021), it is a responsibility of an AC to create an effective audit system, which will become a critical component of ensuring FRQ. AC's main purpose is to check and balance the work of accounts and the internal audit department. AC can issue audited financial statements quarterly, semi-annually, or annually, as per the rule of the company. The elements of the financial reporting system, as well as intrinsic features, determine the quality of unaudited financial accounts (Ud Din et al., 2021). The AC's independence, size, diversity, and members' financial expertise all contribute to preventing restatements and improving FRQ (Zalata et al., 2018). In light of the link between AC and FRQ, businesses should invest in an effective audit and internal control system to achieve their short and long-term objectives, maintain financial condition, economic & financial performance, and profitability, respond appropriately to shareholders, and deal with unprecedented incidents (He et al., 2009; Oradi & Izadi, 2019; Owolabi & Ogbechie, 2010).

### **2.3 Diversity in Board of Directors and Audit Committee**

In recent decades, there is needed to make governance structure efficient and effective. For this purpose, the board and executive (audit) committee's composition

and diversity are one of the ways to resolve or overcome this corporate governance problem (Adams et al., 2010; Ahmed, Hossain, & Adams, 2006). Globalization of company operations has complicated today's environment by increasing international competitive pressure, new technology, market swings, societal changes, and affecting the mix and degree of diversity inside organizations (Sarhan, Ntim, & Al-Najjar, 2019; Vemala, Seth, & Reddy, 2018). These shifts necessitate the integration and comprehension of how diversity in organizational groupings, such as the BODs, and AC, influences business performance and value (R. Hassan, Marimuthu, & Satirejnit, 2015; Martín-Ugedo & Mínguez-Vera, 2014). Corporate governance diversity has acquired public attention as a result of institutional and shareholder investor requests to improve diversity, and it is being debated in the news, the press, research, and political discussions (Ben Slama, Ajina, & Lakhali, 2019; Dobija et al., 2021; Satria, Mahadwartha, & Ernawati, 2020; Ullah et al., 2019).

While making BOD or AC diverse; age, gender, ethnicity, race, education, experience, personal style, disability, physical appearance, employment function or experience, culture, religion, degrees, professional background, industrial exposure or experience, and all other forms are also considered (Campbell & Mínguez-Vera, 2008; Dobija et al., 2021; Firoozi, Magnan, & Fortin, 2016; Lai, Srinidhi, Gul, & Tsui, 2017; Song et al., 2020). More experience, innovative thinking, and perspectives to aid with solving problems, the enhanced position of the product, improved and enhanced the strategic planning, novel knowledge or viewpoints, and even more accountability are all benefits of diversity for organizations (Arfken, Bellar, & Helms, 2004). In the truest sense of the word, diversity is described as differences; however, according to Lee-Hwei Khaw and Liao (2018), the phrase has evolved into a strategic orientation that values differences. Diverse organizations hope to grow their market share, productivity, innovation, efficiency, and ability to acquire new customers and workers in emerging areas (Arfken et al., 2004).

According to Djabi-Saïdani and Pérugien (2020), Individual, cultural, and organizational characteristics that contribute to the creation of an individual's identity and personality are referred to as diversity. This concept gives rise to a human

resource management optimization politics that ensures that all employees, regardless of their differences, have equal opportunity in the workplace. As diversity in the boardroom encourages better decision-making and boosts creativity, diversity on the BODs and the AC is crucial to enhancing corporate governance procedures in a corporation. Managerial diversity in terms of age, gender, home country, professional career, and industrial experience is all strongly linked to innovation (Lorenzo, Voigt, Tsusaka, Krentz, & Abouzahr, 2018). According to Aifuwa and Embele (2019), the greatest board is made up of people with a wide range of skills, experience, and knowledge who are prepared to volunteer their time professionally. It's worth emphasizing that a diverse board comes at a high cost, since it may limit the performance of the company and degrade the quality of its financial reporting (Ben Slama et al., 2019; Firoozi et al., 2016; Francoeur, Labelle, & Sinclair-Desgagné, 2008; Schmidt, 2019; Triana, Miller, & Trzebiatowski, 2014; Ud Din et al., 2021). Boards and ACs get benefit from diversity in a variety of ways, including fresh ideas and improved communication (Okoro & Washington, 2012). Diverse management teams are more innovative and creative, and they get paid more for it. Boardroom Diversity Strengthens Environmental, Social and Governance (ESG) Performance. Diversity policies aid in the promotion of equal opportunity and the correction of historical imbalances. Promoting variety may aid in the dismantling of cultural barriers. Diversity is an important component of team decision-making. Homogeneous organizations are more likely to succumb to groupthink, whereas diverse teams can draw on a wider range of viewpoints and are more likely to analyze information thoroughly and appropriately.

Diversity on corporate boards, according to a growing body of data, adds to not only good decision-making but also strong governance (Gull et al., 2018; Younis et al., 2016), which helps shareholders in increasing their wealth (Nielsen & Huse, 2010). They can work effectively and efficiently because of the diversified membership of the BODs and AC. In the literature, there are two sorts of diversity: the first is observable (demographic) and the second is non-observable (cognitive). Demographic diversity includes gender, ethnicity, age and nationality, while non-observable diversity includes affection, perception, values, norms, education, degrees, expertise, education, and personality characteristics (Beji, Yousfi, Loukil,

& Omri, 2020; Shimeld, Williams, & Shimeld, 2017). Increased diversity among board members and the AC may provide the board with a more diverse team of professionals, knowledge, and information to help it fulfill its responsibilities in representing the interests of shareholders (Brammer, Millington, & Pavelin, 2007; Burgess & Tharenou, 2002). Better matching of skills to functions can benefit diverse boards and ACs, and the nomination of female directors to decision-making committees can provide a competitive advantage (Al-Jaifi, 2020; Dobbin & Jung, 2011; Dobija et al., 2021; Firoozi et al., 2016; Francoeur et al., 2008; Mwangi et al., 2017; Song et al., 2020; Sultana et al., 2019).

## **2.4 Literature Review on Female Representation**

When we talk about female representation, a lot of queries come to mind. The main queries are:

- Why is it necessary to examine exclusively female roles? Why is it necessary to have females on the BODs or the AC?
- Whether women should be appointed to BODs or ACs just for the sake of gender diversity or for the economic advantages they will contribute to the organization?
- And what role do women have in Pakistani culture and corporate governance structure?

Women's representation on BODs and ACs has been studied since the 1980s when the arguments sounded more feminist than governance (Elgart, 1983). According to Marzuki, Haji-Abdullah, Othman, Abdul Wahab, and Harymawan (2019), following the global financial crisis of 2008-9, the issue of female representation on BODs and ACs has been reignited. The most contentious issue surrounding female representation is whether to pursue 'feminism of difference' or 'feminist of equity,' that seems to be, whether women should have been appointed to boards or ACs only for their female representation or for the economic advantages they

will bring to an organization (Main & Gregory-Smith, 2018). Gender quotas have yet to be empirically proven to ‘shatter the glass ceiling’, and increase board or AC decision-making, the performance of the firm, or FRQ (Maseko, 2015).

Female presence is not only for women empowerment but also for governance structure empowerment, organization empowerment, social empowerment, and economic empowerment. Female presence must be studied for this reason because females consist of the majority of our society’s population (Terjesen, Sealy, & Singh, 2009). Thus, it is necessary to first focus on females by nature, followed by their participation in the BODs and AC, worldwide representation, and finally their involvement in the Pakistan setting.

### **2.4.1 Nature of Females**

The crucial role of women in any community cannot be dismissed or overlooked, for it is women who nurture future generations, laying the foundations for future generations. As these younger generations mature, the women in them take on duties as mothers, daughters, sisters, and wives, as well as working women (Faraudello, Songini, Pellegrini, & Gnan, 2017). These women work hard at their jobs while also taking care of their families.

By nature, women are much more likely to make moral decisions and are less engaged in unethical behavior (Diouf, 2021; Holmstrom & Kaplan, 2001); opportunistic behavior will be tolerated less (Y. Chen, Eshleman, & Soileau, 2016); be more conscious of the need of preserving the company’s reputation (Srinidhi et al., 2011); be less prone to engage in deception and fraud (Gull et al., 2018); be more apprehensive about taking risks (Y. Chen et al., 2016; Francoeur et al., 2008); be more careful and cautious (Arun et al., 2015); and be less interested with financial results (Chijoke-Mgbame et al., 2020b; Ud Din et al., 2021). Women are tougher monitors, more self-reliant, and more dependable than their male counterparts (Lara et al., 2017; Tee & Kasipillai, 2021). Females are considered highly challenging and lead to questionable results (Arun et al., 2015; Hussein & Kiwia, 2009; Y. Liu et al., 2014; Triana et al., 2014). Women leaders were praised for being more empathic, caring, and collaborative as a result of their early experiences and social

conditioning. Women are regarded to be exceptionally multitasked since they manage household tasks, care giving, and official employment. Women directors are less self-interested which improves decision-making and board effectiveness (Coffey & Wang, 1998). Female directors are strict managers, have greater independence, and are more inclined to protect the interests of shareholders (Chijoke-Mgbame et al., 2020a; De La Rey, 2005; Dobija et al., 2021; Poletti-Hughes & Briano-Turrent, 2019; Schmidt, 2019; M. Sonfield, Lussier, Corman, & McKinney, 2001).

The work of females in corporate governance differs from men in concern to their personality traits, values, attitudes, experiences, skills, knowledge, skills, behavioral styles, and so on. Women directors are thought to be tough monitors, and their presence on the BODs helps the board's decision-making process (Reddy & Jadhav, 2019). Nurturing traits like connection building and developing others were where women outperformed males the most. Women outperformed men in the areas of taking initiative, self-development, high integrity and honesty, and results-oriented behavior (Folkman, 2015). Some researchers claimed, respectively, that women may be competent monitors and would expect more management accountability for performance than males in similar studies (Bagudu, Badru, & Abdulmumini, 2015; Triana et al., 2014). Female board directors contribute to an understanding of female market segmentation and transformational leadership approaches (Damak, 2018; N. K. Kakabadse, Tatli, Nicolopoulou, Tankibayeva, & Mouraviev, 2018; Terjesen & Singh, 2008). Female board members also serve as role models for younger females and provide career opportunities for potential recruits (Amorelli & García-Sánchez, 2020; Wowak, Ball, Post, & Ketchen Jr, 2021). All of these traits may help female directors be more effective monitors (S. U. Hassan, 2013; He et al., 2009; Tee & Kasipillai, 2021).

#### **2.4.2 Female as a member of boards or Audit Committee**

Several arguments have been made in favor of women being appointed to the BODs and AC. These favor arguments include increased diversity of opinions in the boardroom; strategic insight into the BODs (Bilimoria, 2006); influence on the organization's decision-making and leadership styles (De La Rey, 2005); providing

female mentors and role models (Shortland, 2014); boosting the company's image among stakeholders (W. K. H. Omer & Al-Qadasi, 2019); Capabilities and availability of women for directorships (Tee & Kasipillai, 2021); insufficient talented and competent male directors (Burgess & Tharenou, 2002) and ensuring "better" boardroom behavior (S. U. Hassan, 2013; He et al., 2009; Lara et al., 2017). Due to their power-sharing style, women have been proven to contribute to governance, lessening the dominance of old directors (Buse, Bernstein, & Bilimoria, 2016). Female directors, especially outsider directors, bring a unique viewpoint to the boardroom and have demonstrated how one woman director can affect the strategic objectives of the company (Martinez-Jimenez, Hernández-Ortiz, & Fernández, 2020).

Females are more likely than males to serve on monitoring committees, such as audit, nominating, and governance committees, and less probable to serve on risk and compensation committees (Adams, 2016). Considering that females are often selected to boards by males who are already on the board, this could reflect a perception that women are more risk-averse than males. Women in key positions are thought to be linked to long-term corporate competitiveness and success (Barrett & Davidson, 2006), Increasing value through utilizing women's unique set of abilities (Cassell, 1997), and fostering inclusive cultures through a varied workforce (Gull et al., 2018; Rutherford, 2001). It has also been stated that because female board members are often younger than male board members, innovative ideas and ways may help the boards (Boulouta, 2013; S. U. Hassan, 2013; Lara et al., 2017; Sakawa & Watanabel, 2019; Tee & Kasipillai, 2021).

Gender diversity in business was previously established in terms of leadership style, risk-taking, decision making, personality, communication style, knowledge, reporting style, and overall performance (Mustafa, Saeed, Awais, & Aziz, 2020; Poletti-Hughes & Briano-Turrent, 2019; Yang, Riepe, Moser, Pull, & Terjesen, 2019). According to Dowling and Aribi (2013), Gender diversity is an alternate viewpoint that demands consideration in all aspects of corporate governance. Gender diversity in the BODs increases the chances of better decision-making (Oradi & Izadi, 2019). The most of research on gender diversity in corporate governance shows that gender-diverse governance structure or management has a positive

impact on important corporate issues like acquisition performance (Adams & Ferreira, 2004), corporate social responsibility (Hafsi & Turgut, 2013), firm value, innovativeness, company risk and company financial performance (Poletti-Hughes & Briano-Turrent, 2019); improves a company's reputation (Brammer, Millington, & Pavelin, 2009) and FRQ (Pucheta-Martínez María, Bel-Oms, & Olcina-Sempere, 2018; Ud Din et al., 2020, 2021). Additionally, gender-diverse corporate boards may benefit from a variety of different perspectives, resulting in increased board performance (Abdeljawad & Masri, 2020; Kanakriyah, 2021; A. W. Khan & Abdul Subhan, 2019; A. W. Khan & Subhan, 2019; Krishnan & Parsons, 2008; Martinez-Jimenez, Hernández-Ortiz María, et al., 2020; Reguera-Alvarado, de Fuentes, & Laffarga, 2017; Shukla, 2018; Singh, Singhania, & Sardana, 2019). Companies that encourage gender diversity on their BODs have fewer governance-related concerns (such as bribery, corruption, and fraud) than average (Adams & Ferreira, 2009; Fernández-Temprano & Tejerina-Gaite, 2020; Martinez-Jimenez, Hernández-Ortiz María, et al., 2020; Pucheta-Martínez María et al., 2018).

Women as a part of upper management teams like directors or supervisors can play a main character in reducing manipulation in financial reporting (Lara et al., 2017; M. Sonfield et al., 2001). In comparison to other male counterparts, female presence on boards may bring distinct perspectives, work methods, and experiences to boardrooms, which is essential to promote creativity, innovativeness, and boardroom decisions making (Smith, Smith, & Verner, 2006; Tanyi & Smith, 2015). Furthermore, research reveals that female directors boost business disclosure by better monitoring the process. Women have a shared accommodation mentality, as well as the formation of relationships and teamwork (Chauhan & Dey, 2017). When it comes to taking risks, female directors are more cautious as compare to male directors (Mustafa et al., 2020; Yang et al., 2019). Similarly, when it comes to financial decisions, females seem to be more likely than males to obey the laws and regulations (Bell & Carcello, 2000; Garcia-Sanchez, Martínez-Ferrero, & García-Meca, 2017; Pucheta-Martínez María et al., 2018). Female directors areas compare to male members are less likely to engage in unethical practices such as manipulation of earnings since they are more trustworthy and ethical (Gavious, Segev, & Yosef, 2012). The following are some of the most important economic

advantages that women may bring to any corporation: Gender diversity leads to a greater range of preferences being represented (Carrasco, Francoeur, Labelle, Laffarga, & Ruiz-Barbadillo, 2015). Increased female participation may motivate other women to participate, resulting in better-prepared women (Green & Homroy, 2018). Gender diversity boosts non-financial indicators including gender balance, customer satisfaction, and corporate social responsibility (Brahma, Nwafor, & Boateng, 2021). Greater gender diversity in the boardroom contributes to enhancing awareness of stakeholder needs (primarily consumers and employees), allowing businesses to expand into new markets, cover a wider range of customer segments, and boost employee satisfaction (Terjesen, Couto, & Francisco, 2016). The presence of female members on boardrooms might help to promote innovation and creativity in the workplace because these traits vary depending on demographic factors like gender (Pucheta-Martínez, Bel-Oms, & Olcina-Sempere, 2016). Considering women for board positions expands the talent pool from which directors are chosen, potentially enhancing the board's ability to monitor (Adams, de Haan, Terjesen, & van Ees, 2015). Promoting women to the BODs, companies get societal benefits (Ferreira, 2010) and also boosts the image of a company, which contribute to improved consumer attitudes (Azmat, 2019).

Female members on board or AC, who are more risk-averse and conservative as compared to other members, are more concerned with their reputation, investment, and capital (Byrnes, Miller, & Schafer, 1999). As a result, they are less prone to manipulate financial reports. Furthermore, prior decision-making literature by Bilimoria (2000), shows that female directors favor power-sharing and collaboration in board deliberations over male members. According to Nyeadu et al. (2021), in comparison to their male members, female board members are more self-sufficient and have better attendance records. All of these characteristics of women's behavior improve board effectiveness and functioning, resulting in higher quality reported earnings and fewer manipulating of financial reports issue (Ain, Yuan, Javaid, Usman, & Haris, 2020). Female directors differ in terms of risk aversion, and dividend payout policies, implying inferior performance in companies with more board diversity (Amorelli & García-Sánchez, 2020; Ararat & Yurtoglu, 2021).

In the twenty-first century, there are more employees and women with alternative lifestyles, diverse ethnic backgrounds, and intergenerational divides than ever before (Yasser, 2012). The role and effectiveness of gender diversity in corporate BODs and ACs have gained attention. The gender structuring of corporate boards and ACs is widely assumed in academic and policy circles to add alternate perspectives and transparency to the corporate decision-making process (Amorelli & García-Sánchez, 2020).

Women directors are drivers of change and innovation who construct competitive platforms on which typical rules can be revised while also developing effective monitoring systems (Yadav & Yadav, 2021). In a nutshell, having a larger percentage of female financial analysts on the AC has a stronger influence on FRQ than having a higher percentage of male financial analysts (Zalata et al., 2018). Other characteristics that distinguish female directors include risk aversion and accounting conservatism (A. Saeed et al., 2019), being more ethically aware, and possessing more transformative leadership qualities (Dobija et al., 2021; Oradi & Darjezi, 2019; Schmidt, 2019; Umer, Abbas, & Hussain, 2020). Female directors and executives are better at leading transformative change (Burke & Collins, 2001). In addition, their management abilities enable female employees to collaborate and improve the FRQ (Vander Bauwhede, De Meyere, & Van Cauwenberge, 2015). A good female leader means having high cohesion among directors and a shared attitude; this consensus is required to implement initiatives (Roychowdhury et al., 2019; Ud Din et al., 2020). Female executives play a positive role in defending shareholders' interests and improving board monitoring effectiveness (Arioglu, 2020; Arun et al., 2015; Tee & Kasipillai, 2021).

Following a series of corporate scandals, Kanakriyah (2021), recommended that BODs cast a wider net when recruiting directors. According to (Adams, 2016), female directors are not part of the "old boys club" and are therefore expected to contribute free thought to boardroom sessions. Lakhali, Aguir, Lakhali, and Malek (2015), present steady proof that the more percentage of female representation in boardrooms is linked to more restrictive financial reporting practices. In this case, Lee-Hwei Khaw and Liao (2018), contend that In a variety of decision-making scenarios, women are more careful and less aggressive than men (Lee-Hwei Khaw

& Liao, 2018). They are less likely to accept risks, especially when making financial decisions (Arzubiaga, Iturralde, Maseda, & Kotlar, 2018). More particular, because they are highly sensitive to reputational losses and the danger of lawsuits, women tend to move more decisively than males to improve FRQ (Ud Din et al., 2021).

Women contribute a variety of perspectives to the boardroom, allowing for more informed decisions and increased transparency in decision-making (Diouf, 2021; Sakawa & Watanabel, 2019). In terms of politics, Cucari, Esposito de Falco, and Orlando (2018) revealed that having more women on boards improves reputation, while Glover et al. (2002), revealed that the announcement of female board nominations elicited a positive market reaction in the near run. According to Yasser (2012), in the United States, women make 60% of all purchases, therefore having women on BODs is simply good business. It implies that female members are good market observers who may give a more realistic approach that reflects the consumer's point of view. Organizations with more gender-balanced boards had higher attendance records and more effective monitoring (Lara et al., 2017; Sakawa & Watanabel, 2019; Tee & Kasipillai, 2021). Research by another author Tinsley, Wade, Main, and O'Reilly (2017), find no evidence that the gender composition of the BODs influences firm performance. While the impact of board gender diversity on financial problems has been thoroughly studied, new study emphasizes the role of board committees in the board's operation (Campbell & Mínguez-Vera, 2008; Duppati, Rao, Matlani, Scrimgeour, & Patnaik, 2020; Isah & Iliya, 2018; Nguyen, Locke, & Reddy, 2015; Oradi & Darjezi, 2019; Oradi & Izadi, 2019; Satria et al., 2020; Ud Din et al., 2021; Wagana & Nzulwa, 2017).

According to Lucas-Pérez, Mínguez-Vera, Baixauli-Soler, Martín-Ugedo, and Sánchez-Marín (2015), Females representation on board and AC may lead to internal and external corporate benefits. As concern to internal benefits of corporate, it can influence the FRQ. Whereas, as a concern to the external benefits, the presence of a female in corporate management can lead to corporate reputation (Ciftci, Tatoglu, Wood, Demirbag, & Zaim, 2019; Harjoto & Rossi, 2019; Jurkus, Park, & Woodard, 2011; Renders, Gaeremynck, & Sercu, 2010; Rodriguez-Dominguez, Gallego-Alvarez, & Garcia-Sanchez, 2009). According to Chijoke-Mgbame et al.

(2020a), males and females are mostly behaved and act in the workplace differently from each other. And that supremacy of females or males and differences are shown in decision making and they have an impact on decision making of financial reporting and strategic management. Their presence has also impacted providing a true and fair view of the FRQ (Echobu, Okika, & Mailafia, 2017; Egan & Yanxi Xu, 2020; Yu, Lord, Peni, & Vähämaa, 2010). Female executives in upper management are more careful and less aggressive as compared to males in a variety of decision-making contexts (Pucheta-Martínez et al., 2016) and are less likely to take risks mainly in the decisions of financial reporting (Labelle, Gargouri, & Francoeur, 2010). There is for that reason a greater chance of restrained methods to maintain FRQ and reduced bad practices in financial reporting (M. Sonfield et al., 2001). Previous research has revealed that companies with a higher proportion of women on their BODs had better accounting information and FRQ (Bajra & Čadež, 2018; Gerayli et al., 2021; Herath & Albarqi, 2017; Oradi & Darjezi, 2019; Ud Din et al., 2020).

The proportion of females present as compared to males, in the management of BODs and AC, may influence the decisions either related to management or financial or others (Thiruvadi & Huang, 2011). Their presence can also lead to improving board quality and audit quality and it can also have a strong influence on FRQ. Corporations, in which the ratio of women members in AC and BODs is not less than three, have enhanced their financial performance and have better outcomes in terms of corporate governance, FRQ, and financial performance (Chijoke-Mgbame et al., 2020a; Elstad & Ladegard, 2012). Female representation is equitable and has fair representation in the corporate world. It is very common to refer in practice to have a reasonable fraction of males and females in the upper management team, but may also include people of one gender domination either male or female representation (Triana et al., 2014). A corporation having more female representations in management can give a large number of benefits including overall raise in financial performance and improvement in financial reporting (Kyaw, Olugbode, & Petracci, 2015; Rose, 2007). Different studies and research suggested that females are more ethical in attitudes and behaviors in comparison

to their male partners (Beltramini, Peterson, & Kozmetsky, 1984; Glover et al., 2002).

Executive Members of corporate management like audits and BODs, either male or female; can obtain a bunch of talents to the boardroom table (Dunn, 2012a). Many research studies referred it as “human capital” that shows the elite talent of the upper management team from various experience, skills, knowledge, education & training backgrounds (Amorelli & García-Sánchez, 2020; Dunn, 2012a; Terjesen et al., 2016). According to other researchers, this human capital of the executive team can be used for making and explaining corporate strategies which corporate make in complex and difficult situations and in making strategic decisions (Amorelli & García-Sánchez, 2020; Arun et al., 2015; Awaworyi Churchill, Nuhu, & Lopez, 2019; Dunn, 2012b; Okoro & Washington, 2012; Rose, 2007).

According to the male or female representation in top management, this is commonly known that females are having different professional knowledge and experience as compared to their male members (del Carmen Triana, Richard, & Su, 2019; Y. Liu et al., 2014; Nielsen & Huse, 2010). It is also found from empirical research that women executives are having more knowledge and held more higher education degrees and their movement and shift from one corporation to another corporation is more and faster as compared to their other gender professional members (Hillman & Dalziel, 2003). And this shifting of jobs shows that females are more future-oriented and work hard for carrier development as compared to their male management (Ararat & Yurtoglu, 2021). Women are strict management monitors and board gender diversity is linked to the FRQ (Agyei-Mensah, 2018; Cohen, Krishnamoorthy, & Wright, 2004; Gerayli et al., 2021; Herath & Albarqi, 2017; Rubin & Segal, 2019; Faisal Shahzad, Rehman, Colombage, & Nawaz, 2019a; Ud Din et al., 2020). The FRQ should be ensured by a well-governed BOD. In addition, female directors have superior monitoring (Bala et al., 2021). Gender diversity improves the board’s ability to oversee managers’ reporting to reduce financial fraud events. More females in AC and boardroom increase firm’s reputation (Bin-Ghanem & Ariff, 2016; He et al., 2009; Kim & Starks, 2016; Martinez-Jimenez, Hernández-Ortiz María, et al., 2020; Zayyana, 2018).

Females are not overconfident when it comes to fraudulent actions, and they are more inclined to protest when they uncover the intent to commit fraud (Wahid, 2019). These gender-based discrepancies may have ramifications for FRQ if the female(s) are on board to examine management. According to Yang Wang, Yu, and Gao (2021), companies with more female senior managers made more money than those with fewer females. The presence of females ratio in other management positions in corporate also has many beneficial results (Amorelli & García-Sánchez, 2020; Ittonen, Vähämaa, & Vähämaa, 2013; Magnanelli et al., 2020; Mnif & Cherif, 2020; Nyeadi et al., 2021; Tee & Kasipillai, 2021). Boards having female representation has better performing experience, the different mind of people, and these have better outcomes in projects (Brieger, Francoeur, Welzel, & Ben-Amar, 2019; Francoeur et al., 2008; Triana et al., 2014). Though, the beauty of this diversity in management can be going worse when politics are used to corporate structure and their resources. It is for that reason, said to explain the true and fair role and position of females and males in different levels of corporate organization. The female presence on board and AC can enhance the firm's financial performance and outcomes (Terjesen et al., 2016).

However, stereotypes against women continue in the mind and influence others' attitudes, with the belief that women are more problematic as a result of situations like maternity leave and household chores. Hiring women may result in higher costs since companies will need to invest in more infrastructures and implement more flexible work policies to support women's working conditions. According to Adams (2016), female board directors boost corporate governance while lowering business performance. According to Garcia-Sanchez et al. (2017), companies benefit socially by promoting women to the BODs. The presence of women on boards encourages transparency and dialogue between the board and stakeholders. To look at it another way, it improves non-financial parameters such as corporate social responsibility and customer satisfaction (Terjesen et al., 2016).

### **2.4.3 Role of Female Members' Infamous Corporate Scandals**

Leadership styles, ethical values, and a high-risk aversion held by females lessen the practice of financial reporting fraud in a corporate (Dobija et al., 2021). Srinidhi et al. (2011) concluded that females are more expected to unveil fake and fraudulent practices and disclose the correct situation in financial reports. According to Orazalin (2019), fraudulent financial reporting practices are more likely to be disclosed by women. When female directors sit on boards, they exert superior management oversight and minimize the probability of a company collapsing (Burgess & Tharenou, 2002; Rostami & Rezaei, 2021).

The history of female practices in corporate boards and ACs may not be so well documented but names like Sherron Watkins (Enron) and Cynthia Cooper (World-Com) will always be remembered. Both females acted as whistle-blowers and raised their voices against financial reporting frauds (Malerba, 2020; Rostami & Rezaei, 2021). The famous Enron financial reporting fraud case is diagnosed for the first time by a female member of the BODs. Two months before Enron's demise, a former female executive (Sherron Watkins) blew the whistle by telling the firm founder (Kenneth Lay) of financial wrongdoings. Sherron Watkins exposed earlier dubious accounting policies of Enron and wrote a memo to the board chairman, but he took her message lightly and failed to take any decision on the issues raised. In the case of the Enron scandal, according to Khoufi and Khoufi (2018), multiple people were aware of Enron's questionable accounting, but it was Sherron Watkins who exposed it. After Enron's collapse, shareholders started losing their confidence in the assurance services of an external auditor. The AC has been restructured as a key tool for preventing financial reporting fraud and ensuring sound financial management (Thiruvadi & Huang, 2011).

### **2.4.4 Female Representation Globally**

In third-world countries, gender diversity on corporate boards is a rarely studied topic. The benefits and drawbacks of gender diversity in boardrooms are examined

in this study, as well as how the proportion of female directors in boardrooms affects their performance and financial reporting. From the empirical research done in different economies, it is observed that the social reluctance is very negligible in number for giving the award to top corporate managerial positions to women on top. For example, an international survey done in 2007 indicates that four nations i.e. Pakistan, Netherlands, Japan, and India are having least ratio of female presence working in upper managerial positions (Campbell & Vera, 2010). According to their research on Fortune 500 companies, women have made tremendous progress in gaining seats on management committees, BODs, or ACs.

“To build future economies that are both dynamic and inclusive, we must ensure that everyone has equal opportunity. When women and girls are not integrated — as both beneficiary and shaper — the global community loses out on skills, ideas, and perspectives that are critical for addressing global challenges and harnessing new opportunities.”

Klaus Schwab, the founder, and executive chairman  
Of the World Economic Forum (WEF)

Women can envision where they want to go in their careers, despite W. K. H. Omer and Al-Qadasi (2019), finding a significant relationship between female members and financial reporting manipulation. However, they may not be able to reach there in actuality, i.e. they have “hit the glass ceiling”. This is a prevalent trend in both Western and Asian cultures, and it is often assumed that the greater the rank, position, or importance in any given occupation or public office, the smaller the number of women (Al-Jaifi, 2020; Bala et al., 2021; Mustafa et al., 2020; Yasser & Al Mamun, 2016).

In 1934, Lettie Pate Whitehead became the first female to be appointed as a member of BOD in a prominent company, namely Coca-Cola Company. But the trend did not improve significantly, leading to formal interventions by regulators in different parts of the world. Different countries work on Designing corporate board quotas. Gender quotas encourage companies to act fast to recruit, promote, and retain qualified female candidates for positions on corporate BODs.

When voluntary efforts to boost female representation on boards fail, a quota is often considered the last resort. For the last two decades, European Union has worked on an agenda of implementing a gender quota, i.e. 40% for all companies within the territory of the European Union. In 2012, European Union imposed a fine on those companies that failed to have at least 40% females on their board. The main objective behind gender quota is to benefit from the skills of highly qualified females, utilization of their talent, and again economic growth potential (Leszczyńska, 2018).

As per European Union, many countries impose gender quota laws for their corporations. These gender quota laws specify the percentage of women on BODs, ACs, and other governance structures. The success of Norway, which was the first country to implement gender quotas in 2003, has prompted other governments to follow suit. By 2008, all Norway publicly traded firms must have a quota of at least 40% female directors as per the gender diversity requirement (Seierstad & Huse, 2017). In 2004, Norway has 22 percent of board members who were women; by 2009, that number had risen to 42 percent (Seierstad, Tatli, Aldossari, & Huse, 2021; Terjesen, Aguilera, & Lorenz, 2015). Bennouri, De Amicis, and Falconieri (2020), give evidence of increased gender diversity on boards as a result of the implementation of gender quota rules in 2007. After it, many countries across Europe follow Norway's model of Boardroom.

Following Norway's lead, Spain has also made it a legal obligation for every private company awarded a government contract to have BODs comprised of at least 40% women. Spain implemented a gender diversity rule in 2007, requiring all publicly traded firms to boost female board presence to 40% by 2015. By 2015, France's parliament will have passed legislation requiring women to make up half of the BODs of publicly traded enterprises. Iceland's parliament has passed legislation requiring publicly owned and public limited firms with at least 50 employees and BODs with more than three members to have at least 40% of each gender by September 1, 2013. In Australia and South Australia, the government has set a goal of reaching and maintaining 50 percent female representation on government boards and committees (Spender, 2015). Growing concerns about gender equality have resulted in a slew of new legislation aimed at increasing female representation

on corporate boards around the world (Valls Martinez, Cruz Rambaud, & Parra Oller, 2019). Globally, there is still a gender imbalance in the boardroom in many countries.

The same gender quota implementation effects can be seen in Fortune 500 board seats (Pompper et al., 2021). The Fortune Global 500 is a list of the world’s top 500 companies, ranked by annual revenue. Their boards also follow the gender quota law implemented by their respective country.

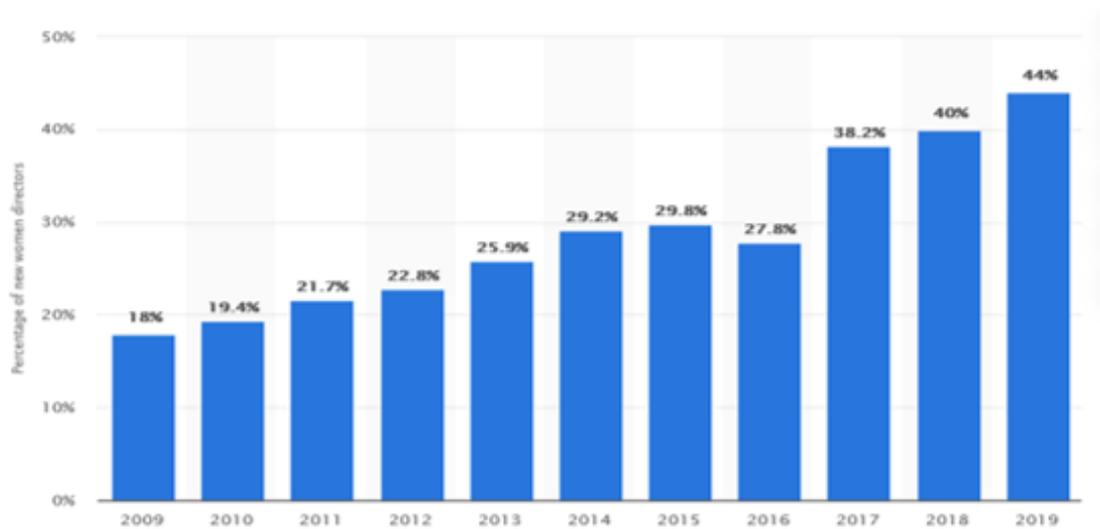


FIGURE 2.1: Fortune 500, female representation in the board (year-wise analysis)

Source: Statista 2020

Female representation on the BODs of Fortune 500 companies is increasing for time being. The increasing trend is slow which is due to the gender quota implementation process. In 2020, women made up slightly more than a quarter of board directors (26.5 percent). A total of 467 new board members were appointed to Fortune 500 firms in 2019. In 2019, women accounted for 44% of all new directors. In comparison to the previous year, this was a four percent gain.

The “Global Center for Corporate Governance” is a global examination of corporate governance characteristics. The global, regional, and country analyses are based on a dataset spanning the Asia Pacific, the Americas, and approximately 7,000 firms in 44 countries (about 72,000 directorships). One of its goals is to conduct a global survey on the number of women in corporate boardrooms. Europe

continues to dominate the world in female representation on boards, according to the most recent edition of this survey.

Annually the Global Gender Gap Report: This report is published by the world economic forum every year (Schwab et al., 2017). The area contains all of the top ten countries with three or more female directors, with Norway, Italy, and Belgium being the closest to achieving parity (Forum, 2020). 94 percent of boards with three or more women members expressly monitored the implementation of company strategy on the Canadian stock exchange in 2018, compared to 66 percent of all-male boards. Gender balance is critical to the success of economies and society. Keeping half of the globe's skilled workforce fully developed and deployed has a significant impact on global economic competitiveness and growth. The Annual Global Gender Gap Report compares the progress of one hundred and fifty-three (153) nations toward gender equality. In addition, this year's edition looks at gender disparities in future occupations.

Annual Global Catalyst Report: Catalyst is a global nonprofit that works to create gender-balanced workplaces with the assistance of many of the world's most powerful CEOs and leading corporations. Their superior thought leadership, which includes unrivaled workplace expertise and pertinent research, has been in existence since 1962 and has aided in the advancement of women in the workplace. Catalyst accelerates and advances women into leadership via groundbreaking research, practical tools, and tried-and-true solutions; because advancement for women is progress for everyone (corporation, society, and economy). Every year Catalyst publishes a report regarding global data on female presence in BODs in companies. That data is based on country-wise and yearly-wise comparisons.

In 2020, women held 20.6 percent of board director positions worldwide, a 0.6 percent rise from 2019 i.e. 20.0% (Catalyst 2021). In the United States, the share of female directors was just 4.7 percent in 1987, but it climbed to 13.6 percent in 2003, and women occupied 16.1 percent of director seats by 2011, there is 20.3% in 2016 and 26.1% in 2019 and now in 2020 it is 28.20 (Catalyst 2019). In Canada in 2016, 22.8% of females were in directorships, whereas in 2019, it shows 29.1% and now in 2020 it is 31.3 % (Catalyst 2019). A similar trend has been noticed in the

United Kingdom, where the proportion of female directors in UK corporations has risen from 3.7 percent in 1995 to 8.6 percent in 2003 and 15% in 2011 (Catalyst, 2012), and further rise of 25.3% in 2016 and 31.7% in 2019, and now in 2020 it is 34.30 % (Catalyst, 2019). Other Europe countries, like France, show 43.30% in 2020, 44.3% in 2019, and 37.6% in 2016; in Switzerland, in 2020 rate is 26.10%, in 2019 it shows 24.9% whereas in 2016 it was 17.5%; And in Germany, it was 19.5% in 2016 and 33.3% in 2019, and now in 2020 it is 25.50%. In Australia in 2016, females in directorships are 26% but in 2019 it is raised to 31.2%, and now in 2020 it is 34.0 % (Cabeza-García, Del Brio, & Rueda, 2019).

TABLE 2.1: Percentage of females directorship globally

Country	% Women directorship 2020	% Women directorship 2019	% with three or more Women on Board, 2020	% with one or two Women on Board, 2019	% with zero Women on Board, 2019	Quota and year introduced
Australia	34.00%	31.20%	71.20%	40.30%	1.50%	No
Canada	31.30%	29.10%	75.00%	35.90%	1.10%	No
France	43.30%	44.30%	99.60%	1.40%	0%	Yes, 2010
Germany	25.20%	33.30%	77.60%	17.20%	1.70%	Yes, 2015
India	16.60%	15.90%	18.60%	78.80%	0%	Yes, 2013
Japan	10.70%	8.40%	5.40%	63.20%	33.40%	No
Netherlands	25.50%	34.00%	65.20%	34.80%	0%	Yes, 2013
Sweden	38.00%	39.60%	91.60%	3.40%	0%	Yes, 2016
Switzerland	26.10%	24.90%	54.80%	51.20%	0%	Pending
United Kingdom	34.30%	31.70%	84.20%	17.80%	0%	No
United States	28.20%	26.10%	66.20%	42.80%	1%	Yes, 2018

Source: Catalyst Survey 2021

According to this catalyst survey, further disclosed that in 2019 France and Sweden are having a higher percentage of three or more female members in their BODs i.e. 98.6% and 96.6% respectively; similarly, in 2020 France and Sweden are having 99.60% and 97.40% respectively. In 2019 Australia having 58.2% and in 2020 it is 71.20%; Germany shows 81% in 2019 and 77.60% in 2020, India shows 21.3% in 2019 and 18.60% in 2020; UK having 82.2% in 2019 and 84.20% in 2020; and similarly US having 56.2% in 2019 and 66.20% in 2020. Survey 2020 further

gave results regarding the percentage of boards having the presence of one or two females in their BODs in 2019 are; Australia having 40.3%; Canada having 35.9%; France having 1.4%; Germany having 17.2%; India having 78.8%; Japan having 63.2%; Switzerland having 51.2%, the UK having 17.8%, and similarly the US having 42.8%.

Many economies, like the Netherlands, have selected so-called soft quotas, which have no negative effects on businesses that fail to reach the gender quota target (de Cabo, Terjesen, Escot, & Gimeno, 2019). Similarly, the Spanish law simply provides an incentive for the government to give preference to corporations that meet its standards when granting public contracts, resulting in a soft approach (Fernandez-Feijoo, Romero, & Ruiz-Blanco, 2014). It is necessary for the execution of the gender quota legislation in countries having hard quota laws, where companies that fail to maintain the required proportion of female presence on the BODs will face severe legal consequences, including forced delisting or dissolution from the stock exchange (Bennouri et al., 2018). If a firm does not follow the quota in France, it will be penalized for not paying directors' salaries. In Norway, it will be penalized by refusing to register a board, dissolve the corporation and finance it until it complies with the law. In Italy, directors are removed from their positions. In Spain, a lack of gender diversity will affect consideration for public subsidies and state contracts. Similarly, in Belgium, any directors who do not meet board quota requirements will be removed from office and benefits for directors are being suspended (Catalyst, 2019). Companies who do not comply with gender quotas will risk legal consequences and may even be delisted. However, there are a variety of attempts to increase board diversity.

ASEAN women: In comparison to their male colleagues, women in ASEAN face challenges to join the boardroom. While some of the issues are shared by women worldwide, the ASEAN area has specific structural and cultural elements that produce further obstacles for females. Women are more likely than men to leave their occupations later in their careers to care for elderly relatives, and "old-boys networks" flourish throughout the area. There are several regional-specific barriers to women's advancement in the workplace, including cultural expectations and inherent bias.

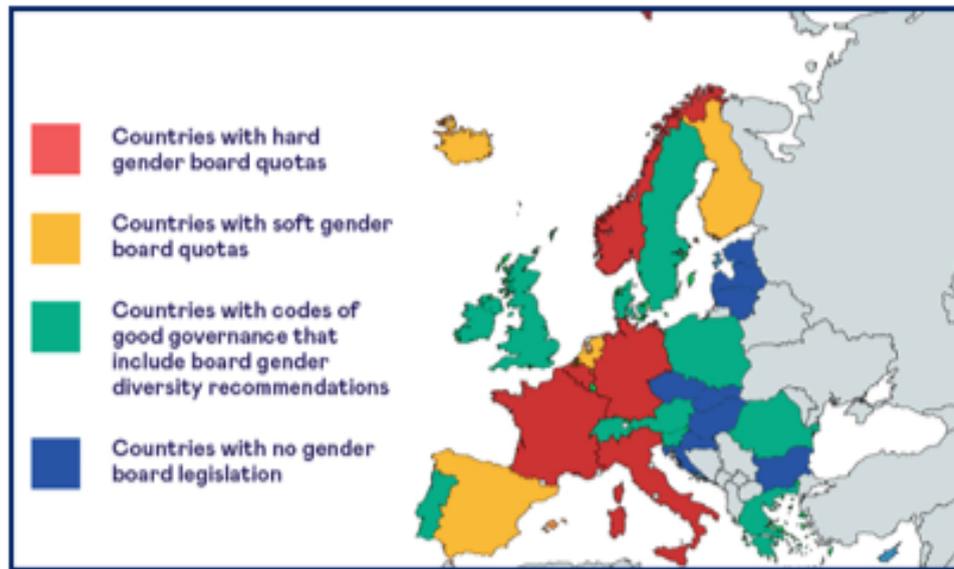


FIGURE 2.2: Gender quota law (European Union)

Source: Data obtained from the European Corporate Governance Institute and Catalyst (2018).

TABLE 2.2: ASEAN countries, 2017 –Report published by Delloite

Country	SENIOR MANAGEMENT (% OF FEMALES)	BOARD SEATS (% OF FEMALES)
Indonesia	18.4	14.9
Malaysia	26.2	13.5
Philippines	32.8	13.2
Singapore	27.2	11.9
Thailand	29.2	20.4
Vietnam	16.8	15.4
Average	26	15.7

Source: ILO, UNESCO.

Women Corporate Directors (WCD) is the United States-based worldwide organization of female corporate directors, including board executives, members, presidents and CEOs. Through campaigning and mentorship, the WCD works to expand the presence of females on BODs and increase the number of qualified female board members. WCD now includes more than 80 countries around the world, including Asian countries.

The International Federation of Business and Professional Women (BPW) is a global organization with a quarter-million female business leaders as members. It aims to improve women's economic involvement through networking, skill development, and advocacy.

Gender Equality: 5th goal of UN sustainability Development (SDGs)

The United Nations approved the Sustainable Development Goals (SDGs), also known as the Globalization Goals, in 2015 as a worldwide call to action to protect and preserve the environment, eradicate poverty, and ensure that almost everyone living in prosperity and peace by 2030 (Núñez, Bandeira, & Santero-Sánchez, 2020). Total SDGs are seventeen in number. All 17 SDGs are interconnected, recognizing that actions in one domain influence outcomes in others, requiring development to strike a balance between environmental, economic, and social sustainability.

5th goal of Sustainable Development is gender equality. According to this goal:

“Ending all discrimination against women and girls is not only a basic human right, but it’s also crucial for a sustainable future; it’s proven that empowering women and girls helps economic growth and development.”

It is geared toward promoting gender balance and equality, but women still face significant barriers that restrict equal participation, especially in structures of representation be it at a macro, micro, or meso level (Terjesen et al., 2015).

For the betterment of corporations, society, and the economy, all aims of sustainable development must be pursued. Similarly, the fifth goal yields higher results. Female presence in the overall corporation, whether in executive or non-executive positions, has a substantial impact (Galbreath, 2018; Grove & Clouse, 2018).

“Gender equality is a requirement for long-term success. No country has prospered without the active participation of women. Sustainable Development Goal (SDG) 5 finally recognized this fact and has made gender equality a key development goal”.

PSX CEO Farrukh Khan  
(March 2020)

### **2.4.5 Female Representation in Pakistan**

In Pakistan, being a developing economy, little research has been done on gender diversity in the BODs and AC. Because this research area is Pakistan, this study concentrated on gender diversity in this study. In Pakistan, the majority of the top firms and publicly traded corporations are run by men (D. A. Siddiqui & Atique, 2020). Women account for over 49% of Pakistan's total population and play an important part in the growth of several areas of the economy. Women, on the other hand, are disgustingly underrepresented in all fields.

Over the last several decades, researchers, policymakers, and investors have focused on female participation in business management, and the same debate can be seen in emerging economies like Pakistan. In Pakistan culture, females have fewer rights as compared to males. A few eras back, mostly upper management seats in the corporations are held by males (Ashraf & Ghani, 2005). But now this study can see the change due to the education given to the females. And another reason for the involvement of females in the upper management team due to corporate governance law of Pakistan (Younis et al., 2016). According to this law, each BOD's team must have a proportion of females on their board. And in other governance structures of a corporation like AC, also have a reflection of female representation (A. W. Khan & Abdul Subhan, 2019; Yasser, 2012).

Female directors as a member of BODs or AC are now growing in Pakistan; nonetheless, females on boards or ACs are typically those who belong to the controlling family and are appointed by the company's ordinance to fulfill the constitutional requirement (Rigolini & Huse, 2017). Various founders acquire their family's female directorship to seize their family's dominance over the enterprise and overcome the inheriting division difficulty for the next generation.

Females' presence in executive seats is now growing in Pakistan's practical world. Female representation on boards and AC is little researched area in the context of Pakistan. Many different organizations work the monitoring these female's appointments in the corporate world (Velte, 2017a). In Pakistan SECP along with other organizations play a significant role in female presence in BODs and AC in the corporate sector.

SECP poll: According to the SECP poll conducted in Pakistan in 2018, women serve on the boards of 31% of the total examined companies; While 72 percent of family-owned businesses include women on their boards of directors. On the boards of 78 percent of the KSE 100 Index companies, women are underrepresented.

Global Gender Gap Report 2021-Pakistan: Pakistan was ranked 153rd out of 156 nations in the World Economic Forum's (WEF) "Global Gender Gap Report 2021". Pakistan came in seventh place, narrowly ahead of Afghanistan, out of eight South Asian countries. In 2021, the gender gap in Pakistan widened by 0.7 percentage points when compared to 2020. Based on their report, Pakistan was placed 98th in terms of political empowerment, 144th in terms of educational attainment, 152nd in terms of economic involvement and opportunity, and 153rd in terms of healthcare and survival. Pakistan's gender parity score has not improved in the last sixteen years, according to the same survey (the gender parity score was 0.553 in 2006 and 0.556 in 2021). According to these figures, Pakistan's progress in closing the gender gap has stalled. According to the report, Pakistan will need 136 years to close the gender gap at its current rate of performance.

Women on Board-Pakistan survey: WOBs produced a yearly report every year by the name "Women Representation in PSX Listed Companies". It's a Statistical Review or Survey, which aims to give a high-level picture of women on boards by country, region, sector, and index (Fatima & Asghar, 2021).

Out of 475 companies listed on Pakistan Stock Exchange (PSX), only 185 listed companies have female directors, 25 % companies have one woman director, 25.07% companies have two woman directors, 33.33 % companies have three woman directors, 9.12% companies have four-woman directors, and 7.12% companies have five-woman directors. This report further stated that only 36 (7.13 percent) corporations had female chairpersons, only 11 (2.18 percent) companies had female CEOs, and only 9 (1.78 percent) companies had female CFOs in 2017. There were 27 enterprises with female corporate secretaries.

TABLE 2.3: Women Representation in PSX Listed Companies

Sr No	Representation of women directors	Companies	Female Directors Companies	Di-rectors in Companies	Female director percentage
1	One Woman Director	89	89		25.36%
2	Two Women Director	44	88		25.07%
3	Three Women Director	39	117		33.33%
4	Four Women Director	8	32		9.12%
5	Five Women Director	5	25		7.12%
	Total Companies & Directors in Companies	185	351		100%

Source: Report published in 2017 on Women Representation in PSX Listed Companies

## 2.5 Literature Review on Family Ownership Structure

Another factor that is also significant in playing its role among female representation in BODs & AC and FRQ is the “ownership structure” of the company. The state or fact of possessing exclusive right to have control over an asset, such as intellectual property, real asset or land, or other objects is referred to as ownership (Feng, Hassan, & Elamer, 2020). And the ownership structure is a combination of term ownership and structure; it is defined as “The internal organization of a corporate entity, as well as the rights and responsibilities of the individuals who have a legal or equitable interest in that business”. It is the structure that defines how the ownership and control of a company are distributed (Oesterle, Richta, & Fisch, 2013). As the owner of a business entity, it is critical to understand how that entity’s ownership structure is formed and what it means for the owner’s rights. The ownership structure of the corporation includes the divergence among voting and cash flow, several different types of shares, cross-holding across corporations

is said to have the most significant influence on the FRQ as well as influence on corporate governance (Kao et al., 2019; Mishra & Kapil, 2017; D. Wang, 2006). Corporate ownership structures differ due to variances in the circumstances they endure, especially in terms of norms, cultures, scale of economies, and the sustainability of the environment in which they run (Demsetz & Villalonga, 2001).

The ownership structure is different like family ownership, institutional ownership, state ownership, concentrated ownership, managerial ownership, etc. Family ownership is one of the old ownership structures in the world (Aguilera & Crespi-Cladera, 2016). Family-owned enterprises are increasingly widely acknowledged as significant and active participants in the global economy (Bansal, 2020; Lam & Lee, 2012; Saidat et al., 2019; Wagner, Block, Miller, Schwens, & Xi, 2015). These family-owned enterprises employ a majority portion of the country's workforce and gross national product. In the Pakistan economy, more than 60% of listed companies are held by family-owned companies. Therefore, this study focused on family ownership structure in the context of Pakistan.

There are several definitions of the word "family ownership structure" in the literature. According to Miller, Minichilli, and Corbetta (2013), Family businesses are typically defined as businesses run by individuals from the same family as the company's owners or executives or management. Sharma, Chrisman, Chua, and Steier (2020) contributed the most thorough and widely accepted description of a family firm: a corporation governed and/or organized to define and follow the corporate vision of a dominant group, and held by close family members or a small number of families, in a form that is possibly sustainable all over members of the family. According to Belen Villalonga and Amit (2020), family-owned businesses constitute a distinct class of investors who have poor investment strategies, are long-term investors (multiple generations), and frequently dominate prominent management positions. A family business can sometimes expand beyond its original scope. Three criteria are included in the description of this sort of business: family, ownership, and management. A family business is defined by the confluence of the family factor and one of two elements of ownership or management (family and business ownership, or family and business management). One of the

most historic socioeconomic entities to have been acknowledged thus far is the family business (Acosta-Prado, Longo-Somoza, & Lozano, 2017; Tong, 2007).

According to Adebayo (2020), the voting criteria, percentage of shares owned, strategic decision-making, power, multi-generational engagement, and effective management of members of the family can all be used to identify a family firm. A family-owned firm is the one in which two or more members of the same family are involved and the family owns or manages the major portion of the corporation. The interplay of two autonomous but interconnected systems, the family and the business, with ambiguous rules, borders, and norms, is referred to as a family business (Malelak, Soehono, & Eunike, 2020). In a family business, there are many different combinations of family individuals in various business roles, such as wives and spouses, children and parents, extended families, and several generations serving as the role of executives, employees, consultants, board members, shareholders, working partners and executive committee members (Martinez Jimenez, 2009). Family enterprises are an essential form of enterprise and a key source of wealth creation and economic growth & prosperity around the globe (Spanos, Tsipouri, & Xanthakis, 2008). In emerging economies, family enterprises make up a significant portion of the Gross Domestic Product (Johansson, Sjögren, & Bjuggren, 2009). A distinguishing element of family enterprises is the governing family owner(s) (Lubatkin, Ling, & Schulze, 2007).

Given that family, businesses make up the bulk of the world's businesses (La Porta, Lopez-de-Silanes, & Shleifer, 1999). Family-owned businesses are the most generally held corporations in the world. According to the PWC family business survey 2021, family businesses contribute to economic growth in their respective economies, with 90 percent in the United States, 74 percent in Italy, 84 percent in France, 78 percent in Germany, 45 percent in Western Europe, 66 percent in East Asia, and 71.4 percent in Taiwan (Sikandar & Mahmood, 2018; Belén Villalonga, 2019; Belen Villalonga & Amit, 2020). Fiat, Cargill, Comcast, Walmart, Ford, Microsoft, Dell, DuPont, and Marriott Corporation are examples of globally well-known family-owned businesses (Porfírio, Felício, & Carrilho, 2020; Faisal Shahzad, Rehman, Colombage, & Nawaz, 2019b). Running a successful family

business not only generates revenue for family members but also improves family connections and reduces social issues (Shiri, Salehi, Abbasi, & Farhangdoust, 2018). Family businesses may have some strengths over other corporations in terms of long-term commitment, focus on quality (which is generally associated with the family brand), and compassion and empathy for employees (Botero, Astrachan, & Calabrò, 2018). However, due to the interconnection of family and business issues or difficulties, family firms have a unique set of management obstacles.

Not only do family-owned enterprises benefit the owners' families, but they also boost the local and foreign economies (Bednarz, Bieliński, Nikodemska-Wołowik, & Otukoya, 2017). In the meantime, many people are trying to make ends meet. About a third of the 100,000 family-owned businesses that are carried down from generation to generation fail every year, and so many smaller businesses struggle to maintain financial independence from their businesses until retirement. The following are some characteristics of family-owned businesses:

- Family responsibilities and senior positions can define and decide the organization's leadership, such as the BODs and ACs, allowing for the duration of their positions. If the organization is stable, well-founded policies are more likely to be implemented.
- Family members share common identities, values, culture, and history (Sundaramurthy & Kreiner, 2008). Family members are aware of one other's talents and shortcomings and can form deep emotional relationships.
- The boardroom of a firm can communicate, argue, and disagree more openly and freely because of the underlying trust among family members (A. Kakabadse, Kakabadse, Moore, Morais, & Goyal, 2017).
- A family business can engage the next generation of members in the boardroom, executive committees, workforce, and level of knowledge, to achieve a competitive advantage over non-family businesses and obtain access to their youth.

- In a family-owned firm, new generations may feel pressured to keep the business going, even if they don't want to. This can result in an apathetic, unenthusiastic, and disengaged staff or, even worse, management.
- Family businesses face challenges in succession when their owners fail to create succession plans. In practice, a family business may be required to name a successor in a short period due to death, illness, or even a disaster. Without suitable strategies in place, it may be impossible for a company to proceed in the event of such an incident. These risks also affect members of the BODs and the executive committee (Vera & Dean, 2005).
- Family firms have nepotism and family-oriented authoritarian leadership in boardrooms and executive committees like AC. Some family businesses make the mistake of moving family members to executive positions, such as board members and AC members, even though they lack the appropriate education, experience, or talents to fully embrace their responsibilities (Jeong, Kim, & Kim, 2021).

Family businesses distinguish from non-family businesses in many respects, including managerial style, decision-making procedures, long-term focus, and profitability, according to previous research (Wagner et al., 2015). Family firms have distinct qualities and cultures that provide them an advantage over non-family enterprises (Liang, Wang, & Cui, 2014; Saidat et al., 2019). Few family businesses have distinguishing traits that set them apart from non-family businesses. One of the characteristics is to maintain their status quo and the firm's femaleness (Salvato, Chirico, Melin, & Seidl, 2019), and another is the propensity of risk that might affect the family's wealth (Mustafa et al., 2020). Family members working in the business are considered Intangible assets, such as familial passion and commitment to the firm, tacit and particular business expertise, and the existence of an inimitable culture, which are frequently cited sources of competitive advantage (Cater & Young, 2019). When family unity is paired with the interplay of family and business subsystems, synergy can be created that promotes family business performance. The overlap of these family and business management tasks usually

leads to conflicts. In professional and commercial situations, for example, people's regular communication patterns may be unsuitable. Personal clashes or rivalries may spill over into the employment, inflicting harm to the business (Habbershon, Williams, & MacMillan, 2003). If a family business is to prosper, it must maintain open lines of communication, use strategic planning tools, and enlist the help of outside specialists as needed.

Strong family governance leads to good firm governance. Few families realize that their assets are made up of three types of capital: human, intellectual, and financial. Even fewer families realize that they might keep their financial wealth without preserving their human and intellectual capital; sadly, families generally focus solely on financial capital (Danes, Stafford, Haynes, & Amarapurkar, 2009). For three reasons, family-owned franchisees may perform worse financially than nonfamily-owned franchisees: they are more difficult to monitor and control (Sakawa & Watanabel, 2019); they have a stronger preference for noneconomic goals to develop idiosyncratic resource bundles that may not align with the needs of a franchise network (Fakhri, Syarifuddin, Winarno, Nurnida, & Hanum, 2021); and they prefer more conservative investments that may limit improvements in franchisee financial performance (Saidat et al., 2019). Controlling shareholders in a family-owned corporation are members of the same family and have a key part in the management of the organization, operations, and direction. Family members with opposing beliefs and aspirations might cause conflict and threaten the company's control. As the family structure decreases or expands, the likelihood of conflict increases.

Internal control flaws have been found to contribute to more fraud and distortion in family businesses where the director is a family member than in non-family businesses in recent studies (Faisal Shahzad et al., 2019a). According to Boonlert-U-Thai and Sen (2019), founding family enterprises are more conservative than family and non-controlling firms. On the other hand, they found that in nations with weaker investor protection, family enterprises are related to stronger FRQ, which could suggest short-term maximizing behavior (Lari Dashtbayaz, Salehi, & Safdel, 2019). Due to the importance of family businesses, more attention is being devoted to them. Information about their specific companies is obtained

by creditors, potential investors, shareholders, and other beneficiaries. Due to deeper business expertise, lower operational risk, stronger managerial integration, direct supervision, and a better grasp of the link between suppliers, customers, and business owners, family businesses are less sensitive to books of accounts and financial reporting manipulation (Calabrò, Cameran, Campa, & Pettinicchio, 2020; Faisal Shahzad et al., 2019a; K. T. Wang & Shailer, 2017).

A review of numerous aspects of family firm financial reporting, on the other hand, can help shareholders, investors, owners, and creditors make informed investment decisions. It is quite easy to recognize an accounting or financial reporting entity, but whether such an entity will adopt while dealing with a powerful family is a different story. Calabrò et al. (2020) presented two official perspectives in this regard: Due to the higher FRQ and auditing in family firms, the dominant or founding family is in place, which is primarily concerned with the firm's long-term survival and reputation, and has more supervisory authority over executives; and attempts to deceive other interested parties about the financial performance of a company, as well as conceal the wealth of founders or the dominant family.

Family-owned businesses, in particular, are very visible and, as a result, are motivated to increase transparency, as unethical behaviors may be observed and sanctioned by a large number of people (Miller, Breton-Miller, & Lester, 2013). Because they are board members and large shareholders, Family business owners are more engaged in the management of the company. As a result, they will have easier access to the financial and non-financial data of the company and desire fewer disclosures and transparency. According to Shamsul Nahar Abdullah and Ismail (2016), corporations having family ownership, are more concerned about FRQ. Moreover, governance (BODs and AC) of those firms works efficiently to have fewer chances of manipulation in financial statements and reporting. Regarding this study, there is further needed to study the role of female representation in BODs & AC in family owned companies.

### **2.5.1 Family ownership and female presence in BODs & AC**

Women are highly encouraged to serve on company boards and ACs by the most successful and longest-lasting family businesses. The following queries are expected when this study discusses female presence in BODs and AC of family firms: Why is it critical for family businesses to have women on their BODs and ACs? How females in BODs and ACs of family businesses are different from others? And how can regulators, policymakers, and controlling owners promote women to serve on corporate boards and ACs in family businesses? The role, structure, and composition of the members of BODs and AC differ significantly between family and non-family businesses. In general, the size, complexity, and maturity of the ownership proportion dictate these arrangements. To meet regulatory obligations, the majority of family firms established BODs in their early years of operation. These were known as "paper boards," and their primary function was to approve financial transactions, dividends, and other procedures that the law required to be approved by the BODs (B. Oba, Ozsoy, & Atakan, 2010).

According to Bae and Skaggs (2019) upper management teams of these companies are having deeper business knowledge, direct monitoring of employees, more managerial integration, and raised the understanding of the relationship between customers, suppliers, and business owners (Kao et al., 2019; S. N. Khan & Ali, 2017). On the other perspective, if there are too many family members on the board or AC, the efficiency and effectiveness of the members of BOD and AC may be compromised.

It is standard practice in corporations with a family ownership structure for all high management roles or governing authorities in the corporation to be owned and managed by family members (Ali Amin, Ali, Rehman, Naseem, & Ahmad, 2021; Belen Villalonga & Amit, 2020). It is not important for them whether a family member is male or female. They can hold the decisions and control authority. This practice has a significant influence on the financial performance and FRQ of a company. Family members' involvement may influence the chances of manipulation in financial reporting (Shamsul Nahar Abdullah & Ismail, 2016).

As the owners seek influence over the company, this ownership pattern dictates the membership of the BODs and thus the AC. They appoint members of their close family as part of BOD or other executive committees (Lam & Lee, 2012). Thus, in family-owned enterprises, female directors who are related to the largest shareholder are common.

According to previous studies, the participation of women directors in company BODs and family ownership are closely associated with each other (Saidat et al., 2019; Tee & Kasipillai, 2021). Women members are typically recruited from among friends and family, increasing the risk of family owners selecting female members that aren't qualified for crucial positions such as BODs and ACs (Magnanelli et al., 2020). This risk is considerably higher throughout the period due to the implementation of gender quota legislation in regions where enterprises that fail to keep the requisite ratio of females on their BODs suffer serious legal consequences, which include forced dissolution as well as delisting from the stock exchange (Bennouri et al., 2018).

Females are unable to perform successfully in many economies due to socio-cultural, religious, and traditional constraints, resulting in a negative impact on corporate performance and FRQ (Mordi & Obanya, 2014). According to the study of Gull et al. (2018), in corporations with gender-diverse boards, the statutory and demographic qualities of female directors, rather than their basic representation on the BOD, were responsible for earnings management. Their findings support those of García-Meca, Martín, and Iturriaga (2021), who found that rather than positions based on talents, skills, or potential contribution to a company's strategy, some female directors are raised to figurehead positions. Their findings believed that these phenomena will be more prevalent in countries where firms are compelled to act in response to legislative demands for the female to serve as a member of BODs and to meet gender quotas in their boardrooms. Bryson, Dale-Olsen, and Gulbrandsen (2016), analyzed that the Norway board gender-parity change was successful from a strictly representational standpoint, which supports this perception. According to the view that family members rather than an external process choose women for BODs of family-controlled firms (Bae & Skaggs, 2019; Mustafa

et al., 2020). This study asserts that after the necessary implementation of a gender quota legislation, this scenario will become more widespread, resulting in the recruitment of unqualified female directors to family corporate boards (Shamsul Nahar Abdullah & Ismail, 2016; Arzubiaga et al., 2018; Magnanelli et al., 2020; Saidat et al., 2019).

There is evidence that in family-owned businesses parental preferences as a business owner are influenced by the gender composition of their children (Cronqvist & Yu, 2017; Failla & Rocha, 2017). Male directors who have a daughter are more probably to designate female directors to boards and committees. But most of the previous literature revealed that the gender of the directors' children should not have a direct impact on firm's financial performance or FRQ.

### **2.5.2 Family ownership in Pakistan**

A large portion of Pakistan's 22 wealthiest family-owned enterprises, such as Hyesons, Bawany, and Valika, which date back to the 1960s and 1970s, have vanished from history and are no longer present (Saleem, Siddique, & Ahmed, 2019). Their weak governance system is the primary cause of their demise. There was a good probability they would have thrived till now if they had implemented a strong and effective corporate governance culture and defined business standards among its members.

The largest business groups in Pakistan include local family-controlled business organizations and the families and relatives at the back of them, the state, and affiliated multinational corporations. In Pakistan, family-owned enterprises are very prevalent. According to Chang, Mubarik, and Naghavi (2020), the bulk of the publicly traded companies on the PSX are family-owned businesses. The majority of wealth is concentrated in the hands of a few wealthy and powerful families. The family patriarch is the principal shareholder and manager, while other members of the family assist in the management of the group's other enterprises. Pakistani businesses differ from those in other countries in that a large percentage of family businesses are still owned by the founding families, who tend

to give more meaningful earnings data than that other family-controlled business and non-family businesses.

Female directors as independent non-executive directors are uncommon in Pakistan; nonetheless, women on boards are typically those who are members of the controlling family and are appointed due to the company's ordinance enforcing the constitutional requirement. Various founders acquire their female family directorship to seize their family's domination over the firm and solve the inherent division dilemma for the following generation.

Female representation in the BODs and ACs of family-owned enterprises was also highlighted in an older PICG survey 2020 titled 'Gender Diversity at Board Level':

“Majority of Pakistani companies with female board members tend to be in family-owned enterprises, which shows that female board members are usually successful when they can bypass traditional social barriers through family connections”

Women directors are frequently recruited from inside the family circle, raising the possibility of family owners appointing unqualified and inexperienced female members to critical roles like the BODs and AC. The majority of members of the board in Pakistan are either family members or representatives of these business and corporate giants. As this is the situation, expecting board members to successfully carry out their monitoring responsibilities is unreasonable because they are all chosen by similar controlling shareholders. The owners of controlled family businesses may be able to manage earnings more flexibly (Faisal Shahzad et al., 2019a). Representatives of controlling business groups and members of their families, on the other hand, have bigger stakes in companies than outside professionals because they are usually long-term employees in these corporations. As they have a financial motivation to pass their enterprises on to future generations while also maintaining the company's reputation, these related directors are more likely to focus on long-term success rather than short-term profit margins.

In Pakistan, the corporate cultural dimension of family-owned companies is considered collectivism. The collectivism concept is more used for diverse governance

structures in family-owned companies. It might be required, particularly in the aspect of a diversity study. Individuals in collectivistic cultures see more distinctions between in and out of group individuals and value compliance more. According to Fletcher, Melin, and Gimeno (2012), individuals born into collectivist cultures are more likely to recruit more family members as managers, keep greater corporate control in the family, and share firm ownership with even more members of the family.

In Pakistani family-owned businesses, the majority of female board members are relatives of close owners; these owners are the most powerful members of the group, influencing the behavior of younger relatives on the boards. Younger board members, especially female members, may not question their decisions. Rehman and Roomi (2012) explain that women in traditional families confront significant obstacles from their parents and brothers, particularly when they advance to high positions in family businesses. Based on this argument, Studies have found that fathers create additional barriers for daughters, particularly if they're in positions to take over family companies. Therefore, daughters are frequently overlooked when it comes to completing the duties of upper professions, and they are pressured to serve as a support system for their brothers. Thus, the importance of female directors' relationship in this situation may be accentuated.

## **2.6 Role of Different Organizations**

Different organizations play a significant role in the implementation of the gender quota Laws in Pakistan and globally. For this purpose Securities and Exchange Commission of Pakistan (SECP) along with other organizations works in Pakistan.

### **2.6.1 Securities and Exchange Commission of Pakistan**

For developing countries, corporate governance is critical since it is necessary for their economic and financial development. Pakistan has developed solid corporate governance regulations, but their execution is hampered by political instability, which hurts corporate governance. SECP published a code of corporate governance

in March 2002. The Corporate Governance Code's implementation has enhanced the overall corporate structure and business environment.

With time, the understanding and practices of female representation in BODs and ACs are growing in numbers in Pakistan. For time being, a lot of work has been done by the Securities and Exchange Commission of Pakistan (SECP). It is a regulatory body. In March 2002, the Securities and Exchange Commission of Pakistan (SECP) introduce the Corporate Governance code 2002 (Aziz, Gondal, & Ali, 2019; Lone, Ali, & Khan, 2016). After this period many changes can be made to this corporate governance code. SECP has raised the standards related to corporate governance in Pakistan. The SECP makes the standards, regulations, rules, and regulatory frameworks for corporations. The SECP encourages public companies to have at least one woman director on their BODs. Regarding the AC of firms, SECP mandated that it must comprise at least three members. The role of corporate governance in Pakistan is gradually improving due to the implementation of new rules and regulations by the Securities and Exchange Commission of Pakistan (SECP) and it has lowered the incidence of earnings management in the firms (Iqbal & Arshad, 2020).

### **2.6.2 Pakistan Institute of Corporate Governance (PICG)**

Other organizations, in addition to SECP's efforts to enhance gender diversity, are trying to raise awareness of the critical unbalance and urge for greater female representation. The Pakistan Institute of Corporate Governance (PICG) has been a leader in this field of study. The Pakistan government formed an institute named "Pakistan Institute of Corporate Governance (PICG)". This institute is formed to work for the accomplishment of good practice of Corporate Governance, accountability of standards, and diversity balance. It was founded in 2004 as a non-profit organization dedicated to promoting excellent corporate governance in the country. Its activities include corporate governance training and education, policy engagement, consulting & advisory services, research and evaluations, surveys, and the publication of guidelines and other study materials (Iqbal & Arshad, 2020; Kamran, Farooq, & Zia-ur-Rehman, 2020).

SECP with PICG makes some changes in Corporate Governance Code 2012 to make an active board which reduces the trend of the Rubber Stamp and Trophy board. The latest version of the Code of Corporate Governance formulated and issued by SECP in 2012 is a good step but this study still need to make more improvements.

### **2.6.3 Women on Board-Pakistan**

Women on Boards (WoB) - Pakistan, an initiative of the South Asian Federation of Exchanges, are a staunch advocate. The goal of WoB is to encourage enterprises to have more gender-balanced BODs. WOB is a self-funded and volunteer-run organization. WOB Pakistan was established in 2016. Women On Board (WOB) Pakistan undertook a study with the vision of influencing a greater gender balance on corporate boards, increasing women's preparation for top management and board roles, and developing women's economic empowerment capabilities.

At the end of every year, WOBs produced a yearly report on "Women Representation in PSX Listed Companies". The newest Women on Board Pakistan study 2020, which was released at PSX's 'Ring the Bell for Gender Diversity' celebration, demonstrates that there has been some progress in the recent four years. By 2025, WOB hopes to achieve gender equity on corporate boards in Pakistan of at least 25%.

WoB's objective is to solve Pakistan's severe lack of female professionals on business boards and in upper management positions. More women on corporate BODs, as well as increased business leadership and economic empowerment possibilities for women, are all goals of WoB. According to WOB, the goal of this campaign was to empower corporate boards and the economy rather than women. Women, who make up nearly half of the country's population, must be utilized to improve the economy.

## **2.7 Literature Review**

In both developed and developing nations, studies on the influence of female representation on the BODs and AC on FRQ, as well as the moderating role of family ownership, are already published and discussed in the literature.

Marzuki, Haji-Abdullah, Othman, Wahab, and Harymawan (2019) analyzed the impact of AC and BOD diversity on FRQ. They selected listed firms from the Malaysian Stock Exchange as a sample, and the analysis period was twelve years, from 2002 to 2014. According to the findings, the concept that a female representation on the AC increases the risk of financial reporting fraud is unfounded. According to the findings, the participation of women in the AC and board management has a negative association. They also affected the possibility of financial reporting fraud. They concluded that in Malaysian listed companies, gender diversity and FRQ have a positive relationship.

The study of Song et al. (2020), looks into the association between the financial performance of firms and the presence of a female on corporate BODs, as well as the moderating effect of internationalization. The lodging business was given as a sample. They found that having more presence of females on the BODs has a significant positive impact on the success of a firm when compared to comparable companies. While internationalization has a moderating effect on the presence of diversity in management in terms of gender and company financial performance, it does not have a moderating effect on the presence of diversity in management in terms of gender and financial performance of the company.

Another study explores the link between gender diversity in the BODs and management and financial performance (Schmidt, 2019). They also look at whether education and board gender quotas have a moderating effect on business performance and gender diversity. The study looked at a sample of four hundred and fifty-four (454) European companies for ten years i.e. from 2007 to 2017 and analyzed them. They discovered a favorable and significant association between female presence on corporate BODs and firm financial performance. They investigate the empirical model using two theories. The first explaining theory is the agency theory and the other theory is the resource dependence theory.

Using a sample of one hundred and thirty-nine (139) companies for five years i.e. from 2013 to 2017, 28 of which were family businesses, Lari Dashtbayaz et al. (2019), examine the relationship between AC and FRQ in Iranian publicly traded enterprises and also examine the impact of family ownership among these two variables as a moderator. The hypotheses are tested using panel data and a means comparison. According to the findings, Poor audit quality has a significant negative influence on FRQ. Furthermore, having a family member has no bearing on the aforementioned relationship. As a result, there are no acceptable criteria for identifying family businesses, and there is a need to take them seriously because there has been little research focused on this topic in Iran, and it is considered a sensitive topic to address in the market of Iranian listed companies.

Ben Slama et al. (2019), examines the correlation between the performance of firms and diversity in terms of gender in board management, in France's firms, within voluntary and enabling institutional structures. They use dose-response and different techniques of function estimations. They resulted in that explain or a compliance suggestion by the France companies' data is probable to reduce the performance for those companies, which have poor in numbers. Contrary, the performance of companies can be raised well after authorizing date in highly performed corporations. They interpret from their results that the financial performance of companies can be reached to benchmark. And for achieving this benchmark, is due to the existence of forty percent of females' onboard management. According to French law requirements, companies must have at least forty percent of females on their corporate board.

Davis and Garcia-Cestona (2021), evaluate the impact of gender diversity in BOD and FRQ using restatements as a proxy. This study used fixed effects conditional logistic regression models to compare firms with good and bad FRQ. The study included a sample of 546 publicly traded US corporations from 2005 to 2016. Restatements are less prevalent in practice when there are a higher number of women on BODs, according to the findings. According to the findings, females on the BODs are more effective at reducing the likelihood of a restatement. Furthermore, while female board members reduce the risk of a restatement in general, they have no statistically significant impact on the chance of a restatement when

the BODs are all male. The findings back up upper-echelon theory and contribute to the effects of gender diversity of BOD at a time when corporations are under increasing pressure to do so.

Tee and Kasipillai (2021), examine if political ties and family ownership influence the efficacy of female directors on corporate BOD in terms of monitoring. This research uses a Malaysian dataset of publicly traded companies from 2005 to 2015. All of the research topics are tested using the ordinary least squares model (OLS). Female directors' oversight is linked to improved earnings quality, according to the authors. This necessitates female board directors providing effective oversight. Political connections reduce the effectiveness of female directors' supervision, which is consistent with the premise that politically connected enterprises have serious agency problems. Family ownership, on the other hand, strengthens the link between female directors and superior earnings quality, indicating a less severe type 1 agency problem. This is the first study to show that a country's institutional setting has a major impact on female board directors' monitoring abilities. Although previous research has linked a large percentage of female directors to improved earnings quality, the findings show that institutional factors such as political connections (family ownership) weaken (strengthen) female directors' monitoring efficacy on corporate boards.

Satria et al. (2020) investigates the relationship between gender diversity and financial performance. For analyzing purposes, they choose two countries as a sample. One country is Singapore on basis of having a soft law approach, and the other country is India on basis of having a mandatory law approach on corporate gender diversity on board. In both economies, they revealed that female representation on boards has a positive and significant impact on the financial performance of the corporation. They also found that the presence of females has a better effect on company performance. They suggest that their findings have implications for managerial decision-making and relevance to resource dependency theory and stewardship theory.

Mnif and Cherif (2020), explore the connection between female presence in BOD

as a director and earnings management in family businesses. This study demonstrated a negative link between female members as a director in BOD and earnings management utilizing sample data from family firms in the SBF 120 Stock Index for nine years i.e. from 2010 to 2018. When a company appoints female members to its BOD, who are affiliated with close family owners, the outcome is not the same. On the other hand, female independent directors have stayed steady. The results also revealed that the quota regarding gender appointment onboard reduces the negative link between earning management and board gender diversity, whereas family-affiliated women directors have the opposite effect.

Another study which resulted that the presence of females in an executive position in corporate management has a positive and major influence on the financial and marketing performance of companies (Smith et al., 2006). And they bring into being that the presence is still after controlling and managing different characteristics of the firm. They also found that the presence is still after the direction of causality. They analyze the relationship by using a sample of two thousand five hundred Danish companies. They resulted in the study that the presence of women in an executive position or part of executive management, the performance of companies varies from zero to positive. And they bring into being that existence of female directors in committees of executive management has a significant and positive influence on the financial performance of a corporate. Their findings explain that the positive significant impact of females in the executive management teams is powerfully interlinked with the educational level of these females.

In another research done in the field of board dynamics and FRQ, the researcher investigate and observe the influence of board dynamics on the FRQ in listed firms on the Nigerian Stock exchange (Tarus, 2020). They used Accrual quality as a tool of measurement for the FRQ. A sample of sixty-nine listed firms on the Nigerian Stock Exchange is used for analyses over the five years i.e. from 2008 to 2012. The study found that diversity in the gender of management of corporate, directors' shareholding, and BODs' tenure had a major influence on FRQ. Outcomes of this study found that the hypothesis regarding the size of the board and FRQ relationship was not accepted, as the research study initiated that board size does not influence FRQ.

A study was done on analyzing and interpreting the outcome of AC's effectiveness on the financial performance of the company (Aribi, Alqatamin, & Arun, 2018). The study is based on listed companies of Amman Stock Exchange (ASE). And they used 165 non-financial listed companies as a data sample for the period 2014 to 2016. From the results, they came to this point that the hypothesis regarding diversity in gender and AC size relationship has been accepted. And results found that diversity in gender and AC size have a significant and positive influence on the performance of the company. On the other hand, the frequency of meetings on AC and members' experience has an insignificant influence on a firm's financial performance. The result of the research could be significant for BODs and managers in making better decisions regarding corporate governance mechanisms and AC distinctiveness to increase the performance of a company.

Chen et al. (2006) investigated whether corporate financial fraud in a developed nation like China is influenced by ownership structure and boardroom features. Ownership and board characteristics are essential in explaining fraud, according to their findings from univariate analysis. However, they show that boardroom features are crucial, whereas the kind of owner is less so, using a bivariate probit model with incomplete observability. The length of the chairman's term, the number of meetings held on board, and the proportion of outside directors are all associated with the occurrence of fraudulent activities.

The relationship between corporate earning quality and the structure of corporate governance was investigated by Jiang et al. (2008). According to their findings, only companies with the greatest level of corporate governance have considerably improved earnings quality. They show that corporate governance is negatively linked to small earnings surprises. Their findings suggest that companies with poor corporate governance structures are more probably linked to manipulating earnings to enhance or assemble the expectations of an analyst.

In Thailand, Connelly et al. (2012) looked into the impact of ownership structure and corporate governance features on firm value. They discover that firms with differences in voting rights and cash flow rights have lower Tobin's q values. They also discover that in the presence of pyramidal ownership arrangements, the

value gains of adhering to "excellent" corporate governance standards are neutralized, raising issues about the efficiency of corporate governance characteristics when corporate ownership patterns are unclear. Lastly, they claim that family-owned businesses have control over other business ownership structures allowing businesses to appear to follow recommended governance principles while also exploiting the control.

Duréndez and Madrid-Guijarro (2018) investigate the impact of medium and small-sized family enterprises' unique traits on accounting information quality. To assess family firm heterogeneity, this study used a multimodal method based on the Family Influence on Culture, Experience, and Power dimension. The researchers developed a comprehensive method that takes into consideration earnings management, real earnings, and FRQ characteristics including earnings persistence and conservatism. The study's findings were collected from a sample of two hundred and fifty-two (252) medium and small-sized listed Spanish family industrial companies. The results of this study reveal that power harms FRQ, and experience has a positive impact on conservatism and earnings persistence; finally, Culture limits earnings management in terms of both conservatism and earnings persistence. The findings of this study encourage family owners to participate in terms of experience and culture while keeping control of the business within the family owners.

Kibiya, Ahmad, and Amran (2016) studied Female members in BODs and FRQ in Nigeria context. Participation of females in business decision-making BODs are gaining traction around the world. This research aims to examine the role of female directors on the BOD of corporate in improving the FRQ in Nigeria's listed non-financial companies. The study analyzed one hundred and one (101) non-financial enterprises for the period of five years i.e. from 2010 to 2014 using the econometric technique of the ordinary least square approach. The findings show that female presence in BODs is not substantial, although it is favorably associated with FRQ for the less presence of females on corporate BODs. As a result, popular monitoring features are devalued. Board independence and managerial share of ownership, on the other hand, were both favorably significant. The existing amount of women on boards implicitly limits their monitoring role

as well as their impact on improving FRQ. Therefore, enhancing the female representation in BODs, as well as regulatory changes harmonizing multiple codes of corporate governance, increased industrial experience, and financial expertise, are all factors that women possess that may have a favorable influence on FRQ in publicly traded non-financial companies.

Using panel data from Spanish publicly traded companies, Pucheta-Martínez et al. (2016), examine whether the gender diversity of ACs (henceforth, ACs) has an impact on the FRQ. The sort of opinion gained in the audit report is used to assess a company's FRQ. They estimate multiple audit opinion panel data models and adjust for elements that are generally found to influence audit opinions. This study supports ideas and hypotheses that the higher the female presence on ACs, the lower the possibility of qualification avoidable mistakes, failure to comply, or insufficient information. The proportion of female directors on ACs, the proportion of independent female directors on ACs, and the proportion of ACs chaired by women, according to the findings, all improve the probability of increased accountability by having provided audited financial statements with uncertainties and scope-limiting qualifications.

In the context of emerging economies, del Carmen Briano-Turrent and Poletti-Hughes (2017) investigate whether family firms are more in compliance with principles of corporate governance as compared to non-family businesses. From 2004 to 2010, they used a unique data sample of eight hundred and twenty-six (826) observations from the top-ranking listed companies on the stock exchange indices of four emerging economies i.e. Mexico, Chile, Brazil, and Argentina. They believe that family businesses will develop effective corporate governance methods to compensate for the lack of the inefficiency of a regulatory system, as well as to address the agency problem that exists among majority and minority shareholders. In addition, they offer a regulatory index for corporate governance based on the region's institutional and legal structure. According to the findings, family firms had a higher corporate governance index. They revealed that board composition (CEO duality, size, and independence) has a significant influence on the corporate governance index, but that it does not reduce family firm compliance with corporate governance.

Previous corporate accounting scandals, according to Kemebradikemor Embele (2019), have cast doubt on the accounting profession's integrity and significance. In light of this, researchers looked into the impact of board qualities on the FRQ of publicly-traded industrial enterprises. The study was guided by a deductive research approach, a multi-method quantitative research design, and a positivist research philosophy. To summarize the data and draw inferences about the population investigated, descriptive and inferential statistics were used. The Generalized Linear Model Regression was used to analyze the assumptions in this study. At a 5% significant level, board competence was found to be statistically significant and positively connected with FRQ, but board diversity and independence were found to be statistically insignificant related to FRQ. The findings reveal that board characteristics have a slight effect on FRQ. As an outcome, this study advocated for reducing the number of non-executive members on the BODs to cut costs on management.

Regarding the study done by Pucheta-Martínez et al. (2018), Increasingly, society, the media, politicians, businesses, lawmakers, and academics are interested in how gender diversity of boards affects a company's decisions. Because several countries have implemented voluntary regulations to restrict and enhance gender diversity on corporate boards, this notion has been established. The objective of this study is to look at previous literature on the gender diversity of boards as a governance structure tool and their impact on corporate social responsibility reporting, firm performance, and FRQ. Using stakeholder and agency theory, they explored the relationship between the representation of female members on BODs and FRQ, disclosure of corporate social responsibility, and firm performance. This study offers academics a methodology for analyzing the benefits and drawbacks of having female members on BODs in terms of the following specific business outcomes: corporate social responsibility reporting, firm performance, FRQ, and disclosure. Shamsul Nahar Abdullah and Ismail (2016) investigate whether the presence of females on BODs and ACs is linked to a reduction in earnings management methods, as well as whether women are more probably to fit into place in income-reducing (conservative) as compared to income-increasing (aggressive) earnings management. According to the study, the association between female presence on BODs

& ACs and earnings management and family ownership is a moderator. The research looks at non-financial companies that were listed on the Bursa Malaysia stock exchange for four years, from 2008 to 2011. Additionally, the research shows that family ownership has little effect on the motivation to control earnings, regardless of whether there is the presence of females on the BODs or the AC. The result of this study revealed that the female presence in BOD is not linked to lower-earning management, and the presence of women on ACs is negatively linked to earnings management. The data show that family ownership appears to have no connection with the presence of females as board members or AC members to affect the conservative approach to earnings management. This study adds to previous research on the impact of the presence of females as members of the BODs on earning management of a family-owned company. Furthermore, a study by Shamsul Nahar Abdullah and Ismail (2016), concentrates on the reduction of earnings management in family-owned companies rather than the inclination of earning management.

The female presence in BODs has an impact on the financial success of both family and non-family companies in the Jordanian economy is investigated by Saidat et al. (2019). For the period of six years i.e. from 2009 to 2015, a sample of one hundred and three (103) public companies of Jordanian listed on the Amman Stock Exchange was chosen. The study employed a quantitative approach and used panel data methods. Ordinary Least Square Regression was used as an econometric technique to examine the model on the sample data. The financial performance was evaluated using the proxies of Tobin's Q and ROA. According to the findings of this research, the nomination of female members in the BODs has no direct impact on the financial success of family-owned enterprises. Female directors, on the other hand, were found to have a significant and negative impact on the financial performance of non-family organizations. This study examines the influence of female directors on the financial performance of family-owned corporations in other countries and cultures too. Appointments based on qualifications and skills have a higher chance of succeeding. Jordan is a little-studied market where the influence of the presence of females as a member of BODs on firm success has to be looked into more thoroughly. More research is needed to discern the influence of the

presence of females as a member of BODs on family and non-family businesses, particularly in the area of their employment circumstances.

According to J. Chen, Leung, Song, and Goergen (2019), investigate this research questions why it's important to have a female on BODs: The significance of female directors in lowering the overconfidence of male bosses They propose a novel rationale why female board representation might be necessary. They found that male bosses at businesses with female directors are less probable to have depth options, indicating that the boss's overconfidence in the prospects of the firm is mitigated by the presence of women in the boardroom. Furthermore, they argue that in organizations where male boss hubris is widespread, female board participation is critical. In industries with a high frequency of overconfidence, the presence of a female in the BODs is linked with less aggressive investment strategies, enhanced acquisition judgments, and stronger financial success, which supports our argument. In the aftermath of economic crises, they also see a market failure. Companies having an inadequate number of female presences in BODs have less financial performance as compared to those companies having an adequate number of female presences in BODs.

Ararat and Yurtoglu (2021) study the association between female involvement in BODs and firm valuation and firm performance in Turkey listed companies for one hundred and forty-seven (147) companies for seven years i.e. from 2011 to 2018, emphasizing primary data encompassing the great numbers of publicly traded companies. They find little evidence that female directors can anticipate firm value and profitability based on broad criteria that are routinely requested or enforced by authorities. Female involvement in BODs, on the other hand, is linked with a greater value to the firm when they engage more proactively in board structures through board committee memberships and serve on these committees in significant numbers. Female directors from wealthy families are linked to increased corporate value. Female independent directors have been linked to higher profits. They also investigate three potential avenues through which female directors can affect business outcomes, discovering that having more female involvement on BODs and executive committees makes it easier to produce high-quality financial

statements. They also compare female filmmakers to male directors and find no systematic differences.

According to Wowak et al. (2021), why should governments demand a gender quota of more female board representation? Based on data from over four thousand product recalls, researchers recently discovered that companies with more women on their BODs are significantly faster to recall very dangerous defective medical devices. Adding just one female director to the BODs with no women did not hasten recalls, but increasing from one to two, two to three, and so on resulted in ever-faster recalls. This is preliminary evidence that increasing the number of women on corporate boards can increase customer safety. Study findings are supported by data from other situations; it's tempting to assume that governments should enforce a specific level of female board presence, particularly in consumer product categories like medical devices, food, toys, and vehicles. However, researchers believe that policymakers should carefully consider the intended and unexpected effects of legislating board membership based on gender. Meanwhile, astute businesses will see the benefits of increased female board representation and seek it without government involvement.

Shoorvarzy and Tuz (2011) found that the information needed to make economic decisions in the capital market must be of adequate quality. As a result, it's only reasonable to investigate the aspects that influence the FRQ. The goal of this research was to determine how management efficiency (as an internal factor) influenced FRQ. In this situation, the expected operating cash flow was used to evaluate the FRQ. To do so, 100 firms were examined with conditions on the Tehran stock exchange for seven years i.e. from 2001 to 2008. This experimental study is based on genuine financial data that has been audited. After gathering data from the stock exchange's official web page and a compact disc, descriptive and analytical statistical methods (including normality, homoscedasticity, and residual independence) were employed to test the hypothesis. Subsequently, a correlation analysis was conducted among these two variables. The finding indicates that the FRQ in organizations is influenced by management efficiency.

During the period of ten years i.e. from 2009 to 2018, Tanko and Siyanbola (2019),

explore the influence of the AC on the FRQ of some selected listed corporations on the Nigerian Stock Exchange (NSE). The study uses the ex-post facto research design and the census sampling technique to arrive at the samples that comprise three conglomerate firms and nine oil and gas firms. This research utilized the Modified Jones model of discretionary accrual to represent the FRQ while AC size, AC busyness, and AC gender diversity proxy AC attributes. A secondary source of data from sampling firms' financial reports is used in the study and uses multiple regressions for data analysis. According to the findings of sample data that the busyness of AC has a positive and significant effect on FRQ and the size of AC has a negative and significant effect on FRQ. This study reveals that AC members should be encouraged to occupy directorship positions in other firms since it enhances their ability to improve the financial report quality.

The importance of female directors in managing FRQ is investigated by Lara et al. (2017). The presence of Female members in BOD is engaged more in the financial reporting process as compared to their male members. Furthermore, a growing body of economics and finance research questions regarding females in a role of leadership differs primarily from their male counterparts. They re-estimate the relationship between the presence of female members in the BODs, gender inequities, and the quality of accounting information. As per a wider set of United Kingdom businesses, a higher ratio of women amongst independent directors is highly linked to poorer earnings management practices. The link diminishes when researchers are interested in corporations that do not discriminate against women in directors on the board. Lastly, they reveal that gender stereotypes are linked to lower quality earnings. Their findings are consistent with previous evidence that males and females perform similarly in highly specialized roles when executing the same work and that discrimination is a crucial factor driving the link between female directors and accounting quality.

There is also another research regarding analyzing the impact of board and AC characteristics (membership, accounting expertise, ethnicity, gender, age, and tenure) on manipulation in FRQ in family-owned companies of two hundred and fifty-three (253) Malaysian companies for the period of three years i.e. from 2013 to 2015 (Mohammad & Wasiuzzaman, 2019). For the dimension of FRQ, they

used the method of the modified Jones Model by Dechow, Sloan, and Sweeney (1995). The results of this research study found that some characteristics of the committee of audit i.e. ethnicity, gender diversity, and tenure are significantly associated with FRQ. Additionally, the research study comes to the point that those companies that have a family member as a chairperson of the board are having a positive and significant effect on FRQ as compared to those companies that have a non-family member as a chairperson of their board. They found a positive significant association among family persons as a chairperson of the board and FRQ.

Another study focuses on the female presence on BODs and its influence on the performance of the financial part of companies (Singh et al., 2019). They analyze their results on the data of forty-one Indian companies. Their sample data included those forty-one listed companies on the Bombay Stock Exchange; the selection of these forty-one companies is based on having made an Initial Public Offer in the previous recent period. Their data analyzes the period from 2012 to 2016. The study used two index values based on gender diversity i.e. Shannon Index and Blau Index. For measurement of performance of firms, they used only marketing base performance measurement i.e. Tobin's Q as a proxy. Their Indian Law supported that companies' boards must have at least one female member in BOD. Their results reveal that hypothesis regarding gender diversity on board and its influence on firm performance was not accepted. Results found that firm performance and gender diversity in board management had no relationship.

Deszo and Ross (2008), analyze the efficiency and effectiveness of women as a part of top management and executive team and their effect on the financial performance of the firm. For data analysis, they used USA's top 100 corporate firms. For the measurement of firm performance, they used the measurement tool Tobin's Q as a proxy. They found a positive and significant correlation between the presence of women members in the upper management and executive level but below the level of the CEO position. And also found the positive and significant impact of female presence in top management and executive team on firm performance in innovative institutes. The result of this study showed that females in upper management and executive team are better qualities in managerial.

Mnif and Cherif (2020) look into the impact of having a female presence on BOD on earnings manipulation. Results are analyzed on a sample of one hundred and ninety-eight (198) companies' annual data from SBF-120 family-owned listed enterprises from eight years i.e. from 2010 to 2018. The study hypothesis was tested and analyzed using both multivariate and univariate analyses. The findings show that having a female presence on BODs lowers the level of earnings manipulation. Although independent female board directors have a negative link with earnings manipulation, family-affiliated female board directors have the inverse relation. Furthermore, changing the gender quota has been shown to improve the negative association between earnings management and gender-diverse corporate BODs. These findings appear to be consistent across the study's gender diversity and earnings management factors, indicating that they are credible. In this study, Mnif and Cherif (2020) revealed that the audit size of the corporation in a joint auditing situation affects the link between women's female presence on BOD and earnings management differently. The findings of this study are significant because they look at the link between female members as a participant in the boardroom and manipulation in financial reporting in a similar population of family control businesses where members in board and shareholders have similar aims for attempting to manipulate earnings in one of the world's most family-owned and managed countries.

Campbell and Mínguez-Vera (2008), another research study did relate to the relationship between the ratio of females in management and firm performance. They studied the relationship using Spanish firms as a sample of study and for estimation using the techniques suitable for Panel data. Findings of their results showed that the hypothesis regarding gender diversity's impact on firm performance was accepted. According to findings presence of females in management has a positive and significant influence on the firm performance of Spanish firms. They also found that the hypothesis regarding opposite causal relationships is not accepted, as a result, shows insignificant value. The results find that Spanish investors have an effect on female members of management and also have an effect on stock prices.

According to the study done by E. Vieira and Madaleno (2019), they studied on

attributes of governance of corporate and its influence on Companies' financial reporting manipulation and considered the family ownership effect. They used data from forty-nine Portuguese-listed firms from the period of 2002 to 2017. They used unbalanced panel data. Empirical findings disclose that there is a positive and significant association between financial reporting manipulation and corporate board. According to the presence of women on BOD can decrease manipulation in FRQ. The outcomes of their study are reliable with the hypothesis that manipulation in FRQ is less in Companies having more family ownership ratio as compared to those companies which have less ratio of family ownership.

Arioglu (2020) analyses if the representation of individual female directors has an impact on earning quality in underdeveloped countries. This study uses the estimated technique of the GMM approach to handle potential missing variables and reverse causality issues. The data sample is consisting of all manufacturing companies listed on the Borsa Istanbul stock exchange for twelve years data i.e. from 2009 to 2017. According to the findings of this study, having more members of female in a company BOD has no significant influence on earnings management. The presence of Female members in BOD, who have these certain characteristics such as handle of workload, industrial or professional experience or knowledge, and members of AC have the same percentages. Unexpectedly, the statistics indicate a negative link between both the numbers of women directors who are linked (unassociated) with leading earnings management and business groups. The findings investigate the correlation between the number of female directors and earnings management in an institutional and cultural framework that is significantly different from most people in previous female director studies. Furthermore, this research focuses on the presence of females as a director affiliation and finds data that defies the conventional wisdom concerning the direction of the association among earnings management and the percentage of attached female directors.

Moses (2019) studied the link between the composition of the AC, the features of the BODs, and the FRQ issued by Nigerian-listed commercial banks. The study's sample data was obtained utilizing the contents analysis approach from the financial reports of fifteen (15) financial institutions throughout the ten years, from 2009 to 2018. The data for the study was examined using the Jones quality

of accruals model for measuring earning management and for the econometric and estimation ordinary least square technique of regression. According to the results of this study, having a more independent AC had a significant and positive impact on FRQ. Moreover, BODs size had a positive and significant association with the company of the FRQ. Finally, the research revealed an association between FRQ and the composition of the board. Therefore, it is determined that, while the effect of AC composition on FRQ is favorable, it is far too small to deliver the desired outcomes. Furthermore, the size and composition of a BOD have little influence on the FRQ of a commercial bank. As a result, the AC's composition and responsibilities must be revised and enhanced to improve the FRQ, particularly in terms of their monitoring and oversight function on financial reports. The BOD size and composition of BOD of commercial banks of Nigeria should be reviewed, examined, and altered, and the BOD should be given greater opportunities to engage in the process of FRQ.

The auditor's goal, according to Shiri et al. (2018), is to detect probable misstatements and inaccuracies in during the FRQ process. Auditors use audit evidence to provide reasonable certainty regarding FRQ. Due to the decreased danger of accounting fraud, studying the FRQ by family businesses is more important as compared to studying the FRQ by non-family businesses. As a result, the goal of Shiri et al. (2018) study is to look at the association between FRQ and family ownership structure from the standpoint of auditing. The study findings examined the research hypotheses using a sample of two hundred and twenty-one (221) listed companies on the Tehran Stock Exchange of Iran economy (one hundred and sixty-nine non-family firms and fifty-two family firms) throughout a five annual period from 2011 to 2015. Based on using the econometric technique of multivariate regression analysis for sample data, the conclusions of this study suggest that audit risk is lower in family firms as compared to other non-family businesses. Similarly, family firms appear to pay lesser audit fees than non-family enterprises. The authors of this study also revealed that auditors pay more attention to family firms, meaning that for these businesses, auditing is extremely important. The research focuses on FRQ and family-owned companies listed in an emerging economy like Iran, but the findings could be relevant to other developing countries

as well, because the Iranian stock exchange has some unique characteristics not present in other equities markets, especially in the Middle East countries.

Boonlert-U-Thai and Sen (2019), study whether family-owned businesses have a higher FRQ as compared to other enterprises and whether corporations operated firms run by members of the founders have an even higher FRQ. This study also hypothesizes that capital markets place more emphasis weight on revenues than book value for founder family-run businesses in Thailand, depending on the results from the basic accounting valuation model, because these businesses report a much more reliable earnings number. According to the authors, Earnings are valued more as compared to book value by financial institutions for founding family-run enterprises. When compared to book value, the data confirm the premise that more information is conveyed by the present earnings of founding family-run firms regarding cash flow and future earnings as compared to those of non-family and family businesses. The findings of that study also show that the founding family enterprises' profit persistence and accrual quality are higher than those of other enterprises. The concept that family-owned companies have more opacity in their lower profit quality, disclosures, and a higher implied cost of capital of a firm is challenged by this study. According to the authors, these findings support the controlling owners' shareholder interest alignment theory rather than the entrenchment hypothesis. According to the findings, Thai firms run by founding family members provide more consistent income and may be utilized to calculate a company's value. Furthermore, the authors offer a new methodology based on the qualities of reported accounting statistics in terms of valuation, rather than depending on the earnings persistence and accrual quality tests available in the literature.

Holtz and Sarlo (2014), investigate the impact of various characteristics of BOD on FRQ in developing economies like Brazil. The data sample for this study is one hundred and twenty-nine companies from 2009 to 2013. The characteristics of BODs includes in this study are an executive director; gender diversity in BOD, Independent members in BOD, and the separation of the responsibilities of the chairman. The findings revealed that executive director; gender diversity in BOD, Independent members in BOD, and the separation of the responsibilities of the

chairman had a positive and significant influence on FRQ or accounting information quality. Stronger governance frameworks, according to these studies, have a positive and significant impact on the FRQ in a developing economy like Brazil.

The influence of gender diversity, experience, and size of AC on firm financial performance among Kenya-listed firms was investigated by Felo, Krishnamurthy, and Solieri (2003). Multiple regression analyses hypothesis testing was used in the research, which spanned five years. According to the outcomes of the study, having encountered audit members increased monitoring of quality and reduced fraud of financial. The studies also revealed that the size and experience of the ACs had a significant and positive impact on the financial performance of firms of Kenya-listed companies.

Moses, Ofurum, and Egbe (2016) investigated the ACs characteristics and the FRQ in publicly traded Nigerian banks. The study employed five years of documented information from fifteen banks' annual reports and financial statements, which have been examined using a modified Jones model and correlation. The finding showed that the size of the AC has no influence on the FRQ in publicly traded Nigerian banks. The document advocated, among other things, that the AC be significantly expanded; with financial and accounting experts comprising the majority of the members.

The impact of the AC on FRQ in Nigerian traded businesses was studied by Alawaqleh and Almasria (2021). Sample data for this study was gathered from the one hundred and thirty-one (131) listed companies' annual reports for the periods of six years from 2006 to 2012 and evaluated using correlation and ordinary least squares (OLS) regression. The results reveal that AC characteristics such as meeting attendance, size, independence of members, financial and accounting knowledge expertise, and several meetings frequency had a positive, favorable and significant impact on FRQ of Nigerian traded businesses.

Umobong and Ibanichuka (2017) evaluated the relationship between FRQ and AC compositions of beverage and food firms using quantitative and secondary data from the listed companies on the Nigeria Stock Exchange. FRQ, as evaluated by

relevance and reliability, was regressed on financial competence and AC independence. The findings revealed that increasing AC independence, members' financial expertise, firm age, and meeting frequency improves FRQ. The results revealed that when the size of the AC and the size of the firm grow, the company's FRQ suffers.

Moses (2019) looked at how the composition of a bank's BODs influences the company's FRQ. The study evaluated and employed panel data estimation and ordinary least square (OLS) regression techniques on a sample of fifteen (15) commercial banks for the period of ten years from 2005 to 2016. The study found that the composition of the board had a positive and significant impact on the FRQ of Nigerian commercial banks, with discretionary accrual, a proxy for FRQ, being positively associated to board size and independence.

Between 2011 and 2016, M. A. Ibrahim and Jehu (2018) looked at the association between FRQ and board composition using sample data from five hundred and seventy-six (576) Nigerian companies. According to the findings of the multivariate regression analysis, Non-executive directors' proportions, as well as independent non-executive directors' proportions, show a negative and significant link with abnormal accruals, which improves FRQ. Further results revealed that the board size was not statistically significant.

Majiyabo, Okpanachi, Nyor, Yahaya, and Mohammed (2018) investigated the impact of AC meetings and expertise on the FRQ of Newyork commercial banks. The modified Jones (1991) model was used to quantify FRQ in the research, which used data from the annual reports of commercial banks of Newyork Stock Exchange and the data was financial information of fifteen commercial banks for ten years, starting from 2007 and ending year is 2016. The AC meeting had a favorable but statistically insignificant influence on FRQ. Furthermore, the AC's expertise had an adverse, negative, and significant influence on the FRQ of banks.

According to Al Azeez, Sukoharsono, and Andayani (2019), different characteristics of BOD influenced the FRQ of corporations. For achieving this purpose, they used a sample of International Oil and Gas Corporation in the world. They used data from seventy-one companies from the top two hundred and fifty (250)

corporations. They studied their results on data of one-year reports i.e. 2016. For studying the characteristics of the board, they used the proxy of Size, board independence, presence of a female inboard, and dual position of CEO i.e. CEO duality. According to their results, the hypothesis regarding the influence of board size on manipulation in FRQ was rejected, because the results showed insignificant values. In this study, the hypothesis regarding the impact of the presence of females on board on reducing manipulation in FRQ was accepted. Their findings showed that the presence of females on board had a positive and significant impact on FRQ

Adams and Ferreira (2009), examined and investigated the research study on the correlation between gender diversity of management and firm performance and also examined the influence of the presence of management and BOD's gender diversity and influence of it on the performance of firms. They resulted in that fraction of females in board management had a positive and significant impact on the performance of the firm. The existence of females in executive management has a significant effect on onboard performance and also affects the outcome of the company. The findings of the study results initiate that the existence of women on board has a positive effect on governance and monitoring of corporate management. One of its reasons is that females are punctual and regular as compared to males. But this doesn't mean that raising the women ratio on the management board had a positive effect on firm performance. The findings of the study disclosed that females in board management can give more effort to control and monitoring the management and governance structure of a corporate. One of the main reasons for this is that females are more punctual and regular than men. But this doesn't mean or show a significant result that the existence of females in executive management will give a positive relationship to firm performance.

Another study investigates and examines the link between gender diversity on board and its impact on the firm performance of companies (Markóczy, Sun, & Zhu, 2019). They study this relationship by using the status characteristic theory. The sample of their study was Chinese listed firms for six years. They used unbalanced panel data that includes five thousand three hundred and ninety-six (5396)

firm-year observations and eighty-six thousand and nineteen (86,019) director-year observations. According to the status of women on the board, management is lower in position as compared to their male partners. And they found in their results that women have a status ranking lower than eighty percent. They resulted that women's status affected board interactions. They determined different sources and ways according to which status value of women and men on BODs influence board interactions. They also studied different mechanisms of gender diversity onboard and how these different mechanisms influenced firm performance, managerial spending, firm risk, and social responsibility performance.

Hussein and Kiwia (2009) analyze the association between the performance of firms and the diversity of gender in board management. The sample of their study included data from two hundred and fifty US firms, and the period of data analysis is six years i.e. from 2000 to 2006. Their findings showed that gender mix and diversity significantly and negatively relationship on firm performance. Proxies used for measuring firm performance are for accounting based is Return on Assets and for marketing based is Tobin's Q. Whereas, for the measurement of female representation on board, used the Shannon index. The results had shown the significance and positive association between firm performance and gender diversity. For that reason, it employs those diverse methods and proxies to provide different outcomes and effects using the method of the "financial event study".

Another study done by Kang, Ding, and Charoenwong (2010), has examined the association between the appointment of female directors and investors' response and performance of firms. According to them, investors have generally positive significant effect on the selection of females as a director of the board. They used a sample of firms of Singaporean. Researchers in this study used the gender diversity theory in the context of Asian companies also. They also investigated and examined whether different types of investors invest in companies according to the reaction of different positions of females in BODs and also positions in different management committees. The positions of females in BODs and indifferent management teams had influenced the attraction of investors.

Another study done by Jurkus et al. (2011), examined and investigated the diversity of genders in top management teams e.g. BODs, and executive committees. They look at gender diversity through the lens of agency theory. The sample consisted of Fortune 500 firms. Their research found that agency cost is low for those corporations which have a high proportion of females in their upper management team. From the results, they found that gender diversity in upper management teams had a positive impact on the external governance structure of companies. From the findings, they suggested that an increase of females in upper management teams can have a significant influence on corporations where strong outside governance is not present.

Dobbin and Jung (2011) studied the presence of women in board and executive management and its impact on firms' performance. For firm performance measurement, they studied it on a financial and marketing base. For the financial base, Return on Asset is used as a proxy, and for marketing performance, they used the proxies of Tobin's Q. From the findings, they concluded that companies having diversity in gender in board management had a significant neutral and negative influence on the performance of firms. And they also found that this effect is also shown in declining stock performance. From the results, they found that in most of the cases investors avoid, are biased, and ignore investing in those corporations which have more proportion of female directors as compared to other companies, and that situation leads to a decrease in stock prices of the company in the market.

According to Zalata et al. (2018) the attendance of female financial experts in AC has a significant positive effect on earning management as compared to male financial experts. For the Sample, they used the data of yearly observations of five thousand six hundred and sixty (5,660) US-listed companies for the period of six years i.e. from 2007 to 2013. For analysis, used least squares regressions. This study's results recommend that gender diversity in AC may have influenced manipulation in FRQ.

Another study was done by Chijoke-Mgbame et al. (2020a), and also focused on the influence of females' presence on board and AC on the Financial performance of the company. The sample of the study involved seventy-seven firms in an African

context. Their findings of the study had been shown that female presence as a member of BOD and AC had a positive and significant influence on the financial performance of firms. According to their outcomes, the firms having the presence of two or more women on their board a director had strong governance as compared to other firms (Nyeadi et al., 2021). And results further revealed that those firms had a significant, favorable, and positive influence on the financial performance.

Lai et al. (2017) explore the nature of the relationship between female presence in BOD and audit quality using a data sample of one hundred and twenty United states listed companies for the period of ten years from 2001 to 2011. Their findings show that the presence of female members in BODs is expected to have a higher proportion of audit quality, resulting in a higher cost of an audit for companies with a higher proportion of female presence on corporate boards as compared to those companies with all-male boards. The audit quality has a significant impact on a company's FRQ, and boards with more female members on their board or management are more likely to have a higher audit quality.

Al-Jaifi (2020) investigated and examined the link between a firm's financial performance and the presence of gender diversity in the BOD. The sample of this study was ASEAN banks and the sample data is based on year-wise observations of five years i.e. from 2011 to 2016. The method used in this study was "Generalized method of moments (GMM) regression". The findings show that the hypothesis is accepted regarding the presence of gender diversity in corporate management and governance and its impact on the firm performance of banks in the ASEAN context. The results of the study explained that the banks, which had a definite ratio of women as directors in their corporate governance, had a significant and positive influence on the bank's financial performance.

Wahid (2019) looked at the link between FRQ and gender diversity in board management and also examined and influenced the impact of gender diversity on FRQ. From the results, they found that the hypothesis accepted is regarding the existence of females in the executive teams and its impact on a firm's performance. From the findings, they found that an increase in the female ratio on the management board had a positive and significant influence on the performance of firms.

And they also found that an increased ratio of the presence of women in corporate board management had a decreasing effect on the possibility of manipulation in financial reporting. They resulted that decreasing rate of the possibility of manipulation in financial reporting may be a consequence of modification of the dynamics of the board group.

Oradi and Izadi (2019) look at the relationship between female presence on ACs and financial restatements. This study utilizes a logistic regression model to test a research hypothesis connected to the participation of females as a director on the AC and the occurrence of financial restatements, which used a sample of six hundred and eighty-three (683) firm-year observations among listed companies of Iranian stock exchange for the period of five years from the year 2013 to 2017. The results revealed that female presence on ACs reduces the chances of financial earning manipulation.

According to W. K. H. Omer and Al-Qadasi (2019), the monitoring role of the BODs has a significant impact on corporate governance control tools, especially in economies with limited external procedures. The board's gender composition can influence the quality of this monitoring work and, as a result, the firm's financial performance. This is part of the economic justification for having more than one woman on BODs, while ethical issues can also be raised. While board gender diversity has gained considerable attention in recent years, the vast majority of empirical findings are predicated on a report from the United States. This study looked at the link between board gender diversity and financial performance of firms listed in the Spanish region, a country with historically low female labor participation but recently passed bills to increase fairness and equality. They use panel data analysis to study the problem and discover that gender diversity, as determined by the number of women on boards of directors and the Blau and Shannon indices, has a beneficial impact on business performance, but that the adverse causal relationship is not strong. Those companies do not punish on basis of a low percentage of female presence as a member in BODs, because this female presence can lead to enhanced economic gains.

Bae and Skaggs (2019) examined the impact of female representation in corporate

management on firm financial performance. They used the sample of the Korean Workplace Panel Survey; data is for the years of three periods i.e. 2005, 2007, and 2009. The findings from the result showed that the presence of diversity in the context of gender in corporate executives has a “U-shaped” type of association with outcomes and productivity of firms in the production industry. On the other hand, the study also found that the correlation between gender diversity in corporate management and firm outcomes in service industries is a curvilinear relationship. And then study included policies related to a family-friendly workplace and how these policies had moderated the link between the performance of firms and gender diversity in corporate management.

### **2.7.1 Literature review in Pakistan Context**

A. W. Khan and Subhan (2019) investigated and examined the influence of the presence of a female on board and audited on the financial performance of Pakistani listed companies. The study sample was comprised of companies that are listed on the Pakistan Stock Exchange (PSE) 100 Index. The PSE-100 index is chosen for its sector representation and market capitalization. From 2008 to 2017, the study’s sample consisted of Pakistani publicly traded enterprises. According to their findings, having a higher proportion of females on the BODs helps the company operate better.

M. K. Khan, Kaleem, Nazir, and Saeed (2013), have studied various ownership models, incorporating family businesses. However, it is still questionable how family ownership affects the firm’s performance by impacting the debt agency problem. This study looks at the impact of family ownership and agency cost of debt in Pakistan. As a result, this study addresses the issue of whether debt holders’ interests are protected in family-owned businesses in Pakistan. The share of business assets not linked to fixed equipment and machines, as well as the liquidity of firm assets, are used as proxies to determine the agency cost of debt. They revealed that leverage, blockholder ownership, and family ownership lower the agency’s cost of debt, whereas profitability boosts it. From 2006 to 2010, a sample of 100 industrial companies listed on the Karachi Stock Exchange was studied utilizing the

fixed effect and random effect approaches of generalized least square regression. Their research is beneficial to both investors and debt holders. The findings have practical consequences in that debt holders can grant debt to family-owned businesses without worry of debt agency because such businesses have the lowest debt agency problem. Meanwhile, investors seeking long-term performance may consider investing in family-owned businesses, as these businesses strive for long-term success.

Ud Din et al. (2021), look into the link between female AC chairmen's experience and FRQ. It also investigates the moderating effect of female AC chairmen's experience on the links between internal control, internal control system components, and FRQ. From 2010 to 2016, this study looked at three hundred and two (302) companies that were listed on the Pakistan Stock Exchange. Annual reports are mined for information on the internal control system, FRQ, as well as other corporate governance indicators. According to the findings, the accounting expertise of female AC heads improves FRQ more than their male colleagues. Furthermore, the accounting competence of female AC heads helps to improve company governance and internal control systems i.e., communication, information, control activities, and Control Environment. This study has ramifications for investors and regulators. Female AC chairs' accounting and financial expertise improves monitoring, which increases and enhances the confidence of investors and the value of shareholders. The requirements for AC chairs should be more stringently enforced by the regulator.

Sikandar and Mahmood (2018) investigated the association between corporate governance. Almost 70% of publicly traded cement companies are family-owned. Due to international development projects in association with China, such as the China-Pakistan Economic Corridor (CPEC), Pakistan's cement sector is booming. Furthermore, family-owned businesses have a long history of offering their best to the overall economic growth of Pakistan, going back to the country's independence. The firm's market value is a measure of its overall performance and health. This study examines data from the annual reports of corporations from 2013 to 2017, which includes corporate governance measures such as AC composition, membership of BOD, and Size of the board. The firm value is measured as

Tobin's Q. The panel least squares method is used in the analysis, which is done in Eviews-9. The findings show a positive relationship between corporate governance parameters and firm value, which is consistent with several other studies conducted in the same geographic area. Future studies should take a closer look at the financial performance of firm measures in the cement business, especially in light of the massive projects that are coming ahead.

Based on information from Pakistan, Yasser (2012), investigated the association between female presence in BOD and a firm's financial performance. They used empirical data from companies in the KSE 100 Index for the three years i.e. from 2008 to 2010. The results revealed that only 3.33 percent of CEOs are female, and only 25% of the companies in the sample have at least one woman on the BODs. The research implemented the Two-stage least-squares estimation technique to investigate the impact of gender diversity on firm performance. Economic Valued Added (EVA) was utilized to analyze firm financial performance in this study. Their findings reveal that there is no significant link between board gender diversity and economic success in Pakistan. This suggests that the business case for board gender diversity isn't supported in this sample.

Throughout 2007–2014, Faisal Shahzad et al. (2019b), empirically study the influence of two monitoring mechanisms: FRQ and family ownership on investment efficiency for listed companies on the Pakistan Stock Exchange. At the firm and year levels, this study used two-dimensional pooled OLS clusters, feasible generalized least square regression, and two-stage least square regression methods. The data imply that higher investment efficiency is linked to higher FRQ and family ownership. Furthermore, improved FRQ and family ownership minimize over- and under-investment, according to the authors. For family-owned and controlled firms, the impact of FRQ on investment efficiency is higher (weaker). For alternative estimation approaches and metrics of FRQ and family ownership, the results for these specific estimations are robust. The study incorporates both behavioral and agency theories, and so adds to the body of knowledge in the following ways. Faisal Shahzad et al. (2019b) begin by looking at the link between FRQ and investment efficiency. Second, Faisal Shahzad et al. (2019b) look at how family ownership affects investment efficiency. Third, they investigate whether family

ownership has a moderating effect on the link between FRQ and the investment efficiency of family and non-family enterprises in emerging markets that are less regulated.

According to Gulzar and Wang (2010), many economies around the world are built on the backs of family-owned companies. Family businesses have faced numerous obstacles as a result of increased growth and globalization. The way they deal with them can determine whether the companies succeed or fail. Many of these issues can be addressed by implementing sound corporate governance structures. The necessity of corporate governance in family-owned businesses is discussed in this study. This research looks at the theoretical foundations of corporate governance in Pakistani family enterprises. The concept of effective corporate governance must be introduced to ensure the continuity and viability of family-owned enterprises that contribute to the economic development of Pakistan. More board committees, independent directors and non-executives, company codes, and bylaws should be added to a business's BODs. The governance structure of corporate ensures that family-owned firms are transparent enough then to satisfy a variety of stakeholders, including creditors, customers, and suppliers.

Mirza, Andleeb, and Ramzan (2012) focuses on the impact of the presence of gender diversity in BODs on the financial performance of a corporation. The authors of this study used a sample of three hundred and ninety-five (395) public listed non-financial companies on the Karachi Stock Exchange (KSE) in Pakistan. The period of the study used is five years i.e. from 2004 to 2009. The objective of the study is to investigate the impact of gender diversity in BODs on the financial performance of a corporation. Estimated results of the study indicated that the ratio of gender diversity of BODs is negatively connected to the financial performance of companies.

Through the dynamic panel estimate model of Umer et al. (2020), investigate the role of a gender-diverse company board, AC, and senior management in restricting earnings management techniques in light of gender socialization theory. They use the well-known Kothari, Leone, and Wesley model to estimate discretionary accruals (2005). They document the negative correlation of gender-diverse corporate

boards with earnings manipulating activities using a data sample of a hundred listed non-financial enterprises on the Pakistan stock exchange for the period of five years i.e. from 2013 to 2018. Evidence also shows that having a female member on an AC lessens the problem of earnings manipulation. Remarkably, the findings reveal that having gender-diverse BODs improves the effectiveness of women on the AC in reducing earnings management techniques. Furthermore, female CEOs are more likely to eliminate earnings management, resulting in more efficient and fair business decisions.

From the above literature review, this study find that there are very few studies done on theoretical and empirical analysis of female representation in board and AC, family ownership, and FRQ. But very limited studies have been done in the context of Emerging economies like Pakistan. From the review of the literature discussed above, a study will be done to resolve that puzzle. This study will focus on the female representation of BODs and AC on FRQ, and also analyze the moderating role of family ownership. The hypothesis taken out from the literature review is presented below.

## **2.8 Hypothesis Development**

The hypothesis was developed on basis of research questions and the research objective of this study. Therefore this study has five hypotheses. These all are explained in detail below:

### **2.8.1 Impact of Female Representation in BODs and AC on FRQ**

Several recent works of literature have paid attention to query regarding how the presence of female members on the BODs and AC can influence the FRQ. According to Labelle et al. (2010), the degree of poor FRQ diminishes with the growing trend of gender diversity in management and governance systems of organizations. According to the study by N. O. Omoro (2020), gender diversity on

corporate boards and executive management teams has a beneficial influence on the FRQ of the corporation (Al-Shaer & Zaman, 2016; Arun et al., 2015; Davis & Garcia-Cestona, 2021; Dobija et al., 2021; Pcheta-Martínez et al., 2018). According to Orazalin (2019), Gender diversity in corporate boards improves better practices for FRQ.

According to Chukwu and Nwabochi (2019), the AC is intended to play a critical role in ensuring the FRQ. Firms with gender diversity and financial specialists on the AC, according to Oradi and Izadi (2019), have a positive influence on FRQ. According to Human capital theory, Females perform better in monitoring roles, are more conservative, and make more ethical decisions, and these attitudes have a beneficial impact on FRQ (Abbasi et al., 2020; Firoozi et al., 2016; Oradi & Izadi, 2019; Rubin & Segal, 2019). The association between female executives and FRQ was also investigated by Kouaib and Almulhim (2019). According to their research, if women have financial knowledge and skills, their presence on the board or in the AC has a beneficial impact on the FRQ. Their study further revealed that firms with female directors were shown to be more conservative in their financial reporting practices, methods, and techniques. Jonty and Mokoteli (2015), used a sample of thirty publicly traded Nigerian companies between 2005 and 2007 to find that having a higher number of female directors has a significant impact on company financial performance and FRQ.

Previous research on gender diversity has demonstrated that having female directors on the AC improves the committee's objectivity and effectiveness. Firms with gender-diverse ACs had reduced tax aggression (Wahid, 2019), higher-FRQ (Kristanti, 2015; Reguera-Alvarado et al., 2017; Zalata et al., 2018), having lower practices of earnings management (Din et al., 2020); and decrease corporate fraudulent activities (Beasley, 1996; Salleh & Othman, 2016; Yang Wang et al., 2021). This demonstrates that appointing a female director as a member of the AC can improve the AC's effectiveness, and leads to improved FRQ (Carter et al., 2010; Solimene, Coluccia, & Fontana, 2017).

Female directors with non-business backgrounds and having financial competence can bring diverse experiences, information, and ideas to the boards they serve

(Hillman, Cannella Jr, & Harris, 2002). The various backgrounds and other demographic traits of the female board and AC directors improve efficiency in assessing risks and preventing financial fraud. In addition, female directors with a variety of backgrounds strengthen the AC's vigilance and improve the quality of disclosure. According to Din et al. (2020), having accounting experts on the AC improves the timeliness of FRQ. According to Dhaliwal, Naiker, and Navissi (2010), AC members' understanding of the industry and the economy improves the efficiency of the committee. Furthermore, the independence, gender, and financial expertise of AC chairs help to uncover problems timely and discourage restatements (Oradi & Darjezi, 2019). Gender diversity in BODs and the AC improves corporate performance and the FRQ (Chijoke-Mgbame et al., 2020a; Ud Din et al., 2021; Zalata et al., 2018).

Hashim, Ahmed, and Huey (2019) found that the presence of females in governance bodies like BODs and AC had a positive effect on FRQ. Another study done by Arun et al. (2015), found that female directors always work hard to get a true and fair view of financial reporting. According to them, having female members in top management seats has a significant and positive impact on the FRQ. Gender diversity on the board is positive and significantly associated with financial and non-financial information disclosure (Garcia-Sanchez et al., 2017). Women's superior monitoring abilities and risk-averse attitudes assist gender-diverse boards in ensuring better FRQ (Mustafa et al., 2020; Yang et al., 2019).

Krishnan and Parsons (2008) revealed that companies with more women as top executives have higher FRQ. Srinidhi et al. (2011) concluded that female directors have a positive impact on FRQ in a sample of US companies. Damak (2018) investigated the positive link between gender-diverse boards and FRQ in a sample of companies listed in the United States from 2002 to 2009. Another research by Arun et al. (2015), reveals that companies in the United Kingdom with a higher proportion of independent female directors on their BODs and AC have implemented more restrained financial reporting strategies. In a similar theme, Khlif and Achek (2017) found that having more female directors and independent directors improves corporate financial reporting and disclosure. Arun et al. (2015) examined the association between female directors and FRQ in the United

Kingdom-based study. They found that organizations with a higher percentage of female directors on their BODs and AC use more conservative financial reporting methods and have more conservative accounting standards than companies with a lower percentage of female directors. Another previous research has found that the gender of firm leaders or executives have an impact on corporate choices, with female executives having a different perspective and requesting different information than their male colleagues (Abbasi et al., 2020; Amorelli & García-Sánchez, 2020; Arun et al., 2015; Gull et al., 2018; Saidat et al., 2019). Female directors have completely different methods towards financial reporting monitoring and timely response. As a result, it's reasonable to suppose that the female members of the AC limit monitoring, lowering the FRQ (Lee-Hwei Khaw & Liao, 2018; W. K. H. Omer & Al-Qadasi, 2019).

According to Orazalin (2019), Females in BOD with little financial understanding or competence are not associated with FRQ, because these females do not know how to deal with financial reporting or disclosure. Their presence has a beneficial impact on the firm's performance but harms the FRQ. Gull et al. (2018) also reveal that when female directors' characteristics like knowledge, education, experience, skills, talents, and professions are taken into account, there is an unfavorable link between gender diversity and FRQ. Females in BODs harmed FRQ (Mathuva, Tauringana, & Owino, 2019; Umer et al., 2020). According to Ahern and Dittmar (2012), gender diversity and financial reporting have a negative association. This result is predictable because women's underrepresentation on boards just meets regulatory gender quota criteria (Green & Homroy, 2018). Firms in which females have low monitoring and controlling role, these firms show a negative influence on company performance and FRQ (Yadav & Yadav, 2021). Rauf, Johari, Buniamin, and Rahman (2012) demonstrate in their study that the presence of female directors in corporate boardrooms has a positive impact on manipulation of financial reporting, which increases earnings management. Both Shamsul Nahar Abdullah and Ismail (2016) in Malaysia and Damak (2018) in France found a negative relationship between these two variables in their investigations. Prior research, including Dobija et al. (2021), Aifuwa and Embele (2019), and Damak (2018), all

studies demonstrate a negative relationship between board gender diversity and FRQ.

However, there is also a large body of literature available in which there is no significant impact of gender diversity in the BODs and AC on company financial reporting. Krishnan and Parsons (2008), for example, concluded that gender diversity in senior executives does not affect the quality of financial reports. Similarly, Zalata et al. (2018) investigated whether the gender of directors has an impact on fully independent ACs' skill to restrict earnings management and thus their efficiency in monitoring financial reporting, and found that the proportion of females on the AC has no direct effect on earnings management. Peni and Vähämaa (2010) revealed no indication that female representation in ACs and earnings management has an influence. N. Omoro, Aduda, and Okiro (2015) observed no link between the director's gender and FRQ.

The reasons for having mixed results might be due to differences in culture, social norms, and values. Other reasons might be the ownership structure of companies, governance structure of board and AC, industry, and country specifics.

From the literature, the hypotheses are as below:

**Hypothesis 1: There is a positive impact of female representation in BODs on FRQ.**

**Hypothesis 2: There is a positive impact of female representation in AC on FRQ.**

### **2.8.2 Impact of Family Ownership on FRQ**

Family-owned businesses use a variety of methods to ensure that their financial reporting is error-free. Previous research on the impact of family ownership on financial reporting integrity has yielded varied results. Direct monitoring, stronger managerial integration, lower operational risk, deeper business expertise, and a better awareness of the link between the business owner, customers, and suppliers make family businesses less vulnerable to financial statement manipulation (E. Vieira & Madaleno, 2019).

Accounting manipulation, FRQ, and financial information disclosures are all studied in the family company study literature (Calabrò et al., 2020; Duréndez & Madrid-Guijarro, 2018; Tong, 2007; E. Vieira & Madaleno, 2019). Family business owners tend to convince investors as well as outsiders to buy non-controlling interests and to perform their responsibility role by preparing high-quality financial reporting data (Magnanelli, Nasta, & Pirolo, 2017; Peni & Vähämaa, 2010). By successfully monitoring professional managers, family owners can also mitigate managerial opportunistic behavior and financial manipulation (Arujunan et al., 2018; Fakhri et al., 2021; Ghaleb, Kamardin, & Tabash, 2020; A. Saeed et al., 2017; Faisal Shahzad et al., 2019a). In other words, family owners' significant influence and financial interest enable them to reduce the risk of management short-sightedness and, thus hold management accountable for their actions. All of these principles, when combined, result in higher-quality financial reporting standards in family-owned businesses (Boonlert-U-Thai & Sen, 2019; Hiebl & Li, 2020; Hussain & Safdar, 2018). Family ownership has a positive and significant impact on FRQ (Calabrò et al., 2020; Duréndez & Madrid-Guijarro, 2018; Tong, 2007; E. Vieira & Madaleno, 2019).

Yan Wang, Abbasi, Babajide, and Yekini (2019), revealed that family-owned businesses had better FRQ and lower fraudulent activities. The degree of disclosure and the quality of accounting information are controlled by large owners (Cascino, Pugliese, Mussolino, & Sansone, 2010). Large shareholders control the quality of accounting information and the level of transparency when ownership is highly concentrated. According to these researchers, the larger level of the concentration of ownership results in a lower level of the quality and transparency of the outputs. Cascino et al. (2010) found that family firms that used higher-quality financial disclosures following a long-term investment plan were more concerned about their reputation, and engaged in fewer opportunistic rent-extraction operations. Compared to their non-family counterparts, family enterprises are less likely to engage in financial reporting manipulation (Bansal, 2020). Family owners restrict earnings management, which may have an impact on FRQ.

E. S. Vieira (2018) family enterprises have a particular advantage in terms of family influence. It is assumed that a founder's family is concerned with long-term

survival, and reputation, and has the authority to supervise managers' activities. In family businesses, this is attributable to high-quality accounting, proper planning, and auditing. In the latter case, it is presumed that some effort was made to deceive shareholders about the firm's performance and conceal family members' power and money; this could be due to inadequate bookkeeping, planning, and auditing.

Duréndez and Madrid-Guijarro (2018) report a negative relationship between FRQ and family ownership. According to them if a family-owned business is a small or medium-sized business, then there are more chances that their FRQ is as good as that of large size family business. Another study used a multidimensional model of family influence on FRQ to make a dichotomous classification of enterprises into family and non-family businesses (Bardhan, Lin, & Wu, 2015). According to them, there is a negative link between family ownership and FRQ, and the reason for it is family power and culture that influence more on financial reporting. According to Shiri et al. (2018), family-owned businesses' financial reporting and disclosure are insufficiently transparent and lack the transparency component. It thus indicates that family businesses issue more earnings warnings and provide fewer earnings forecasts, owing to the fact that family business owners are more concerned about litigation and reputation costs.

Moreover, previous studies found that earnings management varies by generational stage, management teams, executive position, and BODs' composition among non-listed family enterprises (Calabrò et al., 2020; Duréndez & Madrid-Guijarro, 2018; Prencipe, Bar-Yosef, & Dekker, 2014). Their argument is built on the concept that the presence of agency conflicts could cause problems (Gavana, Gottardo, & Moisello, 2019). Thus, hypotheses based on the literature are as follows:

**Hypothesis 3: There is a positive impact of Family ownership on FRQ**

### **2.8.3 Moderating role of Family Ownership**

There are limited studies conducted to inspect and look at the moderating role of family ownership among female representation in BODs & AC and FRQ. Regarding manipulation in financial reporting, numerous studies have explored the

moderating role of controlling and monitoring family attitude and family ownership on the link between female presence in BODs & AC and FRQ (Shamsul Nahar Abdullah & Ismail, 2016).

Risk-averse family businesses are more likely to appoint a board or AC members (particularly females) from within the family (García-Meca et al., 2021; Mustafa et al., 2020; A. Saeed et al., 2017). This practice will diminish the FRQ as family-member directors will be more reliant on the firms' upper executives and hence less effective in carrying out their monitoring responsibilities (E. Vieira & Madaleno, 2019). The nomination process also reduces the pool of qualified employees, which is often minimal for women. With a limited pool of applicants to choose from, less qualified women are more likely to be considered (Shamsul N Abdullah, Ismail, & Nachum, 2016).

Furthermore, in an environment where maintaining family bonds and unity is critical to the family's survival, the variety of perspectives that gender diversity offers to the board is likely to be of lesser importance (Bertrand & Schoar, 2006). Gender diversity in family businesses may risk board discussions and reduce their efficacy, impeding efforts to increase the FRQ (Belen Villalonga & Amit, 2020).

In a similar study done by Shamsul Nahar Abdullah and Ismail (2016), females in executive management can affect the FRQ more in family-owned companies as compared to other companies. Nyeadi et al. (2021) report that directors relate to founding family ownership enhance FRQ. Prencipe and Bar-Yosef (2011) estimated that the ratio of women as a director on the board or AC in Family-Owned Companies has less impact in manipulating financial reporting as compared to other Companies because these females are mostly hired on basis of their link with family owners, not on basis of their expertise, talents or skills. Jaggi, Leung, and Gul (2009) resulted that more board diversity in Family-Owned Companies mitigates financial reporting. Lam and Lee (2012) found that the existence of family members on the BODs can significantly harm the efficiency and effectiveness of the management and executive committees, especially when board is control by family members. The degree of authority and control affects a lot; if women have more power in the finance department, then FRQ will improve. In the framework

of Malaysia, Ismail, Abdullah, and Nachum (2013) that females on the boards of directors of family enterprises are mainly relatives of the controlling family owners. Their participation at board meetings and committee meetings is minimal. Because of the country's gender quota requirement, they are just a board member. They play no part in these decision-making bodies. For all of these reasons, having a woman on the board of directors or the executive committee does not enhance the FRQ (Shamsul Nahar Abdullah & Ismail, 2016). Conflict can arise between both the firm's controlled and minority shareholders when there is a Type II agency problem and the entrenchment effect. The family shareholders dominate the appointment of directors to the BODs since they own the voting rights. Due to a risk-averse propensity, family-owned enterprises are more likely to nominate board members (including women) from among family members (Shamsul Nahar Abdullah & Ismail, 2016). The family members of the BODs are linked to the top management of the companies; they are less successful in carrying out their monitoring responsibilities. This approach has the potential to degrade earning quality. The nomination process further narrows the group of talented applicants, that is already minimal in female cases. With a limited pool of applicants to choose from, less-qualified women are more probably to be nominated (Magnanelli et al., 2020; Saidat et al., 2019).

Furthermore, because family members dominate the BODs, directors appointed by the family are less probably to go beside the interests of the governing family members (Jaggi et al., 2009). The view that female involvement in family-owned firms offers minimal value to the BODs and AC stems from the belief that family bonds and unity are more essential than managing the management of firms, which may also be members of the family (Mohammad & Wasiuzzaman, 2019; W. K. H. Omer & Al-Qadasi, 2019). In family-owned businesses, female presence in BOD & AC makes initiatives to strengthen FRQ since the environment restricts their potential to control board and AC choices, and hence their efficacy (M. C. Sonfield & Lussier, 2012). In Family firms, male directors have more information, more power, and control rights. In family businesses, there are more chances of agency difficulties and information asymmetry than in non-family owned organizations, which affects the FRQ (Hutton, 2007). Shamsul N Abdullah et al. (2016) resulted

that the presence of female members in the BODs or the executive committees has significant effect in reducing FRQ. According to them, females in the upper management teams are more cooperative in non-financial matters rather than financial reporting matters. As per their study, females are more cooperative, polite, and always try to resolve the issues within time.

In family firms, Nadeem, Gyapong, and Ahmed (2020) revealed that having more women on the BOD has a negative significant impact on decision making and financial reporting of the company. The preservation of socioeconomic wealth in a family firm outweighs any financial benefits gained by females' engagement in top positions in a non-family enterprise (Kalm & Gomez-Mejia, 2016). Similarly, Songini and Gnan (2009) stated that ACs at family-controlled enterprises face resistance from directors, resulting in poor FRQ.

Between family and non-family businesses, there are differences in leadership styles and how females in corporate jobs make decisions, according to the contingency theory of leadership. Women who make strategic and political judgments in the family, although not in a non-family business, base their decisions on the gains or losses in protecting the family's socio-emotional wealth (Poletti-Hughes & Martinez Garcia, 2020). As a result, we suggest that, while board diversity is viewed as a technique to improve the effectiveness and efficiency of corporate governance, female directors' roles is limited & more focused on the family members in family-controlled businesses. Furthermore, the female directors who have been nominated are from within families. Likewise, their participation in the AC is symbolic, and as a result, family ownership has a negative impact (Tee & Kasipillai, 2021).

E. Vieira and Madaleno (2019) resulted and reported that the existence of females in BODs can lessen the chances of manipulation in financial reporting. Another research found that manipulation in financial reporting practices is less in family-owned companies in contrast to other companies (Shamsul Nahar Abdullah & Ismail, 2016; Firoozi et al., 2016; Ginesti, Drago, & Macchioni, 2018; D. Wang, 2006). Thus, regarding the agency problem and the above debate, the hypotheses are stated as such:

**Hypothesis 4: Family ownership mitigates the influence of female representation in BODs on FRQ.**

**Hypothesis 5: Family ownership mitigates the influence of female representation in AC on FRQ.**

## **2.9 Theories**

This research explored the relationship between three key variables: female presence on BODs and ACs, FRQ, and family ownership. Support for many strands of literature that imply that females differ from males in the broader population, that family ownership culture differs from other ownership systems, and that females have different attitudes towards financial reporting as compared to their male counterparts. Therefore these strands of literature include human behavior studies such as Females are thought to be more risk-averse, ethical, less overconfident, and more critically think (resource dependence theory and human capital theory), conflicts are more prominent in family ownership structures (agency theory & information asymmetry theory), the BODs & AC deal with power (upper echelon theory), and theory relates to FRQ (accounting theory).

However, these theories explain the reasons, benefits, and critics of having female representation in BODs and AC, family ownership, and FRQ.

### **2.9.1 Agency theory**

The primary focus of agency theory is on agency concerns and conflicts that develop between owners and management, agent and the principal of the company. According to this theory the ownership and management of the corporation is the reason for agency conflicts and troubles, and due to this mostly communication and information went wrong between stakeholders (Meckling & Jensen, 1976). In this theory, a principal (shareholder) hires an agent to act in his or her best interests; but, when the agent does not follow the principal's commands, agency conflict arises, increasing agency costs (Fama & Jensen, 1983a).

The principle raises monitoring expenditures to monitor the agent, such as reforming BOD by employing fresh members, engaging financial specialists for the AC, and gender diversity, where excessive expenditure diminishes business value (Hindasah & Harsono, 2021). Organizational architecture and the market mechanism, on the other hand, help to reduce agency conflict. External directors improve monitoring, hence decreasing the agency problem (Dalton, Daily, Ellstrand, & Johnson, 1998). Gender diversity on corporate boards creates strong corporate structures that improve company success. Gender diversity also helps to mitigate the link between Research & Development.

The AC is in charge of internal auditing as well as the Internal control system process and implementation (Goh & Kuczynski, 2009). Furthermore, female directors who are autonomous minimize earnings management methods. Agency conflict is mitigated by gender diversity on boards and an effective internal control system mechanism. Inboard gender diversity studies, there are three factors to adopting agency theory i.e. BODs with a diverse gender make the management team's monitoring and regulating functions more effective. Secondly, BODs with a diverse gender strengthen the independent function of the BODs and executive committees, which is seen as a key characteristic in resolving agency issues. And finally, gender diverse boards diminish the management team's opportunistic behavior by sharing more accurate information and reducing information asymmetry.

Another debate about agency theory in the context of various multilateral boards, according to this theory that senior directors and the size of the board may also affect the firm performance and they have also become a reason for manipulation in financial reporting (Bonazzi & Islam, 2007; Bryant & Davis, 2012; Vitolla, Raimo, & Rubino, 2020). This theory also stated that the BODs play an important role in managing and monitoring managers, as well as overseeing and monitoring managers' operations and resolving conflicts (e.g., compensation, CEO turnover) between principals and agents. When the board is diversified, it can better perform its monitoring tasks (Masulis & Mobbs, 2014). A more diverse board may be more effective in dealing with a variety of company concerns.

This theory presumes that women in upper management teams might be acted

as a source of controlling, supervising, and managing the power and activities of executive board and committees (Abdeljawad & Masri, 2020; Adams & Ferreira, 2009; Al-Jaifi, 2020; Isah & Iliya, 2018; Poletti-Hughes & Briano-Turrent, 2019; Vitolla, Raimo, & Rubino, 2020; Wagana & Nzulwa, 2017). Women in the management are also the source of reducing or mitigating agency costs and providing information asymmetries (Abad, Lucas-Pérez, Minguez-Vera, & Yagüe, 2017; Jurkus et al., 2011; Kristanti, 2015; Nguyen et al., 2015). Board diversity may be an efficient tool for controlling managers since female directors are more likely than male directors to engage in debate on sensitive issues and to disagree with the Chief Executive Officer's perspectives. The presence of a female inboard and upper management team may also experience better decisions as the females are more highly professional and educated as compared to other male partners (Poletti-Hughes & Briano-Turrent, 2019; Solimene et al., 2017).

According to Bammens, Voordeckers, and Van Gils (2011), there are four main sources of agency issues in family businesses:

- First, the misalignment of interests of the controlling family with the firm results from non-financial goals such as the preservation of the firm for future generations (Lim, Lubatkin, & Wiseman, 2010; Lubatkin et al., 2007).
- Second, the extraction of firms' resources through special dividends, excessive compensation, and tunneling activities (Hussain & Safdar, 2018)
- Third, generosity toward other family members, such as establishing separate departments for each heir, equally compensating hired family members regardless of effort or performance, and lavishing them with excess perquisites and allowances (Kallmuenzer, 2015).
- Fourth, is about intra-familial conflict, which leads to rivalry among family members and poor performance. To address agency issues, family businesses have a strong incentive to follow corporate governance (hereinafter CG) advice and encourage board arrangements that prevent wealth expropriation (Lim et al., 2010).

According to the agency theory, family businesses can either minimize or worsen agency conflicts. Family businesses have incentives to maximize their interests and have a say in the financial reporting process (Bonazzi & Islam, 2007; Jurkus et al., 2011; Lim et al., 2010; Mansoor, 2021; Vitolla, Raimo, & Rubino, 2020). This theory predicts that family firms will have less desire for an effective AC since dominant families wish to take advantage of minority shareholders (Amrah & Obaid, 2019).

### **2.9.2 Information Asymmetry Theory**

This theory is concerned with judgments made in transactions in which one party has more or better information than the other. It holds further that managers have a higher level of information than shareholders and other key stakeholders when doing any contract, decision, or financial disclosure. Managers could falsify earnings data to enrich themselves at the expense of stakeholders. Richardson (2000) points out that there is systematic nexus between information asymmetry and FRQ. Therefore, corporate governance aims to devise and implement such a mechanism that would reduce information asymmetry between management and stakeholders by providing them with a better FRQ (Fu, Kraft, & Zhang, 2012). Therefore, an effective governance mechanism mitigates information asymmetry by improving FRQ.

The quantity and quality of the information provided may be influenced by corporate governance, and a higher level of company financial reporting and disclosure may lessen knowledge asymmetry between different stakeholders (Kanagaretnam et al., 2007). Based on these findings, it's reasonable to assume that companies with superior corporate governance have less information asymmetry. Marcel, Orțan, and Otgon (2010) found that information asymmetry increased as a result of poor company governance. Some characteristics of monitoring systems (such as the number of directors on the BODs or ACs) may help to lessen information asymmetry (Cormier, Ledoux, Magnan, & Aerts, 2010). The number of founding family directors on the board, according to Jabeen and Shah (2011) is positively connected to the extent of information asymmetry in the market. According to the

perspective of family ownership structure, this theory posits, that if the director links to the family, then it has more information as compared to other board members (Sougné, Laouti, & Ajina, 2013). Furthermore, there is a negative association between FRQ and information asymmetry (Cerqueira & Pereira, 2014). Thus, previous literature would suppose a negative relationship between female presence on BODs and the average level of information asymmetry if gender diversity improves company information disclosure and better disclosure and transparency mitigates the information risk for other stakeholders. A firm's better financial reporting lowers information asymmetries that arise between the firm and its shareholders or among other stakeholders (Verdi, 2012).

### **2.9.3 Human Capital Theory**

The study of how an individual's contributions in talents, knowledge, education and experiences generate productive and cognitive capacities for both the individual and the organization is known as human capital theory (Amorelli & García-Sánchez, 2020; Dunn, 2012a; Okoro & Washington, 2012). Human capital investments, like financial capital investments, provide rents for individuals, generally in the form of higher and sustained salary levels and promotions (Sweetland, 1996). This theory is related to an individual's characteristics (e.g., experience and education). In this aspect, Nafukho, Hairston, and Brooks (2004) claims that an employee's degree of education, skills, experience and productive capacities are beneficial to the company. Each director brings to the board a distinctive collection of resources of human capital, such as their social networks, reputation, and connections to other businesses (Marginson, 2019). The human capital theory holds that a director's distinctive features, including education, experience, and talents, are useful to firms in a variety of ways (Levhari & Weiss, 1974). The human capital theory claims that directors with different traits like gender can bring more creativity and innovation to boards. This theory also indicates that boards having females can better grasp varied markets thanks to the diverse directors' distinct experiences and knowledge (Brush, Ali, Kelley, & Greene, 2017). The human capital theory provides a useful framework for analyzing inequality, and this

study use it to explain why women are still excluded from corporate boardrooms. Because every member of BODs has a unique set of human capital resources for the board, those who appoint new board members may be interested in attracting persons who can supplement the board's existing capabilities (Khanna, Jones, & Boivie, 2014).

Although BOD traits are garnering increasing scholarly attention, research on directors and those in senior positions has historically focused on functional, age, and educational diversity, while gender has been ignored (Amorelli & García-Sánchez, 2020; Dunn, 2012a; Khanna et al., 2014; Marginson, 2019). International experience gives businesses a competitive advantage in an increasingly globalized environment. Other existing research onboard member human capital is restricted to a small set of demographic variables or female-only studies. Bailey, Hillman, Arent, and Petitpas (2013), use taxonomy of director roles (support specialists, business experts, insiders, and community influential's) as human capital resources, broadening the traditional binary view of inside and outside director roles. These materials are beneficial to both the board and the company (Terjesen et al., 2008). Human capital characteristics of female directors and concluded that women are anticipated to provide a lot of international variety. Furthermore, according to Khanna et al. (2014), the majority of female directors have previously served on the boards of small businesses. Female directors in Fortune 500 businesses, according to Terjesen, Sealy, et al. (2009), are considered more educated and qualified as compared to their male partners. Women are supposed to join boards at a higher rate as compare to their male partners for these reasons.

#### **2.9.4 Resource Dependency Theory**

Every corporation wants to have a better competitive advantage as compared to their competitor businesses to compete in the market. Employees are considered a resource for corporations. And every corporation wants to have a better resource as compared to their competitors or to have a better competitive advantage over their other competitors, therefore corporations hire unique talented, experienced, and educated. Various talents and skills are necessary for positions of authority and

responsibility, men and women are regarded main human resources in enterprises. According to Le Breton-Miller, Miller, and Bares (2015), board members' competence and reputation may lead firms' benefits to improve. According to followers of resource dependence theory, BODs serve as a vital link between a company's resources and environmental responsibilities. According to Murphy and McIntyre (2007), BODs present four main critical resources to businesses. These resources stated that directors focus on providing beneficial information that will assist in the company's strategic decision-making process; they act as an essential means of communicating with external users; they build networks and connections with other companies and institutions; and these directors also assist in the legitimization of the company (Bhatt & Bhattacharya, 2015; Hillman, Withers, & Collins, 2009).

Support specialists, business experts, Insiders, and community significant roles are characterized as resources in social networks. according to Le Breton-Miller et al. (2015), support specialists includes professionals, consulting firms, finance, and banking consultant companies; business experts includes officers and executives of other public companies; insiders includes former or current employees of the corporation; and community roles are individuals in government departments, academia, and non-profit organizations. Varied directors give a company access to various resources, and gender-diverse boards raise the prominence of the board and create potential connections with important internally and externally resources. Female presence BODs or ACs get better the company's relationship with its customers, competitors, and suppliers, increase the knowledge and expertise of BODs of the businesses, & increase the availability of the access to finances and other external resources for the betterment of the companies. Resource dependency theory recommends that, in an increasingly uncertain economic environment, BODs should be made up of individuals who can give access to a wide range of resources (Hillman et al., 2009).

Resource-based views are also referred to as the theory of competitive advantage in this perspective (Bryant & Davis, 2012). Workplace diversity improves a company's competitive advantage. They make four arguments in favor of diversity as a way to boost a company's worth: Firstly, more diversified businesses are

better able to capitalize on changing demographics and break into new markets. Secondly, organizations with a diverse workforce are more creative and inventive. Thirdly, more perspectives are examined during decision-making in varied firms, which helps problem-solving. Fourthly, diverse businesses have a broader global outlook and are more sensitive to variations in the worldwide environment. Gender-diverse boards can increase a company's competitive edge and financial performance, which is especially important in today's global and diversified economy.

Resources are important for corporations to tap into their product markets, according to this viewpoint. Male and female integration is regarded as a significant human capital resource for businesses, as their distinct talents are valued in the workforce. Women, according to the resource dependency theory, bring a unique collection of resources to the board, including status, legitimacy, skills, expertise, and connections to external sources, all of which contribute to reducing the risk of dependence on external environmental factors. According to Bhatt and Bhattacharya (2015), the BODs must provide guidance and counsel, credibility, and avenues for communicating information with the outside world. Women may bring some or all of these resources to BODs; however, a firm may nominate women just for advice and counsel, to ensure the firm's legitimacy, or to have access to the resources she owns. Women are indeed chosen for BODs depending on the resources they possess (Bryant & Davis, 2012; Echobu et al., 2017; Le Breton-Miller et al., 2015).

According to resource dependency theory, utilizing internal resources can lessen not just reliance on external environments, but also the influence of other businesses. External variables that can directly or indirectly affect organizations include the power of other enterprises, technology, efficient boards, distinctive abilities, directors, and efficient management. According to Atinc, Srivastava, and Taneja (2021), the female presence on BODs causes organizations to become more innovative. Board's female representation, is linked to controlling and monitoring to improve business financial performance (Rey Dang, Naschberger, & Lê, 2017). Female members in BODs have distinct monitoring styles as compared to their male counterparts. female members in the company's executive positions, on

the other hand, are critical because their participation improves the long-term FRQ(Nguyen et al., 2015). As a result, female presence on BOD and in the AC is important for improving governance processes, increasing investor trust, and boosting conservative financial reporting, all of which support resource dependency theory.

### **2.9.5 Upper Echelons Theory**

According to Hiebl (2014), upper echelons theory is the “idea that top executive members like BODs view their situations through their own highly personalized lenses”. With the diversity in personalities, values, attitudes, experiences, and other human traits among Chief executives, these individualized interpretations of strategic circumstances emerge.

The importance of management eccentricities on strategic decisions and business performance is confirmed by upper echelons theory. The theoretical paradigm behind this study is upper echelons theory (Hiebl, 2014), which provides a clear theoretical foundation for correlating the distinctive qualities and diversity of corporate hierarchy with business results (Nielsen, 2010). For better strategic decisions, organizations always want to have management diversity. One of the most compelling arguments for managing diversity is that more diverse BODs may make better judgments by evaluating a larger variety of options. Carter et al. (2010) list various benefits of board gender diversity, of which this is one of the most important. Top management teams having diversity are associated with more creative idea generation, and consequently with more innovative firms, according to the “upper echelons” theory (Hambrick, 2007).

Another aspect of this theory links with financial reporting, Upper echelons perspective also contributes towards “a comprehensive theory of accounting choice”. Plöckinger, Aschauer, Hiebl, and Rohatschek (2016) concluded that overconfident Top executives are more probably to deal with financial fraud and financial reporting manipulation, and also that Female executive are more careful in their financial reporting and risk-averse in their financial activity as compared to their male colleagues.

### **2.9.6 Accounting theory**

The basic purpose of financial reporting, according to Accounting Theory Tinker, Merino, and Neimark (1982), is to provide meaningful information to those who are most interested in financial reports. Data derived from accounting information systems is one of the most trustworthy resources available to users when making business decisions. Financial reporting is the result of accounting information systems (Oseni, Ireghah, & Ali-Momoh, 2011).

These financial reports are used by all users to evaluate corporate entities. Users will be able to make accurate decisions if financial reporting is of standard quality. Shareholders, borrowers, staff, clients, trade creditors, and government bodies are all primary beneficiaries of this information. These smart decisions will show the way to the allocation of system resources, which will have a substantial impact on a country's economy's optimal resource allocation (Tariverdi, Moradzadehfard, & Rostami, 2012). In this regard, providing higher-quality governance services is one of the decisive elements that improve the quality of financial reporting and lowers the risk of information in corporate reports.

### **2.10 Schematic Diagram of Theoretical Framework**

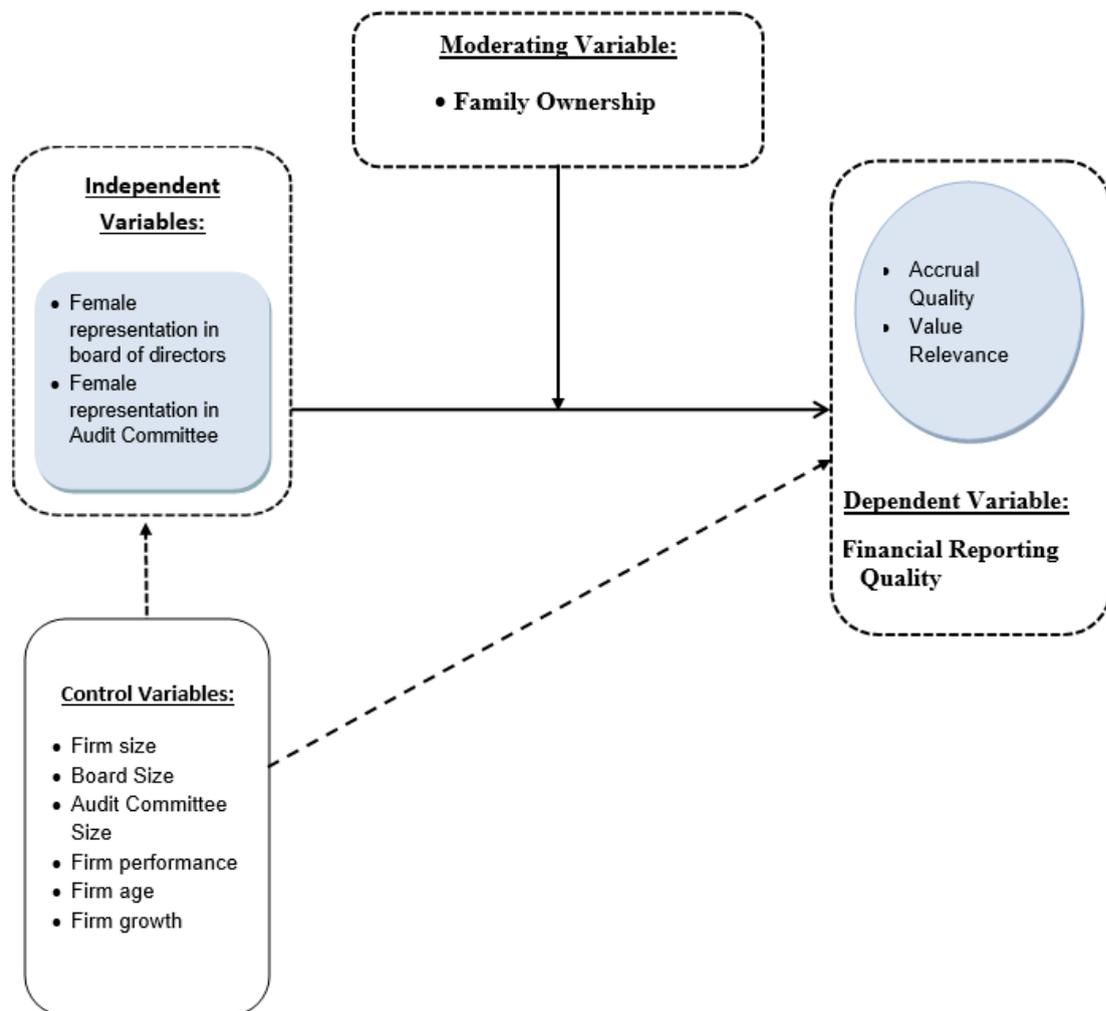


FIGURE 2.3: Schematic Diagram of Theoretical Framework

# Chapter 3

## Data and Methodology

This chapter is based on details regarding methodology techniques. Section one of this chapter gives details of the population of the study, selection of the sample from the population, and data sources as well. The next section relates to functional and empirical models. The third section is about variables details and measurement. And the last section is about empirical and estimation techniques used in this study.

### 3.1 Sampling Methodology

From 2008 to 2020, the study's population includes all public listed companies on the Pakistan Stock Exchange (PSX). The reason for using this period is that in Pakistan, SECP announced the "Code of corporate governance, 2002" and implementation of this law takes at least five years. As a result, the sample was taken between 2008 and 2020 to capture the impact of regulatory revisions. Another reason is that in 2005 and 2006, major modifications in accounting rules were introduced (Faisal Shahzad et al., 2019). According to Honggowati, Rahmawati, Aryani, and Probohudono (2017), studies conducted following this era of change give consistency in the treatment of accounting variables used in the analysis. Moreover, the sample was finished in 2020, because that's the latest year for which data was collected. Thus, this study chose a study period that runs from 2008 to 2020, related to the most recent data available at the time of extraction.

Only non-financial manufacturing enterprises listed on the Pakistan Stock Exchange comprise the study's sample data (PSX). The lists of these firms are from various industries such as Refinery, Oil companies, steel industry, telecommunication, cement, and textile industry. The reason for selection of only these firms is that the financial structure, reporting style, and governance body of financial firms like the bank, asset management companies, pension funds, leasing companies, mutual companies, and insurance companies; and service firms like health care, etc are distinct from those of non-financial manufacturing firms (Firth, Fung, & Rui, 2007). Thus, the data of financial firms and service companies are excluded from the sample and these firms are not taken into consideration. Hence this study is limited to non-financial manufacturing firms only.

Corporate governance-related data is gathered via the web page of the company, the companies' governance reports, and director biographies. Financial Data for the study is gathered from the financial statement section of annual reports. Secondary sources are used to gather data on required variables. Sources of data collection are mainly from the State Bank of Pakistan (SBP); the company's annual reports i.e. Annual Balance Sheet and income statement analysis, profiles of the company, official websites of the company, the KSE website, and the PSX website. According to the new regulations of the Securities and Exchange Commission of Pakistan (SECP), all Pakistani listed companies must disclose their information regarding their financial positions, annual reports, and governance structure.

TABLE 3.1: Industry and Companies wise sample details

<b>Industry-wise detail</b>	
Total Sectors	36
exclude financial sectors	7
exclude service sectors	6
sample sectors	<b>23</b>
<b>companies wise detail</b>	
total listed companies	542
total financial companies	125
total service companies	74
unavailability of financial reports	59
missing data of variables	28
sample companies	<b>256</b>

One hundred and twenty-five companies are excluded on basis of financial companies; the number of service companies excluded is seventy-four companies; Companies having unavailability of financial reports are fifty-nine and twenty-eight companies having missing data of variables are also excluded. These are excluded to harmonize the sample. In the end, the data sample is two hundred and fifty-six companies and sample sectors are twenty-three. This study uses this enhanced sample to test the robustness of baseline results.

## **3.2 Why is Pakistan a sample country?**

Pakistan is considered an excellent and best research place to study the stated relationships and research problems for at least four purposes. Firstly, in the 60s era males are more seen in practical life and mostly corporate upper management positions and seats are hired by a male. But now the trend is changing, females got management and accounting & finance degrees. Secondly, in the Pakistan economy, the corporate culture and decisions of many listed firms are influenced by many family members or by political or foreign interventions (Cheema, Munir, & Su, 2016; Latief, Syed, & Syed, 2014). Thirdly, In the Pakistan scenario, family ownership structure in the corporate sector is more observed. Fourthly, after the introduction of the “corporate governance code in 2002”, the practice of Pakistan’s corporate governance culture is significantly changed. Overall, these distinctive features make Pakistan an interesting setting for investigating the association between both the female presence on the BODs and AC and FRQ, as well as to analyze the moderating role of family ownership.

## **3.3 Model Specification**

As mentioned, the purpose of this research is to look into the impact of female representation on the BODs and AC on FRQ, as well as the moderating role of family ownership. For this, a functional model is described initially, followed by an econometric model based on the study objectives and hypothesis.

### 3.3.1 Functional Model

This study is based on panel data set, using FRQ as a dependent variable, female representation in BODs and AC as independent variables, family ownership as moderating variable, and control variables. There are two functional models of panel data set. The first functional model is without moderating terms, and the second is with moderating terms. Both Functional models are written as:

$$\text{FRQ} = f(\text{FBD}, \text{FAC}, \text{FO}, \text{Control variables})$$

$$\text{FRQ} = f(\text{FBD}, \text{FAC}, \text{FO}, \text{FBD*FO}, \text{FAC*FO}, \text{Control variables})$$

### 3.3.2 Empirical Model

A panel dataset was employed in this study, which contains several observations on the same economic units. Accrual Quality and Value Relevance were used as proxies to estimate FRQ as a dependent variable. These two proxies measure two different dimensions of FRQ. Accrual quality is focused on accounting measure of FRQ (Herath & Albarqi, 2017; Tasios & Bekiaris, 2012) whereas value relevance is focused on marketing measure of FRQ (Huang et al., 2016). As a result, four equation models were estimated in this investigation. The first two equations are based on accrual quality; the first equation is without moderating variables, such as family ownership, while the second equation is with moderating variables. The final two equations are also based on value relevance. The third equation is of value relevance without moderating the variable. And last equation i.e. fourth equation is of value relevance to moderating variable.

#### 3.3.2.1 Panel A: Accrual Quality

When the proxy of FRQ is Accrual Quality, then the equation 1 and 2 are used for analysis.

$$AQ_{it} = \beta_0 + \beta_1(FBD)_{it} + \beta_2(FAC)_{it} + \beta_3(FO)_{it} + \sum_{i=1}^j \lambda_i FCon_{it} + \epsilon_{it}$$

Equation 1

$$AQ_{it} = \beta_0 + \beta_1(FBD)_{it} + \beta_2(FAC)_{it} + \beta_3(FO)_{it} + \beta_4(FBD_{it} * FO_{it}) + \beta_5(FAC_{it} * FO_{it}) + \sum_{i=1}^j \lambda_i FCon_{it} + \epsilon_{it}$$

Equation 2

### 3.3.2.2 Panel B: Value Relevance

When the proxy of FRQ is Value Relevance, then the equation 3 and 4 are used for analysis.

$$VR_{it} = \beta_0 + \beta_1(FBD)_{it} + \beta_2(FAC)_{it} + \beta_3(FO)_{it} + \sum_{i=1}^j \lambda_i FCon_{it} + \epsilon_{it}$$

Equation 3

$$VR_{it} = \beta_0 + \beta_1(FBD)_{it} + \beta_2(FAC)_{it} + \beta_3(FO)_{it} + \beta_4(FBD_{it} * FO_{it}) + \beta_5(FAC_{it} * FO_{it}) + \sum_{i=1}^j \lambda_i FCon_{it} + \epsilon_{it}$$

Equation 4

Where;

- $AQ_{it}$  is Accrual Quality i.e. measured by using McNichols (2002) model for the firm  $i$  at time  $t$
- $VR_{it}$  is Value Relevance can be calculated as Ohlson model (1995) for the firm  $i$  at time  $t$
- $FBD_{it}$  is Female Representation in BODs for the firm  $i$  at time  $t$
- $FAC_{it}$  is Female Representation in AC for firm  $i$  at time  $t$
- $FO_{it}$  is Family ownership for firm  $i$  at time  $t$
- $FBD_{it} * FO_{it}$  is the moderating effect of Family ownership on Female Representation in BODs for firm  $i$  at time  $t$

- $FAC_{it} * FO_{it}$  is the moderating effect of Family ownership on Female Representation in AC for firm  $i$  at time  $t$
- FCon is Firm level control variables
- $B_0$  is intercept
- $\epsilon_{it}$  is an error term for firm  $i$  at time  $t$

### 3.4 Construction of Variables

The dependent variable of this study is FRQ. The independent variables of this study are female representation in BOD and AC, and the moderating variable is family ownership.

#### 3.4.1 Dependent Variable: Financial Reporting Quality

The quality of accounting standards guiding financial disclosure, as well as governmental enforcement or corporate implementation in an economy, determines the quality of a financial reporting system (Bala et al., 2021). According to Rubin and Segal (2019), an adequate financial reporting system should include the following elements: an adequate and timely flow of relevant financial and economic information from the management; users of reports must be able to fully understand, and users of reports must be able to influence and willing to wield influence. Furthermore, according to McDaniel, Martin, and Maines (2002), disclosure is influenced by management behaviors and the financial reporting environment. Low-quality reporting can lead to erroneous choices and resource misallocation (Herath & Albarqi, 2017).

Unfortunately, FRQ has not been formally studied in emerging economies like Pakistan. FRQ values are not reported in any financial statement. Therefore it is required to measure it by using different models and methods. Jonas and Blanchet (2000) attempted to categorize the many techniques for evaluating the FRQ into two groups. The first viewpoint is centered on user needs, whereas the second is concerned with shareholder/investor protection.

- User Needs: FRQ is determined in terms of the financial information's usefulness to the consumers of the information, according to the users' needs Jonas and Blanchet (2000). "Financial reporting should give information that is relevant to current and potential investors, creditors, and other users in making rational investment, credit, and other comparable decisions," the study noted (Statement of Financial Accounting Concept 1). The FASB Framework emphasizes qualitative characteristics that assist users in comprehending financial reporting content. These are the information's reliability, relevancy, and comparability. The user needs viewpoint is primarily concerned with providing users with relevant data to help them make decisions. FRQ is measured as accruals quality from the user prospect (Jonas & Blanchet, 2000; Paulinus, Oluchukwu, & Somtochukwu, 2017).
- Shareholder/investor protection: FRQ is defined as "full and transparent financial information which is not designed to deceive or mislead users" under the second perspective, which deals with the concept of shareholder/investor protection (Jonas and Blanchet 2000). The investor or shareholder protection perspective tries to ensure that the financial information offered to users is adequate, transparent, and complete for their needs. Under the shareholder/investor protection needs prospect; FRQ was measured as value-relevance (Jonas & Blanchet, 2000; Paulinus et al., 2017).

There is a strong distinction between these two viewpoints on the FRQ. As in Accrual quality is focused on accounting measure of FRQ (Herath & Albarqi, 2017; Tasios & Bekiaris, 2012) whereas value relevance is focused on marketing measure of FRQ (Huang et al., 2016). As a result, the first criterion is accrual quality, while the second criterion is value relevance.

#### **3.4.1.1 Accrual Quality**

The accrual basis is used to prepare financial reports and statements that are organized to deliver the financial and economic information that the users require. In financial reporting, accrual refers to the timely recording of a financial event

to the appropriate account following the periodicity principle, irrespective of cash input or outflow. When cash or cash equivalents are collected or paid, the impact of transactions and other activities is accumulated in the corresponding account on an accrual basis. However, when they occur and are recorded in the financial reporting for that specific period (Amrah & Hashim, 2020). In other words, accruals refer to the fact that the financial transactions and events of a corporation are documented on accounting records without having to wait for them to be converted to cash. As accruals are easier to maintain than profit or cash flows, the majority of the models that make up the FRQ theory, which is the most important signal of this quality, focus on accruals (Bowen, Rajgopal, & Venkatachalam, 2008). According to Francis, Khurana, and Pereira (2003), if accrual-based accounting is not employed by the corporation then the cash account will be the only item shown on the balance sheet as liabilities or assets. This is because accrual-based accounting accounts for all other assets and debts. Using accruals, assets apart from cash are considered in the decision-making process.

The accrual model is used as a proxy for the FRQ (Herath & Albarqi, 2017; Tasios & Bekiaris, 2012). It assesses the level of FRQ in light of existing regulations and laws. Managers are supposed to manage earnings using discretionary accruals, or accruals over which they have some influence (Buniamin, Johari, Abd Rahman, & Rauf, 2012; Ittonen et al., 2013). Accrual quality is thought to harm FRQ by lowering its decision utility (Van der Meulen, Gaeremynck, & Willekens, 2007). One of the key benefits of utilizing discretionary accruals to assess FRQ is that it can be computed using data from the annual report. Furthermore, regression models can be used to investigate the impact of corporate characteristics on the level of FRQ (Lo, 2008). The fundamental challenge with accrual models is determining the difference between discretionary and non-discretionary accruals (Buniamin et al., 2012; Ittonen et al., 2013). The model's main advantage is the relative ease with which data can be collected and measured, although it gives an indirect assessment of FRQ.

The Dechow and Dichev (2002) estimation findings show that adding cash flows to Jone's (1991) Model reduces the model's ignoring of variables related to economic events. McNichols (2002) further stated that measurement mistakes in the model

of Dechow and Dichev (2002) may obstruct the proper regulation of the basic variables that determine accruals. As a result, adding the earnings variable to Dechow and Dichev (2002) provides a good checkpoint for calculating the cash flow inaccuracy. In that study, the following equation of the (McNichols 2002) model is used to determine whether cash flows have explanatory power over accruals after changes in fixed assets and earnings are taken into account.

$$\begin{aligned} \text{TCA}_{it} / \text{TA}_{it-1} = & \alpha_0 + \alpha_1 \text{OCF}_{t-1} / \text{TA}_{it-1} + \alpha_2 \text{OCF}^t / \text{TA}_{it-1} + \alpha_3 \text{OCF}_{t+1} / \\ & \text{TA}_{it-1} + \alpha_4 \Delta \text{Sales}_t / \text{TA}_{it-1} + \alpha_5 \text{PPE}_t / \text{TA}_{it-1} + \mu_t \end{aligned}$$

Total current accruals are initially determined for this reason. Balance sheet elements are used in several types of research, such as Dechow and Dichev (2002), to compute total current accruals. For the measurement of Total Current Accruals (TCA), two approaches are used for this purpose. The first is the direct approach (the subtraction of operating cash flow from operating income) and the second is the indirect approach (the subtraction of operating cash flow from Net income). This study, chose the direct strategy because it is superior to the indirect technique. Indeed, Hribar and Collins (2002) have demonstrated the direct approach's ease of use and the high quality of its results. Arun et al. (2015) employ net income before extraordinary items rather than net income in their research. However, as explained by (Q. Liu & Lu, 2007), public firms in every country do not declare this item in their financial statements. As a result, net income is used in this study's computations. And for calculation of TCA i.e. total current accruals, the formula is

$$\text{TCA}_{it} = \text{OI}_{it} - \text{OCF}_{it}$$

Where;

- TCA stands for Total Current Accruals for a company i at time t,
- OCF stands for Operating Cash Flow for a company i at time t,
- OI stands for operating Income for a company i at the time t,
- TA stands for total assets

- $\Delta$ Sales stands for change in Sales and
- PPE stands for Gross plant, property, and equipment.
- All the variables are scaled by lagged  $TA_{it-1}$

As a measure of FRQ, this model adds error terms or residual standard deviation. When there is a discrepancy between the accrual transaction and the associated cash flow, accrual estimation errors occur. The lower the value of standard deviation is, the higher the value of FRQ would be because a lower value implies lesser estimation error, higher predictability, more precision in forecasting future cash flows, a more visible financial reporting system, and accounting data that are more valuable to stakeholders. The lower value of residuals denotes that FRQ has better or improved; and the higher value of residuals suggests that FRQ has been declined (Dechow & Dichev, 2002; Deng et al., 2021; Hribar & Collins, 2002; Ittonen et al., 2013; Q. Liu & Lu, 2007).

#### 3.4.1.2 Value Relevance

Another proxy used for FRQ is value relevance. It is known as “the capability of information disclosed by financial reporting to summarize and capture the value of a firm”. How accurately the information quality of accounting figures portrays stock prices/returns is one of the most critical issues in finance and accounting. The first study in this area was conducted by Ball and Brown in 1968. They conclude that unexpected earnings have a strong link to abnormal stock returns. As a result, several researchers have carried out comparable studies in a variety of markets (Barth, Li, & McCLURE, 2019; Beisland, 2009; Habib & Azim, 2008b; Miralles-Quiros et al., 2018; Velte, 2017b).

The primary goal of financial reporting is to reveal information about the performance of a company. According to Azar, Zakaria, and Sulaiman (2019), there is no link or relation between the value of the company and the accounting numbers shown in financial statements. The value relevance of accounting numbers in financial statements cannot be defined clearly. As a result, Azar et al. (2019) argues that no one can trust the accounting numbers. Finally, they recommend

that value relevance research should be considered to directly evaluate and examine the legitimacy and reliability of financial figures issued by firms (Barth, Li, & McCLURE, 2021; Shan, 2015).

One of the uses of value-relevance studies is the use of accounting numbers to enhance experts' profit projections. On the one hand, analysts must frequently develop new processes to effectively anticipate earnings. Shareholders, on the other hand, maybe interested in strategies that allow them to address analyst bias in predicting and thereby improve the precision of existing projections (Azar et al., 2019).

Some studies describe accounting information's value-relevance as the ability of financial data to convey data that affect stock market assessment, such as stock returns and share price (Khanagha, 2011). To examine the relevance and reliability of financial reporting data, the value relevance model examines and analyzes the relationship between earning figures and stock returns. The model examines the links between accounting figures and stock market movements to determine the accuracy and reliability of financial reporting data (Azar et al., 2019; Barth et al., 2021; Shamki & Abdul Rahman, 2012). The stock price is expected to reflect the firm's market worth, whereas accounting statistics reflect the firm's value as determined by accounting standards. When both concepts are (highly) connected (i.e., changes in accounting data correlate to changes in the market value of the company), earnings data is believed to be relevant and credible. This method is also used to look at earnings consistency, predictability, and variability as indicators of earnings quality (S. Chen & Komal, 2018; Hashim et al., 2019; Tee & Kasipillai, 2021). This model, on the other hand, does not discriminate between reliability and relevance, i.e., it does not demonstrate whether or not sacrifices were made when generating accounting figures. Furthermore, it is possible that the stock market is not efficient. It can be calculated through the statistical data among information shown in financial reporting and share returns or value (Azar et al., 2019; Barth et al., 2021; Beisland, 2009; Gowda, 2018). The potential to control user decisions in their role as the provider of capital or investment is defined by the International Accounting Standards Board (IASB). Relevance is usually assessed in terms of confirmatory and predictive value.

Book value and earning value are often used as proxies of information quality because they are rational indicators of two financial statements, which are the income statement and the statement of financial position. Profit (earning value per share) is a proxy for future performance, while book value shows past performance and capital input.

Barth et al. (2019) reports the Ohlson model (1995) is a based accounting model, which uses earnings and book value as variables. Barth et al. (2019) stated that the Ohlson model is the most widely used. Previous research using this model was conducted among others by (Barth et al., 2019; Collins, Maydew, & Weiss, 1997; Fiador, 2013; Shamki & Abdul Rahman, 2012). The Ohlson model (1995) used is as follows.

$$VR_{it} = \alpha_{it} + \beta_1 EPS_{it} + \beta_2 BVS_{it} + \epsilon_{it}$$

Where;

- $VR_{it}$  is the market value per share of the company in year t
- $EPS_{it}$  is the earnings per share of the company I in year t,
- $BVS_{it}$  is the book value per share of the company i in year t,
- And  $\epsilon_{it}$  is the error term.

The adjusted R-square: the model's explanatory ability is used to determine the value relevance of accounting data. The statistical correlation of earnings and book value with share prices is the primary metric for measuring the value relevance of FRQ. If the coefficient value of the earnings and book value are significant, then FRQ is considered to be good, which means to have value relevance (Azar et al., 2019; Barth et al., 2021; Beisland, 2009; Habib & Azim, 2008b; Miralles-Quirós et al., 2018; Shamki & Abdul Rahman, 2012; Shan, 2015).

### 3.4.2 Independent Variables: Female representation in BODs and AC

The independent variables used in the study are female representation in BODs and AC. The first independent variable is based on female representation in BODs and the second is based on female representation in AC.

### 3.4.2.1 Female Representation in BODs

The first independent variable is female representation in BODs. It is calculated by multiplying the number of female directors on the board by 100 and dividing by the total number of BOD members. Female representation in BOD means whether BOD has females and males both or they are just male or female-dominated boards or what is the proportion of their representation in BODs (Abad et al., 2017; Al-Jaifi, 2020; Aribi et al., 2018; Brieger et al., 2019; Dobbin & Jung, 2011; Dunn, 2012a; Francoeur et al., 2008; Nawaz Khan et al., 2019). Female presence on the corporate board has certain benefits. Female participation in BODs can take on better projects, resulting in better outcomes, due to differences in experience, manner of thinking, and psychology. Even gender politics and grouping can degrade the beauty of this diversity, resulting in a loss of organizational resources (Tee & Kasipillai, 2021). As a consequence, research into the actual role of gender diversity on corporate boards is crucial.

### 3.4.2.2 Female Representation in AC

The second independent variable is Female representation in AC. It is calculated by multiplying the number of female directors on the AC by 100 and dividing by the total number of AC members. Female representation in AC means how much percentage of females is present in AC, whether female representation is more or less. According to Abbasi et al. (2020), if AC has male or female domination then their decisions regarding audit and financial reporting can be affected (Chijoke-Mgbame et al., 2020a; Kusnadi et al., 2016; Marzuki, Haji-Abdullah, Othman, Wahab, et al., 2019; Oradi & Darjezi, 2019; Velte, 2018; Zalata et al., 2018).

### 3.4.3 Moderating Variable: Family Ownership

The study's moderating variable is family ownership. It is calculated as a Dummy variable with a value of 1 if the percentage of total shares owned by family members divided by total shares outstanding is equal to or greater than 20%, and 0 otherwise. All previous studies used similar measures to identify family ownership

structure (Shamsul Nahar Abdullah & Ismail, 2016; Boonlert-U-Thai & Sen, 2019; Miller, Minichilli, et al., 2013; Sakawa & Watanabel, 2018; Srivastava & Bhatia, 2020; Belen Villalonga & Amit, 2020; Waked & Aljaadi, 2021).

This percentage of ownership provides an opportunity for the family (or group) to have an extraordinary grip on the decision-making processes of the company. Moderating role of family ownership is studied based on some specific features of family-owned companies i.e. Firstly, Agency conflicts are more prevalent in family-owned businesses than in non-family-owned businesses since the board of directors of a family-owned business is largely made up of family members, and their primary concern is profit rather than employee wellbeing (Kallmuenzer, 2015); Secondly, information asymmetry theory posits, if the director links to family owners then it has more information as compared to other board members (Sougné et al., 2013). Lastly it is assumed that several female members in BODs or ACs are elected not on basis of their credentials but due to their connections with the family (Ali Amin et al., 2021; Magnanelli et al., 2020; Shiri et al., 2018; Belen Villalonga & Amit, 2020).

### **3.4.4 Control Variables**

The BODs and AC define the strategic direction and significant decisions that determine the financial and non-financial company's success. For this reason, board and AC features affect the FRQ of the company. Therefore this study includes board and AC characteristic control variables i.e. board size and AC size. And other Control variables are having Firm-specific characteristics. In this study, all these control variables are employed to avoid errors (Aljaadi, Bagais, & Adow, 2021; Chijoke-Mgbame et al., 2020a; Kantudu & Samaila, 2015; A. W. Khan & Abdul Subhan, 2019; Kouaib & Almulhim, 2019). The following are the control variables for this study:

#### **3.4.4.1 Firm size**

It is defined as the log of total assets over a specified time (Tarus, 2020). To account for the potential impact of firm size on FRQ, the regression includes firm size. The

size of a large, visible firm is predicted to be larger. Larger enterprises get benefits from economies of scale, which impact the market and industry trends (Watts & Zimmerman, 1986). According to a study of Lee (2009), larger organizations outperform better than smaller corporations so they have more potential growth and are much more efficient due to their market strength. Larger organizations, they believe, are more likely to have stronger financial reporting. A large company is expected to have a well-organized accounting and internal control department, as well as the financial resources to hire professionals to improve the financial reporting process (Swastika, 2013). Large companies are also expected to have a well-designed information system that allows them to keep track of all financial and non-financial data for operational, tactical, and strategic objectives. The larger enterprises appear to portray a better quality of financial reports because these firms are visible and under more scrutiny. Most of the previous literature revealed a significant positive relationship between business size and FRQ (Naser, Al-Khatib, & Karbhari, 2002; Soyemi & Olawale, 2019).

Takhtaei and Mousavi (2012) showed a negative relationship between firm size and FRQ. This finding indicates that small businesses have expressed a willingness to release more information, which could reflect a desire to position themselves for competitive advantages and public awareness (Jamaludin, Abdul Rahman, Abdul Hamid, Hashim, & Nik Abdul Majid, 2018). On the other hand, found no correlation between size and FRQ (AL-Dhamari & Ismail, 2014). As a result, the size of a company has little bearing on the quality of its financial reporting.

#### **3.4.4.2 Board size**

It is measured as the total number of directors on the BODs during a time (M. Malik et al., 2014; Nawaz Khan et al., 2019; Nor et al., 2017; Tarus, 2020). Regarding the family firms, they have small board sizes (Chen & Cheng, 2008). Governance research suggested that boards having eight to ten members are considered effective and large boards' size. And such boards have a positive impact on FRQ (Ahmed et al., 2006). According to the research, too small boards and too large

boards are considered ineffective boards. Therefore it is to be suggested that board size will be adequate that provides effective results (He et al., 2009).

Large boards mean having too much crowd, communication difficulty and not monitoring properly and too small boards mean having fewer minds for decisions. In addition, the size of the board has a positive impact on the FRQ (Aifuwa & Embele, 2019; E. S. Alzoubi, 2012; V. C. Oba, 2014). Large boards, according to Chaganti, Mahajan, and Sharma (1985) are useful because of the range of their knowledge and the services they can give. Large boards, on the other hand, are less effective, according to Tarus (2020) since the costs of coordination and information processing outweigh the benefits of utilizing more people's knowledge. Boards with more than seven or eight members are less likely to work efficiently (M. Malik et al., 2014; Mohapatra, 2017). Larger boards, according to Haniffa and Hudaib (2006), are better able to explore more options and get the necessary resources for the company. A bigger board size, according to Bradbury, Mak, and Tan (2006), improves FRQ by bringing variety and innovation to decision-making. According to Huther (1997), Smaller boards, with fewer than 10 directors, are superior performers. according to Conyon and Peck (1998) and Vitolla, Raimo, and Rubino (2020), Smaller boards are having better performance as compared to large boards because they are easy to observe and coordinate and are taking quick decisions.

Board size has a positive relationship with FRQ (Kantudu & Samaila, 2015). Studies by Ezat & EL-Masry (2008) and Beasley (2000) found that the high board size leads to users accessing information more quickly and enhancing performance efficiency. Moreover, a larger board may increase the monitoring capacity of directors which could decrease the chances of poor FRQ in the firm (Susanto & Agness, 2019). On the other hand, Ahmed, Hossain & Adams (2006) documented the negative effect of board size on FRQ because the unnecessarily large board may generate conflict and delay the process of making decisions as directors may not reach a consensus. Mashayekhi & Bazaz (2010) evidenced that board size negatively affects FRQ and they argued that small boards are better at monitoring and supervising financial information than larger boards. According to Vitolla,

Raimo, and Rubino (2020) large size of the board leads to worse operating performance and related issues since members believe the company would be audited by participants involved, but there are no such free riders. Some studies have also found the insignificant effect of board size on FRQ (Bataineh, Abuaddous & Alabood, 2018; Florencea & Susanto, 2019).

#### 3.4.4.3 AC size

It means the total number of members on the AC during the specific time period (Chijoke-Mgbame et al., 2020a; Marzuki, Haji-Abdullah, Othman, Wahab, et al., 2019; Oradi & Darjezi, 2019; Shankaraiah & Amiri, 2017). However, if the AC becomes too large, the committee's effectiveness is likely to decrease. Because a huge committee may cause more losses, procedure, and workload distribution should be evenly distributed. Firms with greater AC make early voluntary disclosures and become less liable to produce false financial statements, according to Madi, Ishak, and Manaf (2014). Tanko and Siyanbola (2019) found that the largeness of AC members leads to a loss of focus because they report that that is smaller in size produce financial reports that are of higher quality than larger sized AC firms. Larger AC might have the advantage in form of skills and diversity. By pooling the diverse skills together, the entity has a higher likelihood of producing foolproof financial reports. However, sometimes when the number of AC members is large, it may result in poor communication and coordination (Felo et al., 2003).

If the size of the AC increased, FRQ improved because more audit and finance experts are sitting on AC can make financial reports according to accounting and audit standards (Kantudu & Samaila, 2015). Some studies found a negative effect of AC size on FRQ (Umobong & Ibanichuka, 2017). The reason behind the negative effect is that members of AC are not financial experts, they may be appointed due to family owners' relatives.

Lin, Li, and Yang (2006) stated and demonstrated that the size of the AC is highly related to the FRQ. The AC's size was expanded, and the FRQ was enhanced (Kantudu & Samaila, 2015). This is since having a sufficient number of AC members is preferable to having a small size AC (Majiyebo et al., 2018; Rooney,

2021). AC size was found to be positively associated with FRQ (Alwi, Risda, Wan Ismail, & Kamarudin, 2013; Baatwah, Salleh, & Ahmad, 2013).

In a contemporaneous study, Umobong and Ibanichuka (2017), they find that a negative and insignificant relationship exists between AC size and FRQ (Ojeka, Fakile, Iyoha, Adegboye, & Olokoyo, 2019). Some researchers also revealed the insignificant impact of AC size on FRQ (Almaqoushi & Powell, 2021; Alqatamin, 2018; Gerayli et al., 2021; Kusnadi et al., 2016; Ud Din et al., 2021). Thus, past studies have demonstrated that a sufficient size of the AC will provide a high level of financial reporting monitoring (Pugliese et al., 2014).

#### **3.4.4.4 Firm Performance**

It is calculated by using the proxy of return on Assets. It is measured as Net income multiplied by a hundred and divided by total assets (Sanan et al., 2019). Firms with a stronger financial performance are predicted to have a better FRQ (Schmidt, 2019). Thus, business performance should be a good indication of whether financial reports are excellent or bad (Soyemi & Olawale, 2019). Firm performance is used as a metric to assess the consistency and predictability of a company's future operations (Dashtbayaz, Salehi, & Safdel, 2019). Female executives are more likely to be hired by highly profitable companies, according to the research on 'the glass cliff' (Abdelzaher & Abdelzaher, 2019; Brahma et al., 2021; Demsetz & Villalonga, 2001; Habbershon et al., 2003; A. W. Khan & Abdul Subhan, 2019; Y. Liu et al., 2014; Song et al., 2020).

#### **3.4.4.5 Firm Age**

It is calculated as the number of years since the company was established or incorporated (Yan Wang et al., 2019). It is considered that a company's financial reporting and audit system improves over time and that a well-structured audit system should automatically ensure the financial report's integrity and accuracy (Chalaki, Didar, & Riahinezhad, 2012). It is believed that firms having more years of existence become more structured and have a strong and effective board and

AC, which results in better FRQ (Chalaki et al., 2012; Kieschnick & Moussawi, 2018; Leite & Silva, 2016).

TABLE 3.2: Description of Variables

	Variables	Description	Source
FRQ (Dependent Variable)	Accrual Quality	Mc Nichols (2002) model is used.	(Sivaramakrishnan & Yu 2008, Bazaz & Mashayekhi 2010, Lin & Hwang 2010)
	Value relevance	Ohlson model (1995) is used.	(Fiador 2013, Barth, Li et al. 2019)
Independent Variables	Female representation in BODs	Multiply the number of female directors on the board by 100 and divide by the total number of BOD members.	(Abdelzaher & Abdelzaher 2019, Nawaz Khan, Hussain et al. 2019)
	Female representation in AC	Multiply the number of female members on the AC by 100 and divide by the total number of members on the AC.	(Oradi & Izadi 2019)
Moderating Variable	Family ownership	Dummy variable with a value of 1 if the percentage of total shares owned by family members divided by total shares outstanding is equal to or greater than 20%, and 0 otherwise.	(Abdullah & Ismail 2016, Shahzad, Rehman et al. 2019, Malelak, Soehono et al. 2020)
Control Variables	Firm size	Log of total assets during a given time	(Aifuwa & Embele 2019)
	Board Size	Total number of directors on the BODs during a time	(Nawaz Khan, Hussain, et al. 2019)
	AC size	During the time, the total number of members of the AC.	(Oradi & Izadi 2019)
	Firm performance (ROA)	Net income multiply by a hundred and divided by total assets.	(Sanan et al., 2019)
	Firm age	Number of years since the company is started or incorporated	(Aifuwa & Embele, 2019)
	Firm growth	annual percentage change in total sales	(C. Liang et al., 2019)

#### 3.4.4.6 Firm Growth

It is measured as the annual percentage change in total sales (C. Liang, Lourie, Nekrasov, & Yeung, 2019). High-growth companies tend to provide high-quality

financial reports, which should be encouraged (Kantudu & Samaila, 2015; Soyemi & Olawale, 2019). Firms with significant firm growth are anticipated to control manipulation better and have a higher FRQ (Chih et al. 2008). Hence, big companies are more likely to provide high-quality financial reports, which should be promoted (Kantudu & Samaila, 2015; Soyemi & Olawale, 2019). According to the research of Kamolsakulchai (2015), stronger asset growth leads to higher accruals, which contributes to enhanced FRQ (Hirshleifer & Teoh, 2003; Iatridis, 2008).

### **3.5 Econometric Techniques**

The study used the Panel regression technique as econometric and estimation. Panel data gives information about time and place (Brooks, 2008). Importantly, panel data maintains the same objects or individuals and measures the same quantity of them over time.

Descriptive statistics, Correlation Matrix analysis, panel data regression, and Dynamic Generalized Method of Moments (GMM) are basic estimate approaches utilized for analyses. Panel data regression econometric tests are being used to examine data and evaluate the hypothesis in this study. In addition, the Dynamic Generalized Method of Moments (GMM) is used to control the unobservable problems termed heterogeneity and endogeneity.

Excel software was used to prepare and organize the data. The raw data was then analyzed using e-views software, and the results were extracted using statistical reports.

#### **3.5.1 Descriptive Statistics**

The statistical behavior of the data is captured by descriptive statistics. It is used to explain, analyze and investigate the nature of the variables of the study (Johnston & DiNardo, 1963). It includes the dependent, independent, and control variables. It includes a measure of central tendency measure of dispersion and

the measure of location. It consists of values of mean, mode, median values, standard deviation, sum, maximum, minimum values, skewness, and kurtosis of all explanatory, dependent, moderator, and control variables.

Mean and median is a measure of central tendencies and provide information about the average. Standard deviation tells about the spread and measure of dispersion in the value of the data from the mean in which values show how much data deviate from the average value of the mean. Minimum and maximum tell about the range of variables.

Skewness represents the deviation of the return from the normal distribution. Positive skewness indicates that the distribution is right-leaning, and the right tail is comparatively longer than the left one. A negative skew shows that the distribution is left-leaning, the left tail is long compared to the right tail. Negative skewness is linked to the ability to yield negative returns with a huge chance than proposed by asymmetric distribution' (Haniffa & Hudaib, 2006). Positive skew has the opposite tendency. The skewness of the normal distribution is '0.' If the skewness of any symmetric data is close to zero, it is normally distributed. The peakedness of data is estimated using the kurtosis method. It shows whether the data is light-tailed or heavy-tailed when compared to a normal distribution. A heavy tail means higher kurtosis and thin tails mean small kurtosis. The value is also compared to that of a normal kurtosis distribution, which is 3. The dataset has larger tails than a normal distribution if the kurtosis is greater than 3. The dataset exhibits lighter tails than a normal distribution if the kurtosis is less than 3.

### **3.5.2 Correlation Matrix**

The correlation matrix test is used to test the association along with different variables of the study i.e. dependent and independent variables. This test is useful in getting an early picture of the nature of association among variables before proceeding with the regression analysis. It shows the percentage of the relationship between variables. It also shows that variables that have Multicollinearity problems are not.

The correlation matrix examines the strength of the relationship among variables along with the direction of the positive and negative directions. The range for correlation analysis is (-1 to +1) which shows the correlation between variables. If the value of any measure relies on 0 then the value shows that there is no correlation existed among variables, if (+1) is positive then shows a positive relationship among variables. These values (+1, -1) also describe the perfect correlation between independent and dependent variables. The correlation coefficient determines the relationship. In panel data analysis there are least chances of Multicollinearity still data is examined for the possibility of a potential Multicollinearity problem.

For further testing of the Multicollinearity problem, this study used the formula ( $VIF=1/1-\text{Adjusted R-squared}$ ) to analyze whether any problem exists in the data set or not. The most observed rule is that a VIF above 10.0 indicates a Multicollinearity problem. This is not the case in the study. VIF confirms that there is no Multicollinearity between independent variables beyond the tolerable limits, so all the variables can be used in the model.

## 3.6 Panel Data Analysis

The situation is often increased in the financial model where this study have data that includes a series of both time-series and cross-sectional, and such a database is known as longitudinal or panel data (Baltagi, 2008) The easiest way to compact such data is to calculate, compute an approximation of a regression test. And that will include estimating all data in a single equation so that the- dataset is inserted and included into a single column including all types of observations i.e. the time series and cross-sectional data.

### 3.6.1 Common Effect Model

In this model, the main and basic statement of it is that there is no difference between the intercept of all cross-sections. It is meant as the Beta value is similar for all values in cross-sections. Let's suppose that if the data is not heterogeneous then the value of the intercept is similar for all cross-sections. Therefore it is

to be said that this model will be considered a better estimating model for the investigation of such type of data.

### 3.6.2 Fixed Effect Model

The theory at the back of this model is that its value of intercept is not similar to cross-section but will be distinguished. A dummy is separated and integrated with this method to indicate the magnitude of the differences amid the correlations for every cross-section. Such variables are also known as “least square variables”. E.g., if there are data differences, the intercept for each unit will be different, which is why the best panel data evaluation model will be the fixed effect model. The assumption of a similar intercept will not be accepted while the standard F-statistics is significant and thus used fixed-effect model test, if not then the common effect model will be applied. In the fixed-effect model, slope coefficients are constant but intercepts vary from industry to industry. It assumes that there may not be any temporary effect in series but the study may carry a cross-sectional effect.

### 3.6.3 Random Effect Model

The random effect model is somehow related to the fixed-effect model. This model is applied when the value of the intercept is not similar for all cross-sections and time. But the important assumption in this is whether or not they can follow the criteria or not. Assuming Beta means nothing here for the reason that it follows a random path. To decide between the random effect model and the fixed-effect model, the Hausman test can be used to make a decision regarding which model is appropriate between these two models. If the value from the Hausman test is significant that fixed effect will be selected. Otherwise, if the value from the Hausman test is not significant then the random effect model will be applied for evaluation.

## 3.7 Selection Method of Panel Model

In Panel data, to select the most appropriate Panel model, several tests can be used, such as:

### 3.7.1 Redundancy Test

The first test is used to evaluate if the Common Effect or Fixed Effect model should be employed. If the redundancy test yields a significant result ( $p < 0.05$ ), the Fixed Effect model is chosen; otherwise, the Common Effect model is chosen.

### 3.7.2 Hausman Test

The second test is the Hausman test, i.e. used to select between the Fixed Effect model and the Random Effect model. If the result of the Hausman test is significant ( $p < 0.05$ ) then the Fixed Effect model is selected otherwise Random Effect model.

## 3.8 Dynamic GMM test

The generalized method of moments (GMM) is a generic approach for estimating parameters in statistical models in econometrics and statistics. Its most commonly used in semi-parametric models, when the parameter of interest is finite-dimensional and the whole form of the data's distribution function is unknown, thus maximum likelihood estimation isn't appropriate. The primary aim is to pick parameter estimates that satisfy the theoretical relationship as "closely" as possible. The theoretical relationship that parameters of interest should meet is the starting point of GMM estimation. Unit roots and cointegration are the other two innovations in econometrics that transformed empirical economics and finance. The GMM estimators are known to be consistent, asymptotically normal, and efficient in the class of all estimators that do not require any additional information apart from that presented in the moment conditions. GMM was presented by

Lars Peter Hansen in 1982 as a generalization of Karl Pearson's 1894 method of moments.

When dealing with Endogeneity issues, GMM is the only estimation approach available. This explains GMM's appeal, as these are more or less unique to econometrics. This is true if you subsume IV approaches within GMM, which is a completely reasonable decision. Endogeneity, elimination of non-observable individual effects, omission of independent variables, time-invariant characteristics, effects from possible, possible collinearity between independent variables, and the correct estimation of the relationship between the dependent variable in the previous and current periods were all controlled for using GMM dynamic panel models. In a regression, the traditional GMM simply takes into account the first difference of each variable, whereas the lagged levels of explanatory variables are employed as instruments.

In the dynamic panel data model, Hansen (1982) proposed using more lags of the dependent variable's level or differencing as internally generated instrumental variables, and Anderson and Hsiao (1981) expanded the GMM structure and suggested using more lags of the dependent variable's level or differencing as artificially created instrumental variables. In dynamic panel data models, Arellano and Bond (1991), building on Anderson and Hsiao's (1981) concept, use the lags of the dependent variable as covariates, as well as unobserved fixed effects and random panel-data effects, to obtain an effective and reliable Generalized Method of Moments estimator for the parameters in the model. They argue that in a general structural model scenario, there are many more instrumental variables available because additional lags of the dependent variables can be included as instrumental variables, and predefined variables and endogenous variables are potentially valid instrumental variables.

This shows that the error terms in the estimated model are not serially associated and that the instrumental variables have sufficient lags to adjust for the model's dynamic relationship. This study also implemented a dynamic GMM model and used the J-test of over-identifying restriction and the difference-in-test of homogeneity of instrument subsets, as recommended by Roodman (2009b). For the

J-test of over-identification, the null hypothesis is that the instruments are valid. The chi-square test statistics in the J-test of over-identifying should not reject the null hypothesis, suggesting that the instruments are genuine; to ensure that there is no over-identification of instruments in the structural model. The null hypothesis' rejection implies that the instruments aren't valid and that the model's estimation isn't very good. The null hypothesis for the difference-in-test of homogeneity is that the instruments are exogenous, meaning that they are not connected with the dependent variable. The homogeneity of the instruments is invalidated if the chi-square test statistics reveal a significant p-value and reject the hypothesis. To validate the instruments' homogeneity, this study expects a J test statistic with a p-value of more than 5%.

### 3.8.1 Endogeneity

Furthermore, as Hermalin & Weisbach (2001) point out, endogeneity is the main consideration in the research that could influence the interaction between female presence on the BODs &AC and firm FRQ, because a firm's FRQ could influence the BODs &AC's composition and diversity. As a robustness check, the lagged values of the variables gender diversity and other factors will be used in this study. According to Bhagat & Black (2001), the composition of boards typically changes slowly over time; hence the problem of endogeneity isn't as severe. To address the potential endogeneity problem, this study utilizes a dynamic panel model using the generalized method of moments (GMM) system estimator.

The second source of endogeneity is unobserved heterogeneity. This suggests that factors other than explanatory variables, such as business size, performance, and so on, may have an impact on the FRQ. The use of the fixed effect technique on a linear model, according to Wintoki et al. (2012), can help to solve the fixed part of the unobserved heterogeneity. This necessitates the development of a model that not only handles Heteroskedasticity, autocorrelation, and endogeneity (mainly owing to simultaneity) but also the dynamic nature relationship. To address these difficulties, this study created a dynamic panel model using lagged dependent variable values as regressors (Gujarati, 2012).

## 3.9 Other Estimation Tests

Before applying regression tests, many estimation tests are used assumptions following Hair et al. (2009). These estimate tests help to evaluate the data's nature and to establish the model that will be used in the study, ensuring that the regression findings are impartial, consistent, and efficient (Yihua, 2010). Before beginning model estimating, this study ran necessary estimation tests. The assumptions linked to the ordinary least squares (OLS) panel and the GMM regression model were checked using these estimation tests. These estimation tests are stationarity, multicollinearity, Heteroskedasticity, and auto-correlation tests (Maddala & Lahiri, 1992).

### 3.9.1 Stationarity

The stationarity of the variables was determined using a panel unit root test utilizing the ADF - Fisher Chi-square approach. Accept null hypothesis, i.e. unit root exists, mean data is nonstationary if p-value at the level of significance (Joseph & Ahmed, 2017).

### 3.9.2 Multicollinearity

If the correlation between independent variables is more than 0.7, multicollinearity is considered an issue (Cooper & Schindler, 2003). Despite the strong correlation coefficients, the researchers computed the variance inflation factor (VIF) to see if the estimates were multicollinearity. When VIF values are less than 10, there is a lack of multicollinearity (Hair, 2003).

### 3.9.3 Heteroskedasticity

The Heteroskedasticity test determines if the error terms' variance is constant and uncorrelated with the model's variable. Because the variance in a structural model is not constant, the existence of Heteroskedasticity in the model might result in inefficient parameter estimation. Heteroskedasticity is determined using the modified

Wald test. The results of this test show whether there is a Heteroskedasticity problem because the values obtained ( $\text{Prob} > \text{Chi}^2 = 0.0000$ ) in all models are less than 5%, leading us to reject the null hypothesis.

### **3.9.4 Autocorrelation**

The link between a variable's present value and its previous values is measured by autocorrelation. To check for autocorrelation, the Durbin-Watson statistic is widely used. Statistical software can apply it to a data collection. The Durbin-Watson test has a range of results from 0 to 4. A result that is very close to 2 indicates a very low level of autocorrelation.

# Chapter 4

## Results & Discussions

Results of the empirical study regarding the impact of female representation in BODs and AC on FRQ; and to analyze the moderating role of family ownership among them in the Pakistan context will be presented in this chapter. The first section of this chapter is about descriptive statistics of all the variables used in the study are narrated. The next section is about data correlation, in which the correlation of all variables is analyzed; to analyze the Multicollinearity problem between variables. In the last section, regression results are discussed based on the results of this study's hypothesis.

### 4.1 Analysis of Family and Non-family Companies

This study began by giving descriptive statistics for the entire sample of 256 firms, based on the family and non-family samples. There are 161 family-owned businesses in the sample, whereas there are 95 non-family-owned businesses. Following that, a descriptive analysis offered more descriptive information, allowing the data to be better comprehended and evaluated. To see if the population means were significantly different across family and nonfamily enterprises, this study used the means from randomly drawn samples.

This part of the study includes a discussion of the results and findings in the light of the literature review and theories. Most of the companies in Pakistan are owned by families or any specific group. From sample, it is concluded that 63% of sample is based on family-owned companies. They are either managed or controlled by a group of close family relatives or friends.

TABLE 4.1: Percentage of Family and Non-Family Owned Companies

	No of companies	Percentage
Family ownership	161	63
non-family ownership	95	37
total companies	256	100

## 4.2 Descriptive Statistics

Table 4.2 is based on descriptive statistics of all variables included in the study. The dependent variable is FRQ, and the first proxy of it is Accrual Quality. The mean value of it is 0.08 ranging from -0.01 to 0.69, having a standard deviation of 0.90. Similar findings are done by (Younis et al., 2016). They found that the mean value of accrual quality is 0.07 in contexts of Pakistan-listed firms. The second proxy is Value Relevance. The mean value of it is 208.80, which may increase up to 15785.21 and may decrease to 0.6. The lower level of Accrual quality or value relevance represented the enhancement of the FRQ by reducing the information asymmetry and provision of accurate estimates and adequate legal and mandatory disclosures required by firms for publishing high-quality annual reports for better and reliable decision-making by key stakeholders. Similar results have also been found in previous studies (Azar et al., 2019; Ogbaisi & Ezuem, 2021; Shan, 2015).

From the list of independent variables, the first one is Female representation in BODs, the mean value of it is 10.9%, which may increase up to 71%, indicating the range of female presence on the boards of companies in Pakistan ranges from zero to 71%. This shows a very slow upward trend of gender diversity in listed firms of the PSX in recent years to fulfill the requirement of at least one female director on the board by the end of 2017, as decreed mandatory by the new

Corporate Governance code of 2017. Zero females mean there are still boards that don't follow the Law of Corporate governance. Companies are now meeting the regulatory requirements to include at least one female director on their board and this is a very healthy sign for achieving a sustainable performance of the companies because all financial and strategic decisions depend upon the FRQ and annual reports.

TABLE 4.2: Descriptive statistics

	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis
<b>AQ</b>	0.08	0.09	0.69	-0.01	0.90	-0.93	4.67
<b>VR</b>	208.81	56.20	1585.21	0.60	964.11	11.75	157.21
<b>FBD (%)</b>	10.90	10.00	71.42	0.00	13.17	1.16	3.89
<b>FAC (%)</b>	13.08	3.00	66.66	0.00	17.85	0.99	3.04
<b>FO (dummy)</b>	0.63	1.00	1.00	0.00	0.48	-0.48	1.23
<b>FS</b>	22.35	22.30	27.48	16.05	1.69	0.02	3.35
<b>BS</b>	7.94	7.00	17.00	5.00	1.55	2.15	8.08
<b>ACS</b>	3.30	3.00	6.00	2.00	0.64	2.11	7.42
<b>ROA</b>	9.84	4.42	378.59	-26.66	31.71	5.03	45.44
<b>FA</b>	36.59	33.00	75.00	1.00	17.19	1.43	9.95
<b>FG</b>	11.57	9.54	860.84	-35.30	57.24	23.07	718.14

Note: The dependent variables are Accrual quality (AQ) and Value relevance (VR). The independent variables are Female representation in BODs (FBD) and Female representation in AC (FAC), and moderating variable is family ownership (FO). Control Variables are Firm Size (FS), Board size (BS), AC size (ACS), Return on assets (ROA), Firm age (FA), and Firm Growth (FG).

The average, 13.08 percent, of the presence of female directors on AC, shows the domination of male directors in the AC composition in Pakistan. Considering that most AC has at least three members, a female presence ratio of 13% indicates that at least half of the ACS have no female members, while other ACs have only one female member. It may increase up to 66 % and may decrease to 0, and having a standard deviation of 17.85, that means there are ACs in Pakistan that have a maximum of 67% of females and there are still ACs that have zero representation of females.

Family ownership is moderating variable having dummy values; mean value of it is 0.63 with a standard deviation of 0.48. This shows that in Pakistan almost 63% of companies are belongs to family-owned companies. Although most firms in Pakistan are family-owned, family businesses have a dominant position in both the private and public sectors, as they do in most emerging nations across the

globe (Chang et al., 2020; Gulzar & Wang, 2010; Hussain & Safdar, 2018; M. K. Khan et al., 2013).

The mean value of the Firm size of sample companies is 22.35, which indicates that most companies in Pakistan have this firm size. Maximum this amount goes to 27.48 and the minimum value of firm size is 16.05. Board size is another important control variable. The average value of board size is 7.94, which indicates the average number of members in BODs. This result is consistent with the result of Beiner, Drobetz, Schmid, and Zimmermann (2004), who found an average board size of 6. The maximum amount of board size is 17 and the minimum amount is 5. It indicates that the range of members on the boards of companies in Pakistan ranges from 5 to 17. The average value of AC size is 3.30, which indicates the average number of members in AC. The maximum amount of AC is 6 and the minimum amount is 3. It indicates that the range of members on the ACs of companies in Pakistan ranges from 3 to 6. The findings of this study are in line with those of previous research (Afza & Nazir, 2014; Khalid et al., 2020). For firm performance, the proxy of Return on asset is used. Its Average value is 9.84, which indicates the average amount of return on assets is 10% in Pakistan. The maximum amount of Return on assets is 378 and the minimum amount is -266. It shows, that in Pakistan, there are companies that have negative returns on assets. This negative value may be due to losses faced by a company. In the years 2019 and 2020, due to COVID-19, most companies face losses in earnings, therefore these fewer amounts are depicted in statistics (Jebran & Chen, 2021). And maximum value shows the better performance and positive value of earning. The mean value of Firm age is 36.59, which indicates the average age of firms is 36 years in Pakistan. The maximum age of any firm is 159 and the minimum age is 1. It shows, that in Pakistan, there are companies which are formed before Pakistan's independence, but they are listed now and serving on the Pakistan stock exchange. The last control variable of this study is firm growth. The average value of firm growth is 11.57, which indicates the average amount of firm growth is 11% in Pakistan. The maximum amount of firm growth is 1960.84 and the minimum amount is -105.30. It shows, that on the Pakistan stock exchange, there are listed companies having negative firm growth. This negative value may be due to losses

or fewer sales faced by the company. In the years 2019 and 2020, due to COVID-19, most companies face a decrease in sales and loss in earnings (Jebran & Chen, 2021), therefore these fewer amounts are shown in table 4.2.

From the table, values of skewness reveal that only family ownership is negatively skewed in the table of descriptive statistics, while all other variables are positively skewed. In table 4.2, Family ownership has a value of kurtosis less than 3 which means it shows the platykurtic behavior; whereas, other variables show the leptokurtic behavior (kurtosis value greater than 3).

### 4.3 Industry and Year Analysis

In this section Industry wise and year-wise analysis of family ownership, female representation in BODs and AC is to be analyzed in detail.

#### 4.3.1 Industry-wise Analysis

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In this section, analyze the industry-wise analysis of the Percentage of family-owned companies, the percentage of female representation in BODs, and the percentage of female representation in AC is done in detail. Table 4.3 gives detail in the tabular form regarding the industry-wise analysis.

Pakistan is one of those countries where family ownership structure is more seen in the corporate sector (Chang et al., 2020). Therefore it is required to analyze the presence of family ownership structure in different industrial sectors. It is concluded that industrial sectors are having a 100% family ownership structure like glass & ceramics, jute, textile weaving, and Vanaspati & allied industries. The oil & gas development sector is the sector having a 0% family ownership structure. Different industrial sectors also focused on female presence in BODs and AC. Jute industrial sector has the highest female presence in BODs and AC both i.e. 31 percent and 33 percent respectively. Almost all manufacturing industrial sectors in Pakistan have more than 5 percent of females' presence in their BODs and AC.

TABLE 4.3: Industry-wise detail

Sr No	Industries	Percentage of Family-owned companies	Percentage of FBD	Percentage of FAC
1	AUTOMOBILE ASSEMBLER	46.15	7.76	11.82
2	AUTOMOBILE PARTS & ACCESSORIES	50.00	4.98	8.41
3	CABLE & ELECTRICAL GOODS	75.00	6.98	8.49
4	CEMENT	70.00	10.68	13.87
5	CHEMICAL	68.00	10.21	12.27
6	FERTILIZER	83.33	5.79	6.32
7	FOOD & PERSONAL CARE PRODUCTS	58.82	12.42	13.84
8	GLASS & CERAMICS	100.00	18.23	16.41
9	JUTE	100.00	31.04	33.33
10	LEATHER & TANNERIES	80.00	8.94	13.07
11	PAPER & BOARD	22.22	13.83	14.66
12	PHARMACEUTICALS	22.22	12.68	15.95
15	POWER GENERATION & DISTRIBUTION	36.36	9.25	12.81
16	REFINERY	25.00	14.41	14.15
17	SUGAR & ALLIED INDUSTRIES	68.00	12.98	16.37
18	SYNTHETIC & RAYON	62.50	14.91	22.84
19	TOBACCO	33.33	6.03	6.81
20	TEXTILE COMPOSITE	86.36	9.97	11.16
21	TEXTILE SPINNING	66.66	10.31	11.49
22	TEXTILE WEAVING	100.00	9.88	13.06
23	VANASPATI & ALLIED INDUSTRIES	100.00	12.63	16.66
24	WOOLLEN	50.00	12.58	6.73
25	OIL & GAS DEVELOPMENT COMPANIES	0.00	6.14	7.75

Note: Percentage of Family-owned companies measured as percentage mean of family-owned companies, Percentage of FBD measured as percentage mean of female in BODs, Percentage of FAC measured as percentage mean of female in AC.

### 4.3.2 Year-wise Analysis

It's required to analyze and study year-wise female representation in BODs and AC in Pakistan. For this purpose, it is required to study the timely reflection of female presence in BODs and AC in the Pakistan scenario.

As time passage, females got more education and were empowered towards jobs. This difference is clearly shown in the percentage increase in female representation in the BODs and AC.

Table 4.4 shows year-wise mean values of percentage female representation in the BODs and AC in the Pakistan context. From the table, it is shown that companies hire more females in their BODs and AC over time. In 2008, the value of the percentage of females' representation in the BODs and AC was 9% and 8%, respectively. And these percentage values increased as the year passed. In 2019,

TABLE 4.4: Mean value of percentage of female representation in BODs and AC:

Year	FBD%*	FAC%**
2008	9.65	8.54
2009	9.76	8.65
2010	9.81	9.14
2011	9.89	9.41
2012	9.92	10.82
2013	9.99	10.96
2014	10.01	12.03
2015	10.15	12.77
2016	10.25	12.89
2017	10.65	13.88
2018	11.58	16.56
2019	14.05	20.77
2020	17.25	24.25

Note: \*FBD% measured as percentage mean of female in BODs, \*\*FAC% measured as percentage mean of female in AC.

observed a lot of difference in female representation in the BODs and AC, i.e. 14.05% and 20.77%, respectively. That means companies are also willing to hire females on their board and AC for better financial, economic, and social results.

The percentage of women occupying board and AC seats in Pakistan is improving, but the pace of change is still slow. The result is consistent with Umer et al. (2020), who found that the mean value of female representation in the BODs has a slow but increasing trend in Pakistan. And similar research findings in Pakistan are by Majeed, Aziz, and Saleem (2015). These studies show a very slow upward trend of female representation in board and executive committees in listed firms on the Pakistan stock exchange in the recent years to fulfill the requirement of at least one female director on the board by the end of 2019, as decreed mandatory by the new Corporate Governance code of 2017.

## 4.4 Correlation Matrix

The matrix of correlations shows the correlation between the variables and also tests the multicollinearity problem. Thus, the first focus of this research is on the correlations between the variables used in empirical investigation. Based on

the reasoning in Gujarati, Porter, and Gunasekar (2012), the correlation matrix implies that there is no need to be concerned about any potential multicollinearity among the variables.

Table 4.5 shows the correlations coefficient among all variables used in this study. The results show a negative association of accrual quality with family ownership, firm size, the board size, and AC size. The correlations suggest that the study variables aren't powerful enough to provide a positive impact on FRQ as evaluated by accrual quality. And also shows a positive relationship of accrual quality with female representation in BODs, female representation in AC, firm performance, firm age, and firm growth.

Value relevance has a positive relationship with firm size, board size, AC size, firm performance, firm age, and firm growth. And the result shows a negative relationship of value relevance with female representation in BODs, female representation in AC, and family ownership. These signs are different from panel regression signs. It is due to multiple regression analysis.

TABLE 4.5: Correlation Matrix

	AQ	VR	FAC	FBD	FO	FS	BS	ACS	ROA	FA	FG
AQ	1										
VR	-0.031	1									
FAC	0.021	-0.051	1								
FBD	0.001	-0.017	0.743	1							
FO	-0.002	-0.143	0.119	0.128	1						
FS	-0.034	0.056	-0.068	-0.158	-0.185	1					
BS	-0.02	0.13	-0.019	-0.097	-0.106	0.365	1				
ACS	-0.022	0.232	-0.101	-0.1	-0.167	0.363	0.519	1			
ROA	-0.042	0.074	0.059	0.037	0.087	0.125	0.028	0.023	1		
FA	0.013	0.158	0.019	-0.023	-0.013	0.035	0.119	0.125	0.08	1	
FG	-0.004	0	0.038	0.037	-0.004	0.003	-0.011	-0.007	0.039	-0.008	1

Note: The dependent variables are Accrual quality (AQ) and Value relevance (VR). The independent variables are Female representation in BODs (FBD) and Female representation in AC (FAC), and moderating variable is family ownership (FO). Control Variables are Firm Size (FS), Board size (BS), AC size (ACS), Return on assets (ROA), Firm age (FA), and Firm Growth (FG).

The correlation between model's explanatory variables is found to be poor. All of the correlation coefficients are less than the (0.7) limit set by Kervin (1992), demonstrating that there is no issue with the existence of multicollinearity. All values are less than 0.7; therefore, the result indicates that there is no existence of a multicollinearity problem in our data. Because correlation does not always

imply causation (Woolridge, 2000), regression analysis is required to determine the causal relationship. As a result, panel regression is used.

## 4.5 Other Diagnostic Tests

This section provides the results of different diagnostic tests applied in the study. The tests are applied to the overall sample for ease. The detail of different tests and their results are appended below:

### 4.5.1 Data Stationarity

Before the panel regression analysis, the ADF - Fisher Chi-square method is used to test the stationarity of the test data. The results of the ADF - Fisher Chi-square method test are listed in Table 4.6. If p-value is at level of significance, reject the null hypothesis, i.e. unit root does not exist and vice versa (Joseph & Ahmed, 2017).

TABLE 4.6: Unit Root Test

	<b>Statistics</b>	<b>Prob</b>
Female representation in BODs	779.8250	0.0000
Female representation in AC	526.7230	0.0000
Family Ownership	23.6583	0.0000
Firm size	672.0910	0.0000
Board size	395.8080	0.0000
AC size	214.0930	0.0052
Return on assets	1109.5400	0.0000
Firm age	14.1002	0.0070
Firm growth	1585.0500	0.0000

The results suggest that the presentation of the unit root null hypothesis can be rejected. Therefore, the dataset is considered stationary at level.

### 4.5.2 Multicollinearity

If the correlation between independent variables is more than 0.7, Multicollinearity is considered an issue (Cooper & Schindler, 2003). Despite the strong correlation

coefficients, the researchers computed the variance inflation factor (VIF) to see if the estimates were Multicollinearity. When VIF values are less than 10, there is a lack of multicollinearity (Hair, Anderson, Tatham, & Black, 2008).

TABLE 4.7: VIF test

Variable	VIF	1/VIF
AQ	1.04	0.95946
VR	1.09	0.91678
FAC	1.14	0.87394
FBD	1.15	0.87073
FO	1.12	0.89434
FS	1.11	0.90375
BS	1.13	0.88506
ACS	1.06	0.94184
ROA	0.82	0.82134

Note: The dependent variables are Accrual quality (AQ) and Value relevance (VR). The independent variables are Female representation in BODs (FBD) and Female representation in AC (FAC), and moderating variable is family ownership (FO). Control Variables are Firm Size (FS), Board size (BS), AC size (ACS), Return on assets (ROA), Firm age (FA), and Firm Growth (FG).

The Variance Inflation Factor (VIF) values in Table 4.7 are less than 10, indicating that multicollinearity among explanatory variables does not exist.

### 4.5.3 Heteroskedasticity

The Heteroskedasticity test determines if the error terms' variance is constant and uncorrelated with the model's variable (Gujarati, 2012). Because the variance in a structural model is not constant; the existence of Heteroskedasticity in the model might result in inefficient parameter estimation. Heteroskedasticity is determined using the GLS white test.

### 4.5.4 Endogeneity

The presence of Endogeneity in the model indicates a violation of one of the assumptions of OLS, which states that there is no correlation between independent variables and error terms. To confirm the presence of Endogeneity in the data, the J stat value is used. To validate the instruments' homogeneity, this study expects a J test statistic with a p-value of more than 5%. The results of GMM regression

shows in Table 4.11 confirm the non-existence of endogeneity as the values of the J stat have more than 5% probability in all models.

### 4.5.5 Autocorrelation

The Durbin-Watson statistic is commonly used to test for autocorrelation. All DW stat values in Table 4.11 range from 1.6 to 2.2. This suggests that the numbers are close to 2, indicating a very low level of autocorrelation.

## 4.6 Panel Data Analysis Tests

### 4.6.1 Redundant Fixed Effects-Likelihood Ratio Test

For the best appropriate model selection in panel data analysis, this study has applied the Redundant Fixed Effects-Likelihood Ratio test between the common effect and fixed-effect model. This Likelihood Ratio test tells us about that which is the best suitable model for this study. The results of all 4 equations are shown in table 4.8:

TABLE 4.8: Redundant Fixed Effects-Likelihood Ratio Test

	Effects Test	Statistic	d.f.	Prob.
AQ without moderator*	Cross-section F	0.706827	-2,553,058	0.0000
	Cross-section Chi-square	190.4199	255	0.0000
AQ with moderator**	Cross-section F	0.717863	-2,553,056	0.0001
	Cross-section Chi-square	193.4311	255	0.0001
VR without moderator***	Cross-section F	267.659	-2,553,058	0.0000
	Cross-section Chi-square	10471.39	255	0.0000
VR with moderator****	Cross-section F	267.585	-2,553,056	0.0000
	Cross-section Chi-square	10472.59	255	0.0000

Note: Note: \* Equation 1 , \*\* Equation 2, \*\*\* Equation 3 , \*\*\*\* Equation 4

The value of probability if less than .05 then we go towards the fixed effect model. Here the value and less than .05 in all equations, which represents that fixed effect

model is the appropriate for this study in all equations and these models should be applied for further panel data analysis.

### 4.6.2 Hausman Test

For the best appropriate model selection in panel data analysis, this study has applied the Hausman test between fixed effect and random effect. This Hausman test tells us about that which is the best suitable model for study.

TABLE 4.9: Hausman test

	Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
AQ without moderator*	Cross-section random	29.112177	11	0.0022
AQ with moderator**	Cross-section random	31.792042	13	0.0026
VR without moderator***	Cross-section random	196.074148	11	0.0000
VR with moderator****	Cross-section random	199.925359	13	0.0000

Note: \* Equation 1 , \*\* Equation 2, \*\*\* Equation 3 , \*\*\*\* Equation 4

The above the table of Correlated Random Effects - Hausman Test reveals that the value of Chi-square is significant which means that the fixed effect model is the right model for this study in panel data analysis.

## 4.7 Analysis by Using Panel Tests

The fixed-effect model appears to be appropriate for all equations based on the Hausman and redundant test findings. This study runs four equations. These four equations are used based on having two proxies of FRQ. The first two equations are in Panel A, and the third & fourth are on Panel B. Panel A reports the results for the regressions where the FRQ is determined with the first proxy, i.e., the Accrual quality model, while the estimates in Panel B are based on the second proxy of the FRQ, i.e., the Value Relevance model.

Table 4.10 provides a model summary of the regression results of all four equations. This study reported and focused on the adjusted R square value; which explains the goodness-of-fit in the equation (Asteriou & Hall, 2015). The overall R-squared for the regression in the accrual quality model in both equations with and without moderating terms are 0.25 and 0.26 respectively; and similarly 0.24

without moderation and 0.25 with moderation in the third and fourth equation based on the value relevance model, indicating that the equation is reliable. The F-value in all four equations is significant.

TABLE 4.10: Panel Regression Results

	Panel A: Accrual Quality				Panel B: Value relevance			
	without moderation		with moderation		without moderation		with moderation	
	Coeff	P value	Coeff	P value	Coeff	P value	Coeff	P value
FBD	-0.0119	0.040**	-0.0074	0.029**	-0.3211	0.042**	-0.1804	0.034**
FAC	0.0053	0.021**	0.0076	0.005**	0.4210	0.051*	0.7325	0.010**
FO	0.2632	0.2150	-0.0077	0.2140	0.0954	0.6620	-0.0021	0.6840
FO*FBD			-0.0075	0.034**			-0.8745	0.000***
FO*FAC			-0.0077	0.011**			-0.6252	0.011**
FS	0.3763	0.000***	0.0172	0.020**	0.1215	0.000***	0.0142	0.000***
BS	0.0543	0.9290	-0.0073	0.031**	0.3445	0.8450	-0.8754	0.031**
ACS	0.0001	0.039**	0.0058	0.021**	0.0845	0.000***	0.0327	0.001***
ROA	0.0212	0.007**	0.0008	0.030**	0.0574	0.024**	0.0602	0.021**
FA	0.0114	0.003***	0.0008	0.003**	0.0325	0.000***	0.2265	0.000***
FG	-0.0350	0.8980	-0.0038	0.8190	0.0784	0.2630	0.0278	0.3210
_cons	4.7218	0.0000	0.5135	0.0010	-118.2600	0.0000	-73.8000	0.0000
F-statistics	3.2400		4.2100		41.2100		46.7800	
overall R-sq	0.2547		0.2648		0.2412		0.2462	

Note: The dependent variables are Accrual quality (AQ) and Value relevance (VR). The independent variables are Female representation in BODs (FBD) and Female representation in AC (FAC), and moderating variable is family ownership (FO). Control Variables are Firm Size (FS), Board size (BS), AC size (ACS), Return on assets (ROA), Firm age (FA), and Firm Growth (FG).

\*\*\*, \*\* and \* denote significance at 1%, 5% and 10% significance, respectively.

## 4.8 Analysis by Using Dynamic GMM Tests

Similarly to panel data tests, dynamic GMM regressions are run using the same four equations. These four equations are used based on having two proxies of FRQ. The first two equations are in Panel A, and the third & fourth are on Panel B. Panel A reports the results for the regressions where the FRQ is determined with the first proxy, i.e., the Accrual quality model, while the estimates in Panel B are based on the second proxy of the FRQ, i.e., the Value Relevance model.

Table 4.11 provides a model summary of the regression results of all four equations. This study reported and focused on the adjusted R square value; which explains the goodness-of-fit in the equation (Asteriou & Hall, 2015). The overall R-squared for the regression in the accrual quality model in both equations with and without moderating terms are 0.13 and 0.16 respectively; and similarly 0.34

without moderation and 0.36 with moderation in the third and fourth equation based on the value relevance model, indicating that the equation is reliable. The F-value in all four equations is significant.

TABLE 4.11: Dynamic GMM Regression Results

		Panel A: Accrual Quality				Panel B: Value relevance			
c		0.3353	0.000***	0.4099	0.005**	0.1579	0.002**	0.1507	0.000***
FBD		-0.3024	0.031**	-0.0010	0.000***	-0.0080	0.000***	-0.0011	0.012*
FAC		0.0004	0.000***	0.0013	0.081*	0.0016	0.012**	0.0029	0.005**
FO		0.0035	0.005**	0.0076	0.032**	0.2950	0.005**	0.2942	0.000***
FO*FBD				-0.0010	0.000***			-0.0031	0.032*
FO*FAC				-0.0010	0.005**			-0.0021	0.000***
FS		0.0061	0.000***	0.0073	0.021*	0.1007	0.002**	0.1013	0.002**
BS		-0.0062	0.9580	-0.0250	0.004**	-0.1830	0.6540	-0.1842	0.015*
ACS		0.0192	0.002**	0.0172	0.061*	0.0924	0.002**	0.0933	0.001*
ROA		0.0015	0.031*	0.0009	0.002**	0.0002	0.035**	0.0003	0.000***
FA		0.0101	0.001**	0.0118	0.000***	0.2293	0.000***	0.2266	0.021***
FG		-0.0291	0.6850	-0.0632	0.6210	-0.0023	0.3650	-0.0002	0.5140
AR(1)		0.0032	0.010*	-0.0040	0.003**	0.7257	0.002***	0.7224	0.000**
AR(2)		0.4125	0.5120	-0.0050	0.6250	-0.0140	0.6540	-0.0111	0.6980
overall	R-	0.2231		0.2444		0.4443		0.4464	
sq									
DW stat		1.7009		1.7755		2.2713		2.1722	
J-stat		274.35	0.469	294.95	0.362	2600.10	0.098	2597.39	0.625

Note: The dependent variables are Accrual quality (AQ) and Value relevance (VR). The independent variables are Female representation in BODs (FBD) and Female representation in AC (FAC), and moderating variable is family ownership (FO). Control Variables are Firm Size (FS), Board size (BS), AC size (ACS), Return on assets (ROA), Firm age (FA), and Firm Growth (FG).

\*\*\*, \*\* and \* denote significance at 1%, 5% and 10% significance, respectively.

## 4.9 Hypothesis Discussion

The discussion of hypothesis are analyzed and examined in light of the dynamic GMM regression findings, because it is considered as more advanced test for panel data than the Panel regression test.

### 4.9.1 Impact of Female Representation in BODs on FRQ

The results show that there is a positive significant impact of female representation in BODs on FRQ. Null hypothesis is accepted. Study results are consistent with the findings of (Darmadi, 2013; Hashim et al., 2019). They also found a negative impact of female presence in BODs on FRQ. The findings found that the presence of females on boards serves only a symbolic role and that their contribution to

good governance in Pakistan is non-existent. However, having women on BODs does not lead to enhanced FRQ in Pakistani listed companies. The findings are consistent with the majority of findings of European studies (Phuong & Hung, 2020; Ud Din et al., 2021). The corporate landscape of Pakistan differs from that of Europe, but the nature of women and their attitudes toward work are universal.

Following are the reasons for this negative result:

- The possibility is that female board members do not possess financial skills and are therefore unable to contribute effectively to improving the FRQ. This is particularly the case where a female is nominated on the board not on the grounds of any particular skill but merely due to her relationship with the controlling family.
- A view is presented by Arioglu (2020), that female board member may not be able to pay any great attention to financial reporting due to difficulties in maintaining office/house balance in their lives. This observation has particular relevance to the social and cultural situation obtained in Pakistan where females are expected to devote considerable time to house-related duties to the detriment of their obligations as a board member of the company.
- Thirdly, unless a female director has specialized finance knowledge, they are generally not provided any direct link or contact with those who are sitting in account departments for the preparation of accounts and financial reports.
- Fourthly, the number of females' directors in Pakistan is still very close to the mandatory minimum of one per board. This is not sufficient to enable female board members to wield any real power over the quality of financial reports. This reason is similar to the study of Green and Homroy (2018), where female representation in BODs is just to meet regulatory criteria.
- Women on boards, according to Hillman, Cannella Jr et al. (2002), must have the necessary professional experience to improve business performance. These ladies are also observed to have a hard time managing their wages.

These suggested reasons influence the negative impact of females in BODs on FRQ. Perhaps subsequent research can explore this area in greater depth to arrive at the true relationship between the presence of female directors and the FRQ.

#### 4.9.2 Impact of Female Representation in AC on FRQ

Regarding the second hypothesis, the result further shows that there is a positive significant impact of female representation in AC on FRQ using both proxies. Study finding supports second alternative hypothesis. This implies that the involvement of female in AC improve FRQ. Members sitting in AC either male or female are having financial knowledge and expertise because the selection of these members is based on providing better FRQ. According to prior research, having a female director on the AC is connected with better financial reporting (Amorelli & García-Sánchez, 2020; Kibiya et al., 2016; Pucheta-Martínez María et al., 2018), fewer earnings management (Arun et al., 2015; Kontesa, Chai, Brahmana, & Kontesa, 2020; Selahudin et al., 2018), better monitoring, and sound internal reporting procedures (Lee-Hwei Khaw & Liao, 2018; W. K. H. Omer & Al-Qadasi, 2019; Tee & Kasipillai, 2021).

These findings suggest that leadership accounting for gender diversity improves AC performance and has an impact on FRQ. These findings are in line with earlier studies like Dobjija et al. (2021), Ud Din et al. (2021), and Mulder (2017). Moreover, female members in AC are cooperative towards subordinates, conservative towards financial disclosures, and actively participate in committee meetings; these factors deter misstatements and fraud (Lai et al., 2017; Mulder, 2017; Oradi & Izadi, 2019; Thiruvadi & Huang, 2011; Ud Din et al., 2021). AC members having accounting expertise increase FRQ and firm performance (Din et al., 2020; Sultana et al., 2019). Female members in AC work for the betterment of FRQ as they have innovative and creative ideas for reducing fraud chances in financial reporting (N. K. Kakabadse et al., 2018; Matsa & Miller, 2013).

These results are aligned with those of previous research done by Din et al. (2020), who concluded that females in AC have better performance towards FRQ. Hashim et al. (2019) reveal that female representation in AC is associated with maintaining

better FRQ. The reasons for this situation are quite easy to understand as several studies in human resources management have adequately demonstrated that females make better auditors and have a more accurate financial sense. A report by KPMG revealed in 2018 that more than 64% of employees in senior positions in audit firms in Europe are now females for this apparent reason (Oluwatoyin, Agbi, & Mustapha, 2021). While it is heartening to note the positive relationship between the presence of females on ACs and the quality of financial reports of listed companies, this study hasten to add that it would be hasty to conclude that most companies in Pakistan have a good number of female members in their ACs. This study is still quite far from that situation. However, this finding does provide an incentive for companies to place more (financially knowledgeable) female board members on ACs.

### **4.9.3 Impact of Family Ownership on FRQ**

In panel regression test, family ownership has no significant impact on family ownership while using dynamic GMM, the results show that there is a positive significant impact of Family ownership on FRQ. Alternative hypothesis 3 was supported in case of GMM. This implies that Family ownership acts as a pure moderator in Panel regression test because family ownership by itself has no direct effect on FRQ but it moderates the relationship between FBD/FAC and FRQ. On the contrary, the GMM results show that Family ownership is only a partial moderator because in it, both interaction terms are significant but the coefficients of Family ownership are also significant.

GMM is advance than panel regression therefore discussion is based on its results. Family-owned businesses use a variety of methods to ensure that their financial reporting is error-free. Previous research on the impact of family ownership on financial reporting integrity has yielded varied results. Family business owners tend to convince investors as well as outsiders to buy non-controlling interests and to perform their responsible role by preparing high-quality financial data (Magnanelli et al., 2017; Peni & Vähämaa, 2010). Direct monitoring, stronger managerial integration, lower operational risk, deeper business expertise, and a better awareness

of the link between the business owner, customers, and suppliers make family businesses less vulnerable to financial statement manipulation (E. Vieira & Madaleno, 2019). Our results are consistent with the findings of previous researches (Calabrò et al., 2020; Duréndez & Madrid-Guijarro, 2018; Tong, 2007; E. Vieira & Madaleno, 2019).

Family owners can also mitigate managerial opportunistic behavior and financial manipulation (Arujunan et al., 2018; Fakhri et al., 2021; Ghaleb et al., 2020; A. Saeed et al., 2017; Faisal Shahzad et al., 2019a). Family owners control the quality of accounting information and the degree of disclosure (Cascino et al., 2010). When ownership is highly concentrated, large shareholders also control the quality of accounting information and the level of disclosure. Cascino et al. (2010) found that family firms used higher-quality financial disclosures following a long-term investment plan. Family ownership restricts earnings management, which may have an impact on FRQ. According to Mohammad and Wasiuzzaman (2019), family ownership has positive and significant impact on FRQ. It is due to the strong influence of family owners on governance structure i.e BODs and AC, which help in preparing financial reporting. Therefore alternative hypothesis 3 is supported because family ownership has positive and significant values.

#### **4.9.4 Moderating Role of Family Ownership Among Female Representation in BODs and FRQ**

The fourth hypothesis is about moderating effect of family ownership between female representation in BODs and FRQ. The result shows negative significant values in both models of accrual quality and value relevance. Hence alternate hypothesis 4 is supported. This shows that family ownership mitigates the relationship between female representation in BODs and FRQ. Expected causes for negative value are quite similar to those presented earlier, namely female directors in family-controlled companies are not always selected based on their financial knowledge and competence, but due to their link to the family (Calabrò et al., 2020; E. Vieira & Madaleno, 2019). It can be said that the nomination of female members of a family on the board of a family-controlled company does not make

the board a truly gender-diverse board. If a female director is not able to exert her powers as a director (due to a lack of competence, or social causes that lead to the dominance of males over females in families), it considerably erodes the advantage of placing her on the board.

The findings are similar to WOB's most recent survey-2020 findings. Aftab Ahmed, CEO, and founder of WOB-Pakistan, spoke to Business Recorder pointed out some key flaws in the country's situation of women directors:

“Despite the improvement, half of the listed companies still don't have women directors, and those that are directors are usually either part of a family business or relatives. The survey shows that more than 65 percent of women directors are on a related basis. Similarly, the majority of the women in statutory positions like chairperson or CEO are also on a related basis — most of the female directors are on 3-4 boards, which further cuts down the number of unique women holding a board position. Furthermore, it's usually women from major business families of the country that hold positions on multiple boards of firms within the sponsor group”.

It has been observed that when a majority of directors belong to the same family, the board discussions are controlled by the “elders” of the family, not the professionals. This curtails the effectiveness of female directors. Complying with the legal requirement of having a female on the board will in itself not produce any meaningful results unless the women chosen for the role are capable of holding such a position and secondly if they are allowed to exert the due authority as a director based on their talents and temperaments.

#### **4.9.5 Moderating Role of Family Ownership Among Female Representation in AC and FRQ**

The fifth hypothesis is about moderating effect of family ownership between female representation in AC and FRQ. The result shows negative significant values using both accrual quality and value relevance. Hence, hypothesis 5 is supported. This

shows that family ownership weakens the relationship between female presence on ACs and FRQ. Expected reasons for negative results are;

- Firstly, family owners have held control of management and financial reports; therefore their focus is on the best financial reports rather than true and fair reports. Therefore these family owners also control and influence the decisions of AC.
- Secondly, females are having a busy routine; they are busy with office work as well as home tasks too. Due to time constraints, females in AC do not work effectively.

## 4.10 Discussion of Control Variables

Out of six control variables, four variables were found to be significant in Equations 1 and 3, i.e. both equations without moderating terms. The coefficients on firm size, AC size, firm performance, and firm age are positive and significant with FRQ in both proxies of accrual quality and value relevance. The coefficient of firm growth and board size are having insignificant values.

While using moderating terms i.e. family ownership in Equations 2 and 4, control variables are shown similar significant results. Out of six control variables, four variables were found to be significant. The coefficient of firm size, the board size, AC size, firm performance, and firm age is positive and significant with FRQ either using accrual quality or value relevance as a proxy. Firm growth is insignificant in both models.

### 4.10.1 Firm Size

Firm size is showing a positive significant impact on FRQ. This study result is consistent with previous literature findings. This result shows that large firms are expected to have better accounting and financial reporting structures because these large firms can't afford any fraud and error in financial reporting (Rooney,

2021; Tarus, 2020). They're also expected to have a well-designed information system that allows them to keep track of all financial and non-financial data for strategic, tactical, and operational objectives (Shaheed, 2013). According to Lee (2009), the larger firms seem to depict a better quality of financial reports as these firms are visible and under more scrutiny (Naser et al., 2002; Soyemi & Olawale, 2019).

#### **4.10.2 Board Size**

The results of board size are significant when using family ownership as moderator i.e. equations 2 and 4 and results are insignificant without moderator equations i.e. equations 1 and 3. It indicates that the size of the board has no direct effect on FRQ. But board size has a significant effect on FRQ when family ownership moderates that relationship. Family-owned companies influence their board to keep FRQ better because a large board means innovative and creative ideas.

The larger board size seems to be better for family-owned companies in Pakistan because it might bring more innovative ideas and diversity in the decision-making process and help evaluate the financial reports critically. Regarding the family firms, they have small board sizes (Chen & Cheng, 2008). This study result is consistent with the results of previous studies which also found the insignificant effect of board size on FRQ (Bataineh, Abuaddous & Alabood, 2018; Florencea & Susanto, 2019).

#### **4.10.3 AC Size**

It is showing significant results in all four equations. It indicates that AC size has a significant and positive effect on FRQ. The result is consistent with the findings of previous studies (Chijoke-Mgbame et al., 2020a; Marzuki, Haji-Abdullah, Othman, Wahab, et al., 2019; Oradi & Darjezi, 2019; Shankaraiah & Amiri, 2017). If the AC size is big then it means having fast and better decision making, more innovative and creative ideas, and more chances to look at losses and fraudulent activities. If the AC size is adequate (not too small and not too big); than the

AC's effectiveness will likely improve. Even though a large committee may result in higher control in losses these committees' workload allocation should be distributed evenly.

Persons (2009) found that Companies having big ACs have early voluntary disclosure and are less probable to experience misleading financial reporting. According to Aderemi, Osarumwense, Kehinde, and Ben-Caleb (2016) and Alqatamin (2018), larger AC might have an advantage in form of skills and diversity. By pooling the diverse skills together, the entity has a higher likelihood of producing foolproof financial reports. If the size of the AC increased, FRQ improved because more audit and finance experts are sitting on AC can make financial reports according to accounting and audit standards (Kantudu & Samaila, 2015). Lin, Li, and Yang (2006) contended and reported that the AC size is significantly associated with better FRQ. size of AC increased, and FRQ was improved (Kantudu & Samaila, 2015). This is because the number of AC members of sufficient size is better than a small committee size (DeZoort, 2002; Cummings, 1974). Ghosh, Marra, and Moon (2010) found AC size positively associated with FRQ. To the findings of the previous studies, an appropriate size of the AC will provide a high quality of financial reporting monitoring (Pugliese et al., 2014).

#### **4.10.4 Firm Performance**

ROA is showing significant positive results in all four equations. It indicates that firm performance has a significant positive effect on FRQ. If the firms perform better, having better financial outcomes then it will enhance the quality of financial reports. The result is consistent with the previous study of Sanan et al. (2019). Firm performance is being used as a metric to assess the consistency and predictability of a company's future operations (Rostami & Rezaei, 2021; Soyemi & Olawale, 2019). It is expected that firms with a higher financial performance tend to have better FRQ (Watts and Zimmerman 1990). Thus, Firm performance should be a good determinant of whether financial reports are excellent or bad (Soyemi & Olawale, 2019).

#### 4.10.5 Firm Age

Firm age is showing significant results in all four equations. It is believed that a company's financial reporting and audit system improves over time and that a well-structured audit system should naturally ensure the financial report's integrity (Chalaki et al., 2012). It is believed that firms having more years of existence become more structured and have a strong and effective board and AC, which results in better FRQ (Yan Wang et al., 2019).

#### 4.10.6 Firm Growth

It is insignificant in all four equations (Kong, Famba, Chituku-Dzimiro, Sun, & Kurauone, 2020). High-growth companies tend to publish high-quality financial reports, which should be encouraged (Kantudu & Samaila, 2015; Soyemi & Olawale, 2019). Firms with significant firm growth are anticipated to control manipulation better and have a higher FRQ (Chih et al. 2008). Hence, huge companies are more likely to provide high-quality financial reports, which should be promoted (Kantudu & Samaila, 2015; Soyemi & Olawale, 2019). According to Smith and Watts (1992), better asset growth leads to higher accruals that in turn lead to improved FRQ (Hirshleifer & Teoh, 2003; Iatridis, 2008).

TABLE 4.12: Summary of Hypothesis

<b>Hypothesis</b>	<b>Result</b>
<i>Hypothesis 1: There is a positive impact of female representation in BODs on FRQ.</i>	Negative significant
<i>Hypothesis 2: There is a positive impact of female representation in AC on FRQ.</i>	Positive significant
<i>Hypothesis 3: There is a positive impact of Family ownership on FRQ</i>	Positive significant
<i>Hypothesis 4: Family ownership strengthens the influence of female representation in BODs on FRQ.</i>	Negative significant
<i>Hypothesis 5: Family ownership mitigates the influence of female representation in AC on FRQ.</i>	Negative significant

# Chapter 5

## Conclusion and Recommendations

In this chapter, first of all, a summary of research findings and a conclusion drawn based on this study's findings are presented in the first section. Limitations and future recommendations or directions are narrated in the next section.

### 5.1 Conclusion

It is desirable to empirically and theoretically investigate those factors of the firm which have an impact on the FRQ. Ineffective governance structures, such as the BODs and AC, are one of the causes of poor FRQ. Companies can eliminate conflicts; motivate people to perform at higher levels, and increase accountability mechanisms by creating good corporate governance processes, hence increasing the company's growth and ability to profit. Due to a lack of corporate governance, many of these enterprises have perished. Many studies have found that companies with competent and efficient BODs and AC can produce and distribute high-quality financial reports (Klai & Omri, 2011; Nalukenge, Tauringana, & Ntayi, 2017; Siagian, Siregar, & Rahadian, 2013; E. Vieira & Madaleno, 2019). Previous research has demonstrated that having diverse BOD and AC affects FRQ.

Currently, one important form of diversity is gender diversity. For scholars, legislators, and statutory authorities, gender diversity in BODs and ACs have become a popular issue. The presence of female representation in BODs and AC can create diversity in BODs and AC. And such boards and ACs perform better and have better financial reporting as compared to those which have no female representation. Gender diversity policies in board rooms have been established internationally in the form of mandatory quotas, governance code modifications, and disclosure requirements to increase the level of female presence among BODs and AC (Adams, 2016). Corporations hire females for making diverse BODs and AC for effective results and efficient decisions. According to Satria et al. (2020), board and auditing diversity may lead to the establishment of a diverse team of talents, expertise, and knowledge, and so the BODs have more power to complete responsibilities for shareholders' interests. according to the majority of previous studies, Gender diversity in BODs and ACs has significant positive or negative effects on FRQ (Din et al., 2020; Dobija et al., 2021; Kaplan, Pany, Samuels, & Zhang, 2009; Oradi & Izadi, 2019; Pucheta-Martínez et al., 2018b; Ud Din et al., 2021).

Another factor that also affects the relationship of female presence in BODs & AC and FRQ is family ownership structure. In Pakistan, family ownership has more percentage as compared to non-family ownership corporations. Therefore family ownership has a strong influence on female presence in BODs & AC and FRQ. In family ownership, mostly they hire their members in BODs and AC, and this practice affects FRQ (Gulzar & Wang, 2010).

There are five objectives of this study. The first two are to examine the impact of female representation in BODs and AC on FRQ, and the third objective is to investigate whether FRQ is better in family ownership as compared to non-Family ownership. The last two objectives are to examine the moderating effect of family ownership among female representation in BODs and AC and FRQ. This study used two proxies for FRQ, i.e. accrual quality and value relevance. Data is a balanced panel, using a sample of 256 companies for the period of thirteen years i.e. from 2008 to 2020 listed on the Pakistan Stock Exchange (PSX). Panel estimation techniques are used; i.e. panel data regression techniques, and second

technique is dynamic generalized method of moment (GMM) estimator to control unobserved heterogeneity, endogeneity, the dynamic effect of variables, and reverse causality in its estimation.

The results of the first hypothesis show that there is a negative significant impact of female representation in BODs on accrual quality and value relevance. The negative association shows that increasing the number of women on BODs decreases the board's ability to manage higher FRQ. However, it would be wrong to jump to such a conclusion without considering the financial competence of females on the BODs. The result of the second hypothesis further shows that there is a positive significant impact of female representation in AC on FRQ. From these findings, it is concluded that the study supported the second alternative hypothesis but rejected the first null hypothesis.

The third hypothesis is about to investigate whether FRQ is better in family ownership as compared to non-Family ownership. This alternative hypothesis is supported. This result shows that family ownership can enhance FRQ. According to Faisal Shahzad et al. (2019a), family ownership has a significant effect on FRQ. Family owners work for a better quality of financial disclosure.

The fourth hypothesis is about moderating effect of family ownership between female representation in BODs and FRQ. The result shows negative significant values. The fifth hypothesis is about moderating effect of family ownership between female representation in AC and FRQ. The result shows negative significant values. From these findings, it is concluded that fourth and fifth alternative hypotheses of the study are supported. These results show that family owners hire their family members or relatives in their BODs and AC, and this practice affects the FRQ. Justifications for negative significant effects are:

- Female directors are appointed to boards because of their affiliations to these corporate groups, not because of their qualifications or experience.
- These females just sitting on the board/AC to fulfill the quota requirement mandated by Pakistan corporate governance law but they don't effectively participate in the monitoring and preparation of FRQ.

- When family owners are sitting on board/AC, then their voice and decisions matter a lot, other members don't communicate properly in their presence of them. This communication barrier effect FRQ badly.
- Family owners have held their control on management and financial reports; therefore their focus is on the best financial reports rather than true and fair reports. Therefore these family owners also control and influence the decisions of AC.

Females are having busy routines; they are busy with office work as well as home tasks too. Due to time constraints, females onboard and AC do not work effectively.

The findings reveal that Pakistan still has a long way to go in terms of integrating women and girls as economic beneficiaries and shapers. However, it has recently taken significant steps to close the gender gap in corporate boardrooms and ACs, making them more inclusive, varied, and diverse.

## 5.2 Limitations of this Study

This study, like many others, contains Limitations that could lead to more research in the future.

- The study model is limited only to Pakistani manufacturing and non-financial listed firms on the Pakistan stock exchange (PSX).
- This study considers only two attributes of governance structure, i.e., female representation and the size of the BODs and AC, so future studies may use other factors too.
- This study is limited only to the family and non-family ownership structures, so it is required to focus on other ownership structures too, like government ownership, concentration ownership, foreign ownership, etc.

- The focus of this study is limited to the gender diversity of the BODs and AC. Ethnic groupings, experiences, and social and political dynamics are some of the other aspects of the board and AC. However, the effects of such features on FRQ are not taken into account in this study. This is something that future studies could look at.

### 5.3 Implications for Future Research and Practice

While the results of this research have been enumerated above, it would be helpful to look at them critically considering the following cultural, social and demographic aspects of our economy:

1. It is recommended for companies to hire females in BOD and AC and trained them towards FRQ.
2. The tendency to nominate female members of the controlling families on the company boards needs to be curbed. A person, male or female, should be nominated to the board only if he or she possesses the requisite qualities for holding that office. This situation can be addressed if it is made compulsory that at least two of the three female directors should be independent directors and that they should not have any linkage with the controlling family. Therefore, it is recommended for government to mandate the BOD to hire independent female directors, because when a female is an independent director then she may work more effectively and efficiently.
3. In particular, the nomination of AC members should be done very carefully. While this study would like to recommend that at least one member of the AC must be a female, this study stress that membership of AC must be restricted to persons with sound financial and corporate reporting practices knowledge.
4. It is recommended that regulators make policies, practices, or the establishment of mandatory regulations or principles for family-owned firms to

transform these businesses into professional entities, as they play an important part in the global economy. They make up almost two-thirds of all business entities on the globe. They provide 50-80% of job prospects and are listed on stock exchanges in 70% of cases. Their GDP contribution ranges from 70 to 90 percent. They make significant contributions in terms of taxation, investment, and philanthropy. To maintain Pakistan's soft image, it is recommended for family businesses should be listed, because it creates wealth for the economy, and expand globally.

5. It is recommended for Firms to nominate women to corporate boards to achieve gender-balanced board benefits, which include protecting investor trust, attracting foreign institutional investments, ensuring market efficiency, better monitoring, and transparency. Furthermore, boosting female presence in senior positions could improve the quality of strategic management, as higher degrees of people orientation and flexibility could be useful in formulating larger corporate policies.
6. It is recommended for companies that members of the BOD of family enterprises should be chosen on merit rather than seniority among family members, according to experts. If the family lacks a skilled director, they may be hired from the outside.

### **5.3.1 Recommendations for Researchers**

In the future, there are various potential prospects for more research and enhancements to be explored. For researchers, further suggestions are recommended:

- To analyze the results on basis of using other proxies of FRQ e.g. predictability, smoothness, timeliness, conservative, persistence, etc.
- To establish the effects of a higher percentage of female presence on the boards of listed companies in Pakistan.
- To explore the impact of a larger number of independent female directors on board and AC performance and FRQ.

- To evaluate the impact of female directors on FRQ of financial sector companies in Pakistan.
- To explore other influencing factors of BODs and AC e.g. age, education, professional expertise, qualifications of directors, ethnic and cultural diversity, etc.
- To analyze this model based on different companies' comparisons like the pre-merger/post-merger, acquisition, shariah, and non-shariah, financial and non-financial, etc.
- Examining the comparative studies involving two or more countries in our part of the world can also be useful and lead to some pertinent and useful conclusions.
- To investigate the research phenomenon at various time intervals. A longitudinal design, particularly a panel study, may be able to improve results by providing more definitive and concrete outcomes. Future studies should use the Delphi technique, which entails conducting focus group interviews with industry experts.

The recommendations made above can yield useful results for the quality of corporate governance in Pakistan in general, and of the financial reporting systems in particular.

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