

Shariah Compliance and Ownership as Moderators of Board Characteristics and Firm Performance: A Moderated Moderation Model

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The purpose of research is to study how the board characteristics conditionally impact the firm performance with primary moderator ownership concentration and secondary moderator shariah compliance in the Pakistani equity market from 2010 to 2021. The study entails board characteristics, including the size of the board, women's directorship, independent audit committees, and independent non-executive directors. It employs Tobin's Q (TQ) as a measure for firm value and the moderated moderation model 3 of Hayes (2017) to determine the conditional effect. The results show significant negative conditional effect of board size and positive significant conditional effect of female representation on TQ, and insignificant conditional effects of independent audit committees and independent directors on TQ.

1. Introduction

Corporate governance (CG) has gained worldwide attention after the financial debacles of 2008 which affected the entire globe. CG is phenomenal in resolving agency problems that arise between owner and manager in business entities where owners are not involved in the management. The sound CG framework establishes the foundation for achieving the company's objectives by overseeing all management procedures, from controls to measures, and may profoundly affect the firm's strategic decisions and improve performance.

CG addresses the agency conflicts that could be between owners and managers, or between small and large owners, or between firm and other stakeholders i.e. creditors, vendors, community etc (Du Plessis et al., 2018). These agency issue can be reduced by using different tools of corporate governance i.e. by converging stakes of management and owners, proper oversight by the board, dividend payout, large shareholders and by using certain external measures including the legal framework, markets and external audits depending on the nature of agency conflict. Controlling shareholders have the power to improve internal control by disciplining the management and thus are instrumental in minimizing agency problems (Grosman & Leiponen, 2018). On the flip side, large shareholders may themselves exhibit opportunistic behavior towards small shareholders in emerging markets and adversely affect the quality of CG system (Crisostomo et al., 2020). Consequently, the large shareholders extract personal benefits at the expense of small shareholders and are detrimental to firm value (Eugster & Isakov, 2019). These agency issues are exacerbated as the dominant blockholders leverage their control through crossholdings and pyramids structures while keeping the level of ownership low (Xiao & Zhao., 2020; Basheer et al., 2021).

The external forces which are unique to countries also affect the efficacy of CG mechanism such as law and regulation, political environment, cultural and social fabric, and capital market efficiency. Pakistan's corporate sector is mainly dominated by the government, families, and significant business groups who own the bulk of publicly traded enterprises, where more than 64% of Pakistan's publicly traded enterprises are family-owned (Din et al., 2021). In addition, to gain control of the firm, Pakistani corporations use cross-shareholdings and interlocking directorships. The strategic decisions and effectiveness of boards are influenced by controlling shareholders. Additionally, the country's general governance and legal environment are not very conducive for investors. The estimates of Worldwide Governance Indicator (WGI) for Pakistan, which gauges the overall governance and the rule of law, has been negative for over a decade. In addition, corruption is more rampant in Pakistan as compared to other Asian countries. According to the Corruption Perception Index (CPI), Pakistan has never crossed the value of 30 (1 being highly corrupt and 100 being very clean). Therefore, Pakistani people are more likely to exhibit opportunistic behavior (Sheikh et al., 2018).

The agency problems, inadequate disciplinary mechanisms, systematic corruption, weak investor protection, and concentrated ownership, may render the CG mechanism not as optimal as it should be. To supplement the potential and efficacy of CG, shariah compliance (SC) could be

an additional monitoring tool to control the agency issues and opportunistic behavior of controlling shareholders and managers in Pakistani firms. Shariah compliance is rooted in Islamic principles which protect the interests of all stakeholders. Islam teaches morality and ethical behavior and prevents from exhibiting opportunistic behavior and undertaking fraudulent activities. Moral values are at the core of Islamic teachings and are the basis of an ethical governance structure. Therefore, shariah compliance improves the efficacy of CG mechanism and practices in Pakistan (Ullah et al., 2023).

Hence, the paper aims to measure the CG's conditional effect on firm performance using Tobin's Q (TQ) with two moderators i.e. concentrated ownership and shariah compliance. The study has several theoretical and practical contributions. To begin with, the research on how shariah compliance influences firm value is still in its infancy (Ullah et al., 2022), particularly in non-financial firms, as the empirical work on shariah compliance was mainly undertaken in financial firms (Frag et al., 2018; Qureshi & Kalim, 2018; Khan & Zahid, 2020; Neifar et al., 2020) with only a few studies conducted in non-financial sector (Akguc & Rahahleh, 2018; Pepis et al., 2018; Shahrier et al., 2020). Most of the past research examined the implication of shariah compliance for stock returns and performance of shariah indices in equity markets (Masih et al., 2018; Mohd-Rashid et al., 2018; Jamil et al., 2020; Saba et al., 2021). Therefore, this investigation intends to add to finance and CG research by incorporating the shariah perspective for non-financial firms. The findings help to determine how the shariah compliant status affects the behaviors of controlling shareholders and board members. Therefore, the study will augment the existing literature by exploring the conditional effect of board features on the firm value with a moderating effect of ownership and shariah compliance. Furthermore, the empirical research on the adequacy of business governance in abating agency conflicts in developing nations has been largely inconclusive because in such countries the firms have concentrated ownership where most shares are held by families. This research will make contributions in the realm of agency theory by claiming that shariah compliance can be useful in mitigating agency problems and moderating the effect of concentrated ownership. To the best knowledge of the researcher, the use of the moderated moderation model (Hayes, 2017) in studying the nexuses of corporate governance, ownership, and shariah compliance is a contribution to finance literature that has not been done before. Finally, the study validates the existing literature and gives significant understanding to managers who are looking after the Islamic equity indices.

2. Literature Review

2.1 Board Size

A large board is typically considered to be inefficient and ineffective due to inadequate coordination, contact, and decision-making (Lipton & Lorsch, 1992; Jensen, 1993; Guest, 2009). Jensen (1993) argues that the problems in coordination and communication are mainly caused by difficulty in arranging meetings, reaching an agreement, and inefficient decision-making. Additionally, the cohesiveness of the board is affected by the lack of a common purpose and lack of communication among the board members (Lipton & Lorsch, 1992). Past empirical studies have

reported different results about the nature of the association between the size of the board and firm performance with most of them finding a negative relation (e.g. Yermack 1996; Hermalin & Weisbach, 2001). Singh and Davidson (2003) found that a large board was inefficient in employing assets. Hermalin and Weisbach (2001) also suggest that the enormous size of a board makes it less effective, and it becomes more symbolic in nature. The negative view of large boards was moderated by Coles et al. (2008) who suggest a positive link between the size of a board and the value of a firm. The same was reported by Johl et al. (2015), Kalsie and Shrivastav (2016), Qadorah and Fadzil (2018) and Boussenna (2020). that a large board has a positive association with firm value and is more efficient in monitoring and creating value for the shareholders.

2.2 Female Representation

Women are generally better workers due to attributes like patience, multi-tasking, high level of education (Amran et al., 2014), integrity and risk aversion (Swamy et al., 2001), and the ability to follow rules more enthusiastically (Lückerath-Rovers, 2013). These attributes enable women to perform better than males. The literature shows that the women board members are prudent decision-makers as compared to their male counterparts (Huang & Kisgen, 2013; Levi et al., 2014; Liu et al., 2014) and are likely to be better monitors. Several researchers have reported a favorable effect of female directors on firm value (Julizaerma & Sori, 2012; Levi et al., 2014, etc). Research implies that women directors are instrumental in creating shareholder value by exerting influence on the acquisitions (Levi et al., 2014). Julizaerma and Sori (2012) reported that the representation of two or more females on the boards improves the decision-making and monitoring role and consequently improves the shareholders' wealth. Likewise, Liu et al. (2014) reported that women directors positively influence firm performance particularly the impact got stronger with the increase of female directors. They reported a positive effect of female directorship on ROA and ROE and an unfavorable impact on TQ. Other empirical studies report an inverse relationship between women directorship and performance (Ryan and Haslam, 2005; Adams & Ferreira, 2009; Wang & Clift, 2009; Haslam et al., 2010; Pletzer et al., 2015).

2.3 Independent Audit Committee

The independence of an audit committee prevents firms from being involved in fraudulent activities (Abdullah et al., 2008) and ensures that the financial reporting is in accord with best CG practices of auditing (Swamy, 2011). The audit quality consequently improves an organization's performance (Chan & Li, 2008; Mandzila et al., 2016; Kallamu & Saat, 2015). Bansal and Sharma (2016) investigated how an audit committee along with other CG components affect the firm's performance. However, more independent directors on the AC and with insufficient technical expertise may adversely affect the performance of a firm (Al-Mamun et al., 2014). Few studies reported insignificant effects of AC independence for firm performance (Zhou et al., 2018).

2.4 Independent Non-Executive Directors

Independent directors' presence is seen as the critical CG trait in monitoring corporate CEOs' opportunistic attitudes (Darko et al., 2016). When a board has more independence, it is more effective (Jizi et al., 2014; Fernández-Gago, 2016) in reducing agency problems (Volonté,

2015). The theory of resource dependence posits that outside directors positively alter the value creation activities and resultantly improve firm performance. Many researches have demonstrated a positive effect of independent directors on firm performance and stock returns (Dahya & McConnell, 2007; Pathan & Faff, 2013; Fogel et al., 2014). However, insiders may not be effective due to less information as compare to insiders while making decision or relationship with the shareholders who appoint them. Therefore, the outside directors may have a negative effect on firm performance (Rashid, 2018).

2.5 Empirical Studies on Board Characteristics and Firm Performance in the Pakistani Equity Market

Studies undertaken on the Pakistani capital market report mixed findings regarding the connection between the characteristics of a board and firm performance. Yasser et al. (2017) investigated the influence of board characteristics on firm performance as measured by ROA, TQ, and economic value added (EVA). The results reported a favorable influence of the size of a board, minority representation, and family directors on firm performance, whereas the independent directors negatively affected the firm performance. Bhat et al. (2018) found that independent directors play a significant role in reducing agency problems and improving the performance of the firm, whereas the board size and board meetings do not affect the firm value. Waheed and Malik (2019) concluded that in Pakistan's context, large boards do not affect the firm performance adversely. Khan et al. (2019) reported a positive effect of the size of a board and board diversity on firm performance. Rahman et al. (2020) found a positive impact of board size, concentrated ownership, managerial and institutional ownership on firm operations. Ali et al. (2022) examined the correlation of board characteristics on the firm productivity measured by ROA, and the findings exhibit that board size, board independence, directors' education, and ROA positively correlate with one another. Amin et al. (2022) explored the implications of board gender diversity for agency cost in Pakistan's non-financial corporate sector. The results suggest female directors' presence reduce the agency's cost and agency conflicts effectively. Khan et al. (2021) highlighted the agency conflict perspective in Pakistan which is between small and large owners. They suggested that representation should be given to minority shareholders. Likewise, they suggested the presence of institutional and independent non-executive directors would also be effective in reducing agency problems.

2.6 Ownership Structure as a Moderator

The ownership structure is considered a critical corporate governance instrument, especially when the investor has low legal protection in emerging markets (Alhababsah, 2019). In such economies, where shareholder protection is low, concentrated ownership plays an important role in reducing agency problems (Claessens et al., 2002). In the absence of a developed labor market, effective external mechanism of corporate control and presence of outside large shareholders, managers are likely to misuse the wealth of shareholders for their personal interests. In such situations, the large insiders monitor the management and prevent the agency problems (Singal & Singal., 2011).

Most shareholders let the corporation take a "long-term" view and increase "long-term" value for the owners. According to Demsetz and Lehn (1985), the concentrated ownership may be useful in alleviating agency problem as controlling shareholder have a stronger motivation to oversee management as they bear a large share of the losses caused by managerial opportunism. Large shareholders may overcome the problem of free rider in monitoring the behavior of managers (Shleifer & Vishny, 1997). According to previous research, large shareholders use takeovers to improve the system of CG (Shivdasani, 1993), or dismiss ineffective managers who are unable to increase the value of owners (Kaplan & Minton, 1994).

Concentrated shareholders due to their large shareholding have the power and incentive to control the board's structure (Kim et al., 2005). The nomination of directors is influenced by nepotism and partiality, irrespective of their skills and expertise which may decrease the effectiveness of the board and leads to lower performance of the business (Desender, 2009). Consequently, board decisions are influenced significantly by the pattern of ownership. Furthermore, when a company is controlled by a family, they have a strong influence and the rights of small owners can be exploited (Zellweger & Astrachan, 2008; Haddad et al., 2015; Watkins-Fassler et al., 2017). This can lead to the majority shareholders seeking private benefits like taking the key positions despite not fulfilling the eligibility criteria by putting the capital of minority stockholders at stake.

The increased control of dominant shareholders on the board restricts the authority of board members (Chen & Al-Najjar, 2012; Munisi et al., 2014). According to Shatnawi et al. (2021), the moderation role of concentrated ownership on the independent audit committee and performance could affect the audit committee's efficacy and subsequently firm performance. Likewise, Abdullatif et al. (2015) discovered that concentrated ownership adversely affected the audit committee's effectiveness. Setia-Atmaja (2009) studied that concentrated ownership moderated the effect of the independence of the board and audit committee on firm value. The findings showed that ownership concentration did not affect the independence of the board and AC. Kim et al. (2007) reported a negative link between concentrated ownership and board independence. Cordeiro (2020) studied the effect of ownership and female directors on affecting environmental business performance. Results indicated a positive effect of the interaction of these two classes of ownership and gender diversity on CSR. Likewise, Buertey (2021) found that centralized ownership adversely moderated the association between women directors and corporate social responsibility.

2.7 Shariah Compliance as a Moderator

Publicly traded companies that have been given Shariah-compliant status are considered ethical businesses that follow and retain moral standards in their operations (Maruhun et al., 2018). Shariah-compliant corporations may have different investors and therefore may have a different mechanism of corporate governance as compared to non-shariah-compliant firms (Imamah et al., 2019). A Shariah-compliant corporation should have an ethical corporate governance structure in place, which ensures that all of the firm's activities, contracts, and processes, including risk

management, comply with the ethical code (Lewis, 2005). This broad perspective of CG is consistent with Islamic principles, which hold management accountable for good corporate behavior as a trustee of the owners. According to Jiang et al. (2018), firms that adhere to Islamic principles are prone to observe ethical corporate practices about managerial remuneration or financial reporting. The followers of Islam are permitted to do business in accordance principles and Islamic laws i.e. honesty, fairness and "self-monitoring obligation." A board of directors who have a more reasonable understanding of Islamic teachings and conventions can promote ethical behavior in their firms thus increasing the precision of the financial statements and their managers' conduct (Khan & Zahid; 2020). These virtues of the directors of SC firms are likely to be instrumental along with best CG practices to optimize the strategic direction of a firm and consequently improve its performance (Sloane-White, 2011).

Empirical research in CG reveals that board size impacts the board's management levels and examination, and also the company's disclosure level (Akhtaruddin, et al. 2009). The larger boards would allow for better oversight and consistency in terms of Shariah norms and principles. Therefore, the companies with SC status are expected to be well governed and the board acts as a steward and makes favorable decisions with a good effect on performance and dividend payout of the firm. Also, the limited investment opportunities make directors invest in the most profitable ventures. Shahrier et al. (2020) studied how CG influences firm performance in Shariah-compliant firms. They uncovered that the outside members on the board who possess education beyond a bachelor's have positively affected the firm performance and CEO duality negatively affected the firm performance. Inside board members have a positive effect but in case when they also happen to be owners this effect turns out to be negative. Jamaludin and Bahaudin (2022) examined the impact of board characteristics on the performance of Shariah-compliant listed firms in Malaysia. The findings imply that the board characteristics have a favorable effect on the performance except for board meetings and women directorship which have a negative effect.

According to advocates of conventional finance, the implementation of shariah compliance is presumably adversely affected by limited financing and investment opportunities. However, the proponents of Islamic finance contend that due to specific characteristics of Shariah-compliant firms i.e. social ethical investment, low leverage, and a focus on industries other than finance can lead to better performance (McGowan & Junaina, 2010). However, the literature presents mixed evidence on the performance of sharia indices. According to the first strand in the literature, the firms that are Shariah-compliant are expected to perform better (Pepis et al., 2019). The SC firms can perform better as a result of the Islamic values that are imbibed in the corporate culture by directors and management (Buallay, 2019). Akguc & Al Rahahleh's (2018) study is a pioneer work to fill that gap by studying the operating performance of SC businesses by using samples from six Gulf Council countries. They investigated the operating performance of an NSC. They found SC to be more profitable than NSC. Pepis et al. (2019) investigated how in the long run shariah compliance affects the firm's financial success when measured as return on sales. The results show a positive influence of Shariah compliance on firms' long-term. Saba et al. (2021) examined

Shariah and non-Shariah firms' performance in Malaysia. They found that Shariah compliance increases the value of a firm as all the transactions are undertaken according to the principles of Shariah. The other strand in literature predicts that Shariah compliance negatively influences or does not influence firm value (Albaity & Ahmad, 2008; Farooq & Alahkam, 2016; Hutchinson et al., 2017) due to financial and investment criteria required for a firm to be Shariah compliant.

The following hypotheses have been formulated on the basis of reviewed literature.

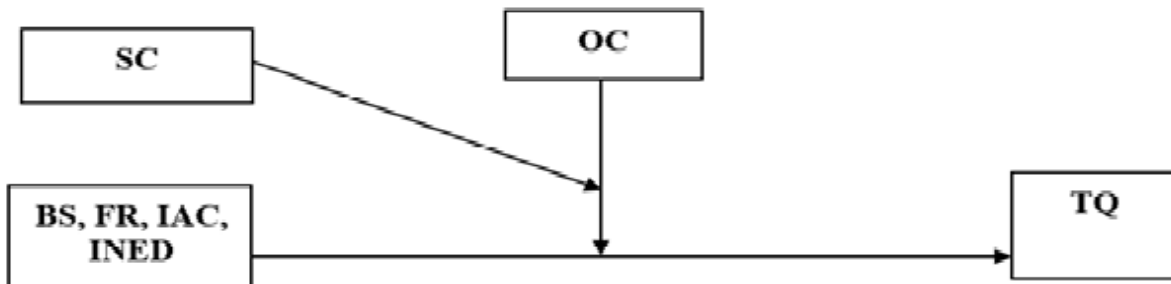
H1: Shariah Compliance moderates the moderating effect of Ownership concentration on the relationship between board size and firm performance.

H2: Shariah Compliance positively moderates the effect of Ownership concentration on the relationship between female directors and firm performance.

H3: Shariah Compliance moderates the moderating effect of Ownership concentration on the relationship between independent audit committees and firm performance.

H4: Shariah Compliance moderates the moderating effect of Ownership concentration on the relationship between independent directors and firm performance.

Figure No 1: Conceptual Framework



3. Research Methodology

3.1 Sample

The study was limited to the firms which are listed on Pakistan Stock Exchange (PSX) and total of 530 firms are listed on PSX, which are distributed in 37 sectors. Initially, a sample of 399 firms from non-financial sectors listed on PSX was chosen. However, due to data availability constraints and the establishment of many firms after 2010, 149 firms had to be dropped. The final sample included 250 non-financial firms from different sectors. Moreover, following the previous financial research, the sample did not include the financial sector (close-end mutual funds, banks, insurance, investment banks, leasing, modaraba, and exchange-traded funds) due to different regulatory frameworks and financial reporting (Ciftci et al., 2019).

3.2 Data Source

PSX website was used to obtain firms annual reports from the period 2010-2021. The study used the company's annual reports for data on board characteristics and State Bank's financial statements analysis for data collection of accounting variables. The identification of Shariah-compliant firms was done through the share Islamic index of Pakistan. The index has a base value of 1500 points as of 31 December 2014.

3.3 Operationalization of Variables

1. Board Size: Log of total number of board of directors (Chen & Al-Najjar, 2012)
2. Female Representation (FR): Percentage of women directors present on the board (Adams & Ferreira, 2009).
3. Independent Audit Committee (IAC): Number of outside directors on the AC divided by total AC members (Larasati et al., 2019).
4. Independent Directors (INED): It is calculated as the number of independent directors divided by the total number of directors (Merendino & Melville, 2019).
5. Tobin's Q: Tobin's Q is a market-based proxy of firm performance and is calculated book value of assets plus the market value of ordinary minus book value of ordinary share minus deferred taxes divided by the book value of assets (Bhagat & Bolton, 2019).
6. Shariah Compliance: A dummy variable (SC) is used for Shariah compliance which equals one if the firm stock is Shariah compliant and zero otherwise (Imamah et al., 2019).
7. Concentrated Ownership (OC): Number of shares held by the top five shareholders (Waheed & Malik, 2019).
8. Control Variables: To enhance the robustness of the results and to increase the predictability of the model, three control variables will be used namely, leverage, firm size, and growth and profitability.
 - a. Leverage (LEV): Total debt divided by total assets (Chang & Hong, 2000).
 - b. Firm Size (FSIZE): The natural log of total assets is taken to calculate firm size (Dang et al., 2018).
 - c. Growth (G): The percentage change in sales (Qurochman, 2022).

3.4 Econometric Models

The general equation for the moderated moderation model or three-way interaction (Hayes, 2017) is where a moderator itself gets moderated by a secondary moderator given below.

$$Y = \beta_0 + \beta_1 X + \beta_2 W + \beta_3 Z + \beta_4 XW + \beta_5 XZ + \beta_6 WZ + \beta_7 XWZ + e$$

In the above eq, the interaction product of independent variable (X), primary moderator (W) and secondary moderator (Z) is XWZ. This interaction term permits the moderation effect of W on the relationship between X and Y to depend on Z. To overcome the econometric challenges and for meaningful interpretation, each board characteristic (BS, FR, IAC, INED) has been used in the equation separately. Eq 1, 2, 3, and 4 show the conditional effect of BS, FR, IAC and INED on TQ respectively.

$$(TQ)_{i,t} = \beta_0 + \beta_1(BS)_{i,t} + \beta_2(OC)_{i,t} + \beta_3(SC)_{i,t} + \beta_4(BS)(OC)_{i,t} + \beta_5(BC)(SC)_{i,t} + \beta_6(OC)(SC)_{i,t} + \beta_7(BS)(OC)(SC)_{i,t} + \beta_8(FSIZE)_{i,t} + \beta_9(G)_{i,t} + \beta_{10}(Lev)_{i,t} + \varepsilon_{i,t} \dots \dots \dots (1)$$

$$(TQ)_{i,t} = \beta_0 + \beta_1(FR)_{i,t} + \beta_2(OC)_{i,t} + \beta_3(SC)_{i,t} + \beta_4(FR)(OC)_{i,t} + \beta_5(FR)(SC)_{i,t} + \beta_6(OC)(SC)_{i,t} + \beta_7(FR)(OC)(SC)_{i,t} + \beta_8(FSIZE)_{i,t} + \beta_9(G)_{i,t} + \beta_{10}(Lev)_{i,t} + \varepsilon_{i,t} \dots \dots \dots (2)$$

$$(TQ)_{i,t} = \beta_0 + \beta_1(IAC)_{i,t} + \beta_2(OC)_{i,t} + \beta_3(SC)_{i,t} + \beta_4(IAC)(OC)_{i,t} + \beta_5(IAC)(SC)_{i,t} + \beta_6(OC)(SC)_{i,t} + \beta_7(IAC)(OC)(SC)_{i,t} + \beta_8(FSIZE)_{i,t} + \beta_9(G)_{i,t} + \beta_{10}(Lev)_{i,t} + \varepsilon_{i,t} \dots \dots \dots (3)$$

$$(TQ)_{i,t} = \beta_0 + \beta_1(INED)_{i,t} + \beta_2(OC)_{i,t} + \beta_3(SC)_{i,t} + \beta_4(INED)(OC)_{i,t} + \beta_5(BC)(SC)_{i,t} + \beta_6(OC)(SC)_{i,t} + \beta_7(INED)(OC)(SC)_{i,t} + \beta_8(FSIZE)_{i,t} + \beta_9(G)_{i,t} + \beta_{10}(Lev)_{i,t} + \varepsilon_{i,t} \dots \dots \dots (4)$$

4 Results & Discussions

4.1 Descriptive and Correlation Analysis

The results of Descriptive statistics and Pearson correlation are depicted in Table 1. The correlation coefficient shows that TQ is positively related to BS, IAC, INED, and OC (r = .086, r = .038, r = .057, respectively) and negatively related to FR (r = -.052).

Table No 1: Descriptive Statistics and Pearson’s Correlation Analysis

	M	SD	TQ	BS	FR	IAC	INED	OC	SC
TQ	1.359	1.518	1						
BS	7.93	1.462	.086**	1					
FR	.116	.149	-.052**	-.145**	1				
IAC	.265	.174	.038*	.016	.168	1			
INED	.175	.143	.057**	.112**	-.045*	.693**	1		
OC	.642	.198	.194**	-.033	033	015	.025	1	
SC	.52	.500	028	-.055**	.115**	002	.054**	-.053**	1

4.2 Moderated Moderation Analysis

Hayes's (2017) moderated moderation analysis is done using PROCESS macro in SPSS. Model 3 was used to investigate the moderation role of concentrated ownership and shariah compliance. The variables of interest were standardized for computation. The effects of firm size, growth, and leverage are controlled and are included as covariates in the double moderation analysis. The predictive power and goodness of the results improve with the inclusion of the control variables. Tables 2, 5, 8, and 9 show the moderated moderation analysis of board characteristics and Tobin’s Q with primary moderator ownership concentration and secondary moderator shariah compliance.

Table No 2. Model characteristics of Moderated Moderation Analysis, BS = IV, TQ = DV, OC = Primary Moderator, SC = Secondary Moderator, Y=TQ

Variables	Coefficient	SE	t	p	LLCI	ULCI
Constant	1.9922	0.5895	3.3795	0.0007	0.8364	3.1481
BS	-0.2117	0.0673	-3.1458	0.0017	-0.3437	-0.0798
OC	-3.4318	0.8575	-4.0021	0.0001	-5.113	-1.7505
BS x OC	0.5637	0.1055	5.3453	0	0.357	0.7705
SC	-2.8155	0.8807	-3.1969	0.0014	-4.5422	-1.0888
BS x SC	0.3088	0.1069	2.8878	0.0039	0.0992	0.5185
OC x SC	5.5306	1.3047	4.2389	0	2.9725	8.0888
BS x OC x SC	-0.5828	0.1591	-3.6633	0.0003	-0.8947	-0.2709
FSIZE	0.0007	0.0152	0.0458	0.9635	-0.0291	0.0305
G	0	0	0.5353	0.5925	0	0
LEV	0.3948	0.0291	13.57	0	0.3377	0.4518
R ²	0.1091					
F	42.5825					

Table 2 depicts the results of moderated moderation analysis. The simple effect of BS on TQ is significantly negative ($\beta=-.2117, p=.0017$). The moderation of concentrated ownership when SC is 0 on the relationship between board size and firm performance suggests a positive moderating effect ($\beta=.5637, p=.0000$). Finally, the three-way interaction shows that the shariah compliance negatively moderates the conditional effect of OC on BS and TQ ($\beta=-.5828, p=.0003$) or it weakens the moderation effect of OC on the effect of BS on TQ. Therefore, H1 is accepted.

Table 3. The Conditional Effect of BS*OC when SC=0,1 on TQ

SC	Effect	F	df1	df2	p
0	0.5637	28.5719	1	3478	0
1	-0.019	0.0253	1	3478	0.8736

Table No 4: Conditional effects of the BS at different values OC and SC

OC	SC	Effect	SE	t	p	LLCI	ULCI
0.4109	0	0.0199	0.0327	0.6088	0.5427	-0.0442	0.084
0.4109	1	0.0893	0.0384	2.3252	0.0201	0.014	0.1646
0.6608	0	0.1608	0.0283	5.6907	0	0.1054	0.2162
0.6608	1	0.0845	0.023	3.6679	0.0002	0.0393	0.1297
0.8568	0	0.2713	0.0395	6.8698	0	0.1939	0.3487
0.8568	1	0.0808	0.0323	2.5	0.0125	0.0174	0.1442

Table 3 depicts the conditional effect of BS*OC at different values of SC. Among non-shariah compliant firms, OC significantly and positively moderate the effect of BS on TQ, whereas among shariah-compliant firms the OC does not significantly moderate the effect of BS on TQ.

Table 4 depicts the conditional effect of BS on TQ at different values of OC and SC. The effect is stronger at high level of OC when SC is 0.

Figure No 2: The conditional effect of BS on TQ as a function of OC and SC

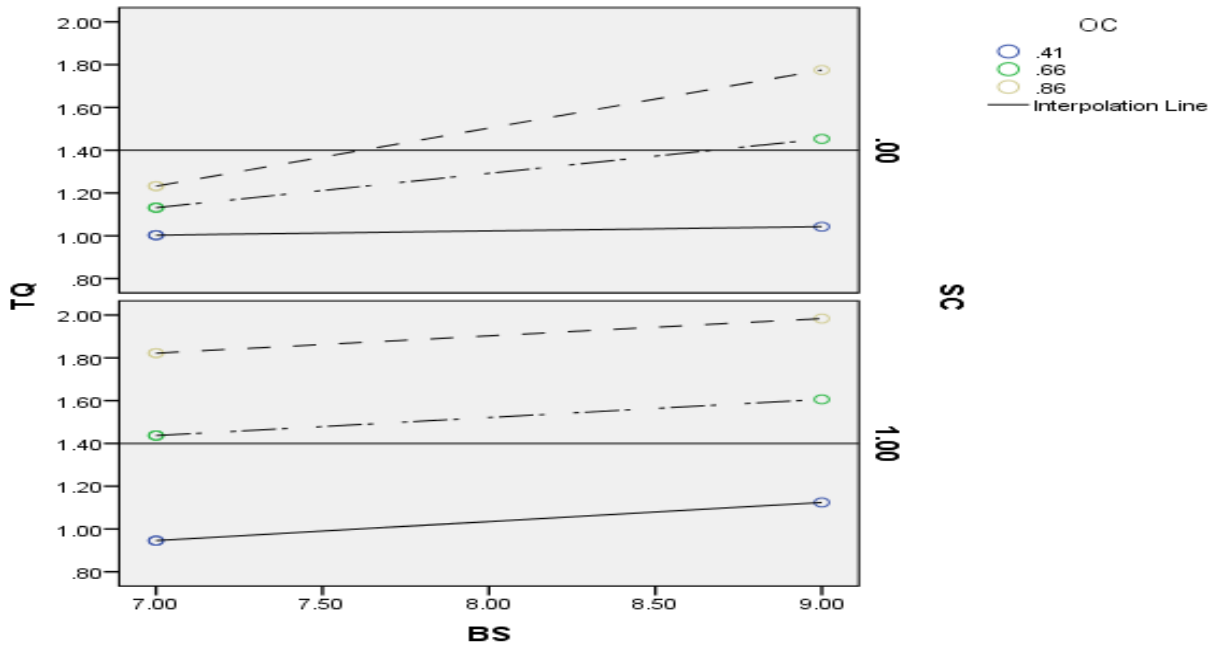


Figure 1 depicts the visualization of this three-way interaction which is generated by using estimated values of TQ for different combinations of BS, OC, and SC. It shows that among non-shariah compliant firms OC significantly moderates the effect of BS on TQ.

Table No 5. Model characteristics of Moderated Moderation Analysis, FR = IV, TQ = DV, OC = Primary Moderator, SC = Secondary Moderator, Y=TQ

Variables	Coefficient	SE	t	p	LLCI	ULCI
Constant	-0.4631	0.2602	-1.7797	0.0752	-0.9732	0.0471
FR	2.1157	0.7723	2.7396	0.0062	0.6016	3.6299
OC	1.5474	0.2307	6.7073	0	1.0951	1.9997
FR x OC	-4.1603	1.1121	13.3949	0.0002	-6.3408	-1.9798
SC	-0.1298	0.2114	-0.6142	0.5391	-0.5442	0.2846
FR x SC	-1.7674	1.1438	-1.5452	0.1383	-4.0099	0.4751
OC x SC	0.4656	0.314	1.4827	0.1224	-0.1501	1.0812

FR x OC x SC	3.5484	1.6812	2.1106	0.0349	0.2522	6.8446
FSIZE	0.0337	0.0142	2.379	0.0174	0.0059	0.0615
G	0	0	0.5213	0.6022	0	0
LEV	0.3922	0.0293	-3.7409	0	0.3348	0.4496
R ²	0.1001					
F	38.6894					

Then the conditional effect of FR on firm performance has been investigated. As depicted in Table 5, the results show a positive simple effect of FR on Tobin’s Q ($\beta=2.1157$, $p=.0062$). The moderation analysis shows that OC has a significant negative moderation effect ($\beta=-4.1603$, $p=.0002$) on the relationship between FR and TQ. The interaction term of FR, OC, and SC was significantly positive ($\beta=3.5484$, $p=.0349$) which indicates existence of three-way interaction and therefore H2 is accepted.

Table 6. The Conditional Effect of FR*OC when SC=0,1 on TQ

SC	Effect	F	df1	df2	p
0	-4.1603	13.994	1	3478	0.0002
1	-0.6119	0.235	1	3478	0.6278

Table 6 depicts the conditional effect of FR*OC at different values of SC. Among non-shariah-compliant firms, OC significantly moderates the effect of FR on TQ, whereas among shariah-compliant firms the OC does not significantly moderate the effect of FR on TQ.

Table No 7: Conditional effects of the FR at different values OC and SC

OC	SC	Effect	SE	t	p	LLCI	ULCI
0.4109	0	0.4065	0.3618	1.1235	0.2613	-0.3028	1.1157
0.4109	1	0.097	0.3762	0.2577	0.7966	-0.6407	0.8346
0.6608	0	-0.6334	0.2279	-2.7791	0.0055	-1.0802	-0.1865
0.6608	1	-0.056	0.2402	-0.233	0.8158	-0.527	0.415
0.8568	0	-1.449	0.3133	-4.6247	0	-2.0632	-0.8347
0.8568	1	-0.1759	0.3623	-0.4857	0.6272	-0.8862	0.5344

Table 7 depicts the conditional effect of FR on TQ at different values of OC and SC. The effect is stronger at high level of OC when SC is 0.

Figure No 1. The conditional effect of FR on TQ as a function of OC and SC

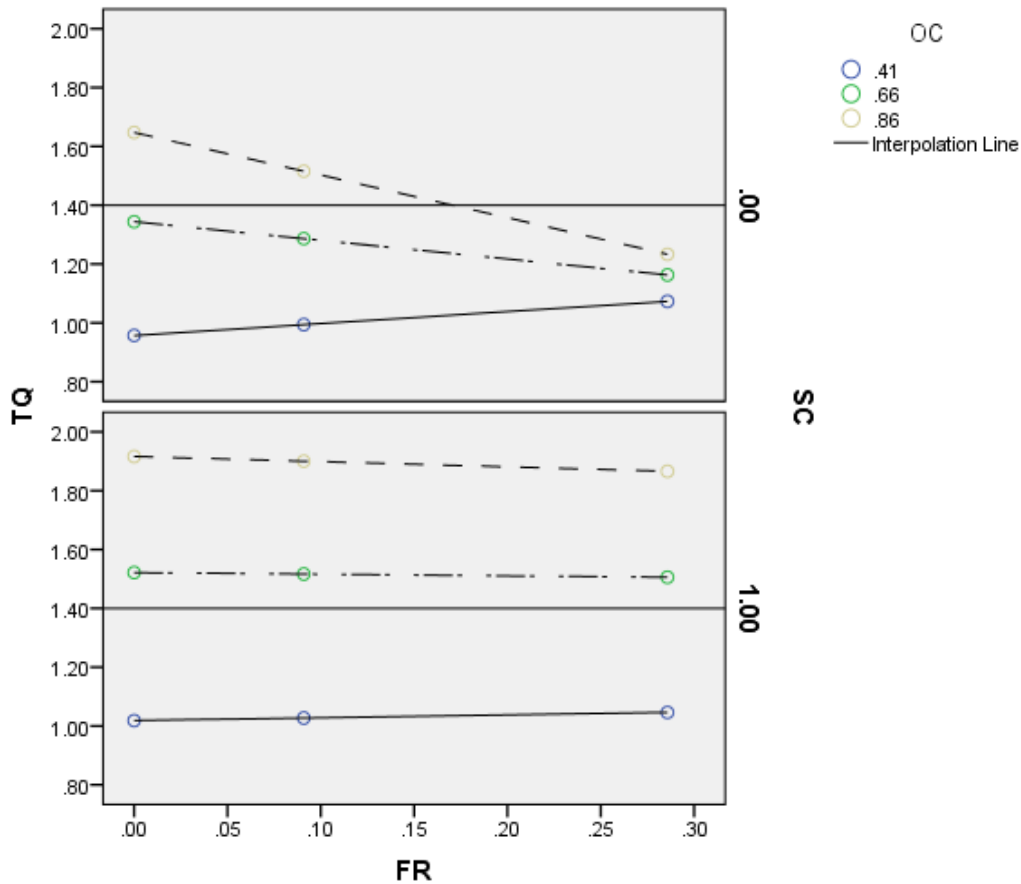


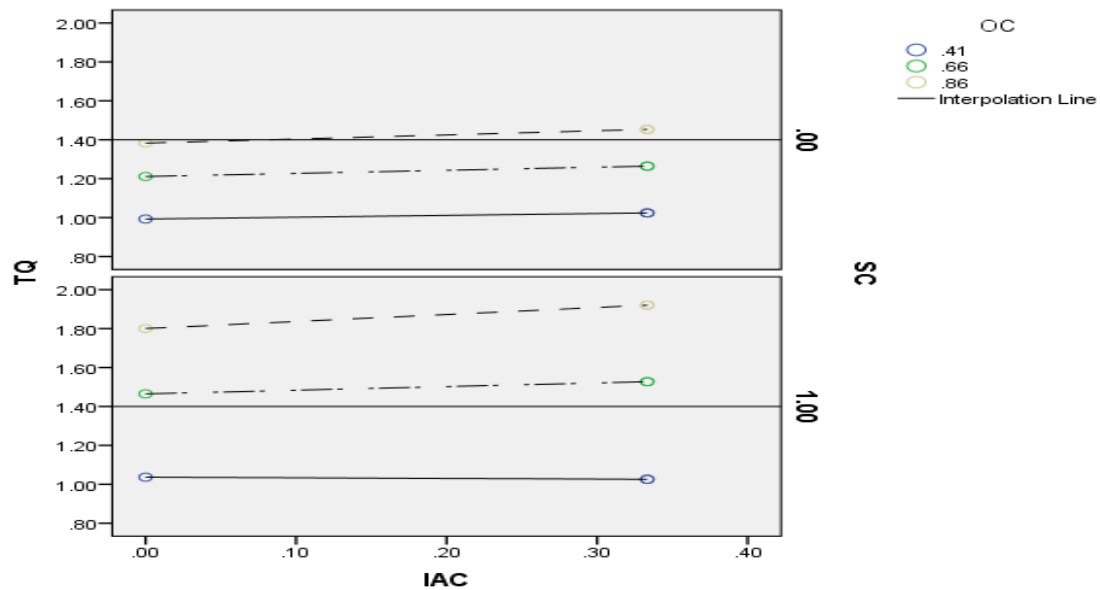
Figure 2 depicts the visualization of the three-way interaction of FR, OC, and SC on TQ. It can be seen that when SC=0, the conditional effect of OC on FR and TQ is negative and significant at moderate and high levels of OC. When SC is equal to 1, the effect of OC becomes insignificant. Therefore, the moderating effect of OC among shariah firms is not as strong as in non-shariah firms.

Next, the conditional effect of IAC on firm performance was explored. Table 8 reports no significant conditional effect of IAC on TQ. The moderators OC and SC do not affect the relationship of IAC and TQ. Only the interaction term of both moderators OC and SC is significant ($\beta=.8380, p=.0587$). Hence H3 is rejected.

Table 8. Model characteristics of Moderated Moderation Analysis, IAC = IV, TQ = DV, OC = Primary Moderator, SC = Secondary Moderator
Y=TQ

Variables	Coefficient	SE	T	p	LLCI	ULCI
Constant	-0.2742	0.2847	-0.9632	0.3355	-0.8324	0.284
IAC	-0.0153	0.6609	-0.0232	0.9815	-1.3111	1.2805
OC	0.875	0.3103	2.8194	0.0048	0.2665	1.4835
IAC x OC	0.2647	0.98	0.2701	0.7871	-1.6566	2.1861
SC	-0.3003	0.2956	-1.016	0.3097	-0.8798	0.2792
IAC x SC	-0.3788	0.941	-0.4025	0.6873	-2.2238	1.4662
OC x SC	0.838	0.4431	1.8914	0.0587	-0.0307	1.7068
IAC x OC x SC	0.6156	1.412	0.436	0.6629	-2.1528	3.3841
FSIZE	0.0414	0.0139	2.9656	0.003	0.014	0.0687
G	0	0	0.5843	0.5591	0	0
LEV	0.4016	0.0294	13.6532	0	0.3439	0.4593
R ²	0.0949					
F	36.4669					

Figure No 2: The conditional effect of IAC on TQ as a function of OC and SC



The pictorial view indicates that the interaction of OC and SC has a positive effect on TQ and an insignificant impact of both variables on the effect of IAC on TQ. H4 Rejected

Table 9. Model characteristics of Moderated Moderation Analysis, INED= IV, TQ = DV, OC = Primary Moderator, SC = Secondary Moderator
Y=TQ

Variables	Coefficient	SE	t	p	LLCI	ULCI
Constant	-0.1391	0.2692	-0.5167	0.6054	-0.6668	0.3886
INED	-0.6319	0.8584	-0.7361	0.4617	-2.3148	1.0511
OC	0.5961	0.2739	2.1767	0.0296	0.0592	1.1331
INED x OC	2.0078	1.2425	1.616	0.1062	-0.4283	4.4439
SC	-0.4838	0.2589	-1.8686	0.0618	-0.9914	0.0238
INED x SC	0.4627	1.1738	0.3942	0.6935	-1.8388	2.7642
OC x SC	1.2542	0.3832	3.2726	0.0011	0.5028	2.0055
INED x OC x SC	-1.4663	1.7227	-0.8512	0.3947	-4.8439	1.9113
FSIZE	0.0397	0.014	2.8353	0.0046	0.0123	0.0672
G	0	0	0.5906	0.5548	0	0
LEV	0.3991	0.0293	13.6334	0	0.3417	0.4565
R ²	0.0971					
F	37.4093					

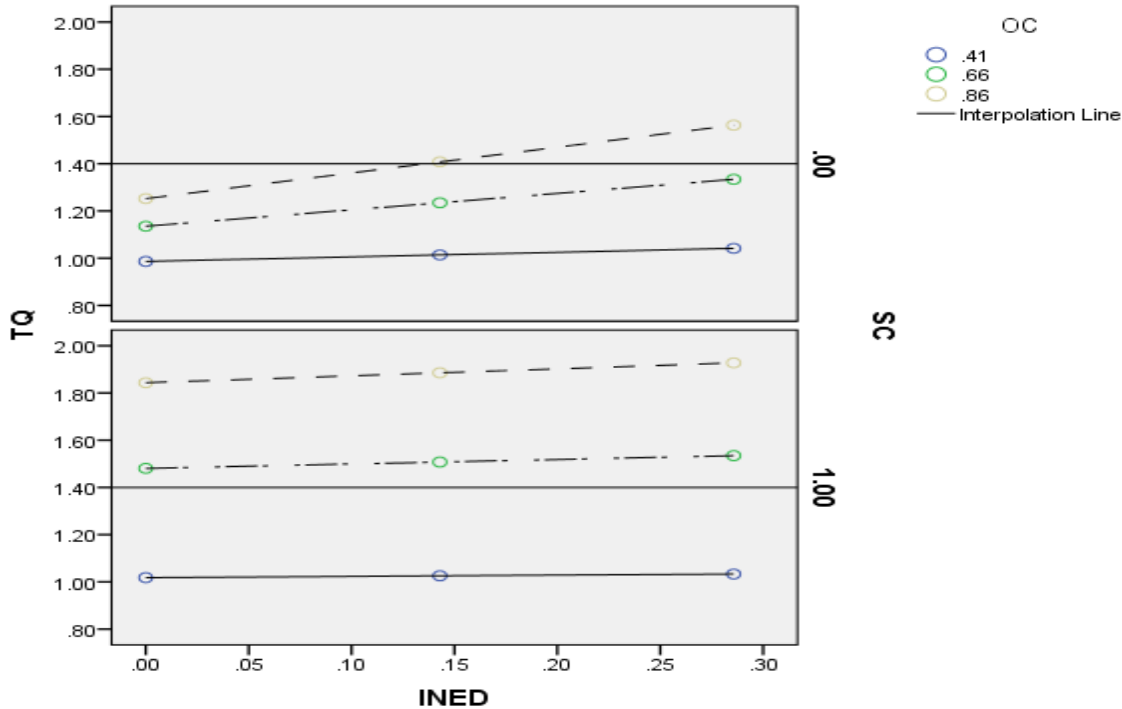
Finally, the conditional effect of INED on firm performance was explored. Table 9 reports no significant conditional effect of INED on TQ.

Table 10: Test of Hypothesis

Sr#	Hypothesis	Status
1	H1	Accepted
2	H2	Accepted
3	H3	Rejected
4	H4	Rejected

The moderators OC and SC do not affect the relationship of IAC and TQ. However, the interaction term of both moderators OC and SC is significant ($\beta=1.2542$, $p=.0011$). According to the statistical results (Table 9), two hypotheses accepted which are H1 and H2 and the rest two H3 and H4 are rejected.

Figure No 3: The conditional effect of INED on TQ as a function of OC and SC



The pictorial view indicates that the interaction of OC and SC has a positive effect on TQ. The pictorial view indicates that the interaction of OC and SC has a positive effect on TQ and an insignificant impact of both variables on the effect of INED on TQ.

4.3 Discussion

According to the result, firm performance is negatively impacted by board size, which supports the prior empirical studies (Yermack, 1996; Singh & Davidson, 2003, etc). This means the large boards are deemed to be ineffective in capital markets. However, the OC positively moderates this relationship between BS and TQ, given the value of SC is 0. It means the main shareholders prefer to have large board with members having diverse skills and knowledge (Westphal, 2009). The addition of board members with different skills, experience, knowledge and competencies helps in effective decision making and functions of board. This perspective is supported by resource dependence theory as well. The inclusion of SC, however moderates and weakens this moderating effect of OC. It implies that, among shariah-compliant firms, the moderation of OC is not significant and the effect of controlling shareholders gets diminished.

Results indicate TQ is positively impacted by female directorship, which are similar to the prior empirical researches (Liu et al., 2014; Julizaerma & Sori, 2012; Amin et al., 2022). The Pakistan business sector is mainly dominated by family ownership. The ownership structure affects the board diversity and composition and previous empirical work indicates the influence of women

directors on firm decisions depends on the ownership structure (García-Meca et al., 2015; Post & Byron, 2015). The findings show that the moderating effect of OC on FR and TQ is inverse and significant, which consistent with the findings of Nadeem (2020) who argued that in family businesses, gender diversity is inversely related to performance. Likewise, Buerthey (2021) also found an inverse moderating effect of ownership on women directorship and corporate social responsibility. This could be also be attributed to the entrenchment hypothesis which posits that controlling shareholders exert their undue influence on the board to make decisions regarding investment and dividends which may only serve their interests and may affect the wealth of small owners. Though the effect of OC on FR is negative when SC is 0, the interaction term turns into a significant positive with the addition of shariah compliance. It means that the shariah compliance positively moderates the primary moderator. The results confirm the additional supplementary role played by the shariah status of a firm. The women in shariah compliant firms with high concentrated ownership positively affect the TQ. This shows the shariah principles guide the self-serving and opportunistic behavior of owners and how they influence female directors.

The effect of IAC on TQ is insignificant and negative. Generally, literature provides a positive impact of IAC on firm performance (Chan & Li, 2008; Kallamu & Saat., 2015; Al-Matari et al., 2014) as independent directors are better monitors as compared to the executive directors because they are cautious about their repute in the labor market (Fama & Jensen, 1983). However, the ACs in Pakistani firms don't have many independent directors or they simply don't exist on ACs. The audit committees are therefore not adequately independent and this lack of autonomy renders them ineffective in playing any role. OC does not moderate the effect of IAC on TQ in both SC and NSC firms.

Finally, the conditional effect of INED on TQ was estimated. According to agency and stewardship theories, independent non-executive directors serve as watchdogs and stewards of shareholders' wealth and therefore are expected to influence firm value positively. However, according to results the impact of INED on TQ is insignificant which indicates the ineffective role of INED in Pakistan's corporate sector which is dominated by concentrated ownership. The existence of dominant shareholders renders the board's monitoring role less effective. As large shareholders usually appoint a less independent board and the appointed independent directors prefers to maintain good relationship with the powerful owners in order to secure their employment. Moreover, outsiders do not have the better knowledge of business as compare to these large shareholders, making the role of independent directors less effective. Additionally, the controlling shareholders reduce the agency problems by monitoring the management themselves. Lastly, the moderation effect of SC on INED*OC is also insignificant. It means the Shariah compliance status of a firm does not affect the role of OC in influencing independent directors.

5. Conclusion

The research analyses the conditional impact of board characteristics on firm performance by using Hayes's (2017) moderated moderation model. The corporate sector of Pakistan is dominated by controlling shareholders who own the bulk of shares and can influence the major

strategic decisions. Concentrated ownership could be instrumental in curbing the agency issues or can create an agency problem between principal and principal. The country suffers from the plague agency conflict between dominant and small shareholders. Also, the legal framework does not protect investors which renders the small owners more vulnerable to exploitation at the hands of the controlling shareholders. Though there is a comprehensive SECP code of corporate governance but still systemic problems of nepotism and corruption exist. In this situation being a Muslim country, shariah compliance could be used as an additional monitoring mechanism. The same was investigated empirically in the study that if shariah compliance status positively moderates the ownership concentration and its influence on the board and firm value. Four board characteristics i.e. board size, female representation, audit committee independence and independent directors were investigated. The conditional effect was significantly negative for board size and significantly positive for female representation, whereas insignificant for both audit committee independence and independent directors.

The study highlights the importance of Shariah compliance as a tool to overcome agency issues. However, the conditional effect was observed to be insignificant in the case of independent audit committees and independent non-executive directors. This is mainly because at the moment non-financial firms are devoid of Shariah supervisory boards. The Shariah guidelines if followed in true letter and spirit can provide an additional monitoring mechanism. Therefore, the study also emphasizes the need for shariah supervisory boards in non-financial firms for more rigorous compliance of Islamic teachings and better governance.

5.1 Limitations and Future Direction

The study has certain limitations. To begin with, Pakistani non-financial firms still don't have shariah advisory boards like financial institution, thus the classification of shariah compliance and non-compliance was based on their stocks listed on all share Islamic index of Pakistan. Therefore, the shariah compliance status of a firm may not be as effective monitoring tool as it is deemed to be. The study was only able to include 250 non-financial firms due to unavailability of data of other firms. Due to data and time constraints, study could not incorporate other Islamic economies like Malaysia, Saudia Arab, Indonesia etc for better generalization of results. For future research, the study could be undertaken in the context of different Islamic countries by increasing the sample size of the study. The current study has used model 3 of Hayes (2017). In future, other conditional models of Hayes (2017) could be explored to study effect of agency issues on firm performance. Future studies could incorporate the comparison of different Islamic.

6. References

- Abdullah, M. S., Shah, S. Z. A., & Hassan, A. (2008). Impact of corporate governance on the financial performance of firms: Evidence from Pakistan. *The Business Review, Cambridge*, 11(2), 282-289.
- Abdullatif, M., Ghanayem, H., Ahmad-Amin, R., Al-shelleh, S., & Sharaiha, L. (2015). The performance of audit committees in Jordanian public listed companies. *Corporate Ownership and Control*, 13(1), 762-773.



- Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of financial economics*, 94(2), 291-309.
- Akguc, S., & Al Rahahleh, N. (2018). Effect of shariah compliance on operating performance: Evidence from GCC countries. *Emerging Markets Finance and Trade*, 54(12), 2874-2896.
- Akhtaruddin, M., Hossain, M. A., Hossain, M., & Yao, L. (2009). Corporate governance and voluntary disclosure in corporate annual reports of Malaysian listed firms. *Journal of Applied Management Accounting Research*, 7(1), 1.
- Albaity, M., & Ahmad, R. (2008). Performance of Syariah and composite indices: Evidence from Bursa Malaysia. *Asian Academy of Management Journal of Accounting and Finance*, 4(1), 23-43.
- Alhababsah, S. (2019). Ownership structure and audit quality: An empirical analysis considering ownership types in Jordan. *Journal of International Accounting, Auditing and Taxation*, 35, 71-84.
- Ali, A., Alim, W., Ahmed, J., & Nisar, S. (2022). Yoke of corporate governance and firm performance: A study of listed firms in Pakistan. *Indian Journal of Commerce and Management Studies*, 13(1), 8-17.
- Al-Mamun, A., Yasser, Q. R., Rahman, M. A., Wickramasinghe, A., & Nathan, T. M. (2014). Relationship between audit committee characteristics, external auditors and economic value added (EVA) of public listed firms in Malaysia. *Corporate Ownership & Control*, 12(1), 899-910.
- Amin, A., Ur Rehman, R., Ali, R., & Ntim, C. G. (2022). Does gender diversity on the board reduce agency cost? Evidence from Pakistan. *Gender in Management: An International Journal*, 37(2), 164-181.
- Amran, A., Lee, S. P., & Devi, S. S. (2014). The influence of governance structure and strategic corporate social responsibility toward sustainability reporting quality. *Business Strategy and the environment*, 23(4), 217-235.
- Bansal, N., & Sharma, A. K. (2016). Audit committee, corporate governance and firm performance: Empirical evidence from India. *International journal of Economics and Finance*, 8(3), 103.
- Basheer, M. F., Gupta, S., Raoof, R., & Waemustafa, W. (2021). Revisiting the agency conflicts in family owned pyramidal business structures: A case of an emerging market. *Cogent Economics & Finance*, 9(1), 1926617.
- Bhagat, S., & Bolton, B. (2019). Corporate governance and firm performance: The sequel. *Journal of Corporate Finance*, 58, 142-168.
- Bhat, K. U., Chen, Y., Jebran, K., & Bhutto, N. A. (2018). Corporate governance and firm value: a comparative analysis of state and non-state owned companies in the context of Pakistan. *Corporate Governance: The international journal of business in society*, 18(6), 1196-1206.
- Boussenna, H. (2020). Board of directors' size and firm performance: evidence from non-financial French firms listed on CAC 40. *Studies in Business and Economics*, 15(2), 46-61.



- Buallay, A. (2019). Corporate governance, Sharia'ah governance and performance: A cross-country comparison in MENA region. *International Journal of Islamic and Middle Eastern Finance and Management*, 12(2), 216-235.
- Buertey, S. (2021). Board gender diversity and corporate social responsibility assurance: The moderating effect of ownership concentration. *Corporate Social Responsibility and Environmental Management*, 28(6), 1579-1590.
- Chan, K. C., & Li, J. (2008). Audit committee and firm value: Evidence on outside top executives as expert-independent directors. *Corporate Governance: An International Review*, 16(1), 16-31.
- Chang, S. J., & Hong, J. (2000). Economic performance of group-affiliated companies in Korea: Intragroup resource sharing and internal business transactions. *Academy of Management journal*, 43(3), 429-448.
- Chen, C. H., & Al-Najjar, B. (2012). The determinants of board size and independence: Evidence from China. *International Business Review*, 21(5), 831-846.
- Ciftci, I., Tatoglu, E., Wood, G., Demirbag, M., & Zaim, S. (2019). Corporate governance and firm performance in emerging markets: Evidence from Turkey. *International Business Review*, 28(1), 90-103.
- Claessens, S., Djankov, S., Fan, J. P., & Lang, L. H. (2002). Disentangling the incentive and entrenchment effects of large shareholdings. *The journal of finance*, 57(6), 2741-2771.
- Coles, J. L., Daniel, N. D., & Naveen, L. (2008). Boards: Does one size fit all?. *Journal of financial economics*, 87(2), 329-356.
- Cordeiro, J. J., Profumo, G., & Tutore, I. (2020). Board gender diversity and corporate environmental performance: The moderating role of family and dual-class majority ownership structures. *Business Strategy and the Environment*, 29(3), 1127-1144.
- Crisostomo, V. L., de Freitas Brandão, I., & López-Iturriaga, F. J. (2020). Large shareholders' power and the quality of corporate governance: An analysis of Brazilian firms. *Research in International Business and Finance*, 51, 101076.
- Dahya, J., & McConnell, J. J. (2007). Board composition, corporate performance, and the Cadbury committee recommendation. *Journal of financial and quantitative analysis*, 42(3), 535-564.
- Dang, C., Li, Z. F., & Yang, C. (2018). Measuring firm size in empirical corporate finance. *Journal of banking & finance*, 86, 159-176.
- Darko, J., Aribi, Z. A., & Uzonwanne, G. C. (2016). Corporate governance: the impact of director and board structure, ownership structure and corporate control on the performance of listed companies on the Ghana stock exchange. *Corporate Governance*, 16(2), 259-277.
- Demsetz, H., & Lehn, K. (1985). The structure of corporate ownership: Causes and consequences. *Journal of Political Economy*, 93(6), 1155-1177.
- Desender, K. A. (2009). The relationship between the ownership structure and board effectiveness. *University of Illinois at Urbana-Champaign, College of Business Working Papers*, 09-0105.

- Din, S. U., Khan, M. A., Khan, M. J., & Khan, M. Y. (2021). Ownership structure and corporate financial performance in an emerging market: a dynamic panel data analysis. *International Journal of Emerging Market*, 17(8), 1973-1997.
- Du Plessis, J. J., Hargovan, A., & Harris, J. (Eds.). (2018). *Principles of contemporary corporate governance*. Cambridge University Press.
- Eugster, N., & Isakov, D. (2019). Founding family ownership, stock market returns, and agency problems. *Journal of Banking & Finance*, 107, 105600
- Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The Journal of Law and Economics*, 26(2), 301-325.
- Farag, H., Mallin, C., & Ow-Yong, K. (2018). Corporate governance in Islamic banks: New insights for dual board structure and agency relationships. *Journal of International Financial Markets, Institutions and Money*, 54, 59-77.
- Farooq, O., & Alahkam, A. (2016). Performance of Shariah-compliant firms and non-Shariah-compliant firms in the MENA region: which is better?. *Journal of Islamic Accounting and Business Research*, 7(4), 268-281.
- Fernández-Gago, R., Cabeza-García, L., & Nieto, M. (2016). Corporate social responsibility, board of directors, and firm performance: an analysis of their relationships. *Review of Managerial Science*, 10, 85-104.
- Fogel, K., Ma, L., & Morck, R. (2021). Powerful independent directors. *Financial Management*, 50(4), 935-983.
- García-Meca, E., García-Sánchez, I. M., & Martínez-Ferrero, J. (2015). Board diversity and its effects on bank performance: An international analysis. *Journal of Banking & Finance*, 53, 202-214.
- Grosman, A., & Leiponen, A. (2018). Organizational transparency and power in firm ownership networks. *Journal of Comparative Economics*, 46(4), 1158-1177.
- Guest, P. M. (2009). The impact of board size on firm performance: evidence from the UK. *The European Journal of Finance*, 15(4), 385-404.
- Haddad, A. E., Al Shattarat, W. K., Abu Ghazaleh, N. M., & Nobanee, H. (2015). The impact of ownership structure and family board domination on voluntary disclosure for Jordanian listed companies. *Eurasian Business Review*, 5(2), 203-234.
- Haslam, S. A., Ryan, M. K., Kulich, C., Trojanowski, G., & Atkins, C. (2010). Investing with prejudice: The relationship between women's presence on company boards and objective and subjective measures of company performance. *British Journal of Management*, 21(2), 484-497.
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.
- Hermalin, B., & Weisbach, M. S. (2001). *Boards of directors as an endogenously determined institution: A survey of the economic literature*. (Working Paper No.8161). National Bureau of Economic Research. <http://www.nber.org/papers/w8161>



- Huang, J., & Kisgen, D. J. (2013). Gender and corporate finance: Are male executives overconfident relative to female executives?. *Journal of financial Economics*, 108(3), 822-839.
- Hutchinson, M. C., Mulcahy, M., & O'Brien, J. (2018). What is the cost of faith? An empirical investigation of Islamic purification. *Pacific-Basin Finance Journal*, 52, 134-143.
- Imamah, N., Lin, T. J., Handayani, S. R., & Hung, J. H. (2019). Islamic law, corporate governance, growth opportunities and dividend policy in Indonesia stock market. *Pacific-Basin Finance Journal*, 55, 110-126.
- Jamaludin, M. F., & Bahaudin, M. F. (2022). Board Characteristics and Company Performance: A Study of Shariah-Compliant Public Listed Companies in Malaysia. *Global Business & Management Research*, 14.
- Jamil, N. S., Hassan, H., & Bujang, I. (2020). The effect of shari'ah compliance announcements on stock returns in malaysia. *International Journal of Business and Society*, 21(1), 217-233.
- Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *the Journal of Finance*, 48(3), 831-880.
- Jiang, F., John, K., Li, C. W., & Qian, Y. (2018). Earthly reward to the religious: religiosity and the costs of public and private debt. *Journal of Financial and Quantitative Analysis*, 53(5), 2131-2160.
- Jizi, M. I., Salama, A., Dixon, R., & Stratling, R. (2014). Corporate governance and corporate social responsibility disclosure: Evidence from the US banking sector. *Journal of business ethics*, 125, 601-615.
- Johl, S. K., Kaur, S., & Cooper, B. J. (2015). Board characteristics and firm performance: Evidence from Malaysian public listed firms. *Journal of Economics, Business and Management*, 3(2), 239-243.
- Julizaerma, M. K., & Sori, Z. M. (2012). Gender diversity in the boardroom and firm performance of Malaysian public listed companies. *Procedia-Social and Behavioral Sciences*, 65, 1077-1085.
- Kallamu, B. S., & Saat, N. A. M. (2015). Audit committee attributes and firm performance: evidence from Malaysian finance companies. *Asian review of accounting*, 23(3), 206-231.
- Kalsie, A., & Shrivastav, S. M. (2016). Analysis of board size and firm performance: evidence from NSE companies using panel data approach. *Indian Journal of Corporate Governance*, 9(2), 148-172.
- Kaplan, S. N., & Minton, B. A. (1994). Appointments of outsiders to Japanese boards: Determinants and implications for managers. *Journal of financial economics*, 36(2), 225-258.
- Khan, I. A., Abro, A. H., & Leghari, F. A. (2021). Investor Protection and Agency Theory in Corporate Governance in Pakistan. *Progressive Research Journal of Arts & Humanities (PRJAH)*, 3(1), 12-21.
- Khan, I., & Zahid, S. N. (2020). The impact of Shari'ah and corporate governance on Islamic banks performance: evidence from Asia. *International Journal of Islamic and Middle Eastern Finance and Management*. 13(3), 483-501.

- Khan, S. N., Hussain, R. I., Maqbool, M. Q., Ali, E. I. E., & Numan, M. (2019). The mediating role of innovation between corporate governance and organizational performance: Moderating role of innovative culture in Pakistan textile sector. *Cogent Business & Management*, 6,1631018.
- Kim, K. A., Kitsabunnarat-Chatjuthamard, P., & NoFSizeinger, J. R. (2007). Large shareholders, board independence, and minority shareholder rights: Evidence from Europe. *Journal of Corporate Finance*, 13(5), 859-880.
- Larasati, D. A., Ratri, M. C., Nasih, M., & Harymawan, I. (2019). Independent audit committee, risk management committee, and audit fees. *Cogent Business & Management*, 6(1), 1707042.
- Levi, M., Li, K., & Zhang, F. (2014). Director gender and mergers and acquisitions. *Journal of Corporate Finance*, 28, 185-200.
- Lewis, B. (2005). Freedom and justice in the modern Middle East. *Foreign Aff.*, 84, 36.
- Lipton, M., & Lorsch, J. W. (1992). A modest proposal for improved corporate governance. *The business lawyer*, 59-77.
- Liu, Y., Wei, Z., & Xie, F. (2014). Do women directors improve firm performance in China?. *Journal of corporate finance*, 28, 169-184.
- Lückerath-Rovers, M. (2013). Women on boards and firm performance. *Journal of Management & Governance*, 17, 491-509.
- Mandzila, E. E. W., & Zéghal, D. (2016). Content analysis of board reports on corporate governance, internal controls and risk management: Evidence from France. *Journal of Applied Business Research (JABR)*, 32(3), 637-648.
- Maruhun, E. N. S., Abdullah, W. R. W., Atan, R., & Yusuf, S. N. S. (2018). The effects of corporate governance on enterprise risk management: Evidence from Malaysian Shariah-compliant firms. *International Journal of Academic Research in Business and Social Sciences*, 8(1), 865-877.
- Masih, M., Kamil, N. K., & Bacha, O. I. (2018). Issues in Islamic equities: A literature survey. *Emerging Markets Finance and Trade*, 54(1), 1-26.
- McGowan Jr, C. B., & Muhammad, J. (2010). The theoretical impact of the listing of Syariah-approved stocks on stock price and trading volume. *International Business & Economics Research Journal (IBER)*, 9(3).
- Merendino, A., & Melville, R. (2019). The board of directors and firm performance: empirical evidence from listed companies. *Corporate Governance: The international journal of business in society*, 19(3), 508-551
- Mohd-Rashid, R., Masih, M., Abdul-Rahim, R., & Che-Yahya, N. (2018). Does prospectus information matter in IPO pricing?. *Journal of Islamic Accounting and Business Research*, 9(4), 514-530
- Munisi, G., Hermes, N., & Randøy, T. (2014). Corporate boards and ownership structure: Evidence from Sub-Saharan Africa. *International Business Review*, 23(4), 785-796.

- Nadeem, M. (2020). Does board gender diversity influence voluntary disclosure of intellectual capital in initial public offering prospectuses? Evidence from China. *Corporate Governance: An International Review*, 28(2), 100-118.
- Neifar, S., Salhi, B., & Jarboui, A. (2020). The moderating role of Shariah supervisory board on the relationship between board effectiveness, operational risk transparency and bank performance. *International Journal of Ethics and Systems*, 36(3), 325-349.
- Pathan, S., & Faff, R. (2013). Does board structure in banks really affect their performance?. *Journal of Banking & Finance*, 37(5), 1573-1589.
- Pepis, S., & de Jong, P. (2019). Effects of Shariah-compliant business practices on long-term financial performance. *Pacific-Basin Finance Journal*, 53, 254-267.
- Pletzer, J. L., Nikolova, R., Kedzior, K. K., & Voelpel, S. C. (2015). Does gender matter? Female representation on corporate boards and firm financial performance-a meta-analysis. *PloS one*, 10(6), e0130005.
- Post, C., & Byron, K. (2015). Women on boards and firm financial performance: A meta-analysis. *Academy of management Journal*, 58(5), 1546-1571.
- Qadorah, A. A. M., & Fadzil, F. H. B. (2018). The relationship between board size and CEO duality and firm performance: Evidence from Jordan. *International Journal of Accounting, Finance and Risk Management*, 3(3), 16-20.
- Qureshi, M. H., & Kalim, R. (2018). How shariah compliance and traditional banks are performing? A case of Pakistan. *International Journal of Islamic Economics and Finance Studies*, 4(3), 6-20.
- Qurochman, A. N. (2022). The Influence of debt on profitability with firm size and sales growth as control variables. *Jurnal Mantik*, 6(2), 2463-2470.
- Rahman, H. U., Zahid, M., & Jehangir, M. (2020). Different is better: Does difference in age and ethnicity of the directors matter for corporate performance in Malaysia?. *Journal of Applied Economics and Business Studies*, 4(2), 205-220.
- Rashid, A. (2018). Board independence and firm performance: Evidence from Bangladesh. *Future Business Journal*, 4(1), 34-49.
- Ryan, M. K., & Haslam, S. A. (2005). The glass cliff: Evidence that women are over-represented in precarious leadership positions. *British Journal of management*, 16(2), 81-90.
- Saba, I., Ariff, M., & Mohd Rasid, E. S. (2021). Performance of Shari'ah-compliant and non-Shari'ah-compliant listed firms: a case study of Malaysia. *International Journal of Islamic and Middle Eastern Finance and Management*, 14(1), 128-150.
- Setia-Atmaja, L. Y. (2009). Governance mechanisms and firm value: The impact of ownership concentration and dividends. *Corporate Governance: An International Review*, 17(6), 694-709.
- Shahrier, N. A., Ho, J. S. Y., & Gaur, S. S. (2020). Ownership concentration, board characteristics and firm performance among Shariah-compliant companies. *Journal of Management and Governance*, 24(2), 365-388.

- Shatnawi, S. A., Marei, A., Hanefah, M. M., Eldaia, M., & Alaaraj, S. (2021). Audit committee and financial performance in Jordan: The moderating effect of ownership concentration. *Montenegrin Journal of Economics*, 17 (4), 45-53.
- Sheikh, M. R., Abbas, M. A., & Mushtaq, M. I. (2018). Corruption, trade openness and environmental quality: Evidence from developing countries. *Pakistan Journal of Economic Studies (PJES)*, 1(2), 165-182.
- Shivdasani, A. (1993). Board composition, ownership structure, and hostile takeovers. *Journal of accounting and economics*, 16(1-3), 167-198.
- Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The journal of finance*, 52(2), 737-783.
- Singal, M., & Singal, V. (2011). Concentrated ownership and firm performance: Does family control matter?. *Strategic Entrepreneurship Journal*, 5(4), 373-396.
- Singh, M., & Davidson III, W. N. (2003). Agency costs, ownership structure and corporate governance mechanisms. *Journal of banking & finance*, 27(5), 793-816.
- Sloane-White, P. (2017). *Corporate Islam: Sharia and the modern workplace*. Cambridge University Press.
- Swamy, V. (2011). Corporate Governance and Firm Performance in Unlisted Family Owned Firms. *International Journal of Business Insights & Transformation*, 4(2).
- Ullah, N., Waheed, A., & Aman, N. (2022). The Nexus Between Islamic Label and Firm Value: Evidence From Cross Country Panel Data. *The Journal of Asian Finance, Economics and Business*, 9(4), 409-417.
- Ullah, S., Haroon, M., Hussain, S., & Rehman, A. U. (2023). Islamic labelling and corporate governance: a perspective of Shariah compliance firms. *Journal of Islamic Accounting and Business Research*, 14(6), 849-867.
- Volonté, C. (2015). Boards: Independent and committed directors?. *International review of law and economics*, 41, 25-37.
- Waheed, A., & Malik, Q. A. (2019). Board characteristics, ownership concentration and firms' performance: A contingent theoretical based approach. *South Asian Journal of Business Studies*, 8(2), 146-165.
- Wang, Y., & Clift, B. (2009). Is there a "business case" for board diversity?. *Pacific Accounting Review*, 21(2), 88-103.
- Watkins-Fassler, K. (2017). CEOs monetary incentives and performance of Mexican firms. *Corporate Board: role, duties and composition*, 13(1), 36-46.
- Westphal, J. D. (1999). Collaboration in the boardroom: Behavioral and performance consequences of CEO-board social ties. *Academy of Management Journal*, 42(1), 7-24.
- Xiao, S., & Zhao, S. (2020). How do agency problems affect firm value? Evidence from China. In *The Chinese Capital Markets* (pp. 101-126). Routledge.
- Yasser, Q. R., Mamun, A. A., & Rodrigs, M. (2017). Impact of board structure on firm performance: evidence from an emerging economy. *Journal of Asia Business Studies*, 11(2), 210-228.



Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of financial economics*, 40(2), 185-211.

Zellweger, T. M., & Astrachan, J. H. (2008). On the emotional value of owning a firm. *Family business review*, 21(4), 347-363.

Zhou, H., Owusu-Ansah, S., & Maggina, A. (2018). Board of directors, audit committee, and firm performance: Evidence from Greece. *Journal of International Accounting, Auditing and Taxation*, 31, 20-36.