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BOARD STRUCTURE AND FIRM PERFORMANCE: ANALYZING THE ROLE OF AUDIT COMMITTEE IN PAKISTAN'S MODARABA SECTOR

Hina Gul[*1], Mahboob Ullah[2], Sajida Gul[3]

[*1,2,3]*Department of Management Sciences, Abasyn University, Peshawar, Pakistan*

[*1]hina.gul@abasyn.edu.pk; [2]mahboob.ullah@abasyn.edu.pk; [3]sajida.gul@abasyn.edu.pk

ABSTRACT

The purpose of this study is to examine the effects of board structure on firm performance, with particular attention to the audit committee's mediating function in Pakistan's Modaraba sector. Panel regression analysis is used in the study to investigate these correlations using a sample of 28 Modaraba enterprises for the period of 2013-2022. Tobin's Q is measured as a proxy for firm performance, and the results show that board size influences Tobin's Q positively, but not statistically. Tobin's Q, however, is significantly impacted negatively by board gender diversity, indicating that in this particular context, a higher proportion of women on boards may be associated with poorer firm performance. The mediation analysis reveals that the audit committee does not play a significant mediating role between board structure and firm performance, implying that audit committees in the Modaraba sector may be more focused on compliance and ethical oversight rather than directly influencing firm performance. The findings of the study indicate that the financial framework and governance procedures of the Modaraba sector, which adheres to Shariah, restrict the potential impact of gender diversity and larger boards on firm performance. This is in line with stakeholder and agency theories, providing regulators and businesses with useful information on how to best maximize governance structures and board composition for improved firm performance.

INTRODUCTION

Globalization is transforming the global economy, enabling companies to operate in a complex, dynamic environment. Trade barriers, data processing, and transportation facilities have accelerated globalization, making the world a level playing field. Companies now control costs through outsourcing and distribution channels, leading to growth in cross-border trade and free movement of capital and technology (Dau et al., 2020). The rise of technology drives businesses to offer high returns, requiring continuous improvement in financial performance through innovative strategies, thereby enhancing competitiveness and promoting political, social, and economic development in developing nations (Lu & Batten, 2023).

Numerous accounting scandals and failures in corporate governance (CG) have occurred in recent decades, impacting stakeholders and economies worldwide. Examples include Enron's 2001 scandal, WorldCom's 2002 scandal, Parmalat's 2003 scandal, Japan's Olympus scandal, Tesco's overstatement of profit, Toshiba's fraud, and the Satyam scandal in India and Pakistan. These scandals have negatively impacted capital markets and erosion of trust in the investing public. Developed nations have implemented regulations, while developing nations have introduced reforms. CG is a framework that ensures businesses are accountable to stakeholders and can mitigate conflicts. It promotes effective CG practices, strategic decision-making, organizational

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sustainability, aligns management objectives with shareholder interests, and improves firm performance (FP). However, implementation varies across countries due to political, business, industrial, economic, and social environments. As the highest decision-making body, the board structure (BS) is very important in determining the course of a company and making sure that its decisions reflect the interests of shareholders. BS, with independence, size, and gender, oversees organizational activities and influences FP. They provide vision, objectives, goals, policies, plans, strategies, and build alliances (Bawaneh, 2020; Aldamen et al., 2020).

Board size and gender diversity are key dimensions in CG literature, influencing FP. Larger boards offer diverse skills and strategic insight, while gender-diverse boards provide balanced decision-making, reflecting a wider range of perspectives. Board size refers to the number of directors who can influence a company's CG procedures and performance. The board's traits can influence the decision-making process and can indicate the effectiveness of the Board of Directors (BOD). The ideal board size is not specified by standard criteria, with most boards having 3 to 31 members. Some studies suggest 7-9 members or five board sizes are ideal. (Delima, 2021). This led to directors being fully informed about internal matters, which improved FP. Previous studies on board size's impact on FP are inconsistent, with some suggesting an enlarged number of directors can improve FP (Alabdullah et al., 2021 & 2022).

The term "board diversity" is unclear, although it usually refers to a group of board members who are not the same in terms of their physical or personal attributes. The percentage of female directors on the board is known as GD. The number of countries where women make up a larger portion of the board has increased, which has either mandated that the company choose a female director or supported the inclusion of women on boards (Lee & Thong, 2022). Enhancing gender diversity on corporate boards has been the focus of a global movement in recent years since it is seen to improve the quality of governance, result in more efficient supervision, and have a favorable impact on FP. Women in high leadership roles encourage creativity and innovation, meeting the specific requirements of different stakeholders and encouraging more moral decision-making. Within this framework, gender diversity on the board is viewed as a possible driver of improved financial performance and corporate sustainability, in addition to serving as a gauge of equality (Liu et al., 2024).

Trust is crucial for transparency and financial reporting, as shareholders need to trust managers and be transparent about their performance. A good CG framework can influence financial investors' mindsets. Financial fraud negatively impacts firms and countries, leading to lower investment and economic development. (Awad & Ghanem, 2023). CG practices now incorporate tools to screen upper management to safeguard owners' prosperity and attract investments (Al-Jalahma, 2022). An audit committee (AC) is essential for monitoring systems, reducing information asymmetry, promoting accountability, and enhancing reliance on firm financial reporting and CG practices (Kijkasiwat et al., 2022). ACs reduce agency costs, align shareholder and manager interests, and improve CG, leading to better financial reporting and improving FP (Weber, 2020).

Recently, a number of studies have been carried out by multiple scholars in various contexts to examine the direct relationship between BS and FP in both developed and developing countries. These studies have looked at a variety of BS measures, including board size, board independence, board meetings, board gender diversity, and CEO duality (individually or jointly), and have evaluated their impact on FP (Alshabibi et al., 2021; Juhmani, 2020; Suwaidan & Khalaf, 2020; Tahir et al., 2020), and showed positive, negative, and no association at all, as documented (Aljaaidi et al., 2021; Assenga et al., 2021; He, 2021; Waseemullah et al., 2020).

Organizations use practices like AC to improve FP and internal control systems (Al-Ahdal and Hashim, 2021). The relationship between AC and FP has been explored in literature, considering various dimensions in developing and developed countries, including Pakistan. The linkage between AC and FP has shown neutral, positive (Al-Ahdal and Hashim, 2021; Alzeban, 2021; Dakhlallh et al., 2020), and negative associations (Yameen et al., 2019), and in some finding no relationship (Bouaine & Hrichi, 2019).

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In some studies, the direct impact of BS on different dimensions of AC has been examined (Aljaaidi et al., 2021; Khudhair et al., 2019). In most of the studies, AC has been used as an independent variable (Fariha et al., 2022; Al-Ahdal & Hashim, 2022). AC as a mediator has been investigated in different dimensions of CG (Astuti et al., 2020; Usman & Usman, 2022). According to previous study knowledge, however, there is still a lack of information about the investigation of the mediating role of AC between BS and FP (Ullah et al., 2021).

Also, different moderators and mediators have been used between BS and FP, mediators like innovation (Umrani et al., 2017), capital structure (Ting et al., 2019; Haza & Hamzah, 2024), employment downsizing (Chen & Kao, 2022), and moderators like firm size (Nodeh et al., 2016), family control (Makhlouf et al., 2018), and corporate social responsibility (Saleh et al., 2021), but still a study is lacking in investigating the mediating role of AC between BS and FP.

The financial sector operates within unique regulatory frameworks and market dynamics. The Modaraba industry, which provides a variety of Shariah-compliant investment choices, has grown to be an essential part of Pakistan's financial system. Because of its distinct operational style, the Modaraba industry confronts particular issues due to its Islamic finance principles with regard to accountability, transparency, and governance in comparison to other financial institutions (Ullah & Parveen, 2024). The industry's unique structures and legal framework necessitate a comprehensive study of how governance practices like board size and gender diversity affect FP. Understanding these practices is crucial for the industry's long-term stability and success. Research on CG standards, BS, and AC effectiveness is also essential for understanding the Modaraba industry's unique governance issues (Minhas, 2023). Despite the extensive research on conventional financial institutions, the Modaraba sector in Pakistan is understudied in academic literature, providing a unique opportunity to add fresh perspectives to the literature on Islamic finance and CG.

In CG, gender diversity is essential for ethical supervision, innovation, and decision-making. A diverse board can enhance FP and CG results in Islamic finance. But gender diversity hasn't really taken off in Pakistan's Modaraba industry, which makes it a perfect place to study how it affects business results. Despite adhering to Islamic finance principles, the Pakistani Modaraba sector lacks sufficient research on the relationship between board size, gender diversity, and the role of the AC in FP.

The study intends to solve these concerns by concentrating on this industry and providing insights into how efficient governance structures can improve FP and guarantee adherence to Islamic financial principles. The values of the Modaraba industry are in line with international trends in sustainable and ethical finance, which has an effect on investors and politicians everywhere. Developing an understanding of the mechanics of CG in this industry can help Islamic financial institutions flourish.

Hence, the aim of the current study is to investigate the impact of BS on FP with the mediating role of AC in the Modaraba industry's of Pakistan from 2013–2022.

LITERATURE REVIEW

Board Structure and Firm Performance – Direct Effect Perspective

Company boards (BOD) are responsible for overseeing corporate managers' activities on behalf of shareholders. Effective oversight requires factors like board size, composition, meetings, and expertise. Factors like board diversity, information asymmetry, CEO duality, size, makeup, and culture influence the BOD's performance. However, conventional literature primarily focuses on the connection between FP and CG measurements, such as executive pay, board responsibilities, and board size (Al-Matari, 2020; Aziz et al., 2023). The BS can address agency issues between shareholders and management, and a refreshed board can improve FP and decision-making, indicating that the board's effectiveness significantly impacts the company's financial success (Majeed et al., 2020). The BS comprises various factors like independent and outside directors, CEO duality, board size, makeup, gender, and educational background of panel members (Fan et al., 2022; Fariha et al., 2022).

The growing market for company control in developing economies necessitates the use of a renowned internal governance framework, the Board of Directors (BS), to enhance FP. The BS ensures alignment between owners and managers' interests and assists in disciplining or replacing successful management teams, thus affecting FP. However, studies on BS impact on FP have found mixed results. (Alabdullah & Ahmed, 2021; Assenga, 2021; Mishra, 2020; Kumar et al., 2020; García-Ramos & Díaz, 2021).

Stakeholder and agency theories suggest that the size of the Board of Directors directly impacts a FP, with directors focusing on advancing stakeholder interests and managing operations, leading to improved FP (Musallam, 2020). Scafarto et al. (2017) found that board size positively impacts Free Press (FP) in Italian listed companies, while Alqatan et al. (2019) found similar effects in UK-listed businesses. However, limited research has been done on the influence of board size on FP in developing countries like Pakistan. Yasser et al. (2017) found that board size, family proportion, and minority representation significantly impact FP; some studies show a negative effect of board size on FP (Majeeed et al., 2020; Namanya et al., 2021).

Economic approaches suggest promoting women based on their professional expertise and education level to prevent diminishing profitability. Recent studies highlight the importance of encouraging gender diversity in the boardroom to enhance strategic and control functions (Mahmood et al. 2018). Loukil et al. (2020) and Mobbs et al. (2021) highlight the benefits of women executives in improving transparency, reducing asymmetric information, and promoting innovation, while Bhuiyan et al. (2020) warn of potential corruption. According to agency theory, a diverse board—that is, one with members from a range of backgrounds and viewpoints—improves management's capacity to oversee, monitor, and manage agency issues. It also helps to reduce conflicts because women are more likely to ask questions and are less likely to interfere with the interests of shareholders (Guizani and Abdalkrim, 2023). Earlier studies showed contradicting findings between board gender and FP (Kumar et al., 2020; Yang et al., 2019). In light of the empirical research, the following hypothesis is put forth:

H_1: There is a significant impact of Board Structure on Firm Performance

Corporate Governance and Firm Performance – An Indirect Effect Perspective

The survival of AC and BS is crucial for listed firms' financial reporting and corporate accountability. By bridging the information gap between external auditors and the Board of Directors, monitoring supports auditor independence. A small number of studies underscore the significance of these relationships by demonstrating how effective AC can affect management's decision-making process (Aljaaidi et al., 2021). The number of AC actions rises with board size, indicating that transparency and audit committee vigilance should be given top priority on larger boards. On the relationship between AC meetings and board size, however, the results are conflicting; while some studies find a positive correlation (Aljaaidi et al., 2021), others find none at all (Fariha et al., 2022).

Likewise, AC has been used as a mediator in few studies in different contexts, like between financial audits and real earnings management in nonfinancial firms in Nigeria (Ibrahim et al., 2020), between boards dynamic and creative accounting in Nigerian firms (Usman & Usman, 2022), and between board components and quality of financial reporting (Qawqzeh et al., 2021). But no study has checked the impact of BS on FP with the mediating role of AC in the Modaraba industry in Pakistan. Therefore, this study will fill the research gap by taking all the Modaraba firms listed on PSX as suggested by Rathnaweera and Deepal. (2022; Waleed et al., 2023). On the basis of the literature, the following hypothesis is formulated.

H_2: Audit Committee mediates the association between Board Structure and Firm performance.

Theoretical Contributions

Agency theory aims to reduce agency costs and ensure management acts in shareholders' best interests. Larger boards can promote shareholder interests through checks and balances, but can also cause coordination issues and increase costs (Guizani and Abdalkrim, 2023). Diversity in

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genders on boards encourages independent thought, reduces disputes, and aligns choices with shareholder value. The audit committee oversees financial procedures, ensures transparency, and enforces accountability, reducing information asymmetry and easing agency issues, particularly in the Modaraba industry (Al-Ahdal & Hashim, 2022; García-Ramos & Díaz, 2021).

Stakeholder theory broadens corporate governance to include all stakeholders, including shareholders, employees, consumers, suppliers, and the public. Larger boards with diverse perspectives can better reflect different interests (Wiącek, 2021). In the Modaraba sector, gender diversity promotes inclusive decision-making, ensuring well-represented interests. Gender diversity in the industry promotes equity, social responsibility, and Islamic banking principles. The audit committee, according to stakeholder theory, maintains accountability, openness, compliance with governance and Islamic finance standards, and accurate financial reporting (ElHawary, 2021).

Conceptual Model

The following conceptual model has been formulated on the basis of theory.

Figure 1:
Conceptual Model

DATA AND METHODOLOGY

This research study investigates the impact of board structure on firm performance with the mediating role of the audit committee in Mudarabah firms listed on PSX for the period of 2013 to 2022. The study used an objectivist ontological approach and an epistemological positivist approach based on past literature. To quantify the results statistically with the least amount of interference, a quantitative and deductive technique has been used in the context of research philosophy. As a result, all financial firms listed on PSX make up the population for this study. Using the census sampling technique, all Mudarabah firms were deployed as a full sample for the period of 2012–2022. The information was gathered by using secondary sources, specifically the annual reports of the specified companies.

The results were analyzed using panel data regression analysis, descriptive statistics, and correlation using STATA software. The Preacher and Hayes (2013) model is utilized for mediation analysis, and the Shapiro-Wilk test, Haussmann test, VIF (variance inflation factor) test, Breusch-Pagan test, fixed random effect model, and GLS (generalized least squares method) are employed in relation to it.

Model Specification

$FP = \beta_0 + \beta_1 \, BSIndex_{i,t} + \beta_2 \, ACIndex_{i,t} + \varepsilon_{i,t}$

Where

FP: Firm Performance

BSIndex: Board Structure Index

ACIndex: Audit Committee Index

Table 1: Measurement of the Variables

Variables	*Formula*	*Reference*
Independent Variable		
Board Structure		
Board Size	Number of directors on a board	(Alshabibi et al., 2021)
Board gender diversity	One if a company has a woman director	(Alshabibi et al., 2021)
Dependent Variable		
Firm Performance		
Return on Asset	Net profit / Total asset	(Ali et al., 2022)
Mediating Variable		
Audit Committee		
AC Size	The total number of AC directors in the committee	(Dakhlallh et al., 2020; Mahmoud and Sharawi, 2022).
AC Independence	1 if all AC members are non-executive and 0 if not	(Dakhlallh et al., 2020; Mahmoud and Sharawi, 2022).
AC members' gender diversity	1 if there is gender diversity in the committee and 0 otherwise	(Mahmoud and Sharawi, 2022).

RESULT AND DISCUSSION

Results

Similar studies frequently use panel data (Bansal et al., 2021). Data from 28 Modaraba firms listed on PSX between 2012 and 2022 with 2800 observations were gathered for this study. With STATA's assistance, the data was well-balanced (Ademi & Klungseth, 2022). The results are discussed below.

Table 2: Descriptive Statistics

Variable	***Mean.***	***Std. Dev.***	***Min***	***Max***
BDSIZE	6.5	1.864592	3	9
BDGEND	.5571429	.73099	0	4
ACSIZE	3.625	.9150768	2	6
ACIND	.5357143	.4996158	0	1
ACGEND	.25	.433788	0	1
TOBINSQ	22.73	11.02	.6886595	44.78285

Table 2 summarizes FP and BS characteristics, showing moderate variation in board size (BDSIZE) with most boards having 6-7 members, with a respectable variety across companies, with three members on the smallest board and nine on the largest, having a mean of 6.5 and a standard deviation of 1.86. The board gender results indicate a lower average of 0.56 for women's representation, with varying degrees of heterogeneity, with some firms employing zero women and others having up to four. The audit committee size (ACSIZE) averages 3.625 members, with most committees consisting of 3-4 members, with a minimal standard deviation of 0.91. Audit committee independence (ACIND) shows 53% of committee members are independent, while audit committee gender diversity (ACGEND) shows women make up only 25%, indicating low representation of women in audits, with an average score of 0.25. Tobin's Q, a measure of firm performance, exhibits significant variability, with an average of 22.73 and a standard deviation of 11.02, indicating significant variations in a company's worth.

Table 3: Correlation Matrix

	BDSIZE	*BDGEND*	*ACSIZE*	*ACIND*	*ACGEND*	*TOBINSQ*
BDSIZE	1.0000					
BDGEND	0.3366	1.0000				
ACSIZE	0.3246	0.2277	1.0000			
ACIND	0.2193	0.1710	0.5037	1.0000		
ACGEND	-0.1152	0.2713	0.1558	0.0910	1.0000	
TOBINSQ	0.0523	-0.0984	0.1943	0.1524	-0.2970	1.0000

The correlation matrix shows a moderate positive correlation between BDSIZE and BDGEND (0.3366), suggesting larger boards typically have more female members. It also shows a moderately significant connection between BDSIZE and ACSIZE. However, it has a lesser association with ACIND (0.2193), while a negative correlation (-0.1152) with ACGEND suggests a lower proportion of women in audit committees. A moderately positive correlation between BDGEND and ACSIZE, ACIND, ACGEND, and TOBINSQ, indicating that companies with a higher proportion of female board members tend to have larger audit committees. It also reveals a marginally negative correlation (-0.0984) with TOBINSQ, indicating that a little inferior business performance may be linked to more gender diversity on boards. The study reveals a moderate positive correlation (0.5037) between ACSIZE and ACIND, suggesting larger audit committees are more independent, and also positive correlations with ACGEND (0.1558) and TOBINSQ (0.1943), suggesting women's presence and better FP. There is a moderate negative correlation (-0.2970) between ACGEND and TOBINSQ, indicating that higher female representation may have a negative impact on performance, and a weak positive correlation (0.1250) between ACIND and TOBINSQ, indicating that more independent audit committees may improve FP.

Diagnostic Tests

Diagnostic tests were performed to examine the normality, multicollinearity, and heteroskedasticity by using the Shapiro-Wilk test , variance inflating factor (VIF) and the Breusch-Pagan test, and it was found that the data faces normality and heteroskedasticity issues, indicating a violation of the assumptions of the ordinary least squares (OLS). In a similar vein, the Housman's test, fixed effect model, and random effect model were also performed, yielding no suitable results. That's why the GLS model was used to provide accurate findings while assessing the goals and purposes of the variables (Aryan et al., 2022). The results of GLS are shown below:

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Table 4: GLS Model

Panels: Homoscedastic						
Correlation: No autocorrelation						
Estimated covariances	= 1			**Number of obs**	= 280	
Estimated autocorrelations	= 0			**Number of groups**	= 28	
Estimated coefficients	= 3			**Time periods**	= 10	
Wald chi^2 (5)	= 5.11			**Prob > chi^2**	= 0.04	
Log likelihood	= -1174.7					
TOBINSQ	***Coef.***	***Std. Err.***	***z***	***P>|z|***	***[95% Conf. Interval]***	
BdSz	.8391546	.5477427	1.53	0.126	-.2344014	1.912711
BdGend	-2.906794	1.397155	-2.08	0.037	-5.645166	-.1684209
Cons_	9.004562	3.512519	2.56	0.010	. 2.120151	15.88897

The study presents a panel regression model estimating the impact of board gender diversity and board size on Tobin's Q, a company performance indicator. The data is analyzed over 10 years and 28 firms. The Wald test evaluates the model's overall significance. The model appears to be statistically significant at the 5% level based on the test statistic of 5.11 and P-value of 0.04. This indicates that there is a considerable correlation between the independent variables and Tobin's Q overall. The log likelihood (-1174.7) value suggests that overall the model is fit. The findings also showed that board size has a positive but non-significant impact on Tobin's Q, having a regression coefficient of.8391546 and a p-value of 0.126, which is higher than the 0.05 level of significance, while board gender has a negative significant impact on Tobin's Q (P-value = 0.037) with a regression coefficient of -2.906794, which means that Tobin's Q is predicted to fall by 2.9068 with every unit increase in board gender diversity (e.g., increasing female representation), assuming all other variables remain constant.

Table 5: Mediation Analysis Results

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	Coef.	**Std. Err**	**. z**	**P>|z|**	**[95% Conf. Interval]**	
Direct effects						
Structural						
TobinsQ <-						
ACIndex	3.422551	2.217081	1.54	0.123	-.9228471	7.767949
BSIndex	-.2784073	.9174198	-0.30	0.762	-2.076517	1.519703
ACIndex <-						
BSIndex	.1306239	.0234646	5.57	0.000	.0846341	.1766137
Indirect effects						
Structural						
TobinsQ <-						
ACIndex						
BSIndex	.4470669	.3005325	1.49	0.137	-.141966	1.0361
Total Effects						
Structural						
TobinsQ <-						

ACIndex	3.422551	2.217081	1.54	0.123	-.9228471	7.767949
BSIndex	.1686597	.8742073	0.19	0.847	-1.544755	1.882074
ACIndex <- BSIndex	.1306239	.0234646	5.57	0.000	.0846341	.1766137

LR test of model vs. saturated: chi^2 (0) = 0.00, Prob > chi2

The role of AC in mediating the link between FP and BS was assessed by mediation analysis. Tables 6 illustrate these results, which suggested that BS had little indirect effect on FP through AC. Overall, it was found that BS had little effect on FP. Furthermore, it was found that AC's mediating function in the relationship between FP and BS was negligible. This suggests that BS and FP do not have a mediation influence. The panel regression analysis reveals that BS significantly impacts Tobin's Q, a proxy for firm performance in Pakistan's Modaraba sector. However, individual variable results reveal varied outcomes, prompting discussions on governance mechanisms.

Discussion

It was determined from the statistical findings that the p-value was 0.000 (P-value<0.05). Therefore, it can be said that H_1 is accepted and H_0 is rejected. The findings demonstrate that board gender has a significant but negative impact on FP, consistent with Bennouri et al. (2018) and Arvanitis et al. (2022), because the male-dominated nature of Pakistan's financial sector, especially in Modarabas, may make it more difficult for women to advance into top positions. This resistance may limit gender diversity's potential for innovation and governance and hinder the full realization of its benefits, which include improved decision-making and various perspectives. The appointment of women to boards may decrease their meaningful participation due to regulatory demands. Gradual governance changes may be necessary for the conservative Modaraba sector, but diversity may not align with industry norms, highlighting the challenge of integrating progressive governance reforms with corporate practices. However, the impact of BS on FP is insignificant, followed by (Doğan & Yildiz, 2013; Agrawal & Lakshmi, 2020), due to its unique characteristics and governance dynamics. Although more varied experience and improved monitoring are anticipated from larger boards, the Modaraba industry may not fully benefit from this. Decision-making in the Modaraba industry, which follows Shariah-compliant financial rules, is difficult because of coordination problems and specialized knowledge gaps. Pakistani cultural values frequently result in centralized decision-making, which reduces the benefits of growing the size of the board. Furthermore, regulations prioritize morality over greed, which lessens the effect of a larger board on business success. As such, expanding the board's size alone might not be sufficient to noticeably improve performance in this situation (Sharma et al., 2023).

Similarly, based on Tables 5, it was determined that there is no AC mediation between BS and FP, indicating that H_2 is rejected due to the zero path among the variables based on the threshold value (P> 0.000). There are a number of reasons why the AC in the Modaraba sector is not acting as a mediator between BS and Tobin's Q. First, while maintaining financial transparency and accountability depends heavily on an efficient AC, the committee's function may be more suited to compliance and regulatory supervision than to directly impacting market-based metrics like Tobin's Q. The committee's role in the Shariah-compliant Modaraba industry often prioritizes ethical compliance over aggressive financial performance, limiting its ability to moderate the connection between BS and FP, Tobin's Q is a measure of a FP, influenced by market factors, external conditions and investor sentiment. However, internal governance mechanisms like BS and AC performance may not significantly impact external perceptions. In traditional financial sectors like Modarabas, the AC role may not directly translate into strategic initiatives driving FP. The sector's focus on conservative financial practices and ethical governance limits its capacity to mediate the relationship between BS and Tobin's Q. Also, economic instability, including high inflation and fluctuating currency values, is primarily influenced by external economic pressures rather than internal governance improvements, potentially minimizing the AC's impact on Tobin's Q (Aluoch et al., 2019; Dzomira, 2020).

The study's findings imply that, even though they might not have a direct impact on mediation, they provide valuable background for understanding how BS, FP, and AC interact in Pakistan's Modaraba industry. This is especially helpful for researchers looking at similar situations or trying to understand the nuances of the relationship in various contexts. Furthermore, by offering fresh approaches and perhaps serving as an inspiration for the development of new research directions in the field, the currently in use data analysis techniques can still be valuable.

CONCLUSION AND POLICY IMPLEMENTATION

Conclusion

This study examines the relationship between board structure (BS) and firm performance (FP) in Pakistan's Modaraba industry using Tobin's Q as a proxy of FP. Results show a number of significant new insights and provide a more complex picture than the overall panel regression model, with board size having a positive but statistically negligible effect on Tobin's Q. This may be due to the Shariah-compliant governance structure and regulatory frameworks that favor centralized decision-making over financial success, reducing the effectiveness of larger boards in enhancing FP. On the other hand, Tobin's Q was negatively impacted by board gender diversity, indicating challenges in incorporating diversity in male-dominated industries like finance, particularly in Pakistan. Women in leadership roles face structural and cultural obstacles, potentially hindering their full contribution. This underscores the need for progressive governance practices to fully leverage gender diversity's benefits in innovation and decision-making.

The mediation analysis further revealed that the AC main function in the Modaraba sector is regulatory compliance rather than affecting company value: The mediation research showed that the AC does not mediate the relationship between BS and FP. The committee's ability to manage governance structures and FP is constrained due to the sector's conservative and compliance-driven nature. External variables like economic volatility may overwhelm the committee's efforts to improve internal governance, which would lessen their impact on market-based metrics, such as Tobin's Q.

The study's conclusion emphasizes the complex dimensions of governance in the Modaraba industry, where regulatory frameworks, cultural norms, and traditional institutions influence the effectiveness of internal governance procedures and board features. Diversity and larger boards are often viewed as progressive improvements in governance; yet, in this specific context, their impact on firm value is more limited, requiring more targeted governance changes that align with industry specifics. The results will be of tremendous use to policymakers, academics, and practitioners who seek to understand or improve the governance structures in financial institutions that adhere to Shariah.

Limitations and Future Directions

The study is restricted to the Modaraba sector, which follows Shariah regulations. It might not be applicable to other industries or financial sectors with distinct governance structures. Future studies could compare industries or cover a wider range of industries in order to evaluate the effects of gender diversity and board structure in various regulatory and cultural situations. Instead of focusing on internal operational efficiency, the study employs Tobin's Q as a proxy for FP, reflecting investor perceptions. In order to further understand the relationship between governance procedures and FP, future studies could examine additional performance metrics like return on equity or return on assets. Only two dimensions of BS have been considered in the study: board size and board gender. Future studies could employ other dimensions of CG. As the 10-year duration of this study may not capture long-term governance patterns or regulatory reforms in Pakistan, it is suggested that future research should take a longer horizon to assess business performance consequences.

The quantitative study may not have adequately addressed structural and cultural barriers preventing women from pursuing leadership roles, suggesting a qualitative approach with case studies or board member interviews could provide more comprehensive insights. The AC influence on business value may be limited due to its lack of mediating effect between BS and FP. Future research should explore moderating impacts of governance systems or external market factors, such as regulatory changes, industry-specific hazards, or economic situations.

AC could be used as an independent, dependent, and moderating effect in future studies with the current scenario. Based on the findings, AC might be taken as an individual measure for future studies. AC could be considered as a moderating variable in further studies with CG and FP. In the current scenario, AC may be employed as an independent, dependent, or moderating influence in future studies. In the current scenario. Future research may use AC as a stand-alone metric in light of the findings. In additional research involving CG and FP, AC might be taken into account as a moderating variable.

Practical Implementations

Several useful applications are offered by this study, like designating women to fulfill diversity requirements; organizations can instead create an inclusive board climate where female members may make important contributions. Shariah-compliant businesses ought to provide mentorship, leadership development, and training on gender diversity. To enhance decision-making and governance efficacy, particularly in highly centralized industries, companies ought to give priority to the quality and diversity of board members rather than their quantity. Additionally, they should tackle issues of coordination and ineffective decision-making procedures. Auditors should focus on monitoring FP and providing strategic guidance, while AC members should receive training on financial performance evaluation and compliance to enhance their involvement in business governance. Boards can enhance market performance and investor confidence by implementing governance policies that balance strategic expansion with Shariah compliance, prioritizing responsibility, openness, and proactive communication.

Regulators should review their board size and gender diversity policies in the financial industry, especially in Shariah-compliant sectors. Implementing support systems and diversity policies is crucial for enhancing company performance. Regulatory agencies should provide recommendations for optimal board configurations for effective governance and decision-making. Ethical governance in the Modaraba sector allows businesses to differentiate themselves through sustainable development and moral conduct, appealing to investors seeking socially conscious ventures. By aligning financial success with moral principles, firms can enhance their governance and market performance indicators.

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