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Board Characteristics and Firm Performance: A Configurational Analysis

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ABSTRACT

Investors and governments have drawn attention to company governance due to the 2007 financial crash. This study aims to determine the impact of board characteristics, i.e. women on the board, busy directors, blockholder ownership, and director qualification on firm financial performance based on evidence from Pakistan. Former research on the impact of board features on company financial performance is built on contradictory theoretical viewpoints and factual results, which are primarily built on regression and are equivocal. Based on the configurational analysis, this study clarifies previously ambiguous findings concerning the link between keyboard attributes and business financial success. This research draws upon theories, including resource dependence and agency theory. The study utilized fuzzy-set qualitative comparative analysis to examine a sample of 60 non-financial companies listed on the Pakistan Stock Exchange (PSX). Data referred to the pre-crisis period. Findings have shown that different combinations of board attributes can significantly impact a firm profitability, i.e. return on assets (ROA) and return on equity (ROE). Practical implications spotlight the policymakers need to evaluate corporations current level of regulatory and competitive development to plan strategy accordingly. It emphasizes unique governance solutions for the non-financial sector.

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INTRODUCTION

In this world, the non-financial sector is of great importance. Strong, stable, and a robust industry are critical to the country economic development and national revenue (Ministry of Finance, 2020; Sareen, 2020; Shah et al., 2016). According to Shah et al. (2016), the non-financial sector of Pakistan plays indispensable role in boosting the economy; hence, any improvement and growth in this sector improves the life style of individuals and reduces destitution. The present study focuses on non-financial firms from different sectors such as agriculture, manufacturing, mining, construction, transportation and telecommunication listed on the Pakistan Stock Exchange (PSX) that have maintained their position among the top-performing companies for the past ten years. The sample selection criteria were based on a consistent ranking within the top tier of companies listed on the PSX. This selection approach ensures that the sample consists of high-performing companies that have demonstrated a sustained track record of financial success (Ahmad et al., 2015). Therefore, this sector has been chosen to assess the effect of board of directors (BOD) features on firm performance.

The composition and characteristics of a company's BOD can significantly impact its success. Research has shown that diversity in the board selection, including gender diversity, can enhance decision-making processes, improve risk management, and lead to better performance outcomes. In addition, having busy directors, who sit on multiple boards, can bring diverse perspectives and valuable expertise to the organization. The size of the board is also a crucial factor. A smaller board can be more effective in decision-making and communication, while a larger board can bring in more expertise and provide greater representation. The blockholder ownership or large shareholders, can also influence the direction of the company. Furthermore, director qualifications are essential for board effectiveness. Directors with expertise in finance, accounting, legal matters, or industry-specific knowledge can provide valuable insights and guidance. It is crucial for boards to have a mix of skill sets to ensure that they are equipped to make informed decisions. In summary, the BOD is a vital aspect of an organization's governance structure, and its characteristics can significantly impact the company's performance. To enhance performance, companies should prioritize diversity, expertise, and skill sets in their board composition (Wang et al., 2018).

Company directors are the foundation and considered to be important in corporate performance since director role is to nominate the managers to set the practical tasks of the firm. The board serves as a strategic pinnacle by offering the organization's vision, objectives, and goals depending on its characteristics. The board of directors have right to create work policies, plans, programs, and targets; defining responsibilities and powers for each strategy and procedure for performance evaluation; and establishing partnerships with stakeholders. According to Ng et al. (2020), adequate performance metrics enable organizations to coordinate their efforts to achieve overall goals. In order to evaluate firm performance, suitable modifications, market-based or accounting-based, are under consideration. The significance of executives lies in their responsibility for managing business operations, implementing policies, and utilizing company assets. Additionally, return on assets (ROA) and return on equity (ROE) are the major predictors for forecasters and shareholders to assess firm performance, thereby encouraging efficient corporate governance (Dixon et al., 1990).

The researcher acknowledges the importance of contextualizing corporate governance research, which serves as a crucial impetus. The aspect of CG research that pertains to contextualization is considered a research gap in literature, particularly in emerging economies. This study aims to address this gap by incorporating the institutional context of Pakistan into the model design, data analysis, including result explanation processes. The research focuses on examining the impact of board characteristics on firm financial performance in the context of Pakistan. While previous studies have explored this topic, there is a research gap with respect to the contradictory theoretical viewpoints and equivocal results based on regression analyses (Andoh et al., 2023; Nimer et al., 2023). This study aims to clarify the link using a configurational analysis approach.

This study employs a novel approach to examine the intricate relationship between board characteristics and financial performance. Unlike previous regression analyses, this approach considers various combinations of variables to provide a more comprehensive understanding. The study mainly contributes to the literature by exploring the impact of board characteristics on non-financial companies in Pakistan, which has not been extensively researched. This is significant since non-financial companies have distinct governance challenges and play a crucial economic role. Additionally, the study draws upon resource dependence and agency theory to establish a theoretical foundation, synthesizing these theories better to comprehend the relationship between board characteristics and firm performance. The research also fills a gap by highlighting the need for policymakers to assess their corporations' regulatory and competitive landscape to design effective strategies. By identifying the impact of board characteristics, policymakers can better comprehend the governance issues faced by non-financial companies in Pakistan and formulate appropriate policies to address them.

LITERATURE REVIEW

THEORETICAL BACKGROUND AND PROPOSITIONS

Good corporate governance features are theoretically related to lower agency costs, which may improve the financial performance (Davidson, 1998; Jensen & Meckling, 1976; Ntim, 2013). Excellent governance assures investors of future cash flows. Likewise, when the value of stock grows, the cost and risk of external capital tend to slump, resulting in higher corporate performance (K. C. Chen et al., 2009; Ntim, 2013). Agency theory is a framework utilized to delineate and resolve issues that arise from the relationship between stakeholders and their representatives. In this framework, shareholders act as principals, while firm executives serve as agents. However, despite the clear rationale for appointing the BOD on this basis, there are instances when intricate situations arise and executives, whether intentionally or unintentionally, make decisions that do not align with shareholder interests (Cambrea et al., 2022; Trinh, 2022).

To regulate the performance of corporate management and establish transparency, most countries corporate law has focused on the flourishing of BOD with qualities that play an effective supervisory function. The qualities of the board are regarded as one of the most essential variables in the efficiency of the director supervisory and directing functions in achieving the company's goals. Recent research has concentrated on the significance of board features and their function in increasing the independence of the directors, as well as the necessity of appointing the independent directors from senior management. One of the objectives is to eliminate management influence in the fund reporting procedure to improve the visibility, disclosure, and applicability of financial statements to user demands. This is critical to the study's purpose of identifying the most essential positive features of directors that contribute to a company's performance and attainment of its objectives (Goel et al., 2022; Kanakriyah, 2021).

According to resource dependence theory, firms depend on extrinsic elements such as funds, data, and expertise to accomplish their objectives. The theory suggests that organizations need to manage their relationships with external stakeholders, including shareholders, suppliers, customers, and regulators, to access these resources. In the context of board attributes and financial success, resource dependence theory proposes that the composition of the board can impact the organization's ability to access and manage these external resources effectively. For example, having directors with expertise in specific industries or knowledge of specific markets can help the organization better understand and manage its relationships with external stakeholders. Similarly, having a diverse board with different backgrounds and experiences can help the organization access a broader range of external resources.

Furthermore, resource dependence theory indicates that organizations need to manage their dependence on powerful external stakeholders, such as blockholders, to avoid being at a disadvantage. This highlights the importance of considering blockholder ownership as a board characteristic in the context of firm performance (Disli et al., 2022; Githaiga & Kosgei, 2023).

WOMEN ON BOARD

The inclusion of females in the top management team add incentives and indicate to other corporate employees that the organization is dedicated to diversity, with minority personnel having a better chance of being promoted to such roles. Having women on board validates the firm's existence and operations by adhering to equality norms, which are a powerful public relations weapon for inviting investors, who are concerned about the variety of leadership on the board. This offers up new dimensions and financial viability for the organization (Ferdous et al., 2023). Willows and van der Linde (2016) investigated that women had better attendance records at directors' meetings than males on average, and women participation increased, male turnout also rose. Females are additionally more likely to join monitoring cells, intimating that the greater diversity, the further effort is committed to perceiving, leading to improved CG. While return on assets (ROA) is used as a key criterion, Mahadeo et al. (2012) and Duppati et al. (2020) discovered a substantial positive association between the number of females on corporate boards and firm performance.

H1: The presence of women on board leads to high firm performance.

BOARD SIZE

The research on board size and its implications on firm performance is contradictory, emphasizing both benefits and drawbacks. Because small board sizes have been recommended to have deleterious effects on firm performance, larger board size has been considered crucial. Jackling and Johl (2009) and Kiptoo et al. (2021) discovered a substantial positive association between board size and financial success, which validates Sekhar et al. (2022) findings. The reason for the positive impact of board size and financial success is that a bigger board will gain better information due to the increased knowledge of variety in directors, which will aid efficient decision-making (Jackling & Johl, 2009). In the Indian context, a study by Kalsie and Shrivastav (2016) has admitted that bigger board size (BS) has access to superior resources and effectively countered environmental concerns, leading to better firm performance (FP).

On the other hand, certain academics contend that a greater number of board members can have an adverse impact on a firm's performance due to several reasons, such as heightened amalgamation expenses and the emergence of issues related to individuals who benefit from something without contributing to it. Moreover, difficulties with coordination and communication may arise, particularly when scheduling board meetings and attaining unanimity becomes more challenging, leading to sluggish and less efficient decision-making processes and postponed financial transactions (Jensen, 1993). Habbash and Bajaher (2015) contended that the agency difficulties connected with bigger boards are more severe than those associated with lesser boards. In reality, a company's success is reliant on its board of directors, who controls and administers it.

H2: The larger board size leads to high firm performance.

BLOCKHOLDER OWNERSHIP

The blockholders, who have ownership of 10% or extra of the company stock, can supervise the management more effectively than other stakeholders (Dakhlallh et al., 2019; Gul et al., 2010; Jiang et al., 2011; Kibiya et al., 2016; Larcker et al., 2007; Lin et al., 2011). Pawlina and Renneboog (2005) attempted a study on the association between blockholder ownership and firm performance and found a positive relationship among them. In previous studies, blockholder ownership creates important incentives for managers to be monitored and gather information to increase the wealth of the shareholders (Haniffa & Hudaib, 2006; Jensen & Meckling, 1976). According to researchers, blockholders reduce information asymmetry and impact positively on long-term financial performance (Florackis & Ozkan, 2009; Pawlina & Renneboog, 2005). Claessens et al. (1997); Rashid (2011) study on 706 Czech Republic firms from 1992 to 1993 show that ownership of a blockholder enhances firm performance.

However, another line of study reveals a detrimental impact of blockholder ownership and firm performance. (Aluchna & Kaminski, 2017; Ibrahimy & Ahmad, 2020; Yim, 2020). Furthermore, researchers discovered that blockholder ownership has the potential to diminish a firm performance, if the blockholder does not trade diligently in the market, which has a negative influence on the firm performance (Thomsen & European Financial Management Association, 2004). According to Zerni et al. (2010), if the interests of major shareholders diverge from the maximizing of business value, these blockholders may use their influence to persuade managers to behave in their own benefit rather than in the interest of minority stakeholders and enterprises. As a result, this concept predicts a negative link between blockholder ownership and company performance.

H3: The presence of blockholder ownership leads to high firm performance.

DIRECTOR QUALIFICATION

Knowledge and skills improve directors' critical thinking, which is necessary for carrying out primary tasks of monitoring, advising, and providing critical resources (Tricker & Tricker, 2015). Based on prior studies, top managerial qualifications and company success are linked (Henry et al., 2019; Nielsen & Nielsen, 2013). Qualified directors are more capable of improving the firm's performance due to their correct understanding of working with procedures and producing high-quality results (Al-Matari, 2019). Poon et al. (2013) discovered a favorable association between firm financial performance and director's qualification. Their finding suggests that top management teams with educational backgrounds in banking, inspection, law enforcement, book-keeping, business management, IT, financial advisory, and finance beat their counterparts. These qualified directors decided to improve business performance in order to build the firm's image and exhibit accountability and authority within the top management. Education and experience are essential to board profile considerations. As a result, under qualified directors may be less successful than directors with master's degrees in business administration (Ferreira, 2015; Singhal, 2021). However, Bhagat et al. (2010) analysis of the educational backgrounds of 1800 chief executive officers of S & P's 1500 businesses revealed no significant correlation between BOD education and firm success. Inline, several studies unsuccessful to find any link amid academic history of BODs and business success (Gottesman & Morey, 2010; K.-H. Kim & Rasheed, 2014; Lindorff & Jonson, 2013).

H4: The presence of Director Qualification leads to high firm performance.

BUSY DIRECTORS

The affiliation between busy boards and financial success may be non-linear because of reputational effects (Jiraporn et al., 2009; Potharla & Amirishetty, 2021). Multiple directorships are becoming more common since it is now recognized that scarce resources, such as high-quality directors, can improve business value, if employed properly and economically (Bar-Hava et al., 2013; James et al., 2018). Busy directors may be a proxy for a director's competence and can improve business performance through improved expertise and a broader range of experience (Field et al., 2013; Hauser, 2018).

Core et al. (1999) found that a board of directors with several directorships rewards CEOs excessive remuneration that is harmful to corporate success. Inline, Fich and Shivdasani (2012) examines the link between numerous presidencies and firm outcomes and discovers negative impact. They report poor governance, reduced CEO turnover, and lower profitability in businesses with a majority of busy directors. They also find worse ROA and ROE for firms with busy executives and discovered that the departure of busy directors has a favorable impact. Some researchers, on the other hand, fail to show any substantial association among more than three directorships and organization performance, leaving us with equivocal results. In this regard, Kiel and Nicholson (2006) conducted a study, which fail to find a substantial link between board busyness and business success.

H5: The presence of Busy Director leads to high firm performance.

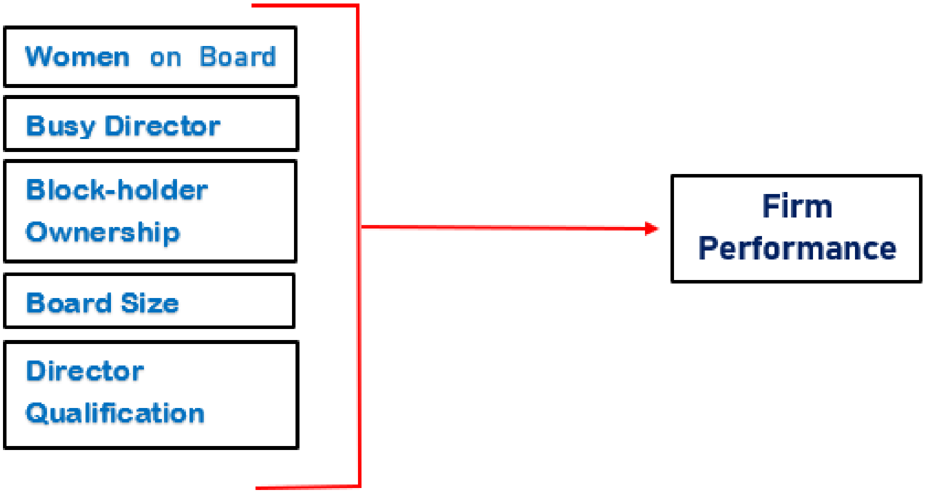

Figure 1: *Conceptual Framework*

METHODOLOGY

SAMPLE, DATA COLLECTION, AND ANALYSIS METHOD

This study analyzes the impact on different sectors listed on the Pakistan Stock Exchange (PSX-100 Index). The research model has five input variables and one outcome. Those are women on board, busy directors, board size, blockholder ownership, director qualification and the outcome is firm financial performance calculated by return on assets (ROA) and return on equity (ROE). The attributes and outcome variable data were gathered from Stock exchange-listed companies, annual reports, and industrial company databases.

The minimum requirement of data is 32 firms with k^2 and study sample consists of 60 non-financial firms. Secondary data is extracted from the annual financial reports covering the period from 2011-2020 (both inclusive). The sample period is selected due to several reasons. Firstly, the SECP has officially operationalized the stock exchange in the year 2000 under the SECP Act 1997, which improved the corporate governance practices of listed firms in Pakistan (Kernal, 2002). Secondly, the study is considered at least four tenures of directors. The analysis method used in this study is fuzzy-set qualitative comparative analysis (fsQCA) approach.

MEASUREMENT OF VARIABLES

Table 1.
Measurement of variables

Variables	Measurement	Empirical Evidence
Women on Board	The proportion of female directors to the overall number of directors.	(Lee-Kuen et al., 2017), , (Arora, 2021)
Busy Director	The ratio of busy directors to total directors.	(James et al., 2018; Mohapatra & Mishra, 2021)
Board Size	A total number of members of the board.	(Le et al., 2023)
Blockholder Ownership	Percentage of directors who have 10% or more shares of a company	(Ibrahimy & Ahmad, 2020; Khan et al., 2022)
Director Qualification	Number of Qualified directors/Total number of directors	(Graham & Harvey, 2002) (Gaur et al., 2015) (J. Chen et al., 2018)
Firm Performance	ROA	(Abu et al., 2016)
	ROE	(Abu et al., 2016; Hazaea et al., 2020)

EMPIRICAL RESULTS AND ANALYSIS

Configurational Results of Board Characteristics

To bring about a positive and sustainable improvement in the quality of life, the social scientist active during the nineteenth century succeeded as exponents of research, marking the possibilities in this field (Roig-Tierno et al., 2017).

Social scientist followed the system approach (Kast & Rosenzweig, 1972), using new research technique named as fuzzy-set qualitative comparative analysis (fsQCA). This tool brings forth the relationship between evidence and theories, covering 15 to 65 instances (Berg-Schlosser et al., 2009). While more than 80 instances came under scientific scrutiny by other of repute (S. Kim et al., 2021). A descriptive analysis of the data revealed that the mean return on assets (ROA) is 0.08, with the highest and lowest values being 0.24 and 0.02, respectively. On the other hand, the mean return on equity (ROE) is 0.24, with the highest and lowest values being 1.37 and 0.04, respectively. Concerning the independent variables, the mean value of women on the board is 0.05, with the highest and lowest values being 0.44 and 0, respectively. The average board size is 8.65, with the highest and lowest values being 13.90 and 6.50, respectively. The mean block-holder ownership is 0.46, with the highest and lowest values being 0.93 and 0, respectively. The mean director's qualification is 0.53, with the highest and lowest values being 0.82 and 0.13, respectively. Finally, the mean value of busy directors is 0.69, with the highest and lowest values being 1 and 0.13, respectively. The conclusion of the descriptive analysis is available in Table 2.

Table 2.
Descriptive analysis

Variables	Symbol	2011-2020			
		Mean	Std. Dev.	Min	Max
Women on Board	WOB	0.05	0.07	0	0.44
Board Size	BS	8.65	1.82	6.50	13.90
Blockholder Ownership	BHO	0.46	0.25	0	0.93
Director's Qualification	DQ	0.53	0.17	0.13	0.82
Busy Director's	BD	0.69	0.20	0.13	1
Return on Asset	ROA	0.08	0.05	0.02	0.24
Return on Equity	ROE	0.24	0.22	0.04	1.37

Table 3 presents calibration of seven variables (Women on Board, Board Size, Ownership of blockholder, Director's Qualification, Busy Directors, Return on Asset, and Return on Equity) and their membership scores for Full membership (95%), Medium membership (50%), and Low membership (5%) categories, based on data collected from 2011 to 2020.

The Table 3 shows that the variables Women on Board and Ownership of blockholder have very low membership scores across all three categories, indicating that they are unlikely to play a significant role in the analysis. Board Size and Busy Directors have relatively high membership scores in the full membership and medium membership categories, suggesting that these variables are likely to be important in explaining the outcome. Director's

Qualification has moderate membership scores across all three categories, suggesting that it could be a moderately important variable in the analysis. Return on Asset and Return on Equity have low to moderate membership scores across all three categories, indicating that these variables may not be crucial in explaining the outcome, but they may still have some explanatory power. In conclusion, the calibration table provides a useful starting point for conducting an FsQCA analysis by identifying the variables that are most likely to be relevant in explaining the outcome.

Table 3.
Calibration anchors

Variables	Symbol	2011-2020		
		Full Membership (95%)	Medium Membership (50%)	Low Membership (5%)
Women on Board	WOB	0.21%	0.04%	0%
Board Size	BS	13%	8.05%	7%
Blockholder Ownership	BHO	0.85%	0.48%	0%
Director's Qualification	DQ	0.78%	0.52%	0.27%
Busy Director's	BD	0.97%	0.72%	0.37%
Return on Asset	ROA	0.2%	0.08%	0.02%
Return on Equity	ROE	0.6%	0.19%	0.06%

NECESSARY CONDITION ANALYSIS

This study analyzes data for the necessary condition analysis as seen in Table 4. The fsQCA necessity analysis determines whether any of the conditions used in the study is required for the outcome to occur, that is, whether the condition is often present or absent in all cases in which the outcome is present or absent (Fiss, 2007; Ragin, 2009). Firstly, in Table 4 the highest consistency and coverage of necessary condition analysis of ROA is 0.755 and 0.743 which is below threshold. Secondly, the highest consistency and coverage of necessary condition analysis of ROE is 0.765 and 0.743 which is less than threshold. In summary, Tables 4 and 5 shows that none of the variables is considered as a necessary condition as their consistency and coverage are less than the 90% and 80% thresholds respectively (Schneider & Wagemann, 2012).

CONFIGURATIONAL DESCRIPTION OF ROA

In Table 6, solution 1 shows the core conditions presence of BHO and core absenteeism of WOB and DQ. The solution displays raw coverage, unique

Table 4.
Necessary condition analysis of board characteristics on ROA

Variables	Presence		Absence	
	Consistency	Coverage	Consistency	Coverage
WOB	0.622	0.669	0.738	0.697
~WOB	0.723	0.579	0.554	0.702
BS	0.554	0.582	0.662	0.636
~ BS	0.755	0.616	0.601	0.743
BHO	0.710	0.639	0.659	0.728
~ BHO	0.626	0.587	0.626	0.664
DQ	0.644	0.566	0.581	0.658
~ DQ	0.652	0.626	0.669	0.694
BD	0.682	0.615	0.637	0.702
~ BD	0.622	0.582	0.620	0.659

The symbol (~) shows the absence of a condition.

Table 5.
Necessary condition analysis of board characteristics on ROE

Variables	Presence		Absence	
	Consistency	Coverage	Consistency	Coverage
WOB	0.634	0.680	0.748	0.707
~WOB	0.728	0.582	0.558	0.709
BS	0.677	0.709	0.765	0.737
~BS	0.684	0.556	0.539	0.669
BHO	0.678	0.609	0.632	0.699
~BHO	0.627	0.586	0.626	0.665
DQ	0.732	0.642	0.655	0.743
~DQ	0.561	0.537	0.592	0.614
BD	0.698	0.628	0.650	0.718
~BD	0.618	0.577	0.617	0.656

The symbol (~) shows the absence of a condition.

coverage, and consistency of 0.439, 0.126, and 0.794. Solution 2 shows that core condition of presence of BHO with BS and DQ core conditions absenteeism, while the BD is peripheral condition absence. The raw coverage 0.334, unique coverage 0.035 and consistency is 0.823. In solution 3, there is a core presence of BHO combined with core conditions absenteeism of WOB and DQ, whereas, BS is peripheral condition absence. The solution exhibits RC, UC, and consistency of 0.358, 0.031, and 0.828, respectively. Solution 4 depicts core condition presence of WOB and BD combined with core condition absenteeism of DQ with BHO peripheral condition absence. The raw coverage, unique coverage, and consistency are 0.245, 0.053, and 0.843, respectively. Solution 5 shows the core conditions of presence of WOB, BHO and BD, core conditions absenteeism of BS, and peripheral condition absence of DQ. The solution exhibits RC, UC and consistency of 0.284, 0.046, and 0.897. The overall solution coverage and consistency are 0.651 and 0.751, which indicates that the five solutions cover a large proportion of the outcome.

Table 6.
Configurational results of ROA

Variables	2011-2020				
	S1	S2	S3	S4	S5
Women on board (WOB)	Ö		Ö	⊖	⊖
Board Size (BS)		Ö	ö		Ö
Block- holders Ownership (BHO)	⊖	⊖	⊖	ö	⊖
Director's Qualifica- tion (DQ)	Ö	Ö		Ö	θ
Busy Director (BD)		ö	Ö	⊖	⊖
Raw Coverage	0.439	0.334	0.358	0.245	0.284
Unique coverage	0.126	0.035	0.031	0.053	0.046
Consistency	0.794	0.823	0.828	0.843	0.897
Overall solution Coverage	0.651				
Over all Consistency	0.751				

⊖ = presence of core condition, Ö = absence of core condition, θ = presence of peripheral condition, ö = absence of peripheral condition

CONFIGURATIONAL DESCRIPTION OF ROE

In Table 7, solution 1 shows the core conditions existence of WOB combined with core condition absenteeism of BHO and DQ. The solution displays raw coverage, unique coverage, and consistency of 0.332, 0.055, and 0.753. Solution 2 shows that core condition existence and absenteeism of BS and BD combined with peripheral condition absenteeism of DQ. This time raw coverage (0.333), unique coverage (0.032) and consistency 0.819. In solution 3, WOB, BS and DQ are peripheral condition (presence). The solution exhibits raw coverage, unique coverage, and consistency of 0.399, 0.044, and 0.870. Solution 4 depicts core condition presence of DQ and BD combined with peripheral condition absenteeism of WOB and BHO. It also shows the raw coverage, unique coverage, and consistency are 0.376, 0.042, and 0.829. Solution 5 shows the core conditions of existence of BS and BHO, peripheral condition absenteeism of

WOB, while core conditions existence of BD. The solution exhibits raw coverage, unique coverage, and consistency of 0.358, 0.058, and 0.835. In solution 6 there is a core condition existence of DQ and BD. while peripheral condition existence of WOB and BHO. It shows the raw coverage, unique coverage, and consistency are 0.351, 0.045, and 0.877. The overall solution coverage and consistency are 0.758 and 0.737, which indicates that the seven solutions cover a large proportion of the outcome.

Table 7.
Configurational results of ROE

Variables	**2011-2020**					
	S1	S2	S3	S4	S5	S6
Women on board (WOB)	Θ		*θ*	ö	ö	*θ*
Board Size (BS)		Θ	*θ*		Θ	
Block-holders Ownership (BHO)	Ö			ö	Θ	*θ*
Director's Qualification (DQ)	Ö	ö	*θ*	Θ		Θ
Busy Director (BD)		Ö		Θ	*θ*	Θ
Raw Coverage	0.332	0.333	0.399	0.376	0.358	0.351
Unique coverage	0.055	0.032	0.044	0.042	0.058	0.045
Consistency	0.753	0.819	0.870	0.829	0.835	0.877
Overall solution Coverage	0.758					
Over all Consistency	0.737					

Θ = presence of core condition, Ö = absence of core condition, *θ* = presence of peripheral condition, ö = absence of peripheral condition

DISCUSSION

Findings emphasize the significance of CG characteristics (i.e. women on board, busy directors, board size, blockholder ownership and director's qualification) in generating great financial success. Different solutions produced comparable findings, implying that impacts change depending on context or attribute complementarities. The existence of another characteristic either amplified or inhibited the influence of some qualities. This conclusion emphasizes the significance of various combinations of board characteristics.

In Table 6 andTable 7 configurational results of board characteristics on ROA shows five solutions and six solutions for ROE, respectively for period ranging from 2011-20. Table 6 shows that there is a "don't care" condition of WOB for ROA but inTable 7, there is a core condition presence of WOB for ROE. It means that women on board cause improvement in return on equity. Therefore, it supports proposed *H1* that presence of women on board leads to high firm performance.

In Table 6 configurational results of board characteristics on ROA shows that there is an absence of core condition of BS but in Table 7 configurational results of board characteristics on ROE results shows core condition presence of BS in maximum solutions. Board size includes skilled leaders, who can help in decision-taking, particularly in firms which required specialized skills. Board size, on the other hand, limit coordination and may thereby impede decision-making. This study results support proposition *H2* that large boardleads to high firm performance.

InTable 6 configurational results of board characteristics on ROA shows that there is a core condition presence of BHO in maximum solutions that depict strong impact of presence of blockholder ownership on ROA. However, in table 6 there is a “don’t care” condition of BHO for ROE. The findings emphasize the existence of blockholder ownership in the enterprises with the highest financial performance. According to the literature, blockholder’s ownership improves shareholder wealth, operational success, and financial performance. In this regards, results support *H3* that presence of blockholder ownership leads to high firm performance.

In Table 6 configurational results of board characteristics on ROA shows that there is an absence of core condition of DQ in maximum solutions. Hence, in Table 7 there is a presence of core condition of DQ for ROE. It describes that DQ must be present to improve return on equity. Because qualified directors are more capable of improving the firm’s performance due to their correct understanding of dealing with operations and attaining high-quality work. In this regard, findings support *H4* that presence of director qualification leads to high firm performance.

In Tables 6 and 7 configurational results of board characteristics on ROA and ROE shows that there is a presence of core condition of BD in maximum solutions. Busy directors have additional experience that helps them accomplish their responsibilities. According to the findings, presence of busy directors is also connected with great financial success and support proposition *H5* that presence of busy director leads to high firm performance.

SELECTING BEST SOLUTION

The best answer must be chosen by the researcher from the solutions provided by fsQCA. There are two primary criteria for selecting amongst the solutions emerging from fsQCA analysis. The first is raw coverage, while the second is unique coverage. According to criteria, in Table 6 configurational results of board characteristics on ROA, solution 1 has the highest raw and unique coverage of 0.439 and 0.126 as compare to other solutions. It shows that BHO is a core condition presence while WOB and DQ are core condition absent.

Table 7 configurational results of board characteristics on ROE gives six different solutions to reach outcome. In which solution 3 is the best solution, because it has the highest raw coverage with 0.399. Solution 3 shows that there is a peripheral condition presence of women on board, board size and director's qualification.

CONCLUSION

These findings demonstrate the presence of many combinations of characteristics as well as the significance of mutual impact that either increases or inhibits the influence of a specific variable, which concludes that different combination of board characteristics(Women on Board, Busy Director, Board Size, Blockholder Ownership, Director Qualification) lead to high firm performance. This study is significant for all the enterprises and shareholders in Pakistan. Multiple regression seeks to quantify the substantial positive or negative influence of a single independent variable on the result, rather than a collection of factors. To circumvent the issues associated with standard statistical methods, we have employed fsQCA, one of the set-theoretic approaches. It discovers several attribute combinations that result in the desired output. Different solutions produced comparable findings, implying that impacts change depending on context or attribute interrelations. The existence of another characteristic either amplified or inhibited the influence of some qualities.

The results illustrate that alternative attribute setups can provide the same results. This conclusion invalidates traditional approaches to corporate governance research, which provide broad recommendations for adopting corporate governance measures. Furthermore, the above results explain why other researchers have reached inconsistent outcomes. The findings of this study are thus beneficial for practitioners since they demonstrate that varied combinations of board of director characteristics may lead to improve firm performance (ROA and ROE). Furthermore, these findings may call into question numerous good governance practices suggestions for regulators. As a result, the findings may urge authorities to investigate the combined effect of various proposals, perhaps preventing unanticipated events. Because non-financial firms play essential part in the economy, the advantages of these conclusions spread to other industries. To prevent another financial calamity is a big task for supervisory bodies and other investors.

LIMITATIONS AND FUTURE RESEARCH

The results of this study offer promising insights into the usefulness of fsQCA as a tool for conducting research on corporate governance and present a unique perspective for addressing research problems in this field. Nevertheless, there are still ample opportunities for further investigation, including expanding the sample size and applying fsQCA to examine governance factors in other industries. Additionally, this method could be beneficial in studying corporate governance among small and medium-sized enterprises (SMEs). While this study is based on agency theory and resource dependency theory, exploring the potential of fsQCA to analyze data within other theoretical frameworks may deepen our understanding of the impact of governance measures on firm performance. It would also be worthwhile to examine the effectiveness of governance systems in the financial sector under various circumstances.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interests.

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