Research Article

Board Financial Expertise and Corporate Cash Holdings: Moderating Role of Multiple Large Shareholders in Emerging Family Firms

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This study contributes to the literature by exploring the relationship between board financial expertise and cash holding policy and further showing how this relation is moderated by multiple large shareholders (MLS). This research is based on agency theory, resource dependence, trade-off, and pecking order theory to confirm how resourceful directors screen cash holding practices. This study selects the 100 listed family firms from the emerging economy of Pakistan for the period of 2006–2017. With the use of static (random and fixed effect estimator) and dynamic (GMM) estimation techniques, this study reveals that the financial expertise of the board members has a significant negative impact on the firms' cash holding level. Further, moderating effect of MLS between board financial expertise and cash holding is significantly positive due to weak corporate governance mechanisms in family firms. Moreover, the research has implications for developing corporate governance mechanism and the management of liquid assets that corporate management might use for their benefits.

1. Introduction

Family-owned businesses are the oldest and quite popular form of business around the globe. Depending on the country of origin, the family-owned business might be from 20% to 70% of the biggest companies globally [1]. Pakistani stock exchange is an emerging market [2] with rich business history and a traditional form of firm ownership based on families. Around 55–70 percent of businesses are still in control and operated by families [3]. Numerous researches suggest that family enterprises underperform [4] due to corporate governance systems [5, 6].

Generally, family firms have a distinct pattern of ownership structure and governance status. Ownership concentration is a severe issue in family-controlled firms in the emerging economy of Pakistan [7], and family ownership is half of the total ownership retained by concentrated owners [8]. This situation may cause resource expropriation along with the minority shareholder's exploitation through large

shareholders. The asset expropriation mainly belongs to family firms, which shows the tunneling behavior of family firms. The overall level of country governance is relatively low in Pakistan [9].

Furthermore, the regulatory bodies are struggling to enforce corporate governance mechanism in Pakistan. However, there are many loopholes in its implementation, including concentrated ownership, incapability of directors towards their role, inadequately trained personnel, absence of professional knowledge, training, and operational weakness. According to the Pakistan firm's ordinance (section XL VII, 1984), shareholders with 20 percent shares are qualified to go to court and file a complaint under any misconduct. With at least 10% representation, the shareholders can only file a complaint to Pakistan's security and exchange commission. Still, there is no provision which deals with the shareholders who hold less than 10% shares. Therefore, it is predicted that there is less or no insurance for minority investors within the Pakistani context [10].

Cash holding not only is a subject of increasing interest in political and academic discussions but also is essential for the ordinary investor because of comprehensive media reports regarding several global firm's cash holding practices such as Google, Apple, and Microsoft [11–14]. A recent study by da Cruz et al. [15] finds the upward trend in cash holding around the globe; therefore, corporate cash holding is a vital phenomenon in the corporate setting nowadays. Corporate cash holding—the firm's capital in cash instead of property, bonds, and equities [16]—leaves firm resources to be used by managers, rather than paying back to shareholders [17]. But corporation may face many consequences for the high level of cash holdings. It results in high agency cost when corporate governance mechanism is weak [18], shareholder protection is low [19], law enforcement is weak [20], capital markets are vulnerable [11], managers' interests are not aligned with shareholders' interests [21, 22], and there is a low level of trust [23]. Furthermore, the resource expropriation behavior in family firms through excess cash holding is the primary cause of strife among majority and minority shareholders [24]. Literature also reported that effective corporate governance could be helpful in the reduction of cash holdings [25].

In the existing literature, researchers also find a series of factors contributing to cash holding, including firm-specific factors such as growth opportunities [26], cash flow volatility [27], leverage [28, 29], investment opportunities [30], firms diversification [31], and research and development [32]. Since the corporate governance mechanism offers the dynamics of how credit providers can get a return from their investment, cash holdings can be best explained under the corporate governance mechanism [20]. To mitigate the agency conflict, various governance systems have already been analyzed concerning cash holding, including ownership structure [33], board composition [34], and CEO compensation [35]. Literature is too extensive to study here, but recent studies document that this phenomenon of cash holding may be known and relevant for corporate managers and other policymakers [36, 37]. Therefore, there is still a need to examine the characteristics of the board concerning cash holdings [15] in the equity markets.

The study introduces a new dimension—board financial expertise—to explain the cash holding decision. The study investigates the board financial expertise's impact on corporate cash holding, which is motivated by two reasons. First, comprehensive media reports about several firm's cash holding practices like Google, Apple, and Microsoft [12, 14], along with renowned corporate scandals like HealthSouth, Enron, WorldCom, and Tyco [38, 39], have shifted the attention of regulators and market makers to have financial expertise on board for effective corporate governance mechanisms. Therefore, weakening governance system in family firms in emerging economies like Pakistan requires special attention, which ultimately affects corporate policies, including cash holdings. Second, numerous studies examined the relationship of board financial expertise with specific corporate policies, including earning management [40], dividend policy [38], corruption disclosure [41], firm performance [42], and audit quality [43]. Moreover,

financial expertise also improves board efficiency [44] and leads to better corporate governance practices [45]. Therefore, there is a need to extend the debate on the role of board financial expertise towards another corporate policy, that is, cash holdings of family firms, by examining the impact of board member financial expertise on cash holding policy, which is a potential element for mitigating agency conflict and enhancing governance practices in family firms of the emerging economy.

We also introduces for the first time the moderating role of multiple large shareholders (MLS) in the relationship between corporate governance mechanism and cash holding. To the best of our knowledge, this is also the first attempt which analyzes the impact of board financial expertise on cash holding with the moderating role of multiple large shareholders. Further, we follow Luo et al. [46] and develop a conceptual model by studying three distinct features of multiple large shareholder structures, that is, (a) presence of large shareholder, (b) contest for control, and (c) number of the large shareholders. In addition, we also examine the effect of board independence, board gender diversity, and board size on cash holding [18, 47–49] by controlling the firm-specific determinants, that is, firm size, liquidity, leverage, profitability, capital expenditure, dividend payout, cash flow, and investment opportunity. This study employed the static and dynamic panel models, that is, random effect (RE), fixed effect (FE), and two-step generalized method of moment (GMM) [50, 51] on a sample of 100 nonfinancial listed family firms from the emerging economy of Pakistan during 2006–2017. The study result shows that the financial expertise of board members has a significant negative impact on the cash holding policy. These findings recommend that a quality board can send back a controlling family's momentum for unnecessary cash holdings by cutting down the volume of liquid assets. Therefore, results support the monitoring role of financial experts in concentrated ownership context, which stressed the importance of the board of directors towards quality governance. The structure of MLS also moderates the relationship between corporate governance and cash holdings. In addition to these, the finding suggests that profitability, firm size, leverage and dividend payout, investment opportunity, and capital expenditure have a significant association with cash holding practices.

This study extends the existing literature in the following four ways. Firstly, we introduce the board financial expertise as a potential factor for explaining the cash holding policy of family firms; therefore, this study extends the debate on internal corporate governance mechanism and cash holding in financial literature [33, 47, 52–55]. We also examine other governance characteristics such as the role of board gender diversity, the board size, and board independence towards cash holding. Secondly, we analyze the moderating role of MLS (presence, contest, and number) in the relationship between corporate governance and cash holding. Thirdly, we select the emerging equity market of Pakistan. Existing literature on internal governance structure and cash holding is badly inclined towards developed economies [20, 56, 57] which raises a need to analyze board financial expertise and MLS role towards cash holding in emerging economies.

Furthermore, Pakistan does not have any legal requirement about financial expertise on board which left the gap for analysis of board financial expertise role towards cash holding decision. Fourthly, we select the listed family firms due to their distinct ownership structure and governance status. Therefore, it is vital to examine the governance characteristics and their relation with cash holding in family firms.

This paper is organized as follows. The following section describes the theoretical background and hypothesis development; the next section describes data and research methodology, followed by empirical results. Finally, we have a discussion and conclusion section.

2. Theoretical Background and Hypothesis Development

This section discusses the theoretical background and hypothesis of the study. It includes the main theories which provide the foundation for our research in the context of emerging markets.

2.1. Theoretical Background. The theoretical relationship between cash holding and board characteristics is best explained by agency theory [58], resource dependence theory [59], trade-off theory [60, 61], and pecking order [62] theory as these theoretical underpinnings are more appropriate and dominant in the motivation of cash holding. Due to different vital roles performed by a board of directors, such as (a) monitoring and control role, (b) provision of valuable advice, (c) ensuring organization's compliance with statutory law and regulations, and (d) connection of organization with the external environment [63], it is challenging to explore the board characteristics, cash holding nexus with any single theory. de Villiers et al. [64] showed that agency and resource dependence theories gave the critical solution in determining board's monitoring capabilities, while Al-Najjar [26] focused on the trade-off and pecking order theory to determine the firm cash holdings.

Agency theory explains that the interest of shareholders and managers should be aligned [32, 65, 66] and argues that free cash flow leads towards agency problem. Entrenched managers do not distribute excess cash among shareholders [58, 67, 68], instead retained for personal uses due to easily accessible asset [69]. Agency theory explains the principal-agent and principal-principal conflict [70–73]. The predominance of principal-principal conflict in Asian countries is family ownership and control [74]. Therefore, strong governance with a strong board structure is necessary for observing the insiders. Hence, board financial expertise may be a tool that the board can use to enhance the governance mechanism.

Resource dependence theory deals with how users access the resources that depend on the director's access to firm resources [75, 76]. The presence of a capable director on the corporate board as a resource develops strategic policies regarding any particular issue. Board members deliver numerous benefits to the companies, such as advice and

recommendations [75, 77], and act as channels for information. Hillman and Dalziel [76] classify board capital into two types, i.e. human capital (advice, knowledge, experience, expertise, and reputation) and relational capital (relationship channel). Existing literature advocates the rigid behavior of any resourceful person towards unethical actions due to their popularity and reputation [78] and their role in reducing information asymmetry among stakeholders. Therefore, resourceful directors such as board financial experts may have a valuable opinion to enhance corporate governance by reducing agency problems of cash among shareholders to improve investor's confidence and raise investment.

The trade-off theory believes that the optimal level of cash is determined through the trade-off among the marginal costs and cash holding [26, 79, 80]. Ferreira and Vilela [30] suggested that cash holding has three advantages: (1) shrink the possibility of financial distress, (2) make investment policy less vulnerable during financial constraints, and (3) reduce external financing cost. According to the Keynes [81] concept, there are two incentives behind cash holding: precautionary and transaction cost incentive. Under transaction cost incentive, firms cladding an insufficiency of internal reserves can seek external funds through incurring of variable and fixed costs, such as assets liquidity, dividends reduction, and issuance of new stock or debt instruments [82], while under precautionary incentive, firms stockpile cash in the pursuance of an unexpected investment opportunity when external source financing is high. In family firms where transaction costs are essential, trade-off theory seems vital in explaining the firm's cash holding policy.

The pecking order theory has been presented by Myers and Majluf [62]. It states that firms first go for internal funds as they are the cheapest source of funding. After that, firms opt for external financing because external funding source is high when firms face asymmetric information problems [69]. This problem of information asymmetry is more in family firms from emerging markets [83]. Therefore, pecking order theory should be considered while explaining the cash holding policy of family firms in emerging markets.

2.2. Hypothesis Development. This section includes the underpinning between board financial expertise with cash holding in family firms. Furthermore, it also discusses the moderating role of multiple large shareholders in the relationship between corporate governance mechanisms and cash holdings.

2.2.1. Board Financial Expertise (BFE) and Cash Holding. As examined by recent literature, the board of directors is an essential component of corporate governance [41, 73], particularly in substantial business enterprises [84]. The internal governance is ordinarily estimated by ownership structure, nonexecutive directors on board, effective audit, and so forth [85, 86]. Research reveals that strong governance decreases the level of cash holdings [55, 86]. Therefore, managers may have some inclination to hold more cash

during the absence of strong governance. Consequently, it is expected that the corporate board has a viable role in relieving agency issues due to cash holding.

The vast body of literature on corporate board and firm's governance characterized board obligations into different roles [52, 53, 84, 85]. These roles are not fundamentally distinct, and each one is fortified with an expert financial presence on board. Investors prefer more financial expertise on the board because they have to perform numerous roles, including improvement of financial reporting quality, financial statement's transparency, and prevention of controlling shareholder's internal control [87, 88]. Financial experts on board help monitor the ability and potential of management towards financial decisions and provide experience-based reviews on policies [38, 89]. Furthermore, to reduce the firm's agency conflict, they can work as arbitrators among external and internal auditors [90].

The need for financial experts on the board arises in the 1990s after the accounting crises and economic crisis; for example, according to the USA, Sarbanes–Oxley Act (2002) firm's board has to acquire at least one financial expert. Furthermore, the UK, Australia, Singapore, and the new governance rules of India also interdict about the board's technical and financial expert's inclusion [91]. A study on Singaporean firms revealed the watchdog role of accounting and financial experts on board to foster financial disclosure quality [91]. Furthermore, the study of [92] on UK firms found that the financial experts have a role in promoting corporate social responsibility (CSR) disclosures with their reputation, background, and experience). In addition to this, existing literature found that board financial experts have a positive impact on the board's proficiency [87, 88], firm practices [88, 93], and execution [42, 94, 95] and lead to quality governance. According to Abdioglu [96], quality governance is linked to decreased cash holding. Studies also suggest that strong governance is related to low cash holding [67, 97]. Therefore, the first hypothesis of this study is as follows:

H1a: board financial expertise has a significant negative impact on the cash holding of listed family firms.

2.2.2. Board Size (BS) and Cash Holding. The quality of the corporate board may also depend on the number of directors on the board. Although the large board size may have various experience and skills, it leads to organizational inefficiencies [47]. A larger board size makes the decision-making process slow which may increase the agency problems. Furthermore, different studies discussed the association of board size with cash holdings [18, 85, 86, 98]. Researchers suggested that a bigger board size will, in general, be inefficient in decision-making and has a higher administrative cost [98, 99], resulting in poor governance and easy to have control of the A chief executive officer (CEO) [100]. The smaller board size leads to minimization of the agency conflicts. Due to more significant agency conflicts, an upward trend in cash holding is expected under the larger board size [47]. Therefore, following the existing literature on board size, we develop the following hypothesis:

H1b: board size has a positive impact on the cash holding of listed family firms.

2.2.3. Board Independence (BI) and Cash Holding. Board independence has been widely discussed as part of the corporate governance mechanism [32, 101]. It is a vital factor in determining the monitoring quality of the corporate board [47, 101]. Furthermore, these directors generally have no financial interest other than fees [102]. Earlier literature discussed the association of board independence with cash holding [103]. In light of the theory of financial hierarchy, board independence has a positive relationship with the holding of cash [61], as agency cost decreases by effective monitoring. The board independence can also protect the rights of minority shareholders. Anyhow, researchers [33, 104] found an insignificant association among these variables. Therefore, board composition is an important matter to discuss the agency problems and associated cost. An increase in the level of cash holdings also increases the risk of expropriation [47]. Therefore, it is expected that level of board independence decreases the cash holding of firms. Following existing literature on the association of board independence and cash holding [18, 47, 48], this study develops the following hypothesis:

H1c: board independence has a negative impact on the cash holding of listed family firms.

2.2.4. Board Diversity (BD) and Cash Holding. The gender differences among the general population are different from those of the professional populations in terms of financial risk preferences [105]. Furthermore, Croson and Gneezy [105] also discussed the findings of Dwyer et al. [106] that the female mutual fund investors are more risk averse than the counterpart. But, Dwyer et al. [106] argued that this difference is attenuated when controlling financial investment knowledge. Therefore, it can be concluded that financial ability may decrease gender differences. It is expected that solid financial understanding is generally low in the family firms of the developing economies. Therefore, gender diversity may be higher in family firms of developing economies.

Companies push more females in the corporate board due to the economic benefit achieved through the unique skills and talent of the female [107]. Furthermore, the rational economic theories such as resource dependence, stakeholder, agency theory, and stewardship theory suggest that females on board have a significant impact on the board independence and monitoring and advisory capacity by having more connection towards the external environment [108, 109]. Furthermore, recently, Zalata et al. [110] strongly argued that female CEOs are more risk averse than females on the corporate board. Therefore, it is concluded that female takes less risky decisions than male board members. Thus, board diversity deals with two main functions, including precautionary and agency cost. From the agency cost point of view, more female directors on board enhance the significance of the board and lead towards greater quality

[111]. Subsequently, board diversity affects board adequacy, which may benefit shareholders [47]. It also decreases the likelihood of seizure of firm assets [112]. As per the precautionary motive, females are risk averse than males [113] and are less confident in decision-making [49, 114]. Therefore, companies with a diversity of gender hold high cash reserves [49, 115]. Consequently, we develop the following hypothesis:

H1d: board diversity has a positive impact on the cash holding of listed family firms.

2.2.5. Multiple Large Shareholders (MLS) and Cash Holding. Excess cash is the reason for agency conflict among shareholders and managers and principal-principal (P-P) conflict among majority and minority shareholders [58]. P-P conflicts are a vital concern of corporate governance [116, 117]. Governance characteristics are previously premeditated to resolve principal-agent (P-A) conflicts and are proven to be ridiculed in resolving P-P conflicts [118, 119]. Under this context, researchers have claimed that multiple large shareholders can act as a possible governance mechanism that might restrain the expropriation of controlling families and thus feasibly mitigate P-P conflicts. Maury and Pajuste [120] stated about the second-largest stockholders that they increased the profitability of European corporate bodies. Faccio et al. [121] examined the expropriation-reducing role of multiple large shareholders and revealed the increasing expropriation role in Asia because of weak shareholder protection and governance in Asia. Attig et al. [122] showed that uneven appropriated control rights decrease the efficient monitoring of numerous block holders because they could even frame control alliances and offer private advantages expropriation. Therefore, there exists conflicting argument in the existing literature on multiple large shareholders and cash holdings. We develop a conceptual model which refers to the three features of multiple large shareholder structure including (a) presence, (b) competition for control, and (c) sum of large shareholders.

2.2.6. Presence of Multiple Large Shareholders and Cash Holding. Being an emerging economy, Pakistan has a weak external governance structure, low legal investor protection [123], and grievous P-P conflicts [7]. Under these circumstances, an internal governance structure would be more vital [124]. Therefore, multiple large shareholders' mechanisms might be a valuable internal mechanism while dealing with P-P conflicts [117, 125]. Under the monitoring role, other large shareholders cooperate in bartering common interests and restraining expropriation by the controlling families [117, 125]. Under the entrenchment role, other large shareholders make a controlling alliance with controlling families to extract and share personal benefits [122, 126]. By following Liu et al. [16] findings, we theorize that multiple large shareholders would not mitigate agency conflicts in Pakistani family firms and do not perform a vital monitoring role towards expropriating behavior of families as

observed in the developed world [120, 126]. Therefore, we set the following hypothesis:

H2a: the presence of MLS structure has a positive impact on the cash holding of listed family firms.

2.2.7. Contest of Multiple Large Shareholders for Control and Cash Holding. The literature discussed the relative dominance among monitoring effect and entrenchment effect [46]. The relative intensity of monitoring and entrenchment role would vary under different levels of the contest for control. When the contest for control is at a low level, then controlling families affect the firm, which then expropriates exclusively by using their rights [16]. When a family firm goes towards collusion, they need to share private advantages, thus allowing them to expose if an attempt to expropriate or a tunnel is made. Therefore, the MLS structure's net governance effect is the monitoring effect [46].

On the other hand, under the high level of the contest for control, the MLS net governance role will become an entrenchment role. The first reason behind it is that dominant families find it difficult to expropriate and must establish coalitions with other major shareholders to extract and distribute private advantages [16, 127, 128]. The above situation happens particularly in emerging economies because of low legal protection for minority shareholders [119]. Secondly, due to the equal distribution of equity among family and other large shareholders, one could not entirely control the firm [129]. Therefore, it is hard for the largest shareholder to form a successful alliance, but numerous large shareholders would engage in different directions separately by using minority shareholders' wealth. Therefore, we predict the dominance of entrenchment effect when competition for control is high and ultimate, and it has a positive impact on cash holding.

Further, when competition for control is intense, it boosts the entrenchment effect, which permits large shareholders to make winning alliances with a minor equity stake or chase their distinctive targets individually, enhancing the expenses of minority shareholders. Therefore, it may lead to more severe principle-principle (P-P) conflicts and expropriation [122]. Consequently, we expect a positive connection between multiple large shareholder's contests for control and corporate cash holding. Hence, our hypothesis is as follows:

H2b: the contest for control of MLS structure will positively impact cash holding of listed family firms.

2.2.8. Number of Multiple Large Shareholders and Cash Holding. Literature also pointed out that if a sole large shareholder has the control, it leads to the absence of adequate supervision and equilibrium [117, 119]. On the other hand, having many large shareholders may weaken the dominance of controlling families, restrict expropriation, and mitigate P-P conflicts [130], affecting corporate cash holdings. Further, it is hard to assume that more large shareholders are the best choice [46]. According to

Bennedsen and Wolfenzon [126], several large shareholders make winning alliances with other large shareholders with small equity stake and facilitate winning coalition for expropriation [131, 132], which leads to more cash holding in firms. Therefore, the literature concludes that a number of large shareholders (LS) structures increase the corporate cash holding, so our next hypothesis is as follows:

H2c: the number of large shareholders has a positive impact on the cash holding of listed family firms.

2.2.9. The Moderating Role of Multiple Large Shareholders on the Relationship between Corporate Governance and Cash Holding. The theoretical literature on corporate governance suggests that strong governance is adequate to mitigate agency conflict. However, multiple large shareholders can monitor well controlling investors (an observing motivation) or might be structure controlling alliances with them to get private advantages (a conspiracy motivator) [25, 104, 122]. Therefore, we analyze the interaction effect of corporate governance and multiple large shareholders with cash holding. Consistent with the study of Liu et al. [16], it is expected that MLS in Pakistan likely interact with controlling shareholders because of poor governance and investor protection because control rights are skewed towards controlling families. Therefore, we develop the following hypothesis:

H3: the interaction of multiple large shareholders and corporate governance proxies positively impacts the cash holding of listed family firms.

3. Data and Research Methodology

The initial sample of the study consists of all Pakistani nonfinancial listed family firms on the Pakistan stock

exchange (PSX). Since the financial sector has a distinctive capital structure and other legal requirements, we exclude the financial sector. Further, we sorted family firms from listed firms of the nonfinancial sector. Therefore, all the listed family firms are the initial population of this study. The period of the analysis is 2006 to 2017 on an annual basis. During the data collection of dependent, independent, and other variables, a series of secondary sources were examined, including published corporate governance reports published annual reports of each sample family firm, the company's official websites, and directors' profiles. In addition, firms having missing data sets have been excluded. Therefore, for reduction of outlier's effect, on each variable, we trim our sample at 1% in each tail. Due to the nonavailability of board members profiles for some sample family firms, our final sample consists of 100 firms from 11 nonfinancial industries, including cement, chemical products and pharmaceuticals (CP&P), energy, electrical machinery and apparatus (EEM&A), food products and minerals (FP&M), information, communication and transport services (IC&TTS), manufacturing, motor vehicle and transport (MV&T), paper, paperboard, and products (PPB&P), refined petroleum products (RPP), sugar, and textile. A detailed description of the sample firms has been presented in Table 1.

3.1. Research Methodology. This study employs the following research methodology.

3.1.1. Board Financial Expertise and Cash Holdings. To econometrically investigate the impact of board financial expertise on cash holding in listed family firms of an emerging economy, we estimate the following two equations:

$$\begin{aligned} \text{CCET}_{i,t} &= \beta_0 + \beta_1 * \text{Board financial expertise} + \beta_i * \text{Governance mechanism}_{i,t} + \beta_k * \text{Control}_{i,t} \\ &\quad + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \mu_{i,t}, \\ \text{CCET}_{i,t} &= \beta_0 + \beta_1 * \text{BFE}_{i,t} + \beta_2 * \text{BS}_{i,t} + \beta_3 * \text{BI}_{i,t} + \beta_4 * \text{BD}_{i,t} + \beta_5 * \text{FS}_{i,t} + \beta_6 * \text{CF}_{i,t} + \beta_7 * \text{CE}_{i,t} \\ &\quad + \beta_8 * \text{IO}_{i,t} + \beta_9 * \text{ROA}_{i,t} + \beta_{10} * \text{LEV}_{i,t} + \beta_{11} * \text{DP}_{i,t} + \beta_{12} * \text{FL}_{i,t} + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \mu_{i,t}. \end{aligned} \quad (1)$$

Here, CCET denotes the cash and cash equivalent (cash holding), BFE represents the board financial expertise, BS denotes the board size, BI denotes the board independence, FS depicts the firm size, CF denotes the cash flow, CE denotes the capital expenditure, IO denotes the investment opportunity, ROA denotes the return on asset, LEV denotes leverage, and DP denotes dividend payout. Finally, FL offers the liquidity of the family firm.

3.1.2. Multiple Large Shareholders and Cash Holdings. We divide multiple large shareholder (MLS) structures into its three attributes—presence, control contest, and number of large shareholders (LS)—to fully explain the governance role of MLS structure towards corporate cash holding. Specifically, we estimate the following set of equations (2)–(8) to analyze the impact of MLS on cash holdings of listed family firms in Pakistan:

TABLE 1: Sample description.

Description	No of firms
Total listed companies	558
Less: financial listed companies (146)	412
Less: nonfamily listed firms (145)	267
Total listed family firms	267
Less: companies with nonavailability of board members' profile for data of corporate governance characteristics (107)	160
Less: companies with nonavailability of other control variables' data (32)	128
Less: companies with missing data in some of the years (28)	100
A final sample of a study	100

$$CCET_{i,t} = \beta_o + \beta_1 * BFE_{i,t} + \beta_2 * BS_{i,t} + \beta_3 * BI_{i,t} + \beta_4 * BD_{i,t} + \beta_5 * \text{Block dummy}_{i,t} + \beta_6 * \text{Firm's controls} + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \mu_{i,t}, \quad (2)$$

$$CCET_{i,t} = \beta_o + \beta_1 * BFE_{i,t} + \beta_2 * BS_{i,t} + \beta_3 * BI_{i,t} + \beta_4 * BD_{i,t} + \beta_5 * \text{Contest 1}_{i,t} + \beta_6 * \text{Firm's controls} + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \mu_{i,t}, \quad (3)$$

$$CCET_{i,t} = \beta_o + \beta_1 * BFE_{i,t} + \beta_2 * BS_{i,t} + \beta_3 * BI_{i,t} + \beta_4 * BD_{i,t} + \beta_5 * (\text{Contest 1})_{i,t}^2 + \beta_6 * \text{Firm's controls} + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \mu_{i,t}, \quad (4)$$

$$CCET_{i,t} = \beta_o + \beta_1 * BFE_{i,t} + \beta_2 * BS_{i,t} + \beta_3 * BI_{i,t} + \beta_4 * BD_{i,t} + \beta_5 * (\text{Contest 2})_{i,t} + \beta_6 * \text{Firm's controls} + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \mu_{i,t}, \quad (5)$$

$$CCET_{i,t} = \beta_o + \beta_1 * BFE_{i,t} + \beta_2 * BS_{i,t} + \beta_3 * BI_{i,t} + \beta_4 * BD_{i,t} + \beta_5 * (\text{Contest 2})_{i,t}^2 + \beta_6 * \text{Firm's controls} + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \mu_{i,t}, \quad (6)$$

$$CCET_{i,t} = \beta_o + \beta_1 * BFE_{i,t} + \beta_2 * BS_{i,t} + \beta_3 * BI_{i,t} + \beta_4 * BD_{i,t} + \beta_5 * \text{Block number} + \beta_6 * \text{Firm's controls} + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \mu_{i,t}, \quad (7)$$

$$CCET_{i,t} = \beta_o + \beta_1 * BFE_{i,t} + \beta_2 * BS_{i,t} + \beta_3 * BI_{i,t} + \beta_4 * BD_{i,t} + \beta_5 * (\text{Block number})_{i,t}^2 + \beta_6 * \text{Firm's controls} + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \mu_{i,t}. \quad (8)$$

3.1.3. The Moderating Role of Multiple Large Shareholders in the Relation between Financial Expertise and Cash Holding.

This study estimates the moderating role of block dummy in the relationship between board financial expertise and cash holding by the following equation:

$$CCET_{i,t} = \beta_o + \beta_1 * BFE_{i,t} + \beta_2 * BS_{i,t} + \beta_3 * BI_{i,t} + \beta_4 * BD_{i,t} + \beta_5 * \text{Board financial expertise} * \text{Block dummy}_{i,t} + \beta_6 * \text{Firm's controls} + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \mu_{i,t}. \quad (9)$$

Equation (10) estimates the moderating role of block dummy in the relationship between board size and cash holding for Pakistani listed family firms:

$$CCET_{i,t} = \beta_o + \beta_1 * BFE_{i,t} + \beta_2 * BS_{i,t} + \beta_3 * BI_{i,t} + \beta_4 * BD_{i,t} + \beta_5 * BS * \text{Block dummy}_{i,t} + \beta_6 * \text{Firm's controls} + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \mu_{i,t}. \quad (10)$$

We also analyze the moderating role of block dummy in the relationship between board independence and cash holdings by estimating the following equation:

$$\begin{aligned} CCET_{i,t} = & \beta_0 + \beta_1 * BFE_{i,t} + \beta_2 * BS_{i,t} + \beta_3 * BI_{i,t} + \beta_4 * BD_{i,t} + \beta_5 * BI * Block\ dummy_{i,t} + \beta_6 * Firm's\ controls \\ & + \beta_7 * Industry_{i,t} + \beta_m * Year_{i,t} + \mu_{i,t}. \end{aligned} \quad (11)$$

This study investigates equation (12) for examining the moderating role of block dummy in the relationship between board diversity and cash holding in listed family firms:

$$\begin{aligned} CCET_{i,t} = & \beta_0 + \beta_1 * BFE_{i,t} + \beta_2 * BS_{i,t} + \beta_3 * BI_{i,t} + \beta_4 * BD_{i,t} + \beta_5 * BD * Block\ dummy_{i,t} \\ & + \beta_6 * Firm's\ controls + \beta_7 * Industry_{i,t} + \beta_m * Year_{i,t} + \mu_{i,t}. \end{aligned} \quad (12)$$

We estimate the baseline regression with static—fix and random effect model—and dynamic—two-step GMM—panel data estimation techniques for Pakistani family firms. The panel statistics assess the endogeneity by controlling firm, precise effects. Also, we employ the unbalance estimation model to avoid the likely heteroscedasticity in data. We used the Hausman test to analyze whether the fixed or random effect is appropriate. We also view that data is free from cross-sectional correlation among firms due to the clustering as we only consider the nonfinancial sectors. We employ GMM to estimate our model. To acquire the predictable evaluations, the fixed effect will estimate through model first difference by taking lag of independent variables to eliminate the endogeneity problem [50]. GMM consistency relies upon the independent variable's validity and the presumption that the error term does not show the sequential relationship. In this manner, two particular tests, endogenous and Wald test for endogenous variables, are also applied. Our two-step GMM estimation considers the lag of cash holding and other explanatory variables as instruments by analyzing the dynamism in cash holding and controlling the potential problems of autocorrelations, heterogeneity, and endogeneity.

3.2. Measurement of Variables. This section discusses the operationalization of the battery of variables of our study.

3.2.1. Family Firms. Consistent with the study of Bunkanwanicha et al. [133], we consider a family firm in which the founder or family member holds at least 20% of the equity of the firm in the sample period. In line with existing literature, we measure our dependent variable corporate cash holdings (CCET) as cash and cash equivalent to total asset ratio in listed family firms [16, 82, 134].

3.2.2. Corporate Governance Variables. Under the consideration of agency and resource dependence theory, we identified the following variables, which likely affect cash holdings:

(1) *Board Financial Expertise.* We operationalize the financial expertise as the proportion of financial expertise on corporate board to total board members [38, 88, 135]. Section 202 of the Sarbanes–Oxley act defines a person as a financial expert who has financial and accounting experience or performs financial responsibilities with supervisory expertise. We classify a person as a financial expert if a person has finance, accounting, and economics degree or working experience as auditor accountant, finance manager, chief financial officer, financial analyst, or financial advisor in any financial sector or nonfinancial sector. We divide the financial expertise into five categories: a bachelor in accounting and finance (A&F), master in accounting and finance (A&F), PhD degree, professional certification, and law background.

(2) *Board Size (BS).* It is defined as the size of the corporate board at the end of the fiscal year [98, 136, 137].

$$BS = \text{Total number of director in a corporate board.} \quad (13)$$

(3) *Board Independence (BI).* The study conceptualizes board independence as the proportion of independent directors on board to the entire board of directors [47, 55, 138].

$$BI = \frac{\text{Total number of independent director}}{\text{Board size}}. \quad (14)$$

(4) *Board Diversity (BD).* It is defined as a female director on the board [49, 139].

$$BD = \text{number of female directors in a board.} \quad (15)$$

3.2.3. Multiple Large Shareholders: Moderating Variable. The study incorporates multiple large shareholders (MLS) structure as a moderating variable. It divides the MLS structure into three attributes—presence, control contest,

and number of large shareholders (LS)—to examine the governance role of MLS structure towards corporate cash holding. We use a dummy variable to capture the MLS, denoted as block dummy, and assign 1 if the second-largest shareholder owns at least 5% equity rights otherwise “0” [34, 117]. We are expecting the positive impact of this variable on cash holding. To measure control contest, we take the ratio of the summation of the second- to fifth-largest shareholders’ equity rights to the first-largest shareholder’s equity rights [46, 122], represented as contest 1, and it measures the relative intensity of larger shareholders equity rights to other shareholders’ equity right.

Further, we computed the sum of the square of difference among the second- to third-largest shareholder’s equity right, third- to fourth-large shareholder’s equity right, and fourth to fifth shareholder’s equity rights [120, 122] and represented contest 2. Contest 2 specifies the equity right distribution among other LS. Therefore, we used contest 1 and contest 2 to measure the contest for control. If both variables are high, it denotes the higher control contest among shareholders. Further to measure the number of large shareholders (LS), we included second- to fifth-LS holding at least 10% equity rights [46]. By following the pecking order theory, the trade-off theory, and prior empirical studies [38, 53, 115, 140], we incorporated control variables (see Appendix A).

3.2.4. Control Variables. Firm-specific variables might influence the firms’ cash holding policy. Following the theoretical predictions of the pecking order theory, the trade-off theory, and prior empirical studies [30, 53, 61, 115, 141], we incorporated the following control variables into our study: dividend, capital expenditure, investment opportunity, firm size, leverage, profitability, liquidity, and cash flows. Capital expenditure (CE) is the ratio of summation change in fixed assets and depreciation to net assets. It may negatively affect cash because the investment decision generally decreases the cash balance of the firms [140]. Firm size (FS) measures through the natural logarithm of net assets. It results in a negative association with cash holding, consistent with trade-off theory because stable, large, and well-diversified firms hold less cash [30, 61].

The investment opportunity (IO) ratio of stock market value plus debt’s book value to asset’s book value is expected to positively impact corporate cash holdings [141]. Leverage (LEV) is a ratio of total debt to total assets of the firm. More levered firms will accumulate large cash to diminish the risk of financial distress and bankruptcy; therefore, the relationship between leverage and cash holding could be positive according to trade-off theory [142]. Dividend (DIVT) payout is measured through the ratio of dividend per share, and existing literature argued its negative relationship [143, 144]. Profitability (ROA) measures the ratio of companies’ profit to net assets in the last year [73, 145–147], and it may directly affect the cash holdings. This is because profitable firms hold more cash for reinvestment purposes [148]. Cash flow (CF) denotes the operating cash flow measured as the cash flow ratio to

net assets at the last of the year [141]. The pecking order theory suggests that firms having the capacity to generate more cash are likely to hold it more; therefore, there may be a positive association between cash flow and cash holding [149]. Liquidity (FL) is defined as net working capital less cash divided by net assets. Furthermore, the trade-off theory also suggests that more liquid assets may be considered substitutes and quickly shifted into cash. Hence, firms with more cash may have less liquid assets [82, 150].

4. Empirical Results

We start our empirical results by plotting a graph of board financial expertise across the nonfinancial listed family firms in the Pakistani stock exchange. Figure 1 plots the log of the amount of board financial expertise in Pakistani family firms. It shows that most family firms hire law background professionals in Pakistan, followed by directors having professional certifications. Appendix B include the pie charts of decomposition of financial expertise of our study; Figures 3–7 depict the decomposition of financial expertise based on bachelor in accounting and finance (A&F), master in accounting and finance (A&F), PhD degree, professional certification, and law background, respectively.

The pie chart of Figure 2 further decomposes the board financial expertise into 5 categories. We define a financial expert if the director has any banking experience (Banker) or has experience as a finance officer (CFO), finance expert of nonfinancial firms (FENF) or from academia (professor of finance (PF)), and professional investor (PI). Results show that about 35% of financial experts belong to the category of FENF while 29% are from bankers in Pakistani family firms.

Table 2 presents summary statistics for the entire sample variables. It reports the mean, standard deviation, and maximum and minimum values of each studied variable for 12 years of data span. For example, the mean value of CCET is 0.04 with a 0.07 standard deviation, representing cash holding 4 times of total assets. The average value of BS is 8, which shows that, on average, family firms have 8 members in their corporate board, while the minimum value for BS is 4. The maximum value is 15 with 1.746 standard deviations. The mean value of BD is 1.21 showing that on average female representation in the board of family firms is relatively low. On average, family firms have 1.73 financial experts in their corporate board, while its maximum value in the sample is 10 with a standard deviation of 2.01. Similarly, Table 2 reports the summary statistics of all the other control variables used in this study.

Table 3 uncovers the results of the degree of associations among variables. Correlation shows the strength and direction of association among studied variables. For example, CCET is positively correlated with BS, BD, IO, ROA, and CF, while BI, BFE, DIVT, CE, FS, LEV, and FL have a negative association with corporate cash holding. Furthermore, the maximum association is observed between ROA and CF, that is, 0.59, which may also show no evidence of multicollinearity in the studied variables. We refer to Table 3 for further details of the degree of association among variables.

FIGURE 1: Trend of board financial expertise in Pakistani listed family firms.

FIGURE 2: Decomposition of financial expertise in Pakistani listed family firms.

TABLE 2: Summary statistics.

Variable	Mean	Std. dev	Min	Max
CCET	0.04	0.07	0.0001	0.69
BS	8.08	1.75	5.00	15.00
BD	1.21	1.32	0.00	6.00
BI	0.98	1.69	0.00	8.00
BFE	1.73	2.01	0.00	10.00
DIVT	0.03	0.05	0.00	0.32
CE	0.80	0.31	0.00	2.15
IO	1.38	2.04	-2.27	19.19
FS	8.09	1.71	2.77	12.82
LEV	0.61	0.26	0.03	0.99
ROA	0.11	0.11	-0.45	0.57
FL	1.40	1.34	0.00	11.81
CF	0.10	0.15	-0.51	1.55

TABLE 3: Correlation matrix.

	CCET	BS	BD	BI	BFE	DIVT	CE	IO	FS	LEV	ROA	FL	CF
CCET	1												
BS	0.2546	1											
BD	0.3175	0.0652	1										
BI	-0.1449	0.0439	0.0658	1									
BFE	-0.2096	0.0648	-0.2017	0.3274	1								
DIVT	-0.1103	-0.071	0.0034	0.0935	0.0626	1							
CE	-0.2269	-0.2445	-0.0531	0.0494	-0.0292	0.0308	1						
IO	0.5308	0.1807	0.0925	-0.1524	-0.0817	-0.0811	-0.2194	1					
FS	-0.1924	0.1913	-0.1928	-0.0417	0.2454	-0.0491	-0.1777	-0.0527	1				
LEV	-0.2315	-0.1567	0.0611	0.0112	-0.0991	0.0793	0.2754	-0.4224	-0.1335	1			
ROA	0.4927	0.1876	0.0758	-0.1423	-0.0948	-0.1192	-0.2896	0.4785	0.04	-0.4356	1		
FL	-0.009	-0.0521	-0.1367	0.0172	0.084	-0.052	-0.1594	0.0663	-0.072	-0.3832	0.0878	1	
CF	0.5216	0.3345	0.1237	-0.1037	-0.0268	-0.0718	-0.2074	0.3782	0.0617	-0.3534	0.5972	0.0251	1

4.1. Examination of Hypothesis 1 (H1a, H1b, H1c, and H1d): Board Financial Expertise and Cash Holding Policy. Table 4 shows regression estimates for the association among board financial expertise, the board size, board independence, and board diversity with cash holding policy. Findings of the fixed and random effect model show a significant negative effect of financial expertise on cash holding. However, the Hausman test depicts that the fixed effect model (FE) is suitable, whereas Wald and endogeneity test show the presence of endogeneity and heteroscedasticity, which makes the FE estimates susceptible.

Board financial expertise has a negative and significant impact on cash holding. These results are consistent with existing [67, 97] studies that strong governance is linked with less cash holding as excess cash can be used for personal shareholder benefits. Board size has a significant positive relationship with cash holding; these results are consistent with the studies of [98, 99, 137]. As studies reveal that a large board appears to be more inefficient, companies with a large board inferred poor corporate governance with a higher managerial cost. Coefficients of board independence are negative with cash holding consistent with the studies of [47, 55, 69] argued as lower information asymmetry is associated with higher BI. Because external finance providers may think that BI is a positive signal for a firm, there is no need to hold more cash in this situation. The relationship between BI and cash holding is negative. Coefficients of board diversity are positive with cash holding, which is consistent with the studies of Loukil and Yousfi [49] and Van Uytbergen and Schoubben [139], who argued that females having risk-averse behavior and less confident nature hold more cash reserves, and firms with gender-diverse boards hold more cash. Investment opportunities have a positive coefficient with cash holding because growth opportunities require high cash holdings [141]. Cash flows have a significant positive effect on cash holdings, which is consistent with the pecking order theory, which proposes that firms are generating more cash flows and are engaged to hold more cash. Firm size has a significant negative association with cash holdings, which is consistent with trade-off theory. Since larger firms can gain profit through economies of scale [151], have constant cash flows, prefer more

diversification, and have easy accessibility of financial markets with low borrowing cost [30, 61], capital expenditure also negatively affects cash holding, consistent with Jebran et al. [140]. The relation between dividends and cash holdings proxies is negative and statistically significant, consistent with trade-off theory and existing studies [137, 152]. Liquidity has a negative relationship with cash holding because liquid assets could be considered a substitute for cash when firms face a cash shortage [30]. More levered firms will accumulate large cash to diminish the risk of financial distress and bankruptcy; therefore, the relationship between leverage and cash holding could be positive according to trade-off theory. Profitability has a positive association with cash holdings, consistent with the study of Al-Najjar and Clark [53].

4.2. Examination of Hypothesis 2 (H2a, H2b, and H2c): Multiple Large Shareholders and Cash Holding Policy. Table 5 demonstrates the findings of the impact of MLS—presence, control contest, and number of LS—towards corporate cash holding in listed family firms of the emerging economy. It presents the results of 7 models, comprehensive measures to capture the MLS and its impact on cash holding. Hypothesis H2a is related to MLS structure, and Table 5, model 1, shows that MLS structure directly impacts cash holding ($P < 0.001$). Thus, hypothesis H2a is accepted, which suggests that the presence of MLS is related to more cash reserves. These results are consistent with Liu et al. [16] as MLS does not play a monitoring role in the alleviation of agency conflicts and the reduction of families' expropriation in the emerging economy as they played in developing countries [120, 126].

Hypothesis H2b concerns MLS competition for control, operationalized through two variables, that is, contest 1 and contest 2, expecting a positive impact on cash holding. Table 5, model 2, shows that contest 1 has a positive and significant coefficient ($P < 0.001$), and model 3 shows that contest 1 squared has a positive and significant coefficient ($P < 0.001$). Similarly, model 4 shows that contest 2 has a positive and significant coefficient for the alternative measure, and model 5 shows that contest 2 squared has a positive and significant coefficient. These results are consistent with

TABLE 4: Board financial expertise impact on cash holding of family firms.

Variables	CCET Random	CCET Fixed	CCET GMM1	CCET GMM2
L.CCET	0.59*** (0.018)	0.208*** (0.023)	0.132*** (0.002)	0.211*** (0.002)
BS	0.002** (0.001)	0.007*** (0.001)	0.009*** (0.0004)	0.007*** (0.003)
BD	0.005*** (0.001)	0.007*** (0.001)	0.011*** (0.001)	0.015*** (0.0004)
BI	-0.001 (0.001)	-0.002** (0.001)	-0.002** (0.001)	-0.003*** (0.0004)
BFE	-0.001* (0.001)	-0.001** (0.001)	-0.001*** (0.002)	-0.002*** (0.0001)
DIVT	-0.033 (0.023)	-0.032 (0.020)	-0.025*** (0.007)	-0.035*** (0.007)
CE	-0.005 (0.004)	-0.013** (0.006)	-0.007** (0.003)	-0.018*** (0.002)
IO	0.007*** (0.006)	0.009*** (0.001)	0.011*** (0.0002)	0.010*** (0.0001)
FS	-0.004*** (0.001)	-0.007*** (0.001)	-0.003*** (0.0004)	-0.003*** (0.0003)
LEV	0.016** (0.005)	0.018** (0.016)	0.017*** (0.002)	0.012*** (0.002)
ROA	0.042** (0.014)	0.062*** (0.015)	0.029*** (0.006)	0.029*** (0.002)
FL	-0.001 (0.010)	-0.002* (0.001)	-0.003*** (0.001)	-0.004*** (0.001)
CF	0.067*** (0.010)	0.05*** (0.009)	0.063*** (0.003)	0.092*** (0.003)
<i>P value</i>			0.000	0.000
<i>R-square</i>	0.3354	0.4532		
<i>Hausman test</i>		0.000		
<i>Heteroscedasticity test</i>		0.000		
<i>Sargan statistics</i>			0.107	0.125

Note. *t*-statistics are in parentheses. *, **, and *** show the significance level of 99%, 95%, and 90%. The table shows the findings of the influence of financial expertise on cash holdings by considering other governance and firm's specific variables on the sample of listed family firms in Pakistan. It shows the results of fixes, random, and GMM estimation techniques. Furthermore, it also reports the result of the Hausman test, a test of heteroscedasticity, and Sargan statistics.

Luo et al. [46] study when a contest for control raises the monitory role of multiple large shareholder declines, making an alliance with controlling families and holding more cash. Thus, we accept hypothesis H2b. Our hypothesis H2c is related to the number of LS. For hypothesis H2c, we posited that the number of large shareholders blocks in Table 4 with model 6 has a positive relation with cash holding ($P < 0.001$). While the model 7 blocks' number squared is positively and significantly related to corporate cash holding ($P < 0.001$), accepting the hypothesis H2c that blocking the number has a direct impact on the cash holding behavior of family firms.

4.3. Examination of Hypothesis 3: Moderator Role of Multiple Large Shareholders in the Relation between Financial Expertise and Cash Holding. Table 6 presents the moderating role of MLS in the relationship between corporate governance and cash holding of family firms. As model 1 in Table 6 shows, multiple large shareholders have a significant positive impact on board size and cash holding relationship. Similarly, model 2 represents the presence of multiple large shareholders significantly positively impacting the relationship between board diversity and cash holding. Model 3 results indicate that multiple large shareholders significantly moderate the relationship between board independence and cash holding in family firms. Therefore, in the presence of MLS, board independence cannot reduce cash holding. Instead, it leads to having more cash in family firms. Similarly, model 4 results indicate that multiple large shareholders decrease the impact of board financial expertise to improve corporate governance by reducing cash holding since multiple large shareholders family firm hold more cash and board financial expertise cannot mitigate cash holding. Therefore, we accept our hypothesis H3.

5. Discussion

We split this study into three main objectives. We for the first time examine the impact of board financial expertise along with other board attributes on cash holding. Secondly, we develop seven models to analyze the effect of MLS (a proxy of internal governance) structure on cash holding. Thirdly, we develop five novel models to investigate the moderating effect of MLS structure in the relationship between corporate governance characteristics and cash holding in family firms.

The impact of financial experts on cash holding is inverse for Pakistani family firms. It indicates that firms with more financial experts on board reduce the cash holding due to the strong corporate governance, which reflects their financial advice to policymakers regarding the cash reduction policy. We accept hypothesis H1a, and the finding confirms that strong governance leads towards low cash holding [67, 97]. The study also reveals that cash holding in Pakistani family firms is influenced by the increase in board size. Therefore, we accept the hypothesis H1b, which is consistent with the existing studies [98, 99, 137, 138] that bigger board size appears to be idle in decision-making and has more managerial cost and easier for them to control CEO. In addition, board independence is negatively related to cash holding, which leads to the acceptance of hypothesis H1c. These results are consistent with the existing studies [47, 55, 69, 138], lower information asymmetry comes through higher board independence, and firms may be able to finance externally because the provider of external finance is concerned with more increased board independence that reduces the need for excess cash. The impact of board diversity on cash holding is positive; therefore, we accept hypothesis H1d. Our findings are consistent with the existing studies [49, 139]. Females are supposed to have less

TABLE 5: Multiple large shareholders impact on cash holding.

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
	GMM 1	GMM2	GMM 1	GMM2	GMM 1	GMM2	GMM 1	GMM2	GMM 1	GMM2	GMM 1	GMM 2	GMM 1	GMM 2
<i>L.CCET</i>	0.131*** (0.002)	0.202*** (0.003)	0.132*** (0.002)	0.212*** (0.003)	0.129*** (0.002)	0.211*** (0.003)	0.129*** (0.002)	0.201*** (0.002)	0.128*** (0.002)	0.199*** (0.002)	0.096*** (0.003)	0.131*** (0.003)	0.087*** (0.003)	0.115*** (0.002)
<i>BS</i>	0.009*** (0.0004)	0.006*** (0.0002)	0.009*** (0.0004)	0.007*** (0.0003)	0.009*** (0.0004)	0.007*** (0.0003)	0.009*** (0.0004)	0.007*** (0.0002)	0.009*** (0.0004)	0.006*** (0.0002)	0.008*** (0.0004)	0.006*** (0.0002)	0.008*** (0.0004)	0.006*** (0.0002)
<i>BD</i>	0.011*** (0.0004)	0.014*** (0.0003)	0.012*** (0.0004)	0.015*** (0.0004)	0.011*** (0.0005)	0.015*** (0.0003)	0.011*** (0.0005)	0.015*** (0.0003)	0.011*** (0.0004)	0.003*** (0.0003)	0.010*** (0.001)	0.011*** (0.0003)	0.009*** (0.0004)	0.010*** (0.0003)
<i>BI</i>	-0.001* (0.0001)	-0.002*** (0.0004)	-0.001* (0.0004)	-0.002*** (0.0004)	-0.001** (0.0004)	-0.003*** (0.0004)	-0.001** (0.0004)	-0.002*** (0.0002)	-0.001* (0.0001)	-0.002*** (0.0004)	-0.0001 (0.0004)	-0.001** (0.0002)	-0.0001 (0.0001)	-0.001 (0.0004)
<i>BFE</i>	-0.001*** (0.002)	-0.002*** (0.0001)	-0.002*** (0.0002)	-0.002*** (0.0001)	-0.001*** (0.0004)	-0.002*** (0.0001)	-0.001*** (0.0004)	-0.002*** (0.0001)	-0.001*** (0.002)	-0.002*** (0.0001)	-0.001*** (0.0001)	-0.002*** (0.0001)	-0.0003*** (0.002)	-0.001*** (0.0001)
<i>Block dummy</i>	0.016*** (0.001)	0.017*** (0.001)												
<i>Contest1a</i>		0.004*** (0.001)		0.017*** (0.001)										
<i>Contest1asqr</i>			0.001*** (0.0002)	0.0004** (0.0001)										
<i>Contest2a</i>					0.002*** (0.0001)			0.002*** (0.0002)						
<i>Contest2asqr</i>									0.0003*** (0.001)	0.0003*** (0.001)				
<i>Block number</i>											0.012*** (0.002)	0.014*** (0.0002)		
<i>Block numbersqr</i>													0.0003*** (0.001)	0.0005*** (0.001)
<i>Control variables</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>
<i>P value</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Sargan statistics</i>	0.120	0.101	0.102	0.118	0.104	0.120	0.225	0.252	0.241	0.265	0.200	0.267	0.198	0.268

TABLE 6: The moderating role of multiple large shareholders on the relationship between board financial expertise and cash holding.

	Model 1		Model 2		Model 3		Model 4		Model 5	
	GMM 1	GMM2	GMM 1	GMM2	GMM 1	GMM2	GMM 1	GMM2	GMM 1	GMM2
<i>L.CCET</i>	0.130*** (0.003)	0.203*** (0.003)	0.132*** (0.003)	0.191*** (0.002)	0.141*** (0.002)	0.210*** (0.002)	0.148*** (0.003)	0.208*** (0.002)	0.145*** (0.003)	0.198*** (0.003)
<i>BS</i>	0.007*** (0.0004)	0.004*** (0.0002)	0.008*** (0.0003)	0.006*** (0.0002)	0.008*** (0.0004)	0.006*** (0.0002)	0.010*** (0.0004)	0.006*** (0.0002)	0.008*** (0.0004)	0.006*** (0.0004)
<i>BD</i>	0.011*** (0.001)	0.014*** (0.0004)	0.004*** (0.001)	0.005*** (0.0003)	0.007*** (0.001)	0.010*** (0.0003)	0.007*** (0.001)	0.010*** (0.0003)	0.003*** (0.0006)	0.004*** (0.0006)
<i>BI</i>	-0.001* (0.0004)	-0.001*** (0.0004)	-0.001** (0.0004)	-0.003*** (0.0003)	-0.003*** (0.0005)	-0.004*** (0.0003)	-0.001** (0.003)	-0.001*** (0.0003)	-0.002*** (0.0003)	-0.002*** (0.0003)
<i>BFE</i>	-0.001*** (0.0002)	-0.002*** (0.0001)	-0.001*** (0.0002)	-0.002*** (0.0001)	-0.002*** (0.0001)	-0.002*** (0.0001)	-0.004*** (0.0003)	-0.004*** (0.0001)	-0.002*** (0.0003)	-0.003*** (0.0003)
<i>BS * BD</i>	0.002*** (0.0001)	0.002*** (0.0001)							0.0005 (0.0001)	0.002 (0.0001)
<i>BDi v * BD</i>			0.011*** (0.001)	0.013*** (0.0004)					0.006*** (0.001)	0.006*** (0.001)
<i>ID * BD</i>					0.010*** (0.0002)	0.010*** (0.0002)			0.004*** (0.0004)	0.004*** (0.0004)
<i>BFE * BD</i>							0.006*** (0.0002)	0.006*** (0.0002)	0.004*** (0.0003)	0.004*** (0.0003)
<i>Control variables</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>	<i>Included</i>
<i>P value</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Sargan statistics</i>	0.087	0.091	0.249	0.211	0.333	0.302	0.165	0.216	0.301	0.285

FIGURE 3: Decomposition of financial expertise (bachelor in A&F) in equity market.

confidence in nature and have a risk-averse attitude; therefore, family firms with more females on board hold more cash in emerging economies.

Our findings show that MLS's presence, contestability for control, and number of measures significantly positively impact cash holding. Therefore, this study accepts the hypotheses H2a, H2b, and H2c. These outcomes represent that, in our sample, investors can notice that MLS are not playing

their monitoring role to prevent family firms' expropriation from mitigating agency conflicts as practicing in developed economies [120, 126]. Furthermore, the result reveals that, in the presence of MLS structure, board financial expertise also leads to excess cash holding, which confirms that MLS contributes to weak corporate governance mechanisms in family firms. Hence, we accept our hypothesis H3. It is argued that corporate governance mechanisms work to

FIGURE 4: Decomposition of financial expertise (master in A&F) in equity market.

FIGURE 5: Decomposition of financial expertise (PhD degree) in equity market.

strengthen compliance because firms contribute to a healthy economy [153]. However, Pakistan's economy needs to practice corporate governance in the true sense to establish an influential position. In Pakistan, listed firms practicing with weak governance [154] and regulatory bodies can barely put corporate governance code into practice. Consistent with the literature [155], there are unspecified

obstacles that discourage the practice of corporate governance code in Pakistani firms. Furthermore, in most Pakistani firms, independent directors are ineffective, ownership is concentrated, and scarcity of professional's wisdom and inadequacy of professionals in firms are increasing barriers to developing improvements in Pakistan's corporate governance system.

FIGURE 6: Decomposition of financial expertise (professional certification) in equity market.

FIGURE 7: Decomposition of financial expertise (law background) in equity market.

TABLE 7: List of variables.

Variable types	Variable name	Symbol	Variable explanation
Explained variable	Cash holding	CCET	Cash and cash equivalent to net assets
	Board size	BS	Entire size of the corporate board at the last of fiscal year
	Gender diversity	BD	Number of female directors on board
Governance variable	Independent director	BI	Proportion of independent directors on board to the entire board of directors
	Board financial expertise	BFE	Proportion of financial expertise on corporate board to total board members

TABLE 7: Continued.

Variable types	Variable name	Symbol	Variable explanation
Moderating variable	Presence of MLS	Block dummy	If the second-largest shareholder has more than 10% equity rights
	Control contest	Contest 1	The summation of the second- to fifth-largest shareholders' equity rights to the first-largest shareholder's equity rights
		Contest 2	Square the summation of the second- to third-largest shareholder's equity right difference, third- to fourth-large shareholder's equity right difference, and fourth- to fifth-large shareholder's equity rights difference
	Number of MLS	Block number	The second- to fifth-large shareholders who own at least 10% equity rights
Control variable	Dividend payout	DivT	Dividend paid per share every year
	Capital expenditure	CE	Summation change in fixed assets and depreciation to net assets
	Investment opportunity	IO	Proportionate of stock market value plus debt's book value to asset's book value
	Firm size	FS	Ln of total asset
	Profitability	ROA	Companies' profit to net assets every year
	Leverage	LEV	Ratio of comparison between total debt to total assets of firm's
	Liquidity	Liq	Net working capital less cash, divided by net assets
	Cash flow	CF	Cash flow to net assets every year

6. Conclusion

We for the first time analyze the impact of board financial expertise on the cash holding policy of family firms. Our other novel contributions are investigating the moderating role of MLS structure in the relationship between corporate governance characteristics and firm cash holding. The current research focused on board financial expertise as a proxy of internal governance and other board attributes to analyze its impact on cash holding. This study is based on data from Pakistani family listed companies from 2006 to 2017. We employ static and dynamic panel estimation techniques for examining the board's financial expertise and cash holding policy.

Findings strongly support our argument and suggest inverse relationships between board financial expertise and corporate cash holding. These findings recommend that a top-quality board can send back a controlling family's momentum for unnecessary cash holdings by cutting down the volume of liquid assets. Overall findings of research support the monitoring role of financial experts in concentrated ownership context, which stressed the importance of the board of directors towards quality governance. Further, we considered the MLS structure as an internal governance proxy to see the relationship with cash holding. Under consideration of monitoring and entrenchment effect of MLS structure, our findings reveal that MLS structure does not always mitigate agency conflicts. Specifically, different proxies of the MLS structure increase cash holding in Pakistani family firms. Additionally, the result shows that MLS structure significantly positively moderating the relationship between corporate governance characteristics and firm cash holdings.

Besides the novel contribution to existing literature, this study also has the following practical policy implications. First, the finding reveals that financial experts significantly shape family firms' cash holdings in emerging economies. Further, policymakers should strengthen corporate

governance by having more financial experts on the corporate board. Secondly, investors and policymakers should also consider the MLS structure before any investment. Because finding reveals that companies with sole large shareholders or with MLS structure are not attractive for investments, under inadequate legal protection for investors, MLS might collude with controlling shareholders to tunnel and share private incentives. Thirdly, the Securities and Exchange Commission of Pakistan and other regulatory authorities of the stock exchange could demand a mandatory provision to include financial experts on board. Regulators significantly focus on the supervision of family firms with sole large shareholders or with several large shareholders due to more agency problems within these ownership structures.

Despite contributions in prevailing literature, we recommend the following guidelines for future potential researchers. First, we ignore the financial expert's identity effect, for example, legal, financial expert, and accounting financial expert. However, various financial experts might have different professional skills, resources, and benefits to monitor controlling families. Therefore future research should focus on these aspects of board financial experts. Second, we also ignore the effect of large shareholder's identity through different large shareholders who might contribute with professional knowledge, skills, and resources, which help in the monitoring of the family firm. Therefore, future research could see the aspect of large shareholder identities. Thirdly, our empirical study took the sample of listed family firms only. Therefore, further study is required to explore the nonlisted family firms and nonfamily firms, as agency costs might vary among these firms. Another limitation of this study is generalizability as we only consider one economy. However, Pakistan is an emerging economy, but other emerging economies like China, Russia, or India have different institutional contexts from Pakistan, which may give different results. Therefore, future work should explore our argument's boundary across numerous emerging economies.

Appendix

A

The definition of variables is provided in Table 7.

B

The graphs of board financial expertise across listed family firms are given in Figures 3–7.

Data Availability

The data used to support the findings of the study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that they have no potential conflicts of interest concerning the research, authorship, and/or publication of this article.

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