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Analyzing the Role of Board Independence towards Corporate Cash Holding: Evidence from Listed Family Firms of Emerging Economy

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Abstract: Family businesses are a valuable and well-known corporate name all over the world. However, controlling families have a clear incentive to obtain private benefits via asset expropriation from minority owners and to take activities that diminish the firms' value especially in emerging economies. A strong governance structure protects against these practices and affects long-term success by lowering them. This study adds to this scope by examining the effect of board independence, board size, leverage, dividend distribution, and company size on cash holding in the case of Pakistani listed family firms. Secondary data of sample of 212 family listed firm for the period of 2010-2017 from published annual reports and corporate governance reports are used. The static and dynamic models: fixed effect (F.E.), random effect (RE), and generalized method of moment (GMM) are the critical tools of evaluation in this study. Results show that board independence negatively affects cash holding, indicating that governance plays an active part in family businesses, whereas board size positively impacts cash holding, and demonstrating inefficient governance. Finally, study has policy guidelines for shareholders, and all other stakeholders.

Keywords: Board Independence, Board Size, Cash Holding, Family Firms, Emerging Economy

1. INTRODUCTION

In emerging economies, several companies are clustered in possession of a few big shareholders, with either the founder or relatives of the family holding a significant number of shares and possessing a solid control of the company's management. Besides, families have positions in the company's administration, including the company's director and former executive chair. Moreover, instead of concentrating strictly on expertise or education, directors and managers' appointment is affected by family relationships and friendship, which raises shareholder agency issues (Hussain et al., 2008). Therefore, there is need to analyze the family firm's corporate decision makings especially with respect to corporate governance development.

Under agency issue, the decision to continue cash keeping is motivated by a conflict between managers and shareholders. Management has an incentive to hold additional cash to pursue their personal gain rather than increasing company worth. Further, researchers argued that any increment or reduction in excess cash holding is dependent on the framework of corporate governance; a company could set up a corporate governance mechanism to reduce agency conflict (Belghitar et al., 2013). In Pakistan, family businesses have higher cash on hand than non-family businesses, resulting in wealth expropriation of minority shareholders and increased principal-principal confrontation. Additionally, major media reports stated that big companies including Microsoft, Google, and apple are keeping many cash reserves (Boot & Yladimirov, 2019; Kimura et al., 2018). Furthermore, according to Almeida et al. (2014), cash holdings in S&P 500 companies increased by a double and from 1996 to 2012, reaching $1,334 billion. Therefore, corporate cash retention is a daily problem in today's corporate system.

According to published studies, there are three key reasons for a company's cash holdings: speculative, precautionary, and transactional reasons (Li et al., 2019). Including this, researchers also discover several Cash holding predictors, such as leverage (Anderson et al., 2012), firms diversification (Bakke et al., 2017), research & development (he et al., 2016), firm value (Anderson et al., 2016), and profitability (Mun et al., 2015).

However, the corporate governance approach gives conditions that make investors gain confidence about their investments; thus, cash holding is better explained by corporate governance mechanism (Harford et al., 2012). There are also several government regulations in place. To reduce organization disputes in cash possession, such as country regulation (Ferreira et al., 2004), ownership arrangement (Kuan et al., 2012), CEO compensation (Chhaochharia et al., 2009), and board composition (Chen & Chuang, 2009) are also under discussion in the relevant literature. While there is much literature to review here, Qiao et al. (2019) and Bates et al. (2018) recently confirmed that cash keeping is an essential and significant phenomenon for business executives and other policymakers. As a result, there is a need to investigate room exposure towards cash reserves in emerging markets (Cruz et al., 2019). This paper looks at the importance of board independence and board size in cash-keeping policy in listed family firms of Pakistan's developing economy.

The objective of this study is to examine the impact of independence of corporate board on the cash holding policy of listed family firm in emerging equity markets of Pakistan. This study examines the corporate governance impact on cash holding, precisely the effect of board independence, the board size, leverage, dividend distribution, and company size on cash holding in the case of Pakistani family firms (F.F.). The static and dynamic models: fixed effect (F.E.), random effect (RE), and generalized method of moment (GMM) are used on the secondary data from published annual reports and corporate governance reports of 212 non-financial listed family companies from the Pakistan stock exchange (PSX) for the time span of 2010-2017. Result shows that board independence negatively affects cash holding, indicating that governance plays an active part in family businesses, whereas board size positively impacts cash holding, and indicating inefficient governance.

This study contributes by extending the debates on corporate governance and cash holding in the listed family firms of the emerging economy of Pakistan. Furthermore, it contributes by examining the impact of board independence and board size on the corporate cash holding policies in the listed family firm of the emerging economy of Pakistan. Additionally, it also analyzes the role of firm size, leverage and dividend payout towards determining the corporate cash holding of family firms.

The remaining part of the paper is organized as follows; next section presents the review of related literature and hypothesis development. Section 3 discusses the data and research methodology. Section 4 presents the results and finally we have the conclusion section of the study.

2. LITERATURE REVIEW

This section discusses the details of the related literature review and development of hypothesis of study.

2.1. Corporate Governance and Cash Holding of Family Firms

Available literature suggests that strong corporate governance (CG) can significantly affect a company's cash holdings (Kuan et al., 2012; Asante-darko et al., 2018; Chen et al., 2008). Several studies show that having independent directors on the company board improves shareholders' monitoring performance (Borokhovich et al., 1996) and reduces managers' unethical conduct of transferring surplus cash for personal gains. Therefore, as the proportion of independent directors increases, the cash ratio on published financial statements decreases (Chen et al., 2008; Lee et al., 2009). The effect of board size on various corporate practices, including cash policy, has been studied extensively. By lowering the debt ratio, the big board can effectively manage a firm's complex challenge and play a more robust monitoring function (Bhutta et al., 2018). Owing to fewer board issues, the small board is more concerned with a low cash ratio than the big board (Al-Najjar et al., 2011).

Corporate governance seems to affect cash-keeping decisions, as previously mentioned. Because corporate governance protects shareholders' interests, so they are less cautious with cash keeping for capital spending. In agency theory, Jensen (1986) and Stulz (1990) argue that extensive cash holdings produce agency problems when entrenched managers do not distribute free cash flow to investors (Dittmar et al., 2003; Jensen, 1986). Furthermore, as compared to tangible assets, available cash will be more effectively used by administrators for empire building (Chen et al., 2009). The analyses of Dittmar et al. (2003), based on evidence including 45 countries' sample, affirm the impact of corporate governance on cash keeping and administrators engaged in excessive cash holdings in countries with weak investor security. Harford et al. (2008), on the other hand, suggested that weak governance leads to a reduction in cash reserves. Dittmar (2003) and Lin et al. (2004) found that more investor rights are associated with less cash holding in cross-country studies. Masood et al. (2014) found that good governance is critical for achieving the best cash standard. According to Isaksson (1999), corporate governance is described as "the mechanism by which companies guide and manage their operations." Kuan et al. investigated the importance of governance and cash-keeping patterns in Taiwanese companies (2011). They looked at the impact of governance on family and non-family businesses.

Management with a poor corporate governance structure will take advantage of excessive cash holdings by investing in low-return projects (Ammann et al., 2010). It raises the need for improved internal governance and oversight, as well as external corporate governance implementation. Since organizations have developed and shown to be excellently governance structures that have improved, management can use firm tools and make policy decisions. According to Jensen et al. (1976), agency theorists recommend monitoring and coordination

benefits as essential methods for limiting agency problems (Shah, 2009). According to Ozkan et al. (2004), corporate governance is described as board independence. Outside directors' empowerment may reduce knowledge asymmetry between companies and investors, increasing a firm's ability to collect external funds. Furthermore, Opler's (1999) hierarchical finance model suggests a constructive relationship between the firm's performance and independence. Chen et al. (2009) investigated the effects of corporate governance on high-tech companies listed on the NASDAQ stock exchange. Their findings suggest that board independence and CEO ownership both affect the cash-keeping decision. Finally, their findings suggest that the governance influence becomes more noticeable in younger companies, whereas firm-specific effects have a more significant impact in older firms. According to Brenes (2011) and Desai (2005), independent board oversight will help safeguard shareholders and improve family company execution. According to Kuna et al. (2011), 's independence and managers' cash holdings have a positive relationship.

2.2. Board Independence and Cash Holding

Previous research on the relationship between cash holding and board independence has shown mixed findings. According to Yammeesri et al. (2010), it is unclear that independence leads to better monitoring and enhances the firm's financial performance. In view of Opler's (1999) financial hierarchy principle, board independence is positively related to cash withholding since effective management reduces agency costs. Furthermore, Ozkan (2004) confirms that because of lesser asymmetrical knowledge, which emerges from higher board independence, organizations are more likely to receive funds from outside sources, as board independence is needed for effective governance (Johannisson et al., 2000). As a result, there is no need to keep more cash, and the relationship between board independence and cash keeping is negative (Kusnadi et al., 2011; Chen et al., 2008). In either case, researchers including Harford (2008) and Kuan (2012) discovered that these variables have a negligible relationship. This research explores the following hypothesis based on current literature that shows a connection between board independence and cash keeping (Bedard et al., 2014; Borhan, Bhuiyan & Hooks, 2019; Boubaker, 2015).

H1: Board independence has a detrimental impact on listed family firms' cash holdings.

2.3. Board Size and Cash Holding

The association between the size of board and cash holding in existing literature is two-dimensional (Bohran, Bhuiyan & Hooks, 2019; Lee & Park, 2015; Chauhan, Pathak & Kumar, 2017; Al-Manaseer et al., 2012). Researchers have, for example, indicated that a larger board size would in general not be effective in decision-making and that it would cost, administratively more (Al-Manaseer et al., 2012), lead to weak governance and quickly managed to CEOs (Wasserman et al., 2003) (Jensen et al., 1993). However, other researchers find that in general, greater diversity of context, capital, and skills would increase (Adams et Mehran, 2003; Harris et al., 2008), better supervision will be provided (Davidson, & Dadalt, 2003), the interest of shareholders will be reinforced. External links will succeed (Dalton, 1999). Therefore, the following hypothesis is established in accordance with the current literature (Al-Manaseer et al., 2012; Pathan et al., 2007).

.**H2:** Board size positively affects cash holding of listed family firms in Pakistan.

2.4. Control Variables and Cash Holding

Company size would probably play a significant role in deciding cash levels. Large companies impact cash stocks that conform to the principle of trade-offs. Larger companies can make money from economies of scale (Mulligan 1997), have constant cash flows, prefer further diversification and have easy access to low credit costs capital markets (Ferreira et al., 2004; Opler et al., 1999;). Enjoy economies of scale as well. Larger companies may make a fast profit from various strategies by getting access to capital (Serrasqueiro et al., 2008).

More leveraged companies would build up big cash to reduce the likelihood of financial loss and bankruptcy; therefore, according to the trading principle, the relationship between debt and cash held could be favorable. Jensen et al. (1976) report that free cash flow can minimize agency tensions, and the increase in leverage can further alleviate the mindset of managers' tunneling. They are responsible for paying off mortgages and paying interest, so investing in profitable ventures. Mixed findings on leverage and cash holdings are published in the literature. A dividend is a return from investments made by shareholders; some companies that offer dividends have less cash to hold. This dividend-to-cash relationship corresponds to the trade-off principle (Ullah et al., 2014; Al-Najjar & Belghitar, 2011; Afza & Adnan, 2007). Also Kumar (2006) study explains that higher dividend payments could secure a stable potential profit for companies. Therefore, based on the literature review, we have developed the following hypothesis;

H3: *Firm size negatively affects cash holding of listed family firms in Pakistan*

H4: *Leverage positively affects cash holding of listed family firms in Pakistan*

H5: *Dividend payout negatively affects cash holding of listed family firms in Pakistan*

3. DATA DESCRIPTION AND RESEARCH METHODOLOGY

This section discusses the data collection process, population and sample of study. Further it also includes the measurement of study and research methodology uses in this study.

3.1. Data description

All listed firms are considered as the population for determining the relationship between corporeal governance and the value of firms' cash holding on (PSX) the Pakistan stock exchange. In 2017, there were 558 companies on the Pakistan stock exchange. However, the paper excluded financial institutions and included non-financial PSX companies. The justification behind the exclusion of the financial sector is its financial system legislation which varies from non-financial companies. We also sorted family enterprises from public corporations in the non-financial sector. Thus, the demographic goal of all listed family enterprises comprising 267 entities mentioned here. As members for such family sample businesses are not available, our final sample covers 212 family businesses from 11 non-financial industries. Research has collected 212 listed family-owned businesses of Pakistan stock exchange from the non-financial sector. Selection requirements took the liquidity of family businesses. Liquidity is shown by a company's trading shares exchanged in the current year. Samples from 11 sectors of the Pakistan stock exchange are obtained for the family firms.

3.2. Data collection

The data collection is a crucial step throughout the testing phase. Since study questions and desired outcomes are dependent on the aggregation of data from several credible tools, this research is focused on secondary data. (Randolph et al., 2009). The research time is between 2010 and 2017 each year. Several secondary sources, including corporate governance reports, annual statements by each sample Family Corporation and the company's official websites, were investigated during the data collection of dependent, independent and other variables.

3.3. Measurement of Variables

A comprehensive literature analysis found many factors in Corporate Governance used to justify the optimal global amount of cash holdings. The study included board independence, the board size, leverage, dividend payments and company size.

3.3.1. Family firms

In line with the Bunkanwanicha et al. (2013) study, we regard a family company that owns at least 20 percent of the company's equities through its creator or family member.

3.3.2. Cash Holding

Measurement of cash holding is of considerable significance to the target findings. We calculate capital holdings as cash and cash equivalent/total assets by observing the current literature. Total assets are measured with the debt and operating profit tax subtracted. Olper's (1999) analysis shows a log of these values to be a measure used for analyzing the relationship.
CH= cash equivalent and cash over total asset

3.3.3. Independent Variables

Following independent variables included in this research
Board Independence: It is a percentage of individual board members to the whole board (Boubaker, 2015; Chen, 2008; Lee, 2009; Kusnadi, 2011). *Board size:* The size of at the close of the financial year (Ullah, 2017; Lee, 2009; Al-Manaseer et al., 2012). *Firm Size:* Natural logarithm of a company's net assets (Ferreira et al., 2004; Opler et al., 1999). *Dividend payout:* dividend ratio payable to the net assets (Ullah et al., 2014; Al-Najjar & Belghitar, 2011). *Leverage:* is a ratio of overall leverage and the company's net assets.
Table 1 shows the details of all the variables of our study.

Table 1: Variables' Summary

Variable types	Variable name	Symbol	Variable explanation
Explained variable	Cash Holding	CH	Cash and Cash Equivalent to net assets
Governance variable	Board Independence	B.I.	No. of Independent Directors on board
	Board Size	BS	The entire size of the corporate board at the last of fiscal year
Control variable	Dividend Payout	DivT	Dividend earned annually by share

	Firm Size	Size	Ln of Total Asset
	Leverage	Lev	the comparative ratio of net liability to total company assets

3.4. Econometric Methodology

The Panel Data methodology is used to analyze the relationship between C.G. and cash holding. Endogeneity is commonly the source of inaccurate and skewed results in panel statistics (Sardana et al., 2020). The previous research discovered C.G.'s endogeneity dilemma. For this topic, many credible reasons have been submitted in the literature. Core et al. (2006) claim that the absence of explanatory variables creates endogenousness, which correlates these explanatory variables with residuals of analyzed models. Several econometric methods address endogeneity issues, such as random effect, lagged dependent variables, fixed effect, and GMM. The GMM concept is best for other methods to solve endogenous problems (Hunjra, 2018). This analysis estimates the baseline regressions for Pakistani family firms with a static model: random effect, and fixed effect, while dynamic models are: fixed effect, random effect and GMM.

A pair of experiments to verify GMM suitability has been performed. Using VIF tests to monitor for multicollinearity and ensure the data do not have multi-linearity problems. For over-identifying limits, instrumental validity will be evaluated through the sargan examination. The results show the legitimacy of the instruments, and the limits will be over-identified. AR (1) and (2) experiments were carried out to search for auto-serial correlation and guarantee no auto-serial correlation.

The following econometrics equations are estimated in this study;

$$C.H._{i,t} = \beta_o + \beta_1 * C.H._{i,t-1} + \beta_j * \text{Corporate Governance Mechanism}_{i,t} + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \varepsilon_{i,t} \dots\dots (1)$$

$$C.H._{i,t} = \beta_o + \beta_1 * C.H._{i,t-1} + \beta_j * \text{Corporate Governance Mechanism}_{i,t} + \beta_k * \text{Control Variables}_{i,t} + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \varepsilon_{i,t} \dots\dots (2)$$

$$C.H._{i,t} = \beta_o + \beta_1 * C.H._{i,t-1} + \beta_2 * BS_{i,t} + \beta_3 * B.I._{i,t} + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \varepsilon_{i,t} \dots\dots (3)$$

$$C.H._{i,t} = \beta_o + \beta_1 * C.H._{i,t-1} + \beta_2 * BS_{i,t} + \beta_3 * B.I._{i,t} + \beta_4 * Lev_{i,t} + \beta_5 * DP_{i,t} + \beta_6 * FS_{i,t} + \beta_l * \text{Industry}_{i,t} + \beta_m * \text{Year}_{i,t} + \varepsilon_{i,t} \dots\dots (4)$$

Where;
CH = Cash Holding
BI = Board Independence
BS = Board Size
Lev = Leverage
DP = Dividend Pay out
FS = Firm Size
$\mu = Error\ Term$

4. EMPIRICAL RESULTS

First, we report preliminary analysis of research, descriptive statistics, autocorrelation, and VIF results.

4.1. Descriptive Statistics

Table 2 summarizes the data for complete sample variables. It reports the maximum, minimum mean, and standard deviation values of each studied variable for eight years of data span. The average amount of cash holdings is 0.03, representing a standard deviation of 0.02, three times the overall reserves of cash holdings. The typical board size score of 8 indicates that, on average, family businesses have 8 participants on, while the minimum value is 6 for board size. The highest value is 15, with a standard deviation of 1.01. The overall board independence score is 2.00, showing the average number of independent directors in Family Companies. Company worth averages 3.09 and hits a peak of 12.81. The median leverage ratio is 0.61, and in family, businesses hit a high value of 1.05. The average dividend payout is 0.02, for a max value of 0.32. The VIF test is performed, with no score greater than 10 in all outcomes, which is the threshold and has a mean VIF of 1.15.

Table 2: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max	VIF
Cash Holding	0.03	0.02	0.00	0.34	1.32
BI	2.00	1.17	1.00	8.00	1.25
BS	8.25	1.01	6.00	15.00	1.12
Leverage	0.61	0.25	0.03	15.30	1.05
Firm Size	3.09	1.70	2.77	12.81	1.01
Dividend Payout	0.02	0.04	0.00	0.32	1.32

				Mean VIF	1.15

4.2. Correlation Matrix

Table 3 reveals the outcome of the association level among variables. Correlation indicates the frequency and direction of the relationship between the variables examined. Cash is negatively linked to independence, firm size, and dividend payment, although positively associate with leverage and board size. There was no multicollinearity in the correlation matrix between variables because no value is equivalent or greater than 0.7 thresholds.

Table 3: Pair wise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) CH	1.000					
(2) BS	0.255***	1.000				
(3) BI	-0.112***	0.051*	1.000			
(4) DivT	-0.515***	-0.272***	0.088***	1.000		
(5) Size	-0.192***	0.191***	-0.042	0.073**	1.000	
(6) Lev	0.232***	0.157***	-0.019	-0.441***	-0.134***	1.000
*** p<0.01, ** p<0.05, * p<0.1						

4.3. Relations between Corporate Governance Characteristics and Cash holding

We report static random effect models and fixed-effect models along with dynamic fixed, random and GMM models. Due to biased results of random and fixed effects, only comments are provided on GMM results. Table 4.-7 reveals board independence and board size regression estimates with cash keeping and control variables; debt, dividend payouts and corporate size. Here cash holding is a dependent variable when independent variables are board independence, the board size, leverage, corporate size and dividend payment.

Table 4: Relations between C.G. and Cash Holding (Fixed Effect Model)

Static				
CCET	Coef.	St.Err.	p-value	Sig
BS	.014	0.01	0.00	***
NID	-.003	0.01	0.00	***
DivT	-.539	0.04	0.01	***
LTA	-.011	0.01	0.00	***
Lev	.013	0.01	0.00	*
Constant	-.004	0.02	0.00	
F Stat (P – value)	91.704 (0.000)		R-squared	0.302
Modified Wald test heterogeneity (P-value) 4.6e+05 (0.0000)				
*** p<.01, ** p<.05, * p<.1				

Table 5 reveals regression estimates for the association, the board size, board independence, and the control variables: dividend payout, leverage, firm size with cash holding. A dependent variable is cash holding. Board size and independence of board are independent variables

Table 5: Relationship between C.G. and Cash Holding (Random Effect Model)

Static				
CH	Coef.	St.Err.	p-value	Sig
BS	.014	.001	0.00	***
NID	-.004	.001	0.00	***
DivT	-.564	.039	0.01	***
LTA	-.011	.001	0.00	***
Lev	.01	.007	0.00	
Constant	.005	.016	0.00	
Overall r-squared 0.316 Wald Stat (p – value)547.49 (0.000)			Hausman Stat(P -value) 18.25 (0.003) Chi-square (P -value) 503.0 (0.000)	
Endogeneity test: Durbin (score) chi2(1) 72.6829 (p = 0.0000),Wu-Hausman F(1,1151) 77.0107 (p = 0.0000)				
*** p<.01, ** p<.05, * p<.1				

The Hausman test indicates that the fixed effect model is appropriate in our study for choosing between the fixed effects and the random effect since the degree of p-value is less than 0.05. A modified Wald test by (Christopher Baum) gives a p-value less than 0.05, and the null hypothesis of homoscedasticity was discarded. The endogeneity test indicates the presence of endogeneity. Thus, the fixed effect estimates are vulnerable to endogeneity and heteroscedasticity tests. Therefore, we also use the GMM assessment methodology.

Table 4: Relationship between C.G. and Cash Holding (Fixed Effect Model)

Dynamic				
CCET	Coef.	St.Err.	p-value	Sig
L	.223	.025	0	***
BS	.012	.001	0	***
BI	-.003	.001	.001	***
DivT	.438	.04	0	***
Size	-.01	.001	0	***
Lev	.011	.007	.111	
Constant	-.002	.017	.899	
F Stat (P – value)	76.289 (0.000)		R-squared	0.322
Modified Wald test heterogeneity (P-value)89561.36 (0.0000)				
*** p<.01, ** p<.05, * p<.1				

Table 7: Relationship between C.G. and Cash Holding (GMM)

Dynamic				
CH	**Coef.**	**St.Err.**	**p-value**	**Sig**
L	0.29	0.00	0.00	***
BS	0.02	0.00	0.00	***
BI	-0.01	0.00	0.00	***
DivT	0.43	0.01	0.00	***
Size	-0.01	0.00	0.00	***
Lev	0.02	0.01	0.00	***
Constant	-0.03	0.01	0.00	***
Arellano-Bond test(AR1-P) -2.836 (0.005)		Sargan test (p value)	73.02(0.2059)	
Arellano-Bond test(AR2-P) -0.698 (0.485)		Wald Stat(p value)	(0.000)	
*** p<.01, ** p<.05, * p<.1				

Table 7 shows the GMM findings, board independence and cash holding coefficients are in line with the studies (Chen, 2008; Boubaker, 2015; Lee, 2009; Kusnadi, 2011) as lower asymmetry in knowledge is linked with greater independence. So an outside financial supplier may believe the independence of as a good indicator for the business. In this case, more cash is not required, and the relations between the independence of and the holding of cash are negative. Size has a crucial positive connection with cash holdings, consistent with the study (Dalton, 1999; Haniffa, 2006; Harris et al., 2008). Studies show that a big board is ineffective, such that businesses with large boards have poor corporate governance. The corporate size has a substantial negative cash relationship which corresponds to the theory of trade-off. Larger companies may benefit from economies of scale (Mulligan, 1997), have consistent cash flows, prefer further diversification and are readily available to low-cost borrowing capital markets (Ferreira et al., 2004). Therefore, the association between leverage and cash keeping may be positive in terms of the trade-off theory. As levered firms would build up a big cash to reduce the risks of financial instability and bankruptcy. The association between dividends and cash holding is negative and statistically significant, in line with the principle of trade-offs and the studies of (Afza et al., 2007).

4.4. Hypothesis validity- C.G. and cash holding

The above-mentioned empirical findings are given, the validity of which is checked in accordance with the table by contrasting them with existing studies and a hypothesis created for this study. The following is the description of the established hypothesis.

Table 8. CG-CH hypothesis outcome, based on results

variables	**Variables hypothesis**	**Results**
Board Independence	H1: In Pakistan, board independence has a detrimental impact on listed family firms' cash holdings.	**Supported**
Board Size	H2: Board size positively affects cash holding of listed family firms in Pakistan.	**Supported**

Firm Size	**H3:** Firm size negatively affects cash holding of listed family firms in Pakistan	**Supported**
Firm Leverage	**H4:** Leverage positively affects cash holding of listed family firms in Pakistan	**Supported**
Dividend Payout	H5: Dividend payout negatively affects cash holding of listed family firms in Pakistan	Supported

CONCLUSION

This study examines the corporate governance impact on cash holding, precisely the effect of board independence, the board size, leverage, dividend distribution, and company size on cash holding in the case of Pakistani family firms (F.F.). The static and dynamic models: fixed effect (F.E.), random effect (RE), and generalized method of moment (GMM) are the key tools of evaluation in this study. Secondary data from published annual reports and corporate governance reports from each sample family business and corporate websites are used to measure the effectiveness of the C.G. on family firms' cash holding. This research tackles endogeneity by establishing trust in these estimates using a two-stage generalized method of moment (2-GMM). For the period 2010-2017, the dataset consists of 212 non-financial listed family companies from the Pakistan stock exchange (PSX). Board independence negatively affects cash holding, indicating that governance plays an active part in family businesses, whereas board size positively impacts cash holding, and indicating inefficient governance. In terms of realistic consequences, this study shows that more board independence is beneficial for cash-keeping policies, but a small board is more successful than a big board.

As a future research guideline, we recommend that future researcher should focus on other corporate governance characteristic such as gender diversity, board expertise, number of audit committee, role of CEO and chairman towards determining the corporate cash holdings. Furthermore, it can be analyzed in other emerging markets such as India, China, and Malaysia etc.

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