

Effect of Corporate Governance on Cash Management in Family-Oriented Firms**Idrees Ali Shah, Muhammad Abdullah Khan Niazi, Muhammad Nouman,
Muhammad Fahad Siddiqi***The University of Agriculture Peshawar***Abstract**

This research shows the link of corporate governance (CG) with diverse facets of cash management in family-oriented firms. Panel model is utilized for the year 2009 to 2021. The research depicts that level of cash holding is negatively affected due to CG. The finding of the study is supported by flexibility hypothesis to protect their selves from external monitoring managers hold more cash due to agency conflict. The result further shows positive relationship of CG with “value of cash holding” in family-oriented firms and has 0.192 extra marginal values for one rupee extra investment in family-oriented firms under good governance compared to non-family-oriented firms. The research further postulates that proper governance decreases spending of excess cash (ECash) on internal investment and corporate diversification in family-oriented firms. Alternatively, good-governed family-oriented firms increase spending of ECash on dividend compared to rival firms. ECash under good governance positively affects performance indicates family-oriented firms having better CG uses ECash efficiently.

Keywords: Value of Cash Holding, Excess Cash, Corporate Governance, Family Firms.

Cash got its novel attention after every massive crisis, like the 2007 financial crisis and the ongoing Covid-19 health crisis, because internal liquidity safeguards firms during a crisis period. The liquidity of the corporate sector could be affected due to the Covid-19 crisis, and being unable to repay its obligation result in a high chance of bankruptcy (Vito & Gomez, 2020). The corporate sector's chance of bankruptcy intensifies in any crisis period due to insufficient liquidity. The precautionary motive becomes the main driving force of the corporate sector for holding cash to protect them from unsuitable conditions (Jain, Li, & Shao, 2013). However, the cost parallels any benefit, and agency cost is the important cost attached to cash holding (Dittmar-Mahrt-Smith, & Serveas, 2003; Harford, Mansi, & Maxwell, 2008). The personal interest of managers is a prominent problem that causes the destruction of cash, harming firm value (Dittmar & Mart-Smith, 2007; Amman, Oesch, & Schmid, 2013).

The motivation and agency conflict attached to cash depends on the firm's ownership structure (Caprio, Giudice, & Signori, 2019). Family-oriented ownership is the most important and common type of concentrated ownership compared to other types like a bank, government, and mutual funds (La Porta et al., 1999; Claessens et al., 2000; Caprio et al., 2019). Family-oriented control right in the light of CG in family-oriented firms caught the attention of researchers (Wei, Wu, Len, & Chen, 2011). The division of control and ownership leads to classic agency conflict between managers and shareholders (Yoshikawa & Rasheed, 2010). The principle-agent conflict, the classic agency conflict, declined in the presence of family-oriented ownership because of ownership concentration by members of a particular family-oriented (Amihud & Lev, 1999; Yoshikawa & Rasheed, 2010). The manager's activities are actively monitored by family-oriented members who want the firm to survive long and transfer to their heirs (Barontini and Caprio, 2006). On the next side of the coin, the principle-principle conflict, the type 2 agency conflict, intensifies in family-oriented-oriented firms (Corbetta and Salvato, 2004; Villalonga et al., 2015). The family-oriented wants to pass their business to the generation next to them at the cost of minority owners due to family-oriented altruism and destroy cash for fulfilling their legacy (Yeh, Lee, & Woidtke, 2001; Kuan, Li, & Chu, 2011). The family-oriented firms switch from the value-maximizing goal of a firm due to transferring the business to their heirs (Grote, 2003).

Due to family-oriented altruism, the expropriating behavior of controlling shareholders in family-oriented firms raises the need for proper CG to protect minority owners. Furthermore, compared with other types of assets, cash could be used easily by self-interested managers and controlling shareholders for their benefit (Dittmar & Mart-Smith, 2007; Shah & Shah, 2018). So, this study investigates the effect of firm-level governance on cash holding, the “value of cash holding”,

and ECash spending through which firm-level governance affects firm value in family-oriented firms.

The agency conflict becomes more prominent in family-oriented firms in the second and third stages of inheritance. Fudda (2014) claims that 85% of family-oriented-oriented firms did not survive after 3rd generation, and only the success ratio is 15% of survival after 3rd generation. The family-oriented ownership role in the context of CG has great variation in developed and emerging economies (Lapota et al., 1999) and developing economies. Facio et al. (2001) claim that family-oriented ownership is a prominent and common type of ownership structure in East Asia.

This research has an imperative contribution in the context of developing countries like Pakistan due to its colorful history of family-oriented-dominated businesses. The famous 22 richest families in 1960 and 1970, e.g., Milwala, Bawany, Heysons, Arag etc., dominated most of the economy, but most have vanished (Gul et al., 2020). The discouragement of beautiful minds and nepotism for own family-oriented members on high seats, family-oriented legacy, and inheritance norms are the reasons to obstruct family-oriented businesses (Bertrand & Schoar, 2006). The size of family-oriented-oriented firms is growing in Pakistan (Ghani & Ashraf, 2005). After 50 years of the 22 richest families' paradigm, Pakistani blue chip companies (PSX-100 index) are still highly dominated by 31 families (Haque & Hussain, 2021). The majority of the board comprises ex-army officers, bankers, bureaucrats, and government officials, who are like a cartel and well-connected. Furthermore, board independence and diversity are still violated even in blue-chip companies on the PSX-100 index, and multiple board membership is occupied by few sponsored family-oriented members (Haque & Hussain, 2021). So, there is a need for the CG effect to be analyzed in corporate decisions, especially cash management, which is easily subject to expropriation in the Pakistani family-oriented firms' context. This study, to my knowledge, is the first attempt to establish a link between the firm level of governance in family-oriented firms and with "value of cash holding" and further investigated whether the firm level of governance in family-oriented firms add value to the firm due to the efficient utilization of ECash.

Literature review

Family-oriented firms have a general occurrence all over the globe (La Porta et al., 1999; Villalonga & Amit, 2006) and have a pivotal role in a country's economic progress (Faccio & Lang, 2002; Anderson & Reeb, 2003; Claessens, Djankov, & Lang, 2006). Family-oriented businesses have a very old and great history and still have a significant position in the modern world (Li & Zuo, 2021). Europe comprises 55.87% of family-oriented firms based on 10% control standards, 45.5% in Asia, and 36.6% in the U.S.A. Furthermore, based on 20% control standards, 44.29% of family-oriented firms comprised in Europe, 37.06% in Asia, and 19.82% in the U.S.A (Li & Zuo, 2021). There is no single agreement on the definition of family-oriented firms among academicians. Chua, Chrisman, & Sharma (1999) define family-oriented firms as considering components, factors and essence.

"...a business governed and managed with the intention to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family-oriented or a small number of families in a manner that is potentially sustainable across generations of the family-oriented or families."

Furthermore, Andersen & Reeb (2003); Villalonga & Amit (2006) define family-oriented firms on the empirical side based on family-oriented equity ownership and founding family-oriented members on the board. Family-oriented firms' agency conflicts catch academicians' concentration (Li & Zuo, 2020). The previous literature on family-oriented firms hugely targeted agency conflict aspect in family-oriented firms (e.g., Harms, 2014) in his review paper analyzed 267 published researched papers and found that 37.08% of papers discussed family-oriented firms in the context of agency/stewardship theory. The majority of literature (e.g., Berle & Means, 1932; Amihud & Lev, 1999; Yoshikawa & Rasheed, 2010; Villalonga et al., 2015) discussed the divergence of ownership and control which is the big source of the classic agency conflict. The group of researchers who claim that the classic agency type1 problem (Principle-agent) conflict minimizes in family-oriented firms due to efficient monitoring by controlling shareholders and family-oriented members' involvement in management and generally called the "convergence effect" (see, e.g., Ozkan & Ozkan, 2004; Madhani, 2017; Chen, Chan & Dai, 2006; Wei, Wu, Li, & Chen, 2011). On the other side of the coin the type 2 agency conflict (principle-principle) conflict i-e, is conflict among controlling and minority owners are high in family-oriented firms (Shliefer & Vishney, 1997; Lins, 2003; Buchanan & Yang, 2005; Villalonga & Amit, 2006). Members of family-oriented controlling shareholders originate strategies to gain private benefit (Yeh & Liao, 2020) and expropriate the cost of minority owners (Liu et al., 2015). Raising funds from minority owners becomes difficult for

family-oriented firms when controlling minority owners' conflict is higher than principle-manager conflict (Puerto, 2010).

Financial decisions are highly affected due to family-oriented ownership, especially in agency conflict. Cash is very prone to agency conflict among the firm's assets because the chance of expropriation is high compared to other assets (Chen, Chan, & Chang, 2019; Pinkowitz et al., 2006). The massive previous research (Harford et al., 1999; Dittmar et al., 2003; Kalcheva and Lins, 2007; Harford et al., 2008; Al-Najar and Clark, 2017; Seifert and Gonenc, 2018; Roy, 2018) conducted research that links CG with cash holding in public firms. Limited research is conducted to link CG with cash holding in family-oriented firms. The enormous cash increases the chance of misutilization (Adiguzel, 2013; Chen, 2008). Average family-oriented firms hold cash more compared to its counterpart, and the chance of miss-utilization is high (Caprio et al., 2019; Liu, Luo, & Tian (2015). In the same way, Alim and Khan (2016) conducted research in Pakistan and suggested that due to agency conflict, cash could be miss-use in family-oriented firms. The research in Asia on family-oriented firms is limited despite the growing trend of family-oriented firms in Asia (Dinh & Calabro, 2019). The hypothesis is deduced.

H₁: Cash holding in family-oriented firms is negatively affected due to proper CG as compared to cash holding in non-family-oriented firms.

CG-“Value of Cash Holding” Relationship in Family-Oriented Firms

Does the imperative question arise that in family-oriented firms “value of cash holding” reduces due to holding cash? Firms controlled by particular families are criticized for nepotism in selecting family-oriented members in key positions in the company instead of professional managers from outside, reducing the firm's value (Barontini & Caprio, 2006). The stock market negatively takes the founder CEO's altruistic decision to transfer the family-oriented business to his heirs (Caprio, Giudice, & Signori, 2016). In a recent article, Moolchandani & Kar (2021) portray that the accumulation of cash by family-oriented firms in India reduces firm value due to the type 2 agency conflict. The family-oriented firms experience high agency conflict compared to its counterpart and, as a result, reduce the firm value (Kuan et al., 2011).

Moreover, because of the agency conflict, family-oriented firms are drawn into investments that benefit family-oriented members rather than all shareholders, especially when a family-oriented wants to pass the business on to the next generation (Sarbah & Xiao, 2015). Moreover, family-oriented firms are highly involved in tunneling and propping strategies in Pakistan, tunneling valuable resources from low cash flow right companies to high cash flow distress companies in a family-oriented group on the cost of minority owners (Hussain & Safdar, 2018a) and hamper firm value.

The majority of past empirical research (Kalcheva & Lins., 2007; Amman et al., 2011; Ararat et al., 2017; Chang, Benson, & Falp, 2017) established the CG-value of firm association in developed economies, but these studies measured the value of firm on Tobin Q using a total asset. On the other hand, Faulkender and Wang (2006) recommended that instead of using total assets while measuring the value of firm cash is most suitable. Furthermore, compared to other assets, cash is the most suitable and easy asset to use for insiders and controlling shareholders (Jain et al., 2013; Shah & Shah, 2018). Previous empirical literature that measures firm value through cash, i-e, “value of cash holding” and linked with CG is done in developed economies on general public limited companies (Like Dittmar & Mahrt-Smith, 2007; Uddin, 2016; Ward, Yin, & Zang, 2018). The recent article of Shah et al. (2021) establishes a firm-level governance link with the “value of cash holding” in Pakistan.

Furthermore, they also examined the role of external market discipline. CG-“ value of cash holding” relationship in the context of family-oriented firms is relatively ignored. Pakistan's market is largely dominated by family-oriented firms (Haque & Hussain, 2021). The contribution to the literature made by this research is that it establishes the link of firm-level governance with the “value of cash holding” in the context of the family-oriented firm. Moreover, checked the effect of governance at the firm level on the utilization of ECash which is the channel through which firm value is increased.

H_{2a}: The firm-level governance in family-oriented firms adds value to the firm through cash.

H_{2b}: Family-oriented firm's ECash utilization is significantly affected due to firm-level governance.

Methodology

The entire sample size is 196 for the study using (Krejcie & Morgan, 1970). The population of the study is 400 non-financial firms registered on Pakistan stock exchange of both family-oriented and non-family-oriented firms. The data range is for year 2009 to 2021. The proportionate allocation method is used for the selection of firms in each industry.

$$= \frac{N_i}{N} * n$$

n_i = sample size of particular sector

N_i = The sample size for the study

N = The entire size of target population

n = Firms that are operating in particular sector

Governance-cash relationship

$$\text{Cash holding}_{i,t} = \alpha + \alpha_1 cf_{i,t} + \alpha_2 GOV_{i,t-1} + \alpha_3 MtoB_{i,t} + \alpha_4 NWC_{i,t}$$

$$+ \alpha_5 Fsize_{i,t} + \alpha_6 lev_{i,t} + \alpha_7 family_{i,t} * GOV_{i,t-1} + \alpha_8 family_{i,t} + \alpha_9 indcvolt_{i,t} + \alpha_{10} Div_{i,t} + \alpha_{11} Fcapex_{i,t} + u_{i,t} \dots (2.1)$$

"value of cash holding"

$$R_{i,t} - RB_{i,t} = \alpha + \alpha_1 \frac{\Delta C_{i,t}}{MV_{i,t-1}} + \alpha_2 C_{i,t} + \alpha_3 GOV_{i,t} * \frac{\Delta C_{i,t}}{MV_{i,t-1}} + \alpha_4 lev_{i,t} + \alpha_5 \frac{\Delta EAR_{i,t}}{MV_{i,t-1}} + \alpha_6 \frac{DIV_{i,t}}{MV_{i,t-1}} + \alpha_7 lev_{i,t} * \frac{\Delta C_{i,t}}{MV_{i,t-1}} + \alpha_8 \frac{NA_{i,t}}{MV_{i,t-1}} + \alpha_9 \frac{C_{i,t-1}}{MV_{i,t-1}} * \frac{\Delta C_{i,t}}{MV_{i,t-1}} + \alpha_{10} \frac{\Delta I_{i,t}}{MV_{i,t-1}} + \alpha_{11} \frac{C_{i,t-1}}{MV_{i,t-1}} + \alpha_{11} \frac{\Delta NA_{i,t}}{MV_{i,t-1}} + u_{i,t} \dots \dots (2.2)$$

The study adopted the model of Faulkender and Wang (2006) to examine the relationship of CG with excess return. The purpose of the model is to examine firm value change through change in cash. The dependent variable profoundly shows the difference of individual firm return and bench mark portfolio return. The construction of bench mark portfolio is Fama and French (1993) 25 portfolio and selection criteria are size and market to book ratio.

Table 1.
Population and Sampling

INDUSTRIES	POPULATION	SAMPLE
AUTOMOBILE ASSEMBLER	12	6
AUTOMOBILE PARTS & ACCESSORIES	9	5
AUTOMOBILE PARTS & ACCESSORIES	8	4
CEMENT	22	11
CHEMICAL	28	14
ENGINEERING	18	9
FERTILIZER	7	4
FOOD & PERSONAL CARE PRODUCTS	20	10
GLASS & CERAMICS	11	6
OIL & GAS MARKETING COMPANIES	7	4
PAPER & BOARD	9	5
PHARMACEUTICALS	9	5
POWER GENERATION & DISTRIBUTION	19	10
SUGAR & ALLIED INDUSTRIES	35	18
SYNTHETIC & RAYON	11	6
TECHNOLOGY & COMMUNICATION	10	5
TEXTILE COMPOSITE	56	28
TEXTILE SPINNING	87	44
TEXTILE WEAVING	14	7
Total	392	196

Table 2.
Variables of Study

Variables	Formula	Source
Boardsize	natural log of board members	Shah et al.,(2021); Shah & Shah (2018)
Boardindependence	scaled independent directors by board size	
Auditsize	natural log of audit size	
Auditindependence	scaled independent audit members by audit size	Shah et al.,(2021); Shah & Shah (2018); Ullah & kamal, (2017)
CEOduality	1 for ceo and chairman same other wise 0	Shah & Shah (2018); Ullah & Kamal, (2017)
Boardmeeting	per year board meeting	
Cash holding	Cash & cash equilents scaled by net asset	Opler et al., (1999); Harford et al., (2008)
Family-oriented firms	1 if family-oriented members hold 25% shares of total	(Kuan et al., 2011)
Leverage	total debt scale by total asset	Shah & Shah, (2018)
NET Working Capital	Current asset minus current liabilities scaled by net asset	
Cashflow	Net profit before tax minus tax minus dividend scaled by net asset	
Market to book value	market value of asset scaled by book value of asset	
Capex	Δ annualize in fixed asset plus depreciation scaled by net asset	
Dividend	1 for dividend paying company in particular year otherwise 0	
Size	nature log off total asset	

Result and Discussion

Table 3.
Descriptive Statistics

Variable	Fullsample		Family-oriented		Non-family-oriented	
	Mean	std dev	Mean	std dev	Mean	std dev
Cash	0.054	0.115	0.048	0.12	0.071	0.1
CFL	0.095	0.112	0.088	0.108	0.112	0.121
Indcvolt	0.01	0.051	0.009	0.052	0.014	0.049
Lev	0.552	0.201	0.556	0.19	0.54	0.229
NWC	0.039	0.218	0.024	0.199	0.08	0.259
Div	0.588	0.492	0.57	0.495	0.637	0.482
Govindex	0.453	0.198	0.466	0.193	0.417	0.208
FSize	15.465	1.491	15.278	1.352	15.972	1.716
MtoB	0.066	0.606	-0.026	0.494	0.313	0.785
FCapex	0.064	0.045	0.062	0.04	0.068	0.057

Table 3.1 reveals the descriptive variables of the study. The descriptive shows that compare with counterparts the family-oriented firms holding of cash are less. Moolchandani & Kar (2021) also shows that Indian family-oriented firms hold less average cash holding compare to non-family-oriented firms. In the same way, Liu (2011) also supports the spending hypothesis of low

cash accumulation in USA family-oriented firms. Gul et al (2021) represent that family-oriented firms' average cash is less than non-family-oriented firms in Pakistan.

Table 4.
CG And Cash Holding In Family-Oriented Firms

Cashholding	Coef	Sig	Std error	Coef	Sig	Std error
Govind	-0.250	***	0.0934	0.031		0.115
Family-oriented				0.106		0.088
family-oriented*govind				-0.326	*	0.183
CFL	0.903	***	0.214	1.004	***	0.225
Indcvolt	0.679	*	0.402	0.681	*	0.400
MtoB	0.197	***	0.037	0.236	***	0.041
FSize	-0.017		0.015	-0.011		0.015
Lev	-0.863	***	0.119	-0.902	***	0.118
Nwc	-0.391	***	0.105	-0.423	***	0.104
FCapex	-0.167		0.163	-0.289	*	0.171
Div	0.122	***	0.041	0.105	***	0.042
Cons	-0.534	***	0.273	-0.744	***	0.278
R2	0.420			0.425		
F-pvalue	0.000			0.000		

Dependent variable is corporate cash holding. Govind stands for CG index. Cflow represents cash flow adjusted with industry; Indcovit represents volatility of cash flow adjusted with the industry. MtoB stands for market to book ratio. FSize stands for size of firm. Lev, NWC, FCapex, Div represents leverage, networking capital, capital expenditure, and dividend respectively at firm level. 1st term in every cell represent coefficient of variables and every term below coefficient in bracket represents standard error. Model 1 presents CG effect on cash holding. Following Peterson (2009) "time dummies, industry fixed effect, and standard error cluster with firm effect" is used in every model. Model 2 reveal co governance relationship-cash relationship in family-oriented firms. *, **, *** portray significance at 10%,5% and 1% respectively

The result postulates that CG shows a negative relationship with cash holding. The result is in line with previous research (e.g., Ozkan & Ozkan, 2004; Amman et al., 2011; Kusnadi 2011) that also depicted corporate-cash holding relationship negative. Furthermore, agency theory (Jensen, 1986) also supported our result that self-interested managers hold massive cash to derive private benefit. And with proper governance level of cash holding become declined.

Model 2 investigates the firm-level governance effect in family-oriented firms on the level of cash holding. The -0.326 interaction term coefficient depicts that the level of cash holdings declines in the family-oriented firm because of proper CG. The flexibility hypothesis is supported by our result that controlling shareholders of a particular family-oriented prefer massive cash to serve family-oriented needs instead to enhance firm value. The family-oriented firms hold massive cash for empire building and over-investment that benefit a particular family-oriented. Due to proper governance the level of cash decline in family-oriented firms. The result is also in line with previous research (Kuan et al., 2011; Sheikh & Khan, 2015) also showed that family-oriented CG exerts a negative effect on the level of cash holding. Jebran, Chen. & Tauni (2019) also shows that family-oriented ownership shows a positive effect on the level of cash holding. But they also found that signs become change when institutional ownership is an interplay with family-oriented ownership. In the same way, Liu, Luo & Tian (2015) suggested that in China those family-oriented firms that have excess control right maintain high cash compared to non-family-oriented firms. Their finding also postulates that good-governed family-oriented firms hold less cash. Our finding supports the first hypothesis that firm-level of governance and level of cash holding has a significantly negative relationship.

CG in family-oriented firms effect on and "value of cash holding"

Does the firm-level governance have value addition to family-oriented firms through cash?. Table 4. presents a firm-level governance link with the "value of cash holding" in both family-oriented-oriented firms and non-family-oriented-oriented firms. The finding of this study

indicates that the coefficient of the interaction term (i.e., dummy of CG and change in cash holding) postulates that good firm-level governance affects firm value through cash by 0.621 more compared to poor firm-level governance in family-oriented firms. The previous researchers (like Pinkowitz et al., 2006; Dittmar & Mahrt-Smith, 2007; Uddin, 2016; Shah et al., 2021) also suggested that in comparison to bad governed-firms cash makes addition to firm value in good governed firms. But these researches do not establish governance-“value of cash holding” relationship in family-oriented firms. Boubaker (2015) shows the value of ECash becomes declining in family-oriented control firms because investors become concerned about the miss-utilization of cash by controlling shareholders.

Return base regression of CG and “value of cash holding”

The main motivation derives from (Faulkender & Wang, 2006). ER is annualized excess return and also used as dependent variable calculated based on Fama and French (1993) 25 portfolio on the basis of size and market to book deducted from individual firm return. Δ shows current and previous year difference. ΔC indicates change in cash holding divided by lag market value. Gov stands governance dummy calculated by governance index and firms belong to upper tercile in particular year is assigned 1 for good governance whereas, 0 for middle and lower tercile indicates poor governance firms in particular year. ΔEAR represent change in earning (earnings before extraordinary items) divided by lag market value of equity. ΔNA represents net asset change scaled by lag market value. ΔINT represents interest change from t-1 to t scaled by market value lag value. ΔDIV represents dividend change from t-1 to t scaled by market value lag value. MLEV represents market leverage scaled by lag market value. *** shows significance at 1%, ** significance at 5% and * shows significance at %.

Table 4.
Cash holding in family-oriented firms

ER	Family-oriented firms			Non-Family-oriented firms		
	Coef.	Std Err	Sig	Coef.	Std Err	sig
ΔC	0.994	0.435	**	0.713	0.353	**
GOV	0.017	0.037		-0.134	0.047	***
GOV* ΔC	0.621	0.161	***	0.529	0.245	**
ΔEAR	0.033	0.011	***	0.072	0.032	**
ΔNA	0.007	0.004		0.003	0.006	
ΔINT	-0.172	0.048	***	-0.032	0.099	
ΔDIV	0.156	0.093	*	-0.294	0.168	*
LagC	0.210	0.063	***	0.105	0.112	
LagC* ΔC	0.122	0.034	***	-0.015	0.012	
MLEV	0.223	0.074	***	0.155	0.074	**
MLEV* ΔC	-1.014	0.491	**	-0.724	0.462	
cons	-0.121	0.086		-0.105	0.072	
N	857.000			528.000		
R2	0.095			0.085		
marginal “value of cash holding” computation					Marginal “value of cash holding”	
	Mean(Family-oriented)		Mean(N-family-oriented)		Family-oriented	1.0668
					N-family-oriented	0.8754
LagC	0.185		0.180			19
MLE						
V	0.563		0.503			

Table 4. further presents the interplay of (firm-level governance dummy and Δ in cash) is significantly positive in non-family-oriented oriented firms. The coefficient of the interaction term is 0.529 in non-family-oriented firms which is significant but less than the interaction term in family-oriented firms. The finding of the study depicts that firm-level governance in family-oriented control firms exerts a more significant effect on the cash holding value compared to non-family-oriented-oriented firms.

The finding further depicts the influence of good governance at corporate level on the marginal value of cash in both family-oriented and non-family-oriented-oriented firms. The marginal value of cash is calculated based on the addition of Δ in cash coefficient and interaction terms coefficient respective times to mean of a sample of interaction variables follow (Shah, 2018). The result depicts that good-governed family-oriented control firms' marginal value of cash is 1.067. It shows that the worth of extra one rupee cash is more i-e 1.067 whenever it is invested in good-governed family-oriented firms. On the other hand, the result postulates that good-governed non-family-oriented firms' marginal value of cash is 0.875. It depicts that compared to non-family-oriented firms CG matter more in family-oriented firms in sense of the marginal "value of cash holding". The one rupee investment in good-governed family-oriented firms is almost 0.192 more than one rupee investments in good-governed non-family-oriented firms. Our result depicts that compared to non-family-oriented oriented firms; agency type 2 conflict is more prominent in family-oriented control firms because that firm-level governance effect is more on the "value of cash holding" in family-oriented control firms. The recent article (Moolchandani & Kar, 2021) depicts that cash exerts a negative effect on family-oriented firms' market valuation due to conflict between controlling and minority owners i-e type 2 agency conflict. Dittmar & Mahrt- Smith (2007) found that the marginal "value of cash holding" in poor-governed firms is reduced to \$0.42 in public companies.

Furthermore, the control variables have the almost same sign as (Faulkender & Wang, 2006; Jain et al., 2013). The change in earning and change in dividend shows a positive relationship with an excess return in both family-oriented and non-family-oriented firms. Change in the net asset has an insignificant relationship with an excess return in both family-oriented and non-family-oriented firms. Furthermore, change in interest has a negative relationship with an excess return in both family-oriented and non-family-oriented firms. The interaction term of leverage with change in cash shows a negative relationship with the "value of cash holding". Investors perceive less value of extra rupee invested in firms that have a high level of debt in line with (Faulkender & Wang, 2006; Jain et al., 2013; Dittmar & Mahrt- Smith, 2007; Shah et al., 2021). The excess return is distributed to creditors instead of shareholders in firms that have a high level of debt.

CG-spending ECash in family-oriented control firms

Previous table 3.3 postulates that compared to non-family-oriented firms, governance at the firm level has more effect both on value and the marginal "value of cash holding" in family-oriented control firms. Now table 3.4 further discusses whether the CG affects spending of ECash through which "value of cash holding" is affected. Jensen (1986) suggested that inefficient spending of ECash occurs due to agency conflicts. Dittmar & Mahrt- Smith (2007) claimed that poorly governed firms quickly dissipated ECash compared to good-governed firms. Following (Shah, 2018; Shah et al., 2021) research identify three channels through which firms can spend ECash (i-e Internal investment, payout, and corporate diversification) in family-oriented firms.

Table 5.

CG-spending ECash in family-oriented firms

	Δ Indusadjca pex		Δ Indus adjdiv		Diver	
	Family- orient- ed	N- Family- oriented	Family- orient- ed	N- family- oriented	Family- orient- ed	N- family- oriented
lagEca	*		*		*	
sh	-0.006	-0.004	0.298	0.513	0.119	0.042
	(0.001)	(0.005)	(0.091)	(0.224)	(0.025)	(0.039)
gov	-0.005	0.048	-0.004	0.007	-0.580	-0.367
	(0.011)	(0.025)	(0.002)	(0.006)	(0.106)	(0.220)
lagEca	-0.246	-0.367	-0.128	-0.035	-0.072	-0.197

sh*Go	*		*		*		*
v							
	(0.094)	(0.254)	(0.044)	(0.076)	(0.035)	(0.084)	
			*	*	*		
cf	0.110	0.118	-0.020	-0.047	0.212	0.332	
	(0.056)	(0.092)	(0.020)	(0.052)	(0.588)	(0.752)	
	*	*	*	*	*		
indcv	0.252	0.059	-0.045	-0.075	-1.306	-0.134	
	(0.104)	(0.131)	(0.018)	(0.045)	(1.052)	(1.377)	
	*	*	*	*	*	*	
lev	-0.073	-0.017	-0.041	0.084	1.019	-0.983	*
	(0.031)	(0.071)	(0.015)	(0.033)	(0.334)	(0.542)	
	*	*	*	*	*	*	*
nwc	-0.072	-0.136	0.040	0.073	0.256	-0.974	*
	(0.026)	(0.052)	(0.014)	(0.036)	(0.314)	(0.420)	
	*	*	*	*	*	*	*
size	0.018	0.006	-0.001	-0.004	0.284	-0.041	
	(0.004)	(0.006)	(0.001)	(0.002)	(0.035)	(0.047)	
	*	*	*	*	*	*	*
mtob	0.009	0.003	-0.019	-0.033	-0.763	-0.302	*
	(0.010)	(0.013)	(0.006)	(0.014)	(0.119)	(0.130)	
	*	*	*	*	*	*	*
cons	-0.178	0.045	-0.023	-0.010	-4.105	0.816	
	(0.062)	(0.124)	(0.015)	(0.033)	(0.574)	(0.785)	
R-square	0.094	0.097	0.154	0.093	0.136	0.034	
F-value	0.000	0.000	0.000	0.000	0.000	0.040	

The table 5. portrays that how usage of ECash is affected due to proper firm level governance (i-e investment, payout and corporate diversification) in family-oriented firms. ECash is considered on the basis of difference of actual cash and predicted cash. The predicted cash is found by regressing determinants of cash holding follow the work of (Opler et al., 1999). CG is measured by first created CG index from CG variables and divide index into terciles. The companies exist in the highest tercile in particular year is assign 1 for good governance and firms exist in the lower and middle tercile is assign 0 for poor governance. The terms in the brackets represent the standard errors while ***, **, * shows the significance at 1%, 5% and 10% probability levels. Internal investment is measure through Δ Indusadjcapex, Δ suggest the difference in industry adjusted capital expenditure as of previous to current year i-e, t-1 to t. Indusadjcapex is considered firm capital expenditure for particular year is minus from industry median capital expenditure calculated for that year. "Capital expenditure is measured as annual change in fixed assets plus depreciation expense scaled by net asset". Payout is measure through Δ Indadjdiv which is considered as firm dividend for particular year is minus from industry median dividend calculated for that year and then find change from t-1 to t. Diversification is dummy variable if the company is related to particular conglomerate other wise 0. The Δ Indusadjcapex and Δ Indadjdiv models are analyzed considering "industry fixed effect, time dummies, , and standard error cluster with firm effect". The probit model is used for ECash and diversification relationship.

Table 5. shows the family-oriented and non-family-oriented firms' behavior of spending ECash in the existence of good firm-level governance. The previous literature (like Harford et al., 2008; Jain et al., 2013; Shah, 2018; Shah et al., 2021) shows proper governance at corporate level affects the firms spending of ECash which eventually affects firm value. Harford et al. (2008) used Δ Indusadjcapex as one of the proxies for investment and Δ Indusadjdiv is a proxy used for the payout policy of the firms. In the same way (Amman et al., 2011; Shah, 2018; Shah et al., 2021) also

used Δ Indusadjcapex, Δ Indusadjdiv, and corporate diversification as dependent variables and analyzed the channels through which ECash is used under good CG.

The first model of table 5. shows that good-governed family-oriented firms uses minimum ECash on internal investment (Δ Indusadjcapex). The coefficient of the interaction term (i.e, lag ECash, and firm-level governance dummy) is -0.246. The result portrays that family-oriented firms having good internal governance spend 0.246 less ECash on internal investment compared to family-oriented firms having poor governance. Jensen (1986) free cash flow hypothesis concluded that free cash could be destroyed due to agency conflict. Family-oriented firms due to agency conflict especially agency type 2 problem expropriate valuable cash on value destruction investments. Moolchandani & Kar, (2021) postulates that ECash and family-oriented firm's interaction term posits a negative effect on the market valuation of firms in India. They suggest that the negative effect of ECash with a market valuation in family-oriented firms is due to type 2 agency conflicts and family-oriented firms involve in spending ECash inefficiently. But they do not check the spending of ECash empirically. Harford et al. (2008) found that public limited firms in the USA under poor CG spend ECash on internal investment i.e Δ Indusadjcapex. Jain et al (2013) concluded that the presence of founder CEO, block ownership, and CEO duality reduces the spending of ECash on capital expenditure compared to the industry. Our result also postulates that Δ Indusadjcapex is insignificantly by ECash in non-family-oriented firms in the presence of good firm-level governance.

Model 2 of Table 5. further shows the spending behavior of family-oriented firms in the form of a dividend. The dependent variable is changed in industry adjusted dividend which is regressed on lag ECash and dummy of firm-level governance interaction in family-oriented control and non-family-oriented oriented firms. The term interaction exerts a negatively significant effect on change in industry adjusted dividend in family-oriented firms. In contrast, lag ECash and firm-level governance interplay term exert no significant influence on industry adjusted dividend in non-family-oriented firms In family-oriented firms, the interaction term coefficient is 0.128 presents that good-governed family-oriented firms spend more ECash on dividend compared to their rivals. The finding of the study is in line with (Hardord et al., 2008) also suggested that Δ Indusadjdiv is significantly affected by lag ECash and CG dummy interaction term. Their result suggests that good-governed firms pay high dividend compared to industry rivals.

The ECash usage in shape of dividend within the context of agency conflict is discussed after the relaxation of the basic assumption of (Miller & Modigliani, 1961) "dividend irrelevance proposition". The basic assumption was no difference exists between the interest of the agent and principal. The central idea came to the debate due to information asymmetry existing and causing the conflict of interest between managers and shareholders (Jensen & Meckling, 1976). Family-oriented firms normally face type2 agency conflict and controlling shareholders derive private benefits on the cost of minority owners (Pindado et al., 2012). The research (like Faccio et al., 2001; Kalcheva & Lins, 2007; Bartram et al., 2008) also shows firms pay more dividend in those economies where investors protection is high. Their result supports the dividend "outcome model" that firms pay more dividend in the presence of good governance. On the other hand dividend "substitution model" shows that dividend is one of the mechanisms to resolve agency conflict and firms pays less dividend in the presence of good governance. Investors' confidence becomes more in the presence of good governance and prepares to receive fewer dividends and believe that the free cash will not be destroyed by managers and controlling shareholders. Duygun, Guney, and Moin (2018) suggest that low dividend in family-oriented firms occur because controlling shareholders want to derive private benefits.

Table 5. further presents ECash spending on corporate diversification in good governed family-oriented and non-family-oriented firms. Model 3 of Table 5. presents that corporate diversification is negative significantly affected due to good firm-level governance at both family-oriented and non-family-oriented firms. The result suggests that the interaction term in family-oriented firms is -0.072 postulates that good-governed family-oriented firms invest less cash on corporate diversification compared to poor-governed family-oriented firms in line with (Shah, 2018). On the other side, the interaction term also shows a negative significant association with corporate diversification in non-family-oriented firms.

The classic agency theory (Jensen, 1986) claims that entrench managers miss-utilize cash for their discretion use and derive private benefit. The managers due to agency conflict spend ECash on corporate diversification. The managers who go towards diversification want to reduce their own risk instead of reducing the firm overall risk (Amihud & Lev, 1981). In the same way, Chen & Steirner (2000) shows that due to agency conflict entrench managers channelize residual cash towards diversification. The recent article of Shah et al (2021) took the sample of Pakistani non-financial firms and suggested that good-governed firms have less ECash spending on corporate

diversification. Hence, agency conflict is higher in diversified firms relative to non-diversified firms Subramaniam et al., 2011; Rajan et al., 2000).

Family-oriented firms due to their unique structure and normally face type 2 agency conflict involves in corporate diversification under empire building hypothesis. The family-oriented-owned firms desire to make an empire for a particular family-oriented to whom they belong at the cost of minority owners. Family-oriented firms controlling shareholders tunneling the ECash toward corporate diversification due to family-oriented altruism compel them to transfer business to their heirs (Lien & Li., 2013).

Effect of firm-level governance on performance in family-oriented firms

This research previously discussed that CG affects the spending of ECash and claimed that good-governed family-oriented firms spend ECash efficiently. In this section, this research is now investigating whether CG affects the performance of firms. Dittmar & Mahrt-Smith (2007) suggested that dissipating ECash might be a good or bad decision. To further confirm we checked that ECash increase or decrease the family-oriented firm's performance in the presence of good governance. Previous researches also measured using operating profit (Like, in the relationship with ECash under good and poor governance (see Dittmar & Mahrt-Smith, 2007; Harford et al., 2008; Jain et al., 2013). This research has value addition of measuring the performance with total factor productivity growth as well as operating profit. (Tian & Twite, 2011) claimed as "Productivity as the residual production output beyond the contribution of input costs is arguably a better measure of the firm's real economic performance".

TFFPG in comparison with traditional accounting ratios is the superior measurement of performance because traditional accounting ratios are subject to manipulation (Barth et al., 2005; Shah et al., 2021). The productivity growth of firms is negatively associated with bad governance (Holmstrom & Kaplan, 2005). Gaitan, Echeverri, & Pablo (2018) claimed that CG-productivity growth has a significant association in firms of Latin America.

Table 6. shows the relationship of ECash on the performance of family-oriented and non-family-oriented firms under good CG. The dependent variables are total factor productivity growth and industry adjusted operating profit. Total factor productivity growth is measured through data envelopment analysis. Industry adjusted ROA is calculated as dividing operating profit on asset and subtracting from the industry median operating profit for particular year. ECash is premeditated on the basis of difference of actual cash and predicted cash. Regressing determinants of cash holding is used to found the predicted cash follow the work of (Opler et al., 1999). CG is measured by first created CG index from CG variables and divide index into terciles. The companies exist in the highest tercile in particular year is assign 1 for good governance and firms exist in the lower and middle tercile is assign 0 for bad governance. All models considered "industry fixed effect, time dummies, and standard error cluster with firm effect". The research used 1% and 99% level to winsorized all ratios. The terms in the brackets represent the standard errors while ***, **, * shows the significance at 1%, 5% and 10% probability levels.

Table 6.

Effect of firm level of governance on firm performance in family-oriented firms

	TFFPG		Indadjusted ROA	
	Family-oriented	N-Family-oriented	Family-oriented	N-family-oriented
lagEcash	0.005 ** (0.002)	0.007 (0.005)	0.003 * (0.001)	0.011 ** (0.003)
gov	-0.026 * (0.013)	-0.009 (0.048)	-0.037 * (0.008)	0.018 (0.025)
lagEcash* Gov	0.594 * (0.208)	-0.114 (0.555)	0.415 * (0.123)	-0.145 (0.292)
cflow	-0.368 * (0.067)	-0.195 * (0.104)	0.232 * (0.039)	0.288 * (0.055)

indcv	0.167 (0.126)	(0.264) 0.176	0.006 (0.075)	-0.228 (0.093)	**
lev	0.088 ** (0.037)	(0.110) (0.079)	-0.015 (0.022)	0.023 (0.042)	
nwc	0.072 ** (0.033)	-0.052 (0.062)	0.010 (0.020)	0.002 (0.033)	
size	-0.001 * (0.004)	0.001 (0.009)	-0.004 (0.003)	-0.007 (0.004)	**
mtob	-0.014 (0.016)	-0.045 * (0.023)	0.033 * (0.009)	0.007 (0.013)	**
div	0.036 (0.012)	0.064 * (0.021)	0.053 * (0.007)	0.048 * (0.011)	**
cons	1.027 * (0.077)	0.917 * 0.162	0.016 (0.045)	0.011 (0.084)	**
R-square	0.131	0.202	0.415	0.523	
F-pvalue	0.000	0.005	0.000	0.000	

The result presents that the interplay of CG dummy with lag ECash exerts a significantly positive effect on total factor productivity growth. The interaction term coefficient indicates that TFG has 0.594 more affected by lag ECash in good-governed family-oriented firms compared to the bad-governed family-oriented firm. The result supported agency theory (Jensen, 1986) firms spend their ECash due to good CG. The result supports (Dittmar & Mahrt-Smith, 2007; Jain et al., 2013; & Shah et al., 2021) argument that the performance of companies increases due to good CG because of efficient spending ECash. Shah et al. (2021) suggested that the interplay of good governance dummy with lag ECash significantly positive effect on TFG in non-financial companies of Pakistan. For robustness, this research also follows (Dittmar & Mahrt-Smith, 2007; Harford et al., 2008) and investigated firm-level governance effect on industry adjusted return on asset. The finding of the study portrays that the interplay of governance at firm level dummy and lag ECash has positive significant effect on industry adjusted ROA. Moreover, finding depicts that ECash in good-governed family-oriented firms affects 0.415 more on operating profit compared to its peers. Dittmar & Mahrt-Smith, (2007) claimed that ECash has a negative association with operating profit in poor-governed firms but the relationship of ECash and operating profit become positive in the presence of good governance. They further suggested that due to agency conflict the ECash is deployed in a project with low returns. On the other hand, good-governed firms' deployment of cash is less but whenever they deploy excess it is not harming the operating profitability of firms.

Conclusion

This research links CG with various aspects of cash management in family-oriented firms. The controlling firms by the particular family-oriented have distinctive composition compared to its counterpart i-e non-family-oriented firms. The research shows that due presence of controlling shareholders in family-oriented firms the classical agency conflict (agent-principle) conflict is resolved. But on the other hand, the type 2 agency conflict (Principle-Principle) is the most serious conflict in family-oriented firms. Controlling shareholders of a particular family-oriented miss-utilize the asset and cash is the easiest asset that may be miss-utilized by controlling family-oriented shareholders at the expense of minority owners. The need for good firm-level governance is essential to prevent the controlling shareholders from miss-utilization of ECash. The study used a different battery of analysis, and first establishes the link between the CG and the level of cash holding in controlling family-oriented firms. Finding this research postulates that cash holding is negatively affected due to firm-level of governance in family-oriented firms.

The research further established the link of the firm-level of governance with a “value of cash holding” in family-oriented firms. The finding of the study depicts that good governance at the firm level increases firm value through cash and the marginal “value of cash holding” is 1.067 for one extra rupee invested in good-governed family-oriented firms. On the other side of the coin, the marginal “value of cash holding” for an extra rupee invested in non-family-oriented firms is 0.875 depicting that firm-level of governance adds value through cash is more in family-oriented control firms compared to non-family-oriented firms.

The important query raised by this research is whether the ““value of cash holding”” is affected due to firm-level governance through the spending of ECash. To answer the question the researchers analyzed three possible ways that family-oriented firms can tunnel the ECash (i.e. internal investment, payout, & corporate diversification). The finding postulates that good-governed family-oriented firms spend less ECash on internal investment as well as corporate diversification but spend more cash on dividends compared to their peers in the industry. The dividend outcome model is supported by our result that minority owners prefer dividend to limit the controlling shareholders' miss-utilization of ECash for their private benefits. On the other side, the finding shows that the presence of a good governance at corporate level results in the reduction of ECash spending on corporate diversification in non-family-oriented firms. The research further checks whether ECash in family-oriented firms having governance affects the performance. The result postulates that ECash in good-governed family-oriented firms significantly positive effect on total factor productivity. This research has uniqueness in the sense that this research measured with both total factor productivity growth which is the better measure for the overall performance and also used industry adjusted operating profit for robustness. The result also shows that ECash in governed family-oriented firms positively and significantly affect industry adjusted return on asset compare to industry competitors.

This research has a limitation in that it is conducted only in Pakistan. The future researcher researches the behavior of family-oriented firms regarding cash management using cross-country data. Further, the research should conduct other possible channels through which family-oriented firms tunnel the ECash. The future researcher may also research the presence of founder CEO on a corporate decision in family-oriented firms and when the business transfer to the heirs what is the effect on corporate decision especially cash management.

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