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Ownership structures as determinants of financial decisions: Evidence from Pakistani family owned listed firms

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Abstract: The current study aims to inspect the investment policy as well as financing policy with respect to ownership structure. Two threshold points of ownership structure (25% & 50%) were used to distinguishing family owned business (FOB) from the non-family (NFOB) ones. The data sample of 280 listed firms at Karachi Stock Exchange (KSE) was collected from different sources like annual reports, financial statements and balance sheet analyses ranging for the period 2002-2013. Among many advance econometric techniques, Generalized Method of Moments (GMM) was found appropriate to estimate the coefficients of variables. The empirical results showed that the FOBs had lower investment-internal fund sensitivity than NFOBs. However, the blockholder's effect on investment-internal fund sensitivity was found statistically insignificant. Furthermore, the weak application of Pecking Order Theory and higher payout ratio in FOBs as compared to NFOBs were revealed. Also, It was concluded that the lower agency and information asymmetry problems in FOBs comparatively.

**Keywords:** Family Business, Investment Policy, Financing Policy, KSE, Panel data, GMM

### 1. Introduction

The family owned business (FOB) has become an important business model in the world which can play crucial role in the development of economies. A large number of business organizations are owned by families around the globe. About 80-90 percent business of United State of America (U.S.A) consists of FOBs. In Europe, 80 percent business organizations are operating under family control. The ratios of FOBs to NFOBs are ranging

from 70-90 percent in Middle East and 60-70 percent for Australia. Most of the Chinese and Japanese firms consist on FOBs in Asian continent. Similarly, 85 percent Indian business are working under the control of families (Deloitte, 2013). In Pakistan, the FOBs are dominant in business community and playing important role in the development of economy (Ghani and Ashraf, 2005).

Ownership structure can be used as a mechanism to moderate the conflicts between owners and managers. Ownership is believed to have the capability to affect the future course of business operations that could influence the financial decisions. Owners may have different motivations in monitoring and management of firms; they can play an important role in the survival and development of firms. They invest capital to get a higher return, both in form dividend payments and capital gains. Naturally, therefore, they instinctively tend to do some financial decisions for the betterment of business enterprises.

Modigliani & Miller (1958) argue that financial decisions are totally independent from capital structure of the firms in the perfect capital market conditions. However the past literatures of finance indicate that the perfect capital markets are non-existent in this real world. Financial factors, therefore, do some impact on financial decisions of a firm. Contrary to Modigliani & Miller (1958) assumptions, the impact of ownership on financial decisions can be expounded mainly from the understanding of imperfect capital markets. This extent of imperfection of financial markets is not only linked with financial decisions of companies but also with ability to finance these investment opportunities by the internal funds. The relation between cash flow and optimal investment has been traced in the decade of 1950s (Meyer & Kuh, 1957). Yet debatable question of investment-cashflow sensitivity remains unresolved (Hovakimian, 2009). Morgado, A., and Pindado, J. (2003) document the arguments only optimal level of investment creates maximum value of firms. Overinvestment and underinvestment problems are the result of mishandling the capital structure by managers. Although, capital structure has become a hot topic in recent literature, but only a few studies have analyzed whether family ownership and control impact the financial policies of corporations. In spite of the recent studies in finance literature that explore the factors that impact of debt and dividend policies (e.g. see Frank and Goyal, 2009 and Denis and Osobov, 2008), the relation between ownership structure and financial policies especially in case of FOBs and NFOBs is yet scarce.

A series of financial models and theoretical framework has been developed to explore the determinants of dividend policy along with debt policy that ultimately affect the corporate value of firms. Among them the most important, who provides the explanations for how firms determine target capital structure are pecking order and trade-off theories (Myers and Majluf, 1984). The main objective of these capital structure theories is to determine and explain the factors that contribute the financial decisions of a firm. Lintner's (1956) provides the explanations for the reasons behind stable dividend policy. He argues that the managers show reluctance to cut dividend payments as it might have adverse effect of stock price; resultantly, the company's dividend payout ratio remains stable over time. Von Eije and Megginson (2008) explore the company's choice between shares repurchase and dividend payments. They indicate that dividend payout ratio is an effective mechanism for corporate governance of the companies. Hu, Wang, and Zhang (2007) also confirm the firm's preference of dividend payments over shares repurchase as means of disgorge cash.

In order to achieve the targeted objectives of the study, the main analysis of financial decisions has been divided into two parts. First, the investment decision is examined in terms of family and non-family ownership structure. Second, the attempt is made to analyze role of ownership structure on debt policy as well as dividend policy of firms. Furthermore, taking into account dynamism of financing decisions, this study investigates the determinants of stable debt and dividend policies.

# 1.1 Objectives of study

- To examine the impact of ownership structure on investment policy regarding FOBs and NFOBs.
- To analyze the impact of ownership structure on financing policy in both organizational types i.e. FOBs and NFOBs.
- To make recommendations and suggestions to the concerned on the basis of empirical evidences

# 2. Review of Literature and Hypotheses Development

Family owned business (FOB) is linked with some potential benefits that contribute to reduce the investment-cash flow sensitivity due to the following reasons. First, in line with arguments of different authors such like Galeotti et al. (1994), the benefits associated with family ownership help to decrease imperfections of financial markets. Second, Schulze, Lubatkin, and Dino (2003) opine that family owned corporations can better evaluate strategic investment projects due to deep knowledge and long-life involvement of family members in

the operations of their businesses which enables them to reduce the deviation form optimal level of new investment. This optimal level controls the investment-cash flow sensitivity (Morgado and Pindado, 2003). Third, the family owned business help to reduce the agency cost between shareholders and bondholders that leads to lower the wedge between cost of external and internal fund (Jensen and Meckling, 1976). This lower financial constraints lead to choose optimal investment which ultimately mitigates the investment-cashflow sensitivity. Fourth, previous finance literatures of family business indicate the family owners concern more with reputation on business that leads to higher earnings quality which contributes to reduce the agency conflicts. Lower agency conflict alleviates the investment cash flow sensitivity in family owned business.

Keeping in view the arguments, it is expected that the family firms show lower investment cash flow sensitivity than non-family ones. The hypothesis-1 is proposed.

### $H_1$ : The investment-internal fund sensitivity is lower in FOBs than NFOBs.

Theory of voice and intervention argue that active monitoring of managers by large shareholders having substantial stakes called blockholders, can improve the value of company. Such kind of actions from blockholders is termed as shareholder's activism prevents the managers from doing wasteful activities regarding business operations which can destroy value of business. This type of shareholder activism can be used as a mechanism of corporate governance that disciplines the controlling shareholders. It provides the potential disadvantage to the largest shareholders and helps to moderate the dependence of investment spending on internal generated fund. La Porta, Lopez-de-Silanes, & Shleifer (1999) find that firms with concentrated ownership, large shareowners may monitor each other and provide the potential benefits that overall discipline the corporation. The presence of blockholders creates strong monitoring and prevents the managers to attain personal benefits in the investment decision-making process. Therefore, it can be concluded that FOBs obtain optimal investment level than their counterparts. Thus, FOBs are less sensitive to cash flow in presence of general blockholders.

# $H_2$ : The investment-internal fund sensitivity is lower in FOBs than NFOBs after controlling the blockholder effect.

The past literatures that study the debt policy of family owned companies discovers that the effect of family ownership on debt level depends on whether owner families make use of control-enhancing mechanisms or not. Family control diminishes the asymmetric information and agency conflicts linked with corporate financing policy and facilitating FOBs approach to debt financing. If family control successfully reduces agency problem between

different stakeholders like debt-holders and share-holders—they should be less constrained when getting external finance and, thus, less dependent on internal fund. Therefore, the negative relation between debt and internal funds reported in previous studies on capital structure (Miguel et al. 2004; González & González, 2008). FOBs create long-term relationships with debt providers, such as banks and other financial institutions for better financing terms. That is why there are less dependent of internal sources of financing and having fewer constraints to access external finance-debt and equity. Keeping in view the above discussion, the hypothesis-3 is formulated as:

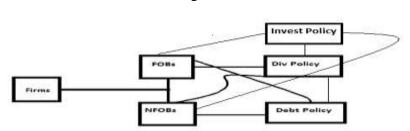
# $H_3$ : There is weaker negative relation between internal fund and debt in FOBs as compared to their counterpart NFOBs.

Agency theory explains the relationship between shareholders, bondholders, larger shareholders and minor shareholders. Rozeff (1982) explains with empirical evidence that the dividend policy of a firm is the result of a Trade-off between agency costs and transaction costs. He provides arguments that capital structure is based on a trade-off between tax savings and distress costs of debt. The Pecking Order Theory states that firms prefer to issue debt rather than equity if internal finance is insufficient. We expect higher dividend payout ratio in family owned firms (FOBs) than non-family firms (NFOBs) mainly due to the following two reasons. First, dividend payment can be applied as instrument of control mechanism that aims to reduce agency problem with in a family owned business. Thus, family business needs to pay more dividends to reduce agency conflicts that ultimately enhance the control mechanism that is one of the key desires of family owners. Second, family owned business can be used dividends to reduce expropriations of large shareholders and for better corporate governance practices. Taking into account the above arguments, we expect higher dividend payout ratio in family owned companies as compared to non-family owned. Therefore, hypothesis-4 is proposed as:

 $H_4$ : There is higher dividend payout ratio in FOBs as compared to NFOBs.

### 3. Theoretical framework

Figure-1



The figure-1 indicates the relation between FOBs and NFOBs with respect to financial decisions. It depicts that FOBs and NFOBs have connection regarding investment decisions. Similarly, debt policy as well as dividend policy of companies' shows difference for FOBs and NFOBs.

### 4. Methodology

To fulfill the targeted objectives of the study, data ranging from the period 2002-2013 were used. A sample of 280 firms listed at Karachi stock exchange (KSE) was taken. The main sources of data were the annual reports, financial statements and basic balance sheet analyses published by State Bank of Pakistan (SBP).

These data pertaining to the variables industry adjusted investment ( $IAI_{it}$ ), internal fund ( $IF_{it}$ ), Tobin Q ( $Q_{it}$ ), debt ratio ( $DR_{it}$ ), dividend ratio ( $DIV_{it}$ ) and net earnings ( $NE_{it}$ ) were taken. Family owned business (FOB) and blockholder's effect (BH) were used as dummy variables. Furthermore, a set of control variables like firm's size ( $FS_{it}$ ), Sales of firm ( $Sale_{it}$ ), average account receivables ( $AR_{it}$ ) and firm's age ( $AGE_{it}$ ) were taken. Such types of data contained unobservable problems termed as heterogeneity and endogeneity (McVey and Draho, 2005 and Demsetz and Villalonga, 2001). To resolve these problems, panel data methodology and generalized method of moments were applied. Panel data methodology handles<sup>1</sup> the heterogeneity problem while the Generalized Method of Moments (GMM) controls<sup>2</sup> the endogeneity problem. Furthermore, the misspecification of the model was tested by Hansen J-statistic and  $m_2$  statistics. Also, the Wald tests ( $w_1$  and  $w_2$ ) were used to test the joint significance of reported coefficients and time dummy variables.

<sup>&</sup>lt;sup>1</sup> Panel data reduces the heterogeneity (S. Allegretto, A. Dube, and M. Reich, 2011)

<sup>&</sup>lt;sup>2</sup> GMM resolves the endogeneity problem (Pierre Chausse, 2010)

### 4.1. Models Specification

$$IAI_{it} = \alpha_0 + \phi IAI_{it-1} + (\beta + \gamma FOB) IF_{it} + \delta_1 Q_{it-1} + \mu X_{it-1} + \epsilon_{it} - \dots$$
 (1)

$$DR_{it} = \alpha_0 + \phi_1 \ DR_{it-1} + (\beta + \gamma \ FOB) \ IF_{it} + \mu \ X_{it-1} + \mbox{$f$}_{it} - \dots \qquad (3)$$

$$DIV_{it} = \alpha_0 + \phi_2 DIV_{it-1} + (\beta_1 + \gamma_1 FOB) NE_{it} + \mu X_{it-1} + \varepsilon_{it} - \cdots (4)$$

Where:

IAI<sub>it</sub>= Industry adjusted investment

IF<sub>it</sub>= Internal fund

Q<sub>it</sub> = Tobin Q used as proxy of investment opportunity

FOB = Dummy variable 1 for family firms, 0 otherwise

 $DR_{it} = Debt ratio$ 

DIV<sub>it</sub> = Dividend ratio

 $X_{it} = A$  set of control variable (firm's size (FS<sub>it</sub>), Sales of firm (Sale<sub>it</sub>), average account receivables (AR<sub>it</sub>) and firm's age (AGE<sub>it</sub>)

### **4.2.** Variables Descriptions:

To estimate the proposed hypotheses, three different types of firm level data were required. First, for the dependent variables of the models, the industry adjusted investment ( $IAI_{it}$ ), debt ratio ( $DR_{it}$ ) and dividend ratio ( $DIV_{it}$ ) were used. The firm investment ( $INV_{it}$ ) was computed by adding depreciation expenses of the previous year to the increase in net fixed assets. Furthermore, the firm's investment was subtracted by industry median to calculate industry adjusted investment ( $IAI_{it}$ ). The median was preferred as a measure of central tendency over mean and mode due to its effectiveness against such kind of skewed data contemplated with outliers<sup>3</sup>. Second, Internal fund ( $IF_{it}$ ) and net earnings ( $NE_{it}$ ) were applied as independent variables. The depreciation expense of correspondence year was added back to net earnings for the calculation of internal fund ( $IF_{it}$ ). Third, Tobin q ( $Q_{it}$ ) was taken as proxy of investment opportunities. Furthermore, a set of control variables like firm's size ( $FS_{it}$ ), Sales of firm ( $Sales_{it}$ ), average account receivables ( $AR_{it}$ ) and firm's age ( $AGE_{it}$ ) were used.

<sup>&</sup>lt;sup>3</sup>Pindado, J., and de la Torre, C. (2009)

Two dummy variables (FOB & BH) were also used in the estimation procedure. FOB was used as family business dummy took value 1 for family business, 0 otherwise. A firm was said to be family business (FOBs), if family directors have managerial ownership or voting rights 25% and 50% in the firm. 25% cut off point is proposed in the official definition of Group of Owner Managed and Family Enterprises called GEEF by its French name (GEEF, March, 2008). It was also in line with the definition adopted by Board of Family Business Network in April 7, 2008. 50% cut off point was used because ownership at this level confers the unequivocal control rights (Doidge et al., 2005). Also, particularly in Pakistan, owners of family companies hold more than 50% shareholdings (Javid and Iqbal, 2010). In this study both cut off points were applied to differentiate family and non-family enterprises. The dummy variable for blockholder's effect (BH) equal to 1 for the FOBs having 10% ownership other than family owners & 0 for otherwise.

### 5. Empirical results

### **5.1. Summary statistics**

Table-1 gives the summary statistics of the all variables of full sample used in this section of study. The mean values of industry adjusted investment (0.004) are ranging from - 0.021 to 6.760 and -1.190 to 0.963 respectively. The average value of Tobin Q is 1.879 indicate a handsome gap between market and book values of firms. The mean values Sales and Return on Assets (7.998 and 0.192) provide insight of good sign regarding business operations. Details of cashflow, size and debt can be seen in Table-1.Figure-1 depicts the distribution of sample statistics regarding family owned and non-family owned firms on both threshold points (25% & 50%). It also shows the percentage of subsamples in each category.

# Table-1 Summary Statistics for the Full Sample

The Table-1 provides the details of maximum, minimum, standard deviations, medians and means of the variables used in the different types of analysis. The sample consist of 280 firms (3360 observations) listed in Karachi Stock Exchange Pakistan. The data sample is collected ranging from the period 2002 to 2013. The INVit and IAIit are the investment and industry adjusted investment.  $DR_{it}$  and  $DIV_{it}$  are the debt ratio and dividend ratio respectively. IFit stands for internal fund; Qit denotes Tobin q; and  $NE_{it}$  is the net earnings of the firms. Firm size (FZ), sales (SALE<sub>it</sub>) and age of firms (AGE<sub>it</sub>) are the control variables.

	Summary Statistics for the full sample									
Variables	Mean	Median	Standard deviation	Minimum	Maximum					
$IAI_{it}$	0.004	0.000	0.064	-1.190	0.963					
$DR_{it}$	0.743	0.708	0.361	0.110	0.990					
$DIV_{it}$	0.002	0.001	0.003	0.000	0.202					
$IF_{it}$	0.060	0.053	0.191	-1.213	0.445					
$NE_{it}$	5.672	4.891	1.291	-1.231	9.761					
Q <sub>it-1</sub>	1.879	1.679	0.435	0.086	7.649					
FS it	9.159	7.927	10.120	1.325	12.478					
Sale <sub>it-1</sub>	7.998	7.891	1.572	-1.6320	12.897					
$AR_{it}$	1.468	1.288	0.774	0973	3.680					
$AGE_{it}$	3.410	3.121	3.510	2.639	4.189					

### **5.2.** Descriptive analysis

As indicated in the Table-2, the category falls in family owned businesses (FOBs) have significantly different behavior in terms of industry adjusted investment (IAI<sub>it</sub>), debt ratio (DR<sub>it</sub>) and dividend ratio (DIV<sub>it</sub>). However, this difference is more prominent when Industry adjusted investment and debt ratio are used to capture the financial behavior of firms. Furthermore, these findings support the arguments that the industry effect would be included in estimation procedure of empirical models. Table-2, indicates the significant difference between dependent variables, thus comparison seems to be valid.

Table-2
Univariate tests of dependent variables

The Table-2 presents basic analysis of means tests between FOBs and NFOB with respect of their investment behaviors. The sample contains 3360 observations of 280 companies of non-financial sector listed at Karachi Stock Exchange (KSE) Pakistan. The IAI $_{it}$  stands for industry adjusted investment of firms respectively.  $DR_{it}$  DIV $_{it}$  are the debt ratio and dividend ratio. The FOBs and NFOBs are classified according the definition of family firms. The t-statistic tests are applied to measure the means difference under the null hypothesis for each variables.  $H_0$ : Mean of variables FOBs –Mean of variables of NFOB = 0. The \*\*\*, \*\*, and \* indicate significance at the 10%, 5% and 1% level respectively.

		All Companies	FOB	NFOB	t-statics
Difference of means tests	No of Observations	3360	2628	732	
using the 25% cutoff points	IAI <sub>it</sub>	0.26	0.24	0.33	2.98**
	$DR_{it}$	0.743	0.687	0.944	-4.126*

	DIV <sub>it</sub>	0.008	0.008	0.012	1.435***
Difference of means tests	No of Observations	3360	2004	1356	
using the 50% cutoff points	IAI <sub>it</sub>	0.19	0.18	0.23	3.77*
	$DR_{it}$	0.743	0.677	0.841	-4.593 <sup>*</sup>
	DIV <sub>it</sub>	0.008	0.007	0.009	1.772**

### **5.3. Regression Results**

The results drawn by estimating the model (1-4) as shown in Table-3, provides the insight regarding financial behavior of FOBs and NFOBs. The financial behavior of the firms can be categorized into two parts. The first part analyzes the investment behaviors of the firms. The first two hypotheses are designed to examine investment behavior. The hypothesis-1 deals with internal fund-investment sensitivity in line with Pecking order theory. The results reveal that positive impact of cashflow on investment is stronger for NFOBs ( $\beta$  = 0.120) than FOBs (0.120- 0.080= 0.040).

Conversely, investment-internal fund sensitivity is lower in FOBs than NFOBs. Thus, Hypothesis-1 is accepted as the results found statistically significant. Our findings support the previous studies like (Koo and Maeng, 2006; Pindado and de la Torre, 2009). Similarly, it is found that blockholders has non-significant impact on investment-internal fund sensitivity.

The second part investigates the debt and dividend policies regarding FOBs and NFOBs under shadow of Pecking order theory as well as trade-off theory. The results reveal that impact of internal fund (IF<sub>it</sub>) on debt ratio (DR<sub>it</sub>) for NFOBs is ( $\beta$  = -0.140) and for FOBs ( $\beta$  +  $\gamma$  = -0.140 + 0.078= -0.062). The estimated coefficients of hypothesis-4 for non-family firms is ( $\beta$ <sub>1</sub> = 0.004) and for family firms is ( $\beta$ <sub>1</sub> +  $\gamma$ <sub>1</sub>) = (0.004 + 0.015 = 0.019) show significantly positive impact of net earnings on dividend payment. These results are in line with previous studies such like (Gugler, K. 2003) and don't support the arguments of substation effect between ownership structure and dividend policy (Goergen, et al., 2005).

# Table-3 Financial Policies at (25% cut off point)

Table-3 shows the regression results of financial decisions of family and non-family companies at 25% cut off point. Generalized method of moments (GMM) is used to test the hypotheses (1-4). The dummy variable FOB equal 1 for family business and zero otherwise. BH dummy variable equal 1 for presence of blockholder's effect and zero otherwise.  $IAI_{it}$  is the industry adjusted investments.  $DR_{it}$  and  $IF_{it}$  are the debt and internal fund ratios.  $DIV_{it}$  and  $NE_{it}$  are the dividend and net earnings ratios of the firm.  $Q_{it}$  is the Tobin q of firm.  $FS_{it}$  and

Sales<sub>it</sub> are the sales of the firms.  $AR_{it}$  and  $AGE_{it}$  are the account receivables and age of the firms. The sample consists of 3360 observations, 280 non-financial companies listed on Karachi Stock Exchange (KSE) Pakistan for the period ranging from 2002 to 2013. The \*\*\*, \*\* and \* denote significance level at 10%, 5% and 1% respectively. T-statistic ( $t_1$ ) shows the linear restriction under the null hypothesis  $H_0$ :  $\beta + \gamma = 0$ . T-statistic ( $t_2$ ) indicates the linear restriction under the null hypothesis  $H_0$ :  $\beta + \gamma = 0$ . T-statistic ( $t_4$ ) indicates the linear restriction under the null hypothesis  $H_0$ :  $\beta + \gamma = 0$ . T-statistic ( $t_4$ ) indicates the linear restriction under the null hypothesis  $H_0$ :  $\beta + \gamma = 0$ . T-statistic ( $t_4$ ) indicates the linear restriction under the null hypothesis  $H_0$ :  $\beta + \gamma = 0$ . T-statistic ( $t_4$ ) indicates the linear restriction under the null hypothesis  $H_0$ :  $\beta + \gamma = 0$  w<sub>1</sub> shows the Wald Test-1 for the joint significance of the estimated coefficients under null hypothesis  $H_0$  (asymptotically distributed) and the value under parenthesis denotes the degree of freedom.  $t_1$  (asymptotically distributed) and the value under parenthesis shows the degree of freedom.  $t_2$  h indicates the Hansen test of over identifying restriction under assumption of null hypothesis as no correlation between instruments and error term and the value in parenthesis is the degree of freedom.

		Model-1		Model-2		Model-3		Model-3	
Variables	Со	Value	SE	Value	SE	Value	SE	Value	SE
constant	$\alpha_0$	-0.046*	0.006	-0.055*	0.006	0.005*	0.001	0.004*	0.001
$IF_{it}$	β	0.140*	0.005	-0.112*	0.005	-0.140*	0.002	0.140*	0.005
FOBIF <sub>it</sub>	γ	-0.080*	0.007	-0.0690	0.005	0.078	0.004		
BHIF <sub>it</sub>	δ			0.002	0.001				
NE <sub>it</sub>	$\beta_{I}$							0.004 *	0.003
FOBNE <sub>it</sub>	$\gamma_1$							0.015 *	0.002
IAI <sub>it-1</sub>	φ	0.004	0.002	0.003	0.004				
DR <sub>it-1</sub>	$\phi_{1}$					0.579*	0.005		
DIV <sub>it-1</sub>	$\phi_2$							0.224*	0.001
$Q_{it-1}$	δΙ	-0.014*	0.001	-0.016*	0.001				
$FS_{it}$	$\mu_1$	0.005	0.001	0.006*	0.000	0.001*	0.000	0.001**	0.000
$SG_{it}$	$\mu_2$	0.002*	0.001	0.003	0.004	0.001	0.002	0.003	0.002
$AR_{it}$	$\mu_3$	-0.026*	0.001	-0.026*	0.001	0.006*	0.000	0.005*	0.000
$AGE_{it}$	$\mu_4$	0.002*	0.001	0.002*	0.001	-0.012*	0.001	-0.013*	0.000
T-statistics	$t_{I}$	-11.01							
T-statistics	$t_2$			0.31	•				
T-statistics	$t_3$					14.90			
T-statistics	$t_4$							46.09	
Wald Test-1	$w_1$	6284.57 (8)		6334.57 (9)		3331.67 (8)		5381.67 (8)	
Wald Test-2	$w_2$	227.01 (8)		217.01 (8)		217.01 (8)		111.01 (9)	
Hansen	h	538.78	162	398.72	162	548.28	162	399.79	162

The regression results at 50% threshold point remain unchanged and robust the previous evidences. No significant difference is found on both threshold points. Empirical results on 50% threshold point can be seen in Table-4 attached in appendix-1.

#### 6. Conclusions and Recommendations

Our main finding regarding the investment decision is that overall FOBs exhibit lower sensitivities between investment and cashflow. Considering such sensitivities are due to incentives problems or asymmetric information, this phenomena is explained as a supportive aspect of FOBs. Moreover, the empirical results indicate that FOBs motivate to reduce overinvestment and underinvestment problems, thus allowing FOBs to attain optimal level of investment. This type of interpretation corroborates the arguments that FOBs are in better position to create value through their investment decisions. Also, it is worthwhile to highlight that there is positive but weaker association between investment and cash inflow that sheds some light on the peculiar characteristic of FOBs i.e. lower expropriation of minority shareholders which create more value. Another feature of FOB's ownership structures, that is accounted for when probing how family control influences the sensitivity of investment spending-cash flow is whether the presence blockholder in the management. Our result suggests the presence of blockholder in decision making process is meaningless as the result is non-significant statistically.

Regarding financing decisions, two main findings are concluded. First of all, the significant negative relation between cashflow and debt ratio indicates weak application of pecking order theory in family firms. Furthermore, this result provides explanation that problems due to asymmetric information are less severs in FOBs which allow them easier access to external funds as compared to NFOBs. Also, this result shows lower agency problem between owners and creditors and resultantly, a lower cost of leverage financing (Anderson, Mansi, and Reeb, 2003). Second, dividend payout ratio higher in family firms provides interpretations to outcome model of dividend (Chae, Kim, and Lee, 2009). It is argued that owner's large stake in FOBs allow them to pressurize managers to distribute higher proportion of net earnings as dividend payment to shareholders (Faccio, Lang, and Young, 2001). Our findings also highlight an effective and efficient dividend policies are in line with the free cash flow interpretation of dividend models (Jensen, 1986).

#### Recommendations:

1. As family owned businesses (FOBs) exhibit lower investment-cashflow sensitivities asymmetric information and agency problems, it is recommended to regulatory authority for the taking steps to enhance the family business in country.

- As it is concluded that there is weak application of pecking order theory in family firms.
   Conversely, NFOBs are advised to take measures against asymmetric information problem.
- 3. It is advised for investors to prioritize their investments in family business comparatively.
- 4. It is suggested to regularity authority (KSE) to take steps that enforce the companies to act upon their dividend policy especially for non-family business.

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# Appendix-1

# Table-4

### Financial Policies at (50% cut off point)

Table-4 shows the regression results of financial decisions of family and non-family companies at 25% cut off point. Generalized method of moments (GMM) is used to test the hypotheses (1-4). The dummy variable FOB equal 1 for family business and zero otherwise. BH dummy variable equal 1 for presence of blockholder's effect and zero otherwise. IAIit is the industry adjusted investments. DRit and IFit are the debt and internal fund ratios. DIVit and NEit are the dividend and net earnings ratios of the firm. Qit is the Tobin q of firm. FSit and Sales<sub>it</sub> are the sales of the firms. AR<sub>it</sub> and AGE<sub>it</sub> are the account receivables and age of the firms. The sample consists of 3360 observations, 280 non-financial companies listed on Karachi Stock Exchange (KSE) Pakistan for the period ranging from 2002 to 2013. The \*\*\*, \*\* and \* denote significance level at 10%, 5% and 1% respectively. T-statistic ( $t_1$ ) shows the linear restriction under the null hypothesis  $H_0$ :  $\beta + \gamma = 0$ . T-statistic ( $t_2$ ) indicates the linear restriction under the null hypothesis  $H_0$ :  $\beta + \gamma + \delta = 0$ . T-statistic (t<sub>3</sub>) provides the linear restriction under the null hypothesis  $H_{0:}$   $\beta + \gamma = 0$ . T-statistic  $(t_4)$  indicates the linear restriction under the null hypothesis H0:  $\beta_1 + \gamma_1 = 0$  w<sub>1</sub> shows the Wald Test-1 for the joint significance of the estimated coefficients under null hypothesis H<sub>0</sub> (asymptotically distributed) and the value under parenthesis denotes the degree of freedom. w<sub>2</sub> is the Wald Test-2 for the joint significance of the times dummies under null hypothesis H<sub>0</sub> (asymptotically distributed) and the value under parenthesis shows the degree of freedom. h indicates the Hansen test of over identifying restriction under assumption of null hypothesis as no correlation between instruments and error term and the value in parenthesis is the degree of freedom.

		Model-1		Model-2		Model-3		Model-3	
Variables	Со	Value	SE	Value	SE	Value	SE	Value	SE
constant	$\alpha_0$	-0.026*	0.006	-0.035*	0.006	0.015*	0.001	0.006*	0.001
IF <sub>it</sub>	β	0.163*	0.005	-0.102*	0.005	-0.144*	0.002	0.130*	0.005
FOBIF <sub>it</sub>	γ	-0.099*	0.007	-0.0590	0.005	0.079	0.004		
BHIF <sub>it</sub>	δ			0.005	0.003				
NE <sub>it</sub>	$\beta_1$							0.008 *	0.003
FOBNE <sub>it</sub>	γ1							0.018 *	0.002
IAI <sub>it-1</sub>	φ	0.002	0.001	0.002	0.002				
$DR_{it-1}$	<b>φ</b> <sub>1</sub>					0.229*	0.001		
DIV <sub>it-1</sub>	<b>\$\phi_2</b>							0.222*	0.001
$Q_{it-1}$	δΙ	-0.011*	0.002	-0.016*	0.001				
FS <sub>it</sub>	$\mu_1$	0.002	0.002	0.006*	0.000	0.001*	0.000	0.001**	0.000
$SG_{it}$	$\mu_2$	0.001*	0.001	0.003	0.004	0.001	0.002	0.003	0.002
$AR_{it}$	$\mu_3$	-0.023*	0.001	-0.026*	0.001	0.006*	0.000	0.005*	0.000
$AGE_{it}$	$\mu_4$	0.002*	0.000	0.002*	0.001	-0.012*	0.001	-0.013*	0.000
T-statistics	$t_1$	-22.0	1						
T-statistics	$t_2$			0.01	1				

T-statistics	$t_3$					44.10			
T-statistics	$t_4$							122.02	
Wald Test-1	$w_1$	5768.17 (8)		6334.57 (9)		3331.67 (8)		5381.67 (8)	
Wald Test-2	$w_2$	217.06 (8)		217.01 (8)		217.01 (8)		111.01 (9)	
Hansen	h	533.22	162	388.88	162	545.23	162	390.29	162