EXPLORING THE MODERATING EFFECT OF FAMILY CEO ON THE ASSOCIATION BETWEEN FAMILY OWNERSHIP AND FIRM VALUE: AN EMPIRICAL ANALYSIS OF TOP INDIAN FAMILY FIRMS

Lakshmi Kalyanaraman*

Abstract

We study 288 family firms included in the NSE CNX 500 index of the National Stock Exchange of India. We find an entrenchment-alignment-entrenchment relationship between family ownership and firm value. We show that family CEO has a negative moderating effect on the relationship between family ownership and firm value. When the interaction effect of Family CEO on family ownership is controlled, only family shareholding in the alignment range is found to be statistically significant. The study shows that family firms with family CEO suffer from a decrease in market valuation. This finding is extremely valuable given the fact that India is dominated by family firms and majority of family firms appoint a family member as CEO.

*King Saud University, Riyadh, Saudi Arabia

Introduction

Family firm is a prevalent phenomenon across many countries. Family owned and family controlled firms constitute around 90% of the firms in United States. (Poza, 2007) According to Claessens et al. (2002), two-thirds of the businesses in the East Asian countries are controlled by founding families. The corresponding figure for Western Europe is 44%. (Faccio& Lang, 2002) La Porta et al., (1999) study firms from 27 developed countries and show that only 30% of the firms have dispersed ownership. Credit Suisse study 3,568 listed family businesses in 10 Asian markets. The study shows that India has the largest percentage of listed family businesses which is around 67% of all listed companies. 663 out of 983 listed companies in India are family businesses. Family business tends to have concentrated ownership and family involvement. This characteristic of family business is bound to have an impact on firm value. (See for example Anderson &Reeb, 2003) Studies on family businesses analysing the financial performance of these businesses draw upon various theoretical perspectives to explain the association ranging from agency theory (Schulze, Lubatkin and Dino, 2003), stewardship theory (Miller, Le Breton-Miller and Scholnick, 2008), socio-emotional wealth theory (Gomez-Mejia et al., 2001) to resource-based perspective of firm. (Sirmon&Hitt, 2003) Results produced by these researches are inconsistent and contradictory. 'Does family ownership concentration, family involvement in family firms help them to perform better?' is yet to be answered concretely. This work tries to answer this question by evaluating the relationship between family ownership concentration and firm value by checking on the moderating effect of family CEO on this association.

We contribute to the existing literature at least in four ways. Most of the studies are carried out on data drawn from developed countries like United States and United Kingdom. These countries are typically characterised by widespread ownership. Developing countries have concentrated ownership. (Aguilera et al., 2011) A majority of top listed companies are family businesses. According to Sarkar (2012), promoters control a majority of listed companies in India. Hence, there is a need to study the performance of family businesses in a market dominated by them. Institutional differences between the developed countries and developing countries affect the effectiveness of the large shareholders' monitoring efforts and in turn affect the firm performance. Developing counties are characterised by lack of pressure to ensure adequate disclosure by firms. Presence of political networks makes evasion of legal charter not very difficult.(Khanna &Palepu, 2000) Earlier works bring out the need for an institution context study of family firms to have more clarity on PA and PP agency conflicts. (Bhagat, McDevitt & McDevitt, 2011; Liu et al., 2012; Peng & Jiang, 2010) India has a less advanced capital market; a not so mature takeover market and a less developed managerial market. Prospects for institutional activism in Indian companies are limited given their

block holdings. (Sarkar, 2012) Their ability to act as counterbalancing force against promoters influence on Indian firms is constrained. This study fills in the gap in literature as it takes into account the institutional context of Indian firms. Impact of family involvement on firm performance suffers from gaps due to inconsistent results. (Filatotchev, Lien &Piesse, 2005) These inconsistencies may indicate that the relationship is more complex and involves variables that moderate or mediate this effect. We contribute to the literature by evaluating the relationship between firm ownership and firm value by accounting for the possible moderating effect of the presence of a family CEO in family firms with concentrated family ownership. Most of the studies that analyse ownership structure and firm performance carried out in India do not consider the endogeneity problem. (Sarkar and Sarkar, 2012) We test for the endogeneity issue using GMM technique. (Arellano and Bond, 1991) Besides, we concentrate on family firms which have the ability to influence the firm's managerial decisions, family firms with concentrated ownership levels or family leadership.

We find that family ownership has a nonlinear relationship with firm value. We show that family CEO has a negative moderating on the relationship between family ownership and firm value. We find that even firms in the alignment level of family shareholding suffer from this negative moderation effect. Family CEO has disproportionate power in case of family firms which is derived from her family connections. This could enhance the power of family firms with family CEO to expropriate the minority shareholders. We find that stock market disciplines the family firms with family CEO by discounting the value of such firms.

This rest of the study is organised in four sections. Section 1 presents the theoretical and empirical evidence on family ownership and firm performance. This section also presents the theory and the results of earlier studies that analyse the moderating effect of family CEO on the relationship between family ownership and firm value. Section 2 elaborates the methodology adopted. Section 3 presents the results. Section 4 provides the conclusions and implications of the study.

1 Family ownership and firm performance: theory and empirical evidence

We look at the association between firm value and family ownership and family CEO applying the agency theory.

Ownership concentration can restrict agency problem and improve firm performance. Efficient monitoring hypothesis suggests that ownership concentration motivates large shareholders to play an active role in monitoring management as they have both the incentive and ability. Large shareholders

participate in corporate decisions and profit from their close monitoring efforts. (Grossman & Hart, 1986) Close monitoring of management may adopt a range of approaches from informal negotiations with management to formal proxy contests. (Shleifer and Vishny, 1997) Large shareholders may also pave way for third party takeovers by sharing the advantages of their holding with the bidder. Ownership concentration has the potential to evoke conflict of interest between controlling shareholders and minority shareholders. Shareholders with high levels of ownership concentration have the ability to expropriate the minority shareholders. This is coined as the expropriation of minority shareholders hypothesis. Large shareholders focus on their personal interests at the cost of minority shareholders of the firm. This is possible for the shareholders who have controlling interests on the firm through cross shareholdings, pyramidal structures of control even if they don't possess cash flow rights. (Claessens et al., 2000; La Porta et al., 1999) Divergence of cash flow rights and control rights encourages the persistent problems of expropriation by shareholders with control rights. (See for example, Dennis &McConnel, 2003) Tunnelling of resources from the firm may take place to profit controlling shareholders. (Johnson et al., 2000) Thus, theory does not offer any concrete suggestion on how ownership concentration and firm performance are associated.

Ownership concentration in the context of family firms is also studied in this paper. Family owners concentrate on long-run survival of the firm to enable wealth transfer to the subsequent generations. (Lee, 2006) This long term perspective of the family owners motivate them to adopt the most appropriate value maximizing criteria in investment evaluations that benefit the non-family minority shareholders as well. (James, 1999; McVey and Draho, 2005) Long term association of family owners mitigates the short run myopic behaviour of manages and enhances firm performance. (Anderson &Reeb, 2003) Survival concern and absence of diversification of ownership interests of family owners reduces the agency costs between bondholders and shareholders proposed by Jensen and Meckling (1976). (Anderson, Mansi &Reeb, 2003) Wang (2006) argue that the persistent presence of family improves earnings quality of the firm.

In addition to the survival concern, family owners are equally anxious about the reputation. Reputation concern of family restricts the self-serving behaviour of managers. (Denis & Denis, 1994) Reputational concern of family firms can apply pressure on the self-serving behaviour of managers and also help maintain the long-term association with other stakeholders of the firm. (McVey and Draho, 2005) Wang (2006) argues that the reputational anxiety of family firms explain the positive impact of founding family ownership and earnings quality in US corporations.

However, the ability of the family owners with highly concentrated ownership may impact the firm value negatively.

Empirical works find both a positive (Carney &Gedajlovic, 2002) and negative (Claessens et al., 2002) association between family ownership and firm performance. Recent works bring out a nonlinear relationship between the family ownership and firm performance. (Anderson &Reeb, 2003, Claessens et al., 2002; Thomsen & Pedersen, 2000) When the family ownership is at lower levels, the family owners expropriate the minority shareholders through the controlling rights. With increases in the ownership, family owners motivate managers to achieve enhanced firm value. They contribute technical knowledge and other relevant resources for value maximization. At very high levels of ownership concentration, family owners exploit the firm to generate private benefits at the cost of non-family owners. (Claessens et al., 2000) This results in the reduction of firm value. (Fama& Jensen, 1983) Cronqvist and Nilsson (2003) argue that at higher levels of ownership, family owners may take investment decisions that could diminish the firm's market value. Family owners' efforts to enhance their control over the firm may also expropriate non-family minority shareholders, which could have a negative impact on the market value of the firm. (Miller and Le Breton-Miller, 2006) Self-serving and value maximizing behaviour of family owners is greatly affected by the presence of family members in the top management of the firm.

1.1 Moderating effect of family CEO

Family firms tend to have family CEOs. According to Anderson and Reeb (2003), 44.97% of Standard & Poor's 500 firms have family CEOs. Peng and Jiang (2010) show that 83% of East Asian companies have family CEO. Principal-Agent (PA) theory view of agency theory argues that the appointment of an outside CEO may give rise to conflicts of interests between owners and managers which may impact the firm performance negatively. (Anderson &Reeb, 2003; Jensen &Meckling, 1976) Family CEO may eliminate this conflict and enhance the firm performance. (Liu et al., 2012) To avert the possible conflict of interests, family owners tend to avoid non-family members in top managerial positions. (Westhead and Howorth, 2006) They want to be in charge of decision making. (Ward, 1987) This can avert the negative impact on the financial performance of the firm that can arise due to agency problems. (Chua, Chrisman & Sharma, 2003) Alignment of managerial goals and ownership goals is the result of the family connection of the family CEO (Block, 2010); his dependability as argued by stewardship theory. (Dalton, Daily, Ellstrand & Johnson, 1998) Principal-Principal (PP) view of agency theory puts forth that family CEOs may impact firm performance negatively because of the expropriation of minority

shareholders' by majority family owners. (See for example Dharwadkar, George & Brandes, 2000) This gives room for PP-conflicts. (Carney 1998; Claessens, Djankov& Lang, 2000) In family firms, the PP-conflict gets severe with family CEOs rather than outside professional CEOs. This could lead to inferior firm performance. (Fama& Jensen, 1983; Lemmon &Lins, 2003) The two perspectives of agency theory make contradicting suggestions on the impact of family CEO on firm performance. Family CEO reduces PA costs but increases PP costs. Research works do not offer conclusive evidence on the impact of family CEO on firm performance. (See for example, Chung & Chan, 2012) While some works show that family CEO enhances firm performance (Anderson &Reeb, 2003; Villalonga & Amit, 2006), others find a negative association between family CEO and firm performance. (Barth, Gulbrandsen & Schonea, 2005; Peng & Jiang, 2010)

Ownership concentration is the reason for PA and PP conflicts. (Jensen &Meckling, 1976; Shleifer&Vishny, 1997; Young et al., 2008) That ownership structure can play a crucial role in defining the severity of PA conflicts (See for example, Jensen &Meckling, 1976) and PP conflicts. (Lemmon &Lins, 2003; Shleifer&Vishny, 1997) According to Shleifer and Vishny (1997), two factors that could protect the investors are the regulatory system and ownership concentration. One of these factors can compensate the absence of the other. (Ding, Zhang & Zhang, 2007; Young et al., 2008) Firm-specific differences in ownership structure will result in varying effects on firm performance because of its impact on PA and PP conflicts. However, the presence of a family CEO may enhance or mitigate this agency problem. Ability of the family owners to impact firm performance through implementing value enhancing strategies or the ability to expropriate the non-family shareholders and work towards self-interest enhancing strategies depends on if the firm has a family CEO who can collaborate with the family owners. From PA and PP viewpoints, the impact of family ownership on firm value may be moderated by the presence of family CEO.

That family CEO could interact with family ownership is put forth by earlier works. (See for example Jiang and Peng, 2011) Jiang and Peng (2011) do not find any significant association between family ownership and firm performance. However, their extensive analysis brought out that the interactive effect of family CEO with family ownership moderates the relationship between family ownership and firm performance in case of Indonesia and Taiwan. They find a negative moderating effect in case of Hong Kong.

Our study analyses the impact of family ownership on firm value for firms with either high ownership concentration or family control that could impact the managerial decisions. Hence, we strongly believe that the presence of a family CEO in such a

context could moderate the relationship between family ownership and firm value. Earlier studies that analyse the relationship between family ownership and firm value accounting for the possible moderating effect of family CEO on family ownership are extremely scanty. None of the earlier studies carried out in India focus on the family firms with concentrated ownership controlling for the interactive effect of family CEO. Hence, we analyse this aspect.

2 Methodology

2.1 Definition of family firm

Defining family firm should take into account the possible differences in the cash flow rights and control rights of owners due to pyramiding and cross-holdings. Measuring insiders' shareholding based on cash flow rights alone could lead to wrong interpretations. Studies try to trace direct and indirect equity interest by means of equity chains. (See for example Lins, 2003)

Indian data eliminates this problem. In India, shareholding disclosure by the listed firms is made as per the stipulation in Clause 40A of the Listing Agreement. Major block holders are classified into two major classes: promoters and non-promoters. Shareholdings by promoter groups include the holdings by promoters as well as by the persons acting in concert. Thus, promoter shareholding accounts for the holdings by the entities controlled by them. Definition of promoters' shareholding in India is grounded on the notion of control and not just on cash flow rights.

Family firms have different levels of family ownership and family control. Previous works have adopted different measures based on ownership and control for defining a family firm. (Astrachan, Klein &Srnyrnois, 2002) The broad parameters along which a firm gets classified as a family firm are

a. family is the major shareholder of the firm (Barontini&Caprio, 2006);

b. family members serve on the board of directors of the firm (Rutherford et al., 2008);

c. firm is led by a family member (McConaughy et al., 2001);

d. evidence of generational transfer of control is evident (Chrisman et al., 2004).

Most researchers use a combination of these factors to define a family firm. (Anderson &Reeb, 2003; Andres, 2008; Arosa et al., 2010) We also define the family firm on the basis of ownership and control. As per the provisions of Companies Act, 1956 of India, a shareholder with a stake of 26% can influence the management of the firm by stalling special resolutions. Hence, in addition to considering the 51% required for a simple majority, we also include firms with 26% or more.

We define a family firm based on the following criteria. Firms that fulfil anyone of the following criteria from this list are included in the sample studied to arrive at the conclusions of this analysis.

1. Firms with median family shareholding equal to or above a simple majority of 51% which is sufficient to pass ordinary resolutions which cover most of business decisions.

2. Firms with a family CEO.

3. Firms with median family shareholding between 26% and 50.99% with a board that has one third of directors from the family. Corporate governance regulations in India stipulate that if the board is led by a non-executive non-promoter chairman, at least one-third of the board should comprise of independent directors. We believe that if the board consists of equal number of promoter directors could influence board decisions.

4. Firms with median family shareholding between 26% and 50.99% with at least one family executive director on the board.

From now on, family firms in our study would mean family firms with concentrated family ownership high enough to influence the managerial decisions of the firm or family firms with family CEO.

2.2 Hypotheses

Based on the discussion in the previous section we derive the following hypotheses for our study.

1. Family ownership is a non-monotonic function of firm value. We expect the relationship to follow entrenchment-alignment-entrenchment pattern.

We expect the power of family owners to impact firm value is affected by the presence of a family CEO. However, the impact of the presence of a family CEO on family ownership will be a function of the level of family ownership concentration.

2. Family CEO will affect the relationship between ownership level and firm value. At the entrenchment levels of family ownership the presence of a family CEO could negatively affect the firm value while the impact could be positive at the alignment level.

2.3 Sample and variables definition

We study 288 firms. These are domestic private companies included in the NSE CNX 500 index belonging to non-financial services industry with data available on study variables during the study period, 2009-2014. The index covers stocks representing around 96.42% of free market capitalization of the listed stocks as of June 2014. The index represents top 500 companies listed on India's leading stock exchange. Data for the study is extracted from Prowess, database offered by Centre for Monitoring Indian Economy. Sample firms belong to 17 industries. Industry classification of sample firms is given in table 1.

Table 1. Sample firms according to industry classification

Industry	Number of firms
Automobile	23
Cement & cement products	9
Chemicals	11
Construction	33
Consumer goods	45
Energy	12
Fertilisers & pesticides	6
Healthcare services	3
Industrial manufacturing	29
Information technology	25
Media & entertainment	12
Metals	21
Paper	2
Pharmaceuticals	22
Services	13
Telecommunications	6
Textiles	14

We use a market based measure to analyse the impact of family ownership on firm value. We prefer the market based measure as it is the result of the consensus of a large number of independent investors on the firm value. It is likely to be better than any accounting measure affected by the accounting policies of the firm. Like some of the earlier works, we use market-to-book ratio as the measure of firm value. (Claessens et al., 2002) Market value is arrived at by adding the market value of common stock to the book value of debt and preferred stock. The denominator of the ratio, book value, is the book value of assets.

Family ownership is measured as the fraction of total shares held by promoters.

Family CEO is a dummy variable. It takes the value of 1 if the firm has a family CEO, otherwise 0.

Board size is the number of directors on the board in logarithmic form.

Family executive directors on the board represented as a ratio to the board size.

Institutional shareholding is measured as the fraction of total shares held by institutional investors.

Firm size is the log of total assets.

Debt is long-term debt divided by total assets.

Age measures the number of years since the firm is incorporated and is included in logarithmic form.

Risk is measured by the systematic risk.

Summary statistics for the sample firms are presented in table 2.

3 Results

We estimate the following model initially.

$$MTB = \alpha_0 + \alpha_1 FS + \alpha_2 FS^2 + \alpha_3 FS^3 + \alpha_4 FCEO + \alpha_5 BRD + \alpha_6 FE + \alpha_7 ISH + \alpha_8 SIZE + \alpha_9 DEBT + \alpha_{10} LAGE + \alpha_{11} RISK + \varepsilon \tag{1}$$

The OLS regression brings out a cubic association between family ownership concentration and firm value. This suggests an 'entrenchment-alignment-entrenchment' relationship between these two variables. At a lower level of family ownership below 28.14%, and at a very high level of family ownership above 85.25%, we find a negative relationship between family ownership and firm value. Family ownership between 28.14% and 85.25%, family ownership has a positive relationship with firm value. Figure 1 depicts the relationship between family ownership and firm value.

Table 2. Summary Statistics

	N	Mean	Standard Deviation	Max	Min
Market capitalization (in crores rupees)	1686	81,849.42	260,970.22	3,513,200.00	326.78
Family shareholding	1701	0.5072	0.1555	0.8996	0.0200
Board size	1701	9.64	2.72	20.00	2.00
Family executives	1701	1.44	1.27	6.00	0.00
Institutional shareholding	1701	0.2231	0.1330	0.7541	0.0001
Total assets (in crores rupees)	1701	6,718.21	18,751.79	318,611.00	107.85
Debt (in crores rupees)	1701	1,830.43	4,856.88	73,904.48	0.00
Firm age	1701	35.79	25.18	150.00	1.00
Risk	1645	1.07	0.34	2.23	0.311

Correlation (Pearson) between dependent variable, test variables and control variables

Variable	MTB	FS	FCEO	BRD	PE	ISH	SIZE	DEBT	AGE	BETA
MTB	1									
FS	.258***	1								
FCEO	-.096***	-.004	1							
BRD	.049**	-.053**	.065***	1						
FE	.026	.042	.274***	-.158***	1					
ISH	.083**	-.509**	.010	.131***	-.048**	1				
SIZE	-.072***	-.038	.040	.284***	-.081***	.350***	1			
DEBT	-.347***	-.059**	.119***	.098***	-.028	-.095***	.226***	1		
AGE	-.109***	-.159***	-.044	.162***	-.019	.118***	.102***	-.002	1	
RISK	-.409***	-.111***	.054**	-.056**	-.018	-.076***	.163***	.227***	-.039	1

*** Significant at 0.01 level (2-tailed)
** Significant at 0.05 level (2-tailed)

Results of t-test and Descriptive Statistics for firm characteristics by CEO category

Variable	Family CEO firm-year observations			Non-family CEO firm-year observations			95% CI for Mean Difference	t	df
	Mean	Standard deviation	N	Mean	Standard deviation	N			
Market capitalization (in crores rupees)	69,883.83	219,113.68	1120	105,526.93	327,381.49	566	-65554.78, -5731.42	-2.34***	828
Family shareholding	0.5068	0.1553	1126	0.5080	0.1561	575	-0.0169, 0.0144	-0.15	1699
Board size	9.78	2.84	1126	9.36	2.45	575	.1646, .6856	3.20***	1317
Family executives	1.69	1.21	1126	0.95	1.24	575	0.6107, 0.8562	11.72***	1699
Institutional shareholding	1.69	1.21	1126	0.95	1.24	575	-0.0106, 0.0162	0.41	1699
Total assets	6,421.61	20,510.77	1126	7,299.04	14,709.68	575	-2576.0690, 821.2172	-1.01	1517
Debt	1,837.37	5,082.45	1126	1,816.85	4,385.88	575	-467.8970, 508.9376	0.08	1699
Firm age	33.75	21.99	1126	39.77	30.12	575	-8.8020, -3.2415	-4.25***	895
Risk	1.08	0.35	1080	1.04	0.31	565	.01679, .00575	2.30**	1297

MTB = Market-to-Book ratio calculated as the ratio of market value of equity plus book value of debt and book value of preferred stock to book value of total assets
FS = Family shareholding as the proportion of total shares
FCEO = dummy variable equal to 1 if the firm has the family CEO, otherwise 0
BRD = Natural logarithm of number of directors on the board
FE = Family executives as the proportion of total number of directors on board
ISH = Institutional shareholding as the proportion of total shares
SIZE = Natural logarithm of total assets
DEBT = Total debt divided by total assets
AGE = Firm age in logarithmic form
RISK = Systematic risk of the firm

Table 3. Multivariate regression results

Independent variables	B	SE(B)	β	t	Sig.(p)
Intercept	3.708	0.517		7.175	0.001
FS	-10.991	2.825	-1.255	-3.891	0.001
FS^2	25.975	6.107	3.022	4.254	0.001
FS^3	-15.271	4.135	-1.503	-3.693	0.001
FCEO	-0.254	0.060	-0.090	-4.203	0.001
BRD	0.979	0.237	0.089	4.129	0.001
FE	0.461	0.203	0.048	2.270	0.023
ISH	1.882	0.271	0.186	6.944	0.001
SIZE	-0.024	0.067	-0.010	-0.357	0.721
DEBT	-1.541	0.171	-0.208	-8.991	0.001
AGE	-0.384	0.105	-0.081	-3.674	0.001
RISK	-1.160	0.089	-0.293	-13.022	0.001
Inflection points	0.2814				
	0.8525				

R^2=0.390, F (30, 34.388, p=0.001)

Dependent variable: Market-to-book ratio

All variables are defined in Table 2

Additionally year dummies and industry dummies are included in the model, the results of which are not reported here for the sake of brevity.

Figure 1. Family ownership and firm value
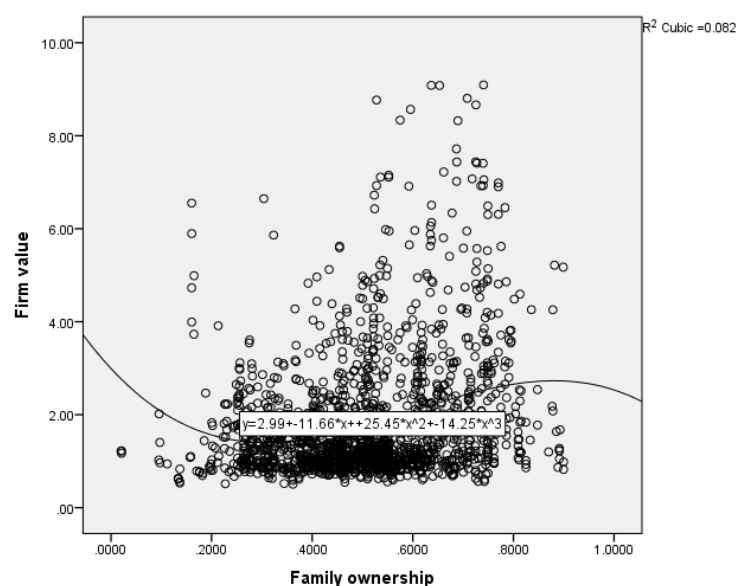
That family ownership and firm value have a curvilinear relationship is brought out by many of the earlier works. (See for example, McConnell & Servaes, 1990; Morck, Shleifer&Vishny, 1988) However, our finding of an 'entrenchment-alignment-entrenchment' relationship contradicts the findings of some of the previous works. (See for example, Morck, et al., 1988) These studies bring out an alignment-entrenchment-alignment relationship. Fan and Wong (2002) argue that findings from US and UK data do not apply to East Asian data. Studies carried out by Cheng et al. (2012) and Ng (2005) on Hong Kong data produce results similar to our findings. Our study findings also contradict the results of some of the studies carried out on India. (See for example, Deb & Chartuvedula, 2004; Pant & Pattanayak, 2007) These studies find an increasing-decreasing-increasing relationship between insider ownership and firm value. Deb and Charuvedula (2004) show that insider ownership of 30% or less increases firm value. Insider ownership of 30% to 60% decreases firm value. Insider ownership above 60% increases firm value. Pant and Pattanayak (2007) find that ownership stake at less than 20% increases firm value. Ownership by insiders at 20% to 49% has a positive relationship with firm value. However, we find a decreasing-increasing-decreasing association between family ownership and firm value. The seemingly

contradictory results are due to the ownership concentration levels of the family firms we study. Our sample consists of only family firms, firms that have a minimum family ownership stake of 51%, firms with 26% family ownership that have family executives or family members on the board or firms that have a family CEO if the family ownership is less than 26%. Our findings only relate to family firms with family ownership concentration or family control. Hence, our results differ from the results of the earlier studies which include all firms. Our finding that families that have high ownership decrease the firm value is in line with the suggestions made by Anderson and Reeb. (2003) They argue that families that have very high level of control on the firm could suffer from entrenchment and poor performance. We find that

Family CEO has a negative association with firm value. Both the governance variables included in the model, board size and the family executives on the board, are found to be significant. Both the variables have a positive relationship with firm value. Larger the board size and higher the proportion of family executives on the board, higher is the firm value. Institutional shareholding positively affects the firm value. Firm size is not significant in explaining the firm value differences. Level of debt employed, firm risk and firm age are all found to have a negative impact on firm value. Since family ownership does not have a uniform impact on firm value at all levels, we further explore the sample to find out the distribution of the top family firms across different family ownership stake levels.

Table 4. Distribution of firm-year observation across different ownership concentration levels

Family ownership	Number of firm-year observations	Percentage of total firm-year observations in each ownership concentration level	Number of firm year observations with family CEO	Percentage of firm-year observations with family CEO	Number of firm year observation with professional CEO	Percentage of firm year observation with professional CEO	Ownership effect
≤ 28.14%	143	8.41	86	7.64	57	9.91	Entrenchment
28.15% to 85.25%	1543	90.71	1028	91.30	515	89.56	Alignment
85.25% and above	15	0.88	12	1.06	3	0.52	Entrenchment
Total	1701	100	1126	100	575	100	

Table 4 groups family ownership in terms of its impact on firm value. We find that about 91% of the family firms are in the alignment range and only around 9% of the family firms are in the entrenchment range. This shows that family ownership is helpful in value enhancement in a majority of the top Indian family firms. However, we find that around 91% of the firms in this range have a family member as the CEO. In fact, we find that firms across all the family

ownership stake levels appoint family CEO. Around 66% of firm-year observations have a family CEO. Since, the basic model suggests that family CEO has a negative relationship with firm value, we would like to analyse if appointment of a family CEO by firms in the entrenchment level and in the alignment level have varying effects on firm value. We explore the moderation effect of family CEO on the relationship between family ownership and firm value.
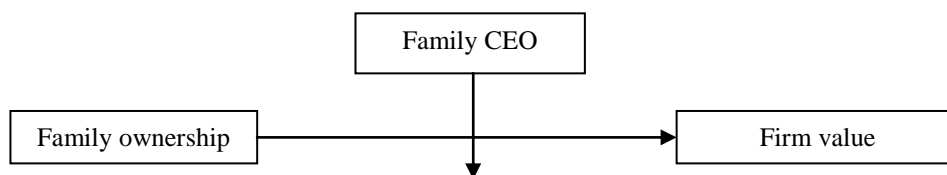
We test the following model to analyse the moderation effect of family CEO on the relationship between family ownership and firm value.

$$MTB = \alpha_0 + \alpha_1 FSA + \alpha_2 FSB + \alpha_3 FSC + \alpha_4 FCEO + \alpha_5 FSA \times FCEO + \alpha_6 FSB \times FCEO + \alpha_7 FSC \times FCEO + \alpha_8 BRD + \alpha_9 PE + \alpha_{10} ISH + \alpha_{11} SIZE + \alpha_{12} DEBT + \alpha_{13} AGE + \alpha_{14} RISK + \varepsilon \quad (2)$$

Family ownership is grouped into three levels on the basis of its impact on firm value as found out by the results of model 1.

$FSA = FS$ if $FS \le 0.2814$
$\quad = 0.2814$ if $FS > 0.2814$
$FSB = 0$ if $FS \le 0.2814$
$\quad = FS - 0.2814$ % if $0.2814 < FS \le 0.8525$
$\quad = 0.5711 (0.8525 - 0.2814)$ if $FS > 0.8525$

$FSC = 0$ if $FS \le 0.8525$
$\quad = FS - 0.8525$ if $FS > 0.8525$

We study the interactive effect of FCEO and family ownership at each of the ownership stake level. Table 5 presents the results of the hierarchical regression that tests for the moderation effect of family CEO and family ownership.

Table 5. Moderated Regression Analysis Results

Independent Variables	B	SE(B)	β	t	Sig.(p)
Step 1: Control variables					
Intercept	3.586	0.301		11.917	0.001
BRD	0.828	0.250	0.076	3.317	0.001
PE	0.522	0.204	0.054	2.562	0.010
SIZE	-0.013	0.066	-0.005	-0.200	0.841
DEBT	-2.119	0.165	-0.287	-12.831	0.001
AGE	-0.608	0.103	-0.127	-5.886	0.001
RISK	-1.391	0.088	-0.351	-15.817	0.001
R^2	0.258				
F	94.929				
Step 2: Main effects					
Intercept	3.173	0.295		10.749	0.001
FSA	-0.077	0.029	-0.058	-2.621	0.009
FSB	0.323	0.032	0.237	10.207	0.001
FSC	-0.089	0.037	-0.052	-2.399	0.017
BRD	0.852	0.243	0.078	3.512	0.000
PE	0.542	0.203	0.056	2.665	0.008
SIZE	-0.010	0.072	-0.004	-0.144	0.886
DEBT	-2.049	0.160	-0.277	-12.772	0.000
AGE	-0.401	0.103	-0.084	-3.909	0.000
RISK	-1.295	0.086	-0.327	-15.011	0.000
ΔR^2	0.045				
ΔF	34.992				0.001
Step 3: Moderator					
Intercept	3.184	0.295		10.803	0.001
FSA	-0.075	0.029	-0.056	-2.561	0.011
FSB	0.320	0.032	0.235	10.123	0.001
FSC	-0.086	0.037	-0.050	-2.308	0.021
FCEO	-0.165	0.062	-0.058	-2.666	0.008
BRD	0.920	0.244	0.084	3.776	0.001
PE	0.449	0.212	0.046	2.116	0.034
SIZE	-0.019	0.073	-0.007	-0.265	0.791
DEBT	-2.000	0.161	-0.270	-12.409	0.001
AGE	-0.417	0.103	-0.088	-4.064	0.001
RISK	-1.289	0.086	-0.325	-14.954	0.001
ΔR^2	0.003				
ΔF	7.110				.008
Step 4: Interaction					
Intercept	3.197	0.295		10.854	0.001
FSA	0.045	0.057	0.034	0.794	0.427
FSB	0.405	0.052	0.297	7.749	0.001
FSC	-0.142	0.183	-0.083	-0.777	0.437
FCEO	-0.165	0.065	-0.058	-2.543	0.011
FSA × FCEO	-0.160	0.066	-0.103	-2.416	0.016
FSB × FCEO	-0.142	0.064	-0.084	-2.209	0.027
FSC × FCEO	0.075	0.186	0.043	0.402	0.688
BRD	0.965	0.243	0.088	3.965	0.001
PE	0.474	0.212	0.049	2.241	0.025
SIZE	0.073	0.055	0.030	1.343	0.179
DEBT	-1.958	0.162	-0.265	-12.099	0.001
AGE	-0.430	0.102	-0.090	-4.199	0.001
RISK	-1.281	0.086	-0.323	-14.876	0.001
ΔR^2	.007				
ΔF	5.409				.001

Note: FSA, FSB and FSC are centred at their means

FSA = FS if FS ≤ 0.2814
     = 0.2814 if FS > 0.2814
FSB = 0 if FS ≤ 0.2814
     = FS – 0.2814 % if 0.2814< FS ≤ 0.8525
     = 0.5711 (0.8525 - 0.2814) if FS > 0.8525
FSC = 0 if FS ≤ 0.8525
     = FS – 0.8525 if FS > 0.8525
All other variables as defined in Table 2

We have centred the family ownership variables around their mean before testing for the interaction effect. Moderation analysis shows that family CEO moderates the relationship between family shareholding and firm value, in case the family stake is less than 85.25. Family CEO does not have interaction effect on family shareholding above 85.25%. If the family has a shareholding of less than 28.14%, the interactive effect of family CEO on family ownership is found to be negative. When the interactive effect of family CEO and family ownership is controlled, the family ownership is no longer significant. This implies that family firms that appoint a family member as CEO will see value diminish when the family shareholding is 28.14% or less. For family firms that appoint a non-family member CEO, there will be no association between family shareholding and firm value at this range. Family firms that have a family shareholding of 28.15% to 85.25%, also suffer from the negative interactive effect of family CEO on family ownership. For firms with a non-family CEO, we find a positive association between family ownership and firm value at this range. However, for firms with a family CEO, we find a negative interactive effect of family CEO impacting the relationship between family ownership and firm value. Family CEO does not moderate the relationship between family shareholding and firm value if the family shareholding is above 85.25%. However, if the interaction effect is controlled, we find that the family shareholding at this level no longer found to have a significant impact on firm value. Our finding that family CEO in a family firm can have a negative impact on firm value is also brought out by some of the earlier works. (See for example, Westhead & Howorth, 2006)

Figure 2 depicts the slopes of regression lines of family ownership on firm value with family CEO and non-family CEO for firms for different ranges of family stake.

Figure 2. Interaction Effect of Family CEO on the Relationship between Family Ownership and Firm Value
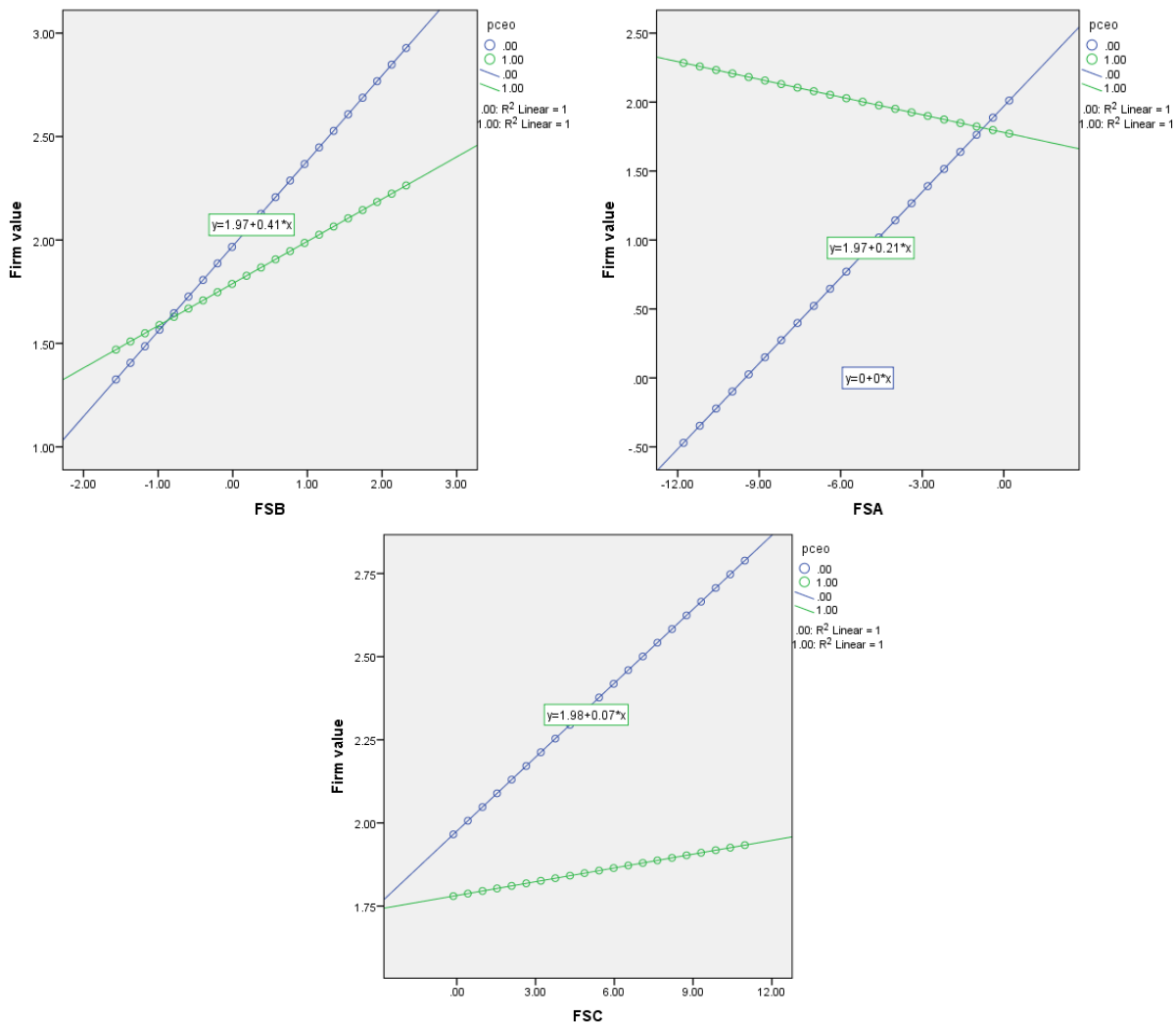
3.1 Endogeneity issue

All the results presented in the previous section assume that family ownership is exogenously determined. In case it is endogenously determined, the above models suffer from misspecification. Demsetz (1983) argues that the inconsistencies in the results of the empirical works that analyse the

relationship between firm ownership and firm performance can be attributed to the fact that they do not control for the endogeneity of the independent variables and also for the endogeneity for the fixed effects. This can produce spurious results. According to Demsetz and Lehh (1985), ownership and firm value are decided together. La Porta et al. (1999) argue that large Asian firms do not alter ownership

structures in response to valuations as it does not change with time. Hence, the problem of endogeneity does not arise. However, to rule out this issue, we run simultaneous equations applying generalized method of moments method. This methodology checks for both the endogeneity issues.

Equations estimated are:

$$MTB = a_0 MTB\,(-1) + a_1 FS + a_2 FCEO + a_3 SIZE + a_4 DEBT + a_5 AGE + a_6 RISK + \varepsilon$$
$$FS = b_0 FS\,(-1) + b_1 MTB + b_2 FCEO + b_3 ISH + b_4 SIZE + b_5 DEBT + b_6 AGE + \varepsilon \tag{3}$$

The results are presented in table 6. The results show that our analysis does not suffer from the problem of endogeneity. Results show that family

ownership impact firm value while the opposite is not found to be significant.

Table 6. Results of Simultaneous Equations Regression using Generalized Method of Moments

Dependent variable	MTB			FS		
Independent variable	Coefficient	t-statistic	p-value	Coefficient	t-statistic	p-value
MTB(-1)	-0.1535	-2.0655	0.0391			
FS(-1)				-0.0592	-0.1533	0.8781
MTB				-0.0007	-0.1210	0.9036
FS	-7.5661	-2.1226	0.0340			
FCEO	4.1875	0.2698	0.7873	0.4373	0.7549	0.4504
ISH				-0.2758	-1.8761	0.0609
SIZE	2.8590	0.6685	0.5039	0.1297	1.1726	0.2412
DEBT	3.4864	1.1740	0.2406	0.0239	0.2462	0.8055
LAGE	-14.5095	-0.9660	0.3342	-0.3634	-1.0899	0.2760
BETA	12.5943	4.5952	0.0000			
Sargan test	10.0786			2.7271		
m1	1.6484*			0.2044		
m2	0.2469			-0.0871		

4 Conclusions and implications

We show that the nature of relationship between family ownership and firm value is affected by the level of family shareholding. Family ownership has entrenchment-alignment-entrenchment relationship with firm value. At lower levels of family shareholding of 28.14% or less and at higher levels of 85.25% and above, family ownership has a negative effect on firm value. Family shareholding in the range of 28.14% and 85.25% has a positive relationship with firm value. In the basic model, we find that appointment of a family CEO by family firms decreases the firm value. Governance variables studied, board size and the proportion of family executives on the board are found to enhance firm value. Debt, risk and firm age are found to have an inverse relationship with firm value. We find that family CEO moderates the relationship between family shareholding and firm value in case of firms with a family stake of less than 85.25%. The interactive effect of family CEO on the relationship between family ownership and firm value is found to be negative in both the cases. Relationship between family ownership and firm value is not moderated by family CEO if the family shareholding exceeds

85.25%. When the interaction effect is controlled, the family shareholding at the lower entrenchment level is no longer significant in explaining firm value differences. Though not statistically significant, the moderation effect at higher family shareholding in excess of 85.25% is also negative. When the interactive term is included the relationship between family shareholding exceeding 85.25% and firm value turns out to be statistically insignificant.

Our study offers important implications for the corporate governance of top Indian family firms. Appointment of a family member as CEO has a negative moderating impact on the relationship between family ownership and firm value at all levels. Family shareholding at lower levels of less than 28.14% and at higher levels exceeding 85.25% has no effect on firm value, when these firms do not have a family CEO. But, firms belonging to theses ranges of family shareholding suffer value decrease if they appoint family CEO. Most important finding is that the family firms with family shareholding ranging from 28.14% to 85.25% has a positive effect on firm value. We find around 91% of our top family firms studied fall into this category. However, these firms face value decrease in case they appoint a family CEO. In conclusion, Indian family firms suffer from

value reduction when they appoint a family CEO. This finding assumes importance if viewed from the fact that family firms tend to appoint a family CEO when they have controlling shareholding rights. Around 67% of the firms in this category and across all categories of ownership level have a family CEO. Family firms appoint family CEO in order to avoid the possible agency conflicts that could arise in case of a non-family CEO controlling the decision making process. However, such a strategy will destroy value in case of Indian family firms. Probably Indian investors, see appointment of a family CEO as a wealth expropriation strategy by family firms irrespective of the family ownership stake in the firm. Family CEO gets power that is disproportionate to her shareholding. This power is derived from her family connection, due to her position as the head of the firm. This can help the family firms with family CEO to expropriate wealth from non-family shareholders. This gives rise to PP conflict in family firms. India has a weak institutional framework which is not very effective in regulating the family firms. Hence, stock market disciplines the family firms by discounting the market value of family firms with family CEO.

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