FAMILY OWNERSHIP CONCENTRATION AND FIRM PERFORMANCE: ARE SHAREHOLDERS REALLY BETTER OFF?

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INTRODUCTION

- The share of **family firms' contribution to global GDP** is estimated to be in the range of 70 to 90% (Elstrodt and Poullet, 2014).

- Prior research (Morck et al. (1988a) and Stulz (1988)) suggests that **two opposing forces** affect the dynamics between managerial equity ownership and firm performance:

  - An increase in family holdings aligns the interests of management with that of shareholders, thus encouraging owner-managers to pursue corporate investment and financial policies **promoting stockholder wealth maximization.**

  - At higher levels of family involvement, majority shareholders can expropriate wealth from minority shareholders by capturing the value of benefits arising out of access to information in related businesses and the ability to fix transfer prices between the company and its suppliers and customers (Shleifer and Vishny, 1997). Anticipating this, outside shareholders demand **a discount on family-controlled stock price**.

INTRODUCTION

- Moreover, at high levels of family shareholding, **trading liquidity in family firm stocks is low** and other shareholders (including institutional shareholders) may lack the incentive to monitor (Maug, 1998). Outside investors may expect a **risk premium for illiquidity** of the stock and opacity of the firm.

Hypothesis Development

- Literature on family business indicates that, in general, **public family firms tend to outperform** private family firms as well as public non-family counterparts.

- Indian family business is distinguished by an **unusually high average level of equity ownership** and management, close to 50%, as compared to about 18% in the U.S., 38% in Europe and 6% in Japan.

- We contend that the unusually high family holdings in Indian firms strengthens **private benefit seeking** by entrenched owner-managers, leading them to pay more attention to the well-being of family members and relatives rather than that of minority outside shareholders.

- This argument prompts us to formulate and **test a family entrenchment hypothesis**: *Indian family firms perform no better than their non-family counterparts, reflecting the dominance of entrenchment due to high family ownership and involvement over alignment of interest with minority shareholders.*

EXISTING LITERATURE

- Recent papers on U.S. family firm performance use an **accounting measure** of profitability (return on assets) and market performance (Tobin's Q) and conclude that **family firms perform better** than non-family firms (e.g. Anderson and Reeb, 2003a).

- They also find that when family members serve as CEO, performance is better than with outside CEOs.

- Villalonga and Raphael (2006a) find that value is created only when the founder serves as the CEO or as chairman with an outside CEO.

- Miller et al. (2007) find that the results are sensitive to the definition of family firm and the sample chosen.

- Similar results have been reported for European countries (Sraerand Thesmar, 2007; Thomsen and Pedersen, 2000; Barontini and Capiro, 2006a; Andres, 2008) and Japan (Mehrotra et al., 2013).**The results from emerging markets are mixed** (Khanna and Yafeh, 2007).

METHODOLOGY

- The final sample consisted of 771 firms listed on the National Stock Exchange (NSE) during 2001-2010.

- We obtained the **annual data** on firm characteristics, ownership, governance and accounting performance from Capital Market's CAPITALINE database and stock market data from the National Stock Exchange website.

- To test the hypothesis, we focus on the impact of **family ownership on** the **stock market performance** of public family firms.

- Using Cumulative Abnormal Returns (CAR, defined as stock return of the firm less the market index return), Buy-and-Hold Abnormal Returns (BHAR, measured in excess of the market index return) and Fama-French (four factor) risk-adjusted returns as performance metrics, we study the performance of 552 family-owned and 219 non-family firms over ten years during 2001 to 2010 (7710 firm-years).

CONTRIBUTION TO LITERATURE

- It focuses on the particular nuances of an emerging market such as India that have not been addressed before.

- It studies how factors unique to family firms such as ownership, governance, management succession, and these influence strategy, structure, goals and the manner in which each is formulated, designed and implemented, by studying how each of these factors affects the stock market performance of family firms.

- The empirical strategy of testing the impact of family ownership on firm performance **in a country with little corporate restructuring activity** serves to mitigate endogeneity concerns (that family members are strategic investors). In the sample, the classification of family firms is stable over the entire sample period, which suggests that families rarely sell off businesses, at least over a decade. They seem to either maintain their shareholding or increase it, but never decrease it.

CONTRIBUTION TO LITERATURE

- Most papers on the performance of family firms use ROA and Q as measures of performance (Lins et *al.*, 2013a, is an exception). Accounting measures of performance such as ROA suffer from accounting estimation errors, noise and bias. Also, researchers use a proxy for Q rather than Q itself. This paper addresses this drawback by examining whether family ownership and management control results in higher market-adjusted and/or risk-adjusted stock returns.

FAMILY FIRMS

- A family firm is one:
  - that was set up by an individual or a family at the beginning
  - that has the founder or founder's family member as CEO and/or Chairman and
  - in which the founder (or founder's family) holds at least 15% of voting stock

- Although we classify a firm as family or nonfamily in 2001, the ownership structure is stable through time in our sample.

- Our sample consists of firms in which founders and descendants play leadership roles .

DEPENDENT VARIABLES

- *Firm Profitability* is measured as annual Return on Assets (ROA), defined as the ratio of Earnings Before and Interest and Taxes to Total Assets.

- *Firm value* is measured as Tobin's Q, defined as the ratio of market value of equity and market value of debt to the replacement cost of assets. Following Cheng and Pruitt (1994) we calculate a proxy for Tobin's Q, which is defined as the ratio of market value of the firm to book value of total assets (measured annually), where market value of the firm is measured by the sum of market value of equity and book value of total liabilities.

- To measure long-run return performance, we follow Barber and Lyon (1997) and Kothari and Warner (1997) and estimate annual buy-and-hold abnormal returns (BHAR). We also estimate annual Cumulative Abnormal Return (CAR).

DEPENDENT VARIABLES

- BHAR is the market-adjusted stock return based on buying at the beginning of the month and selling it at the end, taking into account any intervening distributions.

- CAR is the cumulative average abnormal return assuming annual compounding (see Brav et *al*, 2000).

$$CAR_i = \Sigma_{t\ =\ 1toT}\ (R_{it} - R_{mt}) \qquad (1)$$

$$BHAR_i = \Pi_{t\ =\ 1toT}\ (1 + Rit) - \Pi_{t\ =\ 1toT}\ (1 + Rmt) \qquad (2)$$

R_{it} is the monthly return of firm i and R_{mt} is the market benchmark return (S&P NSE 50 Index return) in month t. Monthly benchmark-adjusted returns are calculated as the monthly raw return on a stock minus the monthly benchmark index return for the corresponding period and then the returns are annualized.

CONTROL VARIABLES

- Apart from the family influence, the performance of a firm is influenced by other factors related to product and capital markets.

- Accordingly, variables such as total assets, firm's age, financial leverage, institutional shareholding, and the level of R&D investment, are considered exogenous variables.

- Firms with better governance characteristics may have better performance (Lien and Li, 2014). Corporate governance is represented by three proxy variables, namely, board size, board composition, and board compensation.

RESULTS: CUMULATIVE ABNORMAL RETURNS

- We examine the impact of family ownership and control on CARs and BHARs by estimatng the following fixed effects panel models:

CAR = $\beta_0 + \beta_1$ Family Shareholding + $\beta_j(X_j)$ + Time and Industry Fixed Effects + ε (3)

BHAR = $\beta_0 + \beta_1$ Family Shareholding + $\beta_j(X_j)$ + Time and Industry Fixed Effects + ε (4)

Where X_j=a vector of control variables.

- We also examine if there is nonlinear relation between family shareholding and abnormal returns

RESULTS: CUMULATIVE ABNORMAL RETURNS

	CAR	CAR	CAR	BHAR	BHAR	BHAR
Family Shareholding	**-0.0031***			**-0.0052**		
	(-1.78)			(-1.64)		
Family shareholding squared	0.0000			0.0001		
	(1.57)			(1.47)		
Founder CEO		-0.0029			0.0010	
		(-0.09)			(0.02)	
Descendent CEO		-0.0054			0.0232	
		(-0.19)			(0.54)	
Outsider CEO		-0.0645*			-0.0656	
		(-1.76)			(-1.29)	
Founder× Descendent			0.0226			0.0686
			(0.70)			(1.31)
Founder× Outsider			0.0190			0.0259
			(0.34)			(0.31)
Descendent× Outsider			Omitted			omitted
	-0.0008	-0.0007	-0.0007	-0.0024		
Price/Book value	(-0.35)	(-0.31)	(-0.34)	(-0.49)		
	0.0000	0.0000	0.0000	0.0001		
Rate of growth of net sales	(0.77)	(0.76)	(0.73)	(0.55)		
	-0.0237	-0.0325	-0.0561	0.0982	0.0493	0.0307
No. of independent directors / Board size	(-0.20)	(-0.28)	(-0.49)	(0.55)	(0.28)	(0.17)
	-0.0085	-0.0102	-0.0116	-0.0295	-0.0329	-0.0345
Beta	(-0.31)	(-0.37)	(-0.42)	(-0.87)	(-0.94)	(-0.98)
	-0.0266	-0.0249	-0.0257	-0.0428	-0.0431	-0.0388
ln Firm Age	(-1.17)	(-1.01)	(-1.12)	(-1.15)	(-1.09)	(-1.04)
	0.0399*	0.0411*	0.0421*	0.0446	0.0459	0.0464

RESULTS: CUMULATIVE ABNORMAL RETURNS

- **The estimated coefficient on Family Shareholding in the CAR regression is negative and weakly significant, but that in the BHAR regression is insignificant.** This indicates an insignificant statistical relation between stock returns and family holdings in Indian firms, which is consistent with our hypothesis that **Indian family firms fail to outperform their non-family peers.**

- The results in columns 1 and 4 **do not suggest an inverted U-shaped** curvilinear relation between family shareholding and CARs/BHARs.

- In regressions 2, 3, 5 and 6, the coefficients of the **founder CEO dummy** and the **descendant CEO dummy** are insignificant whereas that of the **outsider CEO** is negative and marginally significant at 10%. Further, the interaction coefficients on the founder and descendant CEO dummy and the founder and outsider CEO dummy are insignificant.

- Among the control variables, the coefficient estimates firm size, board compensation, and R&D intensity are negative and significant.

RESULTS: CUMULATIVE ABNORMAL RETURNS:

No evidence of Entrenchment

- Why is the unusually high Indian family ownership not associated with *negative* stock returns (i.e., **the negative effects of family entrenchment** and excessive risk aversion), which is predicted by the agency theory?

- Internal governance by the independent board and external governance by institutional investors and the takeover market are probably (very) weak in India.

- There are just **two other governance mechanisms:** (a) (regulatory) investor protection laws and enforcement and (b) competition among many family firms in India and competition between family firms on the one hand and public sector firms and diffused ownership non-family firms.

Explanation of CAR RESULTS:

- Competition from non-family and public sector firms deter family firms from very conservative (less risky) investment and financing policies, thus dampening the negative slope between high family ownership and abnormal stock returns.

- In addition, as large investors family owners are long term investors (over generations), which is likely to increase their risk tolerance relative to CEOs in diffused public firms with much smaller stakes. It may be that the risk tolerance levels of family owners with high stakes (approaching 50% of shares outstanding) come close to those of typically much smaller public shareholders.

- So the key explanation for our main result is a **fiercely competitive product market**, a proxy for external governance, as in Kim and Lu (2011).

RESULTS: FOUR-FACTOR REGRESSIONS

- CARs and BHARs account simply for the market return and not the systematic risk of stocks.

- To further scrutinize whether family-dominated firms generate risk-adjusted abnormal returns, we run factor models on the monthly returns derived from equal-weighed portfolios of family and non-family firms and examine abnormal returns by accounting for systematic risk factors.

- We use **equally weighted portfolios** in order to capture the family firm effect, regardless of other firm-specific attributes such as firm size and profitability. The **portfolios are rebalanced monthly**.

- To study the return differences between family and non-family firms we take the **differences in monthly returns between the two portfolios, i.e., going long in the family firm portfolio and short in the non-family portfolio** and estimate the Fama and French (1993a) three-factor model and the Carhart (1997a) four-factor model as specified below:

RESULTS: FOUR-FACTOR REGRESSIONS

$$R_{family_t} - R_{nonfamily} = \alpha_t + \beta_{mrkt_t} MRKT_t + \beta_{smb_t} SMB_t + \beta_{hml_t} HML_t + \varepsilon_t$$

$$R_{family_t} = \alpha_t + \beta_{mrkt_t} MRKT_t + \beta_{smb_t} SMB_t + \beta_{hml_t} HML_t + \beta_{WML_t} WML_t + \varepsilon_t$$

$$R_{nonfamily_t} = \alpha_t + \beta_{mrkt_t} MRKT_t + \beta_{smb_t} SMB_t + \beta_{hml_t} HML_t + \varepsilon_t$$

$$R_{nonfamily_t} = \alpha_t + \beta_{mrkt_t} MRKT_t + \beta_{smb_t} SMB_t + \beta_{hml_t} HML_t + \beta_{WML_t} WML_t + \varepsilon_t$$

$$R_{family_t} = \alpha_t + \beta_{mrkt_t} MRKT_t + \beta_{smb_t} SMB_t + \beta_{hml_t} HML_t + \varepsilon_t$$

$$R_{family_t} - R_{nonfamily} = \alpha_t + \beta_{mrkt_t} MRKT_t + \beta_{smb_t} SMB_t + \beta_{hml_t} HML_t + \beta_{WML_t} WML_t + \varepsilon_t$$

- The aforementioned equations test the **null** that the intercepts (alphas) are not significantly different from zero i.e., **family firms do not generate excess returns on a risk adjusted basis** after controlling for systematic risk factors (MRKT, SMB, HML, WML) in the three factor and four factor model specifications respectively.

RESULTS: FOUR-FACTOR REGRESSIONS

α	Bmrkt	βsmb	βhml	βwml	Adj. R^2	Prob> F	
						F (3, 116)	F (4, 115)
Panel (A) Family Firms							
-5.18* (-26.88)**	0.09*** (4.30)	0.06** (2.61)	-0.05 (-1.26)		0.2211	10.98 {0.00}	
-5.22* (-26.83)**	0.09*** (4.06)	0.07** (2.66)	-0.06 (-1.48)	0.02 (1.40)	0.2342		8.79 {0.00}
Panel (B) Non-Family Firms							
-4.83* (-13.98)**	0.12** (2.75)	0.07 (1.38)	-0.05 (-0.77)		0.0954	4.08 {0.00}	
-4.88* (-13.90)**	0.11** (2.60)	0.06 (1.40)	-0.06 (-0.90)		0.1010		3.23 {0.00}
Panel (C) Long-Short Portfolio of Family and Non-Family Firms							
-0.35 (-1.12)	-0.01 (-0.40)	0.01 (0.09)	0.04 (0.07)		0.0015	1.86 {0.01}	
-0.34 (-1.09)	-0.01 (-0.38)	0.01 (0.08)	0.01 (0.09)	-0.01 (-0.08)	0.0015		2.04 {0.00}

RESULTS: FOUR-FACTOR REGRESSIONS

- We construct the **four systematic risk factors** following Carhart, 1997b; Fama and French, 1993b: namely, market (MRKT i.e., market return in excess of risk free rate of interest), size (SMB i.e., small minus big), book-to-market equity or value (HML i.e., high minus low), and momentum (WML i.e., winners minus losers).

- The results **confirm the presence of SMB, HML, and WML premiums** in the Indian stock market and corroborates the fact that **market risk factors in emerging markets are qualitatively similar to those documented in many developed markets.**

- Panels A and B show that **both family and non-family firms earn negative abnormal returns** of 5.22% and 4.88%, respectively, per month, in the four-factor model. Panel C reveals that the trading strategy of going long on family firms and short on non-family firms fails to generate a negative abnormal return of 34 basis points per month, which is insignificant.

- These test results provide further support to our hypothesis that Indian family firms **fail to outperform their non-family counterparts**.

STRUCTURE OF CONTROL AND STOCK MARKET PERFORMANCE

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	F CEO	D CEO	O CEO	F CEO	D CEO	O CEO
A	0.4285	0.3986	0.0898	0.5078	0.6783	0.1735
	(0.47)	(0.71)	(0.09)	(0.57)	(1.24)	(0.17)
Market	0.2455**	0.1082*	0.3315**	0.2271*	0.0432	0.3121**
	(2.34)	(1.76)	(2.60)	(1.74)	(0.61)	(2.11)
SMB	0.2258	0.2699**	0.0815	0.2219	0.2562**	0.0774
	(1.23)	(2.50)	(0.41)	(1.24)	(2.45)	(0.40)
HML	-0.6353***	-0.1300	-0.7491***	-0.6391***	-0.1433	-0.7531***
	(-3.71)	(-1.04)	(-3.63)	(-3.74)	(-1.16)	(-3.66)
WML				-0.0606	-0.2138***	-0.0640
				(-0.32)	(-2.71)	(-0.30)
Adj. R^2	16%	6%	17%	15%	10%	17%

STRUCTURE OF CONTROL AND STOCK MARKET PERFORMANCE

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	FandDN	FandON	DandON	FandDN	FandON	DandON
A	0.9512	-0.0947	-0.1028	1.2211*	0.0594	0.2227
	(1.43)	(-0.08)	(-0.16)	(1.80)	(0.05)	(0.35)
Market	0.0440	0.2612	0.2069***	-0.0187	0.2253	0.1312
	(0.60)	(1.59)	(2.79)	(-0.21)	(1.24)	(1.60)
SMB	0.3106***	0.1309	0.0897	0.2974***	0.1233	0.0738
	(2.84)	(0.58)	(0.70)	(2.78)	(0.55)	(0.60)
HML	-0.2384**	-0.9595***	-0.0189	-0.2513**	-0.9669***	-0.0345
	(-2.19)	(-4.23)	(-0.11)	(-2.33)	(-4.30)	(-0.20)
WML				-0.2063**	-0.1178	-0.2489**
				(-2.13)	(-0.47)	(-2.55)
Adj. R^2	6%	18%	4%	9%	17%	8%

STRUCTURE OF CONTROL AND STOCK MARKET PERFORMANCE

- We check whether **family firms in which the founder or a descendant or an outsider serves as CEO generate (risk-adjusted) abnormal returns** after controlling for systematic risk factors (MRKT, SMB, HML, WML). The results show that all **alpha values are insignificant** for the three types of firms.

- We also consider the performance of firms in which insiders and outsiders jointly hold leadership roles (the founder and a descendant (FandDN), the founder and an outsider (FandON), or descendant and an outsider (DandON)). The results show that five out of six alpha estimates are insignificant, while the firms in which the **founder and a descendant (FandDN) play leadership roles (i.e. Chairman of the Board and CEO) have a positive alpha of 1.22% per month** in the four factor model, marginally significant at 10%.

- Again, these results support our claim that there is **little difference in stock market performance between Indian family and non-family firms**.

INSIDER OWNERSHIP AND STOCK MARKET PERFORMANCE

α	Bmrkt	βsmb	βhml	βwml	Adj. R^2	F (3, 116)	F (4, 115)	
Panel (A) Family Firms								
-0.304 (0.338)	0.995*** (0.0358)	0.367*** (0.0609)	-0.139** (0.0551)		0.8721	271.58		
-0.217 (0.351)	0.976*** (0.0407)	0.364*** (0.0610)	-0.137** (0.0551)	-0.0502 (0.0522)	0.8721		203.78	
Panel (B) Non-Family Firms								
0.710* (0.419)	0.886*** (0.0443)	-0.0188 (0.0753)	0.292*** (0.0681)		0.7940	153.88		
0.0744 (0.371)	1.021*** (0.0430)	0.00297 (0.0645)	0.278*** (0.0583)	0.364*** (0.0553)	0.8492		168.47	
Panel (C) Long-Short Portfolio of Family and Non-Family Firms								
-1.014* (0.598)	0.109* (0.0632)	0.386*** (0.108)	-0.431*** (0.0973)		0.1858	10.05		
-0.291 (0.565)	-0.0441 (0.065)	0.361*** (0.0984)	-0.415*** (0.0889)	-0.414*** (0.0842)	0.3215		15.09	

INSIDER OWNERSHIP AND STOCK MARKET PERFORMANCE

- We test if **high insider ownership results in higher three and four factor adjusted returns for shareholders by considering only those family firms in which the founders hold more than 50%.**

- The results show that a strategy of going long on high insider-ownership portfolio and short on non-family firms produces an insignificant, negative alpha of 1.014% in the three-factor model and 0.291% in the four-factor model.

- In summary, our analyses show that, **as compared with the global evidence of a positive relation between family ownership and firm value, family dominance in India seems to exacerbate the negative value effects of asymmetric information and agency issues** and neutralize the positive incentive effects, plausibly **due to weak investor protection laws, enforcement, investor monitoring, and the disciplinary power of the market for corporate control.**

FAMILY ENTRENCHMENT, PROFITABILITY AND TOBIN'S Q

Dependent Variable	ROA	Q
Family shareholding	-0.1077**	-0.0175**
	(-2.17)	(-2.22)
Family shareholding squared	0.0018***	0.0003***
	(2.61)	(2.73)
Price/Book value(PB)	0.1887	0.0452
	(1.57)	(1.61)
Rate of growth of net sales	0.0025	-0.0002
	(1.46)	(-0.84)
No. of ind. directors/Board size	1.2731	-0.1965
	(0.29)	(-0.52)
Beta	1.0317*	0.0936**
	(1.90)	(2.16)
ln firm age	0.3434	0.2431
	(0.49)	(1.60)
Long term debt/ Total assets	-2.5914*	0.3606
	(-1.94)	(1.21)
ln Total assets	0.0087	0.0015**
	(1.37)	(2.00)
R&D/Sales	-0.3426**	-0.0072
	(-2.14)	(-0.16)
Institutional shareholding	0.0149	0.0073**
	(0.60)	(2.29)
ln Board Compensation	0.2415***	0.0093
	(4.62)	(0.99)
Constant	14.0239***	1.2117
	(3.85)	(1.43)
Inflection point	30%	34.0%

FAMILY ENTRENCHMENT, PROFITABILITY AND TOBIN'S Q

- We estimate the following fixed effects panel model using our sample of family-dominated Indian firms:

ROA = $\beta_0 + \beta_1$ (Family shareholding) + $\beta_j(X_j)$ + Time and Industry Fixed Effects + ε

Q = $\beta_0 + \beta_1$ (Family shareholding) + $\beta_j (X_j)$ + Time and Industry Fixed Effects + ε

where X_1 = a vector of control variables.

- We control for serial correlation with the Huber White Sandwich estimator for variance and heteroskedasticity. The results indicate that there is a **U-shaped relation between family ownership and ROA**, as indicated by the significant negative coefficient on family shareholding and a significant positive coefficient on the squared family shareholding.

- That is, **ROA initially decreases as the family stake increases and then, beyond a threshold, it increases with an increase in family shareholding**.

FAMILY ENTRENCHMENT, PROFITABILITY AND TOBIN'S Q

- The inflection point, defined as **the percentage of ownership at which the ROA reaches its minimum, is 30%.**

- We find a **similar pattern with Q**, with the inflection point occurring at 34%. If the controlling family's ownership is low and below a critical threshold, **firm performance seems to decrease, plausibly due to weak incentives and excessive private benefits** extracted by the owner-managers (reflecting ineffective legal protection to minority and poor investor oversight). **But when family ownership rises above the critical threshold, incentive effects seem to grow stronger** and the search for private benefits appears to subside, leading to a convex relation between family ownership and firm performance.

- **This finding is in stark contrast to the U.S evidence.**

PRACTICAL IMPLICATIONS

- The main implication of our study is that **stockholders of family-dominated Indian firms are neither worse off nor better off**. Our analysis suggests that even dominant family firms do not outperform their non-family peers after adjusting for risk factors.

- Moreover, our findings highlight that family dominance in India tends to diminish firm performance in comparison to the value-effects of family-influenced and family-controlled firms in the rest of the world, plausibly due to **entrenchment, agency and asymmetric information effects**. **Family firms interested in raising external debt and equity capital to pursue growth and diversification would do well to mitigate potential information and agency problems accompanying concentrated ownership.**

CONCLUSION

- Our empirical tests indicate no significant relation between family ownership and abnormal stock returns, nor do we find any significant difference in returns adjusted for systematic risk between Indian family-controlled firms and their non-family counterparts.

- Additional tests show that these **findings are robust** to alternative metrics of abnormal performance, controls for founder, descendant, and outsider CEOs, and to potential endogeneity of family concentration.

- Overall, **our results are consistent with the hypothesis that family entrenchment dominates positive alignment of interest effects** at high levels of ownership concentration and challenge the widespread evidence largely derived from developed countries that public family firms outperform their non-family peers.