FAMILY GENERATION, LEADERSHIP, AND PERFORMANCE: THE ROLE OF OUTSIDE DIRECTORS IN INDIAN FAMILY FIRMS

Shireenjit Johl*, Beverley Jackling**, Mahesh Joshi*

Abstract

This paper addresses the presence of outside directors in family firms in India examining the generation of the firm and years of operation. Aspects of corporate leadership such as family member as CEO, as well as the CEO's role in a founding family firm, are considered in relation to financial performance. The findings show that outside directors do not significantly increase firm performance of family firms demonstrating their ineffective monitoring role. Contrary to studies from developed economies, more established family businesses in India outperform founding firms. Overall the study demonstrates that corporate governance issues related to Indian family firms differ from the findings from more developed economies. This finding has implications for further governance reforms in emerging economies.

Keywords: Corporate Governance, family firms, emerging economies

*Corresponding author.
School of Accounting, Economics and Finance, Deakin University, 70 Elgar Road, Burwood, Victoria, 3125, Australia
Tel +61 3 9251 7360, Fax +61 03 9925 5741
Email address: shireenjit.johl@deakin.edu.au (Shireenjit Johl)
**Faculty of Business and Law, Victoria University, Australia
**School of Accounting, RMIT University, Melbourne, Australia

INTRODUCTION

Prior literature has shown evidence that family businesses are a strongly represented segment of capital markets (e.g. Anderson and Reeb, 2003; Sharma, 2004). Although there are arguments which assert that family ownership can be detrimental in terms of corporate performance (e.g. Morck *et al.*, 2000), some research indicates that family firms perform better than non family firms (Anderson and Reeb, 2003). In emerging economies family firms make up a substantial proportion of the total corporations (for example up to 60% of Indian firms are family firms). However, limited research of corporate governance and family businesses has been addressed in studies of emerging economies. This study therefore aims to address this gap in the literature by examining the relationship between family ownership/control and firm performance, with particular reference to the role of outside directors in moderating the influence of family members.

Studies of family firms (e.g. Demsetz, 1983; Morck *et al*., 2000; Shleifer and Vishny, 1997) suggests that concentrated shareholder ownership (e.g. via family firms) tend to extract benefits from the firm, choose non pecuniary consumption that draw scarce resources away from profitable projects and forgo maximum profits due to the inability to separate their financial preferences with those of outside owners. In addition, family firms have tended to restrict executive management positions to family members, thus limiting the pool of potential qualified and talented labour resources (e.g. Morck *et al*., 2000). Taking these arguments of management and governance together, evidence from the US in particular, suggests that family ownership is a form of organisational structure that leads to poor firm performance.

On the other hand, it has been suggested that concentrated ownership can moderate managerial expropriation and thus enhance performance as combining ownership and control can be advantageous (Demsetz and Lehn, 1985; Anderson and Reeb, 2003, 2004; Villalonga and Amit, 2006). The advantage of family ownership has been linked to longer investment horizons thus family presence and control of management and director posts puts such families in a better position to influence, monitor and discipline managers, which in turn should facilitate enhanced performance (Anderson and Reeb, 2003; James, 1999; Stein, 1989). The prior work of Anderson and Reeb (2003), suggests that the results for family firms are improved where the CEO is a family member and the CEO is the founder of the firm (Adams *et al.*, 2009).

The role of outside directors as monitors of corporate governance is therefore important when studying the performance of firms where there is a predominance of family ownership and control. This paper addresses the presence of outside directors in

family firms as a counterbalance of family influence. The study uses a sample of large family firms in India where typically family ownership and control has been much more concentrated than in western economies.

The study incorporates an examination of various characteristics of family firms including the generation of the firm, e.g. founding generation versus descendant generations and the years of operation of the family firm. Aspects of corporate leadership such as a family member as CEO, as well as the CEO's role in a founding family firm are considered in relation to financial performance.

In the context of emerging economies, such as India, governance issues may be compounded by the nature of corporate ownership where family-run businesses dominate the ownership structure. Of the top Indian companies[1] 60 percent (making up 65 percent of the total market capitalisation), are family-run business groups[2]. The ownership of family-run companies is not transparent given the widespread use of pyramiding, cross-holdings and the use of non-public trusts (Chakrabarti *et al.*,2008). Consequently family-owned businesses are expected to have unique agency problems linked with the nature of their corporate governance that possibly impacts on firm performance. Family-run companies may also present challenges in terms of monitoring the transparency of operations in order to meet international standards of corporate governance, particularly given the increased global presence of Indian firms. This research therefore endeavours to extend the boundaries of corporate governance by examining the suitability of existing models of performance in family-based corporate environments for developing economies. As Brennan and Solomon (2008) suggest, research on the ways of improving corporate governance in developing economies may represent an extension of the theoretical paradigm. This is illustrated by the development of "new agency theory" in terms of the relationship between family owner-managers, outside directors and external shareholder groups in developing economies.

The remainder of this paper is organised as follows. Section II presents the case for the impact of family ownership and influence in public firms with particular reference to India as an example of an emerging economy. Section III discusses the data and provides summary statistics. In Section IV the empirical results are provided. Section V discusses the results while Section VI provides the summary and recommendations based on the findings.

The Role of Family Ownership in Indian Companies

India has been one of the major economic developments of this decade, with growth rates averaging in excess of 8% for the four year period 2005-2008 together with a stock market that has more than tripled in as many years, and a steady inflow of foreign investment (Chakrabarti *et al*., 2008). In 2006, total equity issuance reached $19.2 billion in India, up 22% from the year before (Chakrabarti *et al*., 2008). But widely dispersed share ownership by individuals, as commonly exists in the US and other western economies, is by no means the norm in Indian companies. One of the biggest challenges facing Indian corporate governance is reflected by the ownership structure of its companies. The shareholdings of India's largest publicly traded companies are relatively concentrated, with family business groups and, to a lesser extent, state-owned (or public sector) enterprises continuing to dominate the corporate sector. In 2006 some of India's top 500 companies listed on the Bombay Stock Exchange were affiliated with these business groups (Chakrabarti *et al*., 2008). Most of the corporate governance problems, far from being unique to India, are common in Asia and other developing economies. Therefore this research aims to make a contribution to the understanding of the role of family firms in developing economies where traditionally family ownership has challenged aspects of 'good' corporate governance.

Despite aspects of commonalities among developing countries, the Indian corporate governance landscape has been changing very rapidly during the past decade. This has been precipitated by the enactment of the Sarbanes-Oxley type measures in Clause 49 of the listing agreements, and the legal changes designed to improve the enforceability of creditors' rights. There is strong momentum for continuing reforms that, by providing investors with better information and the promise of higher returns, should help Indian companies to sustain their rapid growth (Chakrabarti *et al*., 2008).

The literature review that follows addresses the role of family ownership and control in meeting the needs of corporate governance leading to the formulation of hypotheses addressing aspects of governance issues in the Indian context.

LITERATURE REVIEW

Board Composition: The Role of Outside Directors

Most corporate governance rules and codes worldwide require boards of directors of listed companies to have a combination of inside and outside directors. The question of whether outside directors have an impact on firm performance is arguably one of the most debated and researched areas of corporate governance. The role of the outside director is considered to be of particular significance in family operated firms as they potentially act as an independent 'agent' to counterbalance family influence on boards of directors.

A preference for greater representation of outside directors is grounded in agency theory which is

structured around the notion of the separation of ownership and control. Support for the agency view of the positive relationship between board composition and financial performance has been noted by numerous studies. For example, Baysinger and Butler (1985) found that companies perform better if boards include more outsiders. Similarly, Rosenstein and Wyatt, (1990) found that a clearly identifiable announcement of the appointment of an outside director led to an increase in shareholder wealth.

There have been differences in findings related to the dominance of outside directors on performance when different measures of firm performance have been utilised in academic research. For instance, studies utilising Tobin's *Q* as a measure of performance (e.g. Agrawal and Knoeber, 1996) and Market Value Added (e.g. Coles *et al.*,2001) have found that greater representation of outside directors have a negative impact on firm performance. Other studies for example, Dalton *et al.*, (1998) found no significant association between board composition and firm performance using moderator analyses incorporating firm size, the nature of financial performance indicator and operationalization aspects of board composition.

Family firms provide a case for examining whether independent directors play an important role because strong governance is considered important for firm performance. The relative influence of the family on the board of directors may be an important factor in influencing firm performance. Hermalin and Weisbach (2001) suggest that family firms tend to have insider-dominated boards, which presumably allow the family to control decision making of the firm. Others have suggested that families use their control to serve their own interests at the expense of minority shareholders (Deangelo and DeAngelo, 2000). Therefore it would be expected that the ratio of family board members to independent board members may be an important aspect in determining the board's ability to protect outside shareholders from opportunism by family members.

In India the recommendations of the Birla Committee enacted Clause 49 of the Listing Agreements that first came into effect in 2001 with further amendments in 2004. Under Clause 49 the board of directors of a company are required to have an 'optimum combination' of inside and outside directors with not less than fifty percent of boards consisting of outside directors where the chairman is an insider. The requirement for outside directors on the board is reduced to 30 per cent where the chairman is an outsider.

Although prior research on the issue of whether outside directors add value to a firm's performance is mixed, in this study the agency theory approach is adopted for the examination of board composition of family firms. In general the changes in regulation in India have emphasized the need for outsider directors capable of acting independently. Given the unique characteristics of India where the formal separation of ownership and control may be clouded by the dominance of family owned enterprises and the limited efficiency and access to legal recourse, the first hypothesis is based on the premise that a greater proportion of outside directors will monitor any self-interested actions by family firm managers. Therefore a higher percentage of outside directors will be associated with high corporate performance (Nicholson and Kiel, 2007). Accordingly the following hypothesis is presented.

> *Hypothesis1. Family firms with a greater percentage of outside directors perform better than family firms with a lower percentage of outside directors.*

Characteristics of Family Firms

Typically family firms have been characterised as organisations controlled and usually managed by multiple family members (Shanker and Astrachan, 1996) and often from multiple generations of the family (Anderson and Reeb, 2003). Some have defined a family firm as one in which multiple members of the same family are owners or managers, either contemporaneously or over time (Miller *et al.*, 2007). This definition takes into account a number of variations in terms of level of ownership and voting control, managerial roles and the generation of key family members.

Generation of the Firm – Founding Generation versus Descendant Generations

Several prior studies suggest that where the family firm is a founding firm, the performance of the firm is superior to other family firms. For example, Villalonga and Amit, (2006) found that family ownership creates value for all shareholders only when the founder is active in the firm (either as CEO or as Chairman with a hired CEO). Similarly, Anderson and Reeb (2003) suggest that founding families are a unique class of investors in that given they have a desire to pass the firm onto subsequent generations; they are likely to focus on the firm's survival rather than strict adherence to wealth maximization.

Additionally, founding family firm CEOs appear to be interested in the long-term survival of the firm and exercise concern for the firm and the family's reputation (Casson, 1999). Given that firm survival is of paramount concern in many family firms, the suggestion is that founding family firms are more likely to maximize firm value rather than shareholder value (Anderson and Reeb, 2003).

Prior studies suggest that later family generations (for example, descendant firms such as second and third generation firms) have differing impacts on firm value (Morck *et al.*, 1988). There is some evidence from the US (Perez-Gonzalez, 2006; Villaglona and

Amit, 2006) and Denmark (Bennedsen *et al.*,2007) that confirms the original findings of Morck *et al.* (1988) that inherited control by family members is associated with a decline in firm performance. For example, Villalonga and Amit (2006) found that in their study of US firms, second-generation family firms and beyond, did not differ significantly from non family firms in terms of the impact on firm value.

In summary, the findings from western economies provide evidence of the importance of family ownership and particular firm characteristics impact on performance. This study extends prior research to developing economies in examining whether founding family firms in India outperform family firms where later generation of family members control the firm.

Therefore based on the prior literature it is hypothesised that in India founding family firms will perform better than descendant family firms.

Hypothesis 2a. Founding family firms perform better than descendant family firms in India.

Years of operation of the family firm

As indicated above, prior literature suggests that founding firms and their founders bring unique characteristics to the organisation that have been shown to produce superior results, particularly in terms of accounting performance and market valuation measures. The evidence suggests however that as firms age, family members have less to contribute to the financial success of the firm and therefore it may be that young family firms are more successful than old family firms. In prior studies in the US (e.g. Anderson and Reeb, 2003) firms were classified into 'young' and 'old' family firms based on whether the firm was under or over 50 years of age. The results showed that younger family firms outperformed older firms, suggesting that the benefits of family ownership are greatest in the early years of operation. This may reflect the time span in which family members have the greatest impact on the firm and according to Anderson and Reeb, (2003) view themselves as the stewards of the firm. Other evidence, again from the US, suggests that family members maintain an active presence in the firm for an extended period of time and therefore may provide competitive advantage to the firm (Burkart *et al.*, 2003).

The extent to which new firms in India have corporate governance structures that promote improved firm performance is relatively unknown. This study therefore replicates in part the work in the US of Anderson and Reeb (2003) in terms of attempting to identify the possible difference in performance between young and old family firms in India as a characteristic that distinguishes aspects of corporate governance and firm performance. Therefore the following hypothesis is proposed.

Hypothesis 2b: *Young family firms outperform old family firms in India.*

Firm Leadership

A common characteristic of family firms is that a family member may serve as the CEO. In terms of corporate governance, family CEOs may readily align the firm's interests with those of the family and therefore potentially enhance firm performance. Alternatively family members may place one of their own members in the CEO position at the expense of a more capable outsider. Additionally, where a family member serves in a top management position, the family can more readily align the firm's interests with those of the family, thus enhancing the effects of family ownership on firm performance. More specifically, founder CEOs often consider the firm as their life's achievement and their intrinsic motivation and long-term approach encourages optimal shareholder–value that maximises performance of the firm.

Various studies have found a positive relationship between founder-CEOs and firm performance. For example, Adams *et al.* (2009), Morck *et al.* (1988) and Paila and Ravid (2002) find systematic differences between founder CEO and non founder-CEO firms with respect to firm valuation. Fahlenbrach (2009) in a study of US public firms reported that firms headed by founder CEOs differ significantly from family firms with successor-CEO firms (i.e. second generation or descendant firms) in terms of stock market performance and investment behaviour. The results of Villalonga and Amit (2006) extend earlier research as their results indicate that firm value declines when descendants serve as the CEO in family firms.

The present study endeavours to extend the body of knowledge in this area by testing the relationship between founder CEOs and family firm performance in India as shown in hypothesis 3a below.

Hypothesis 3a. The performance of family firms in India will be greater where there is a founding generation CEO leading the firm.

Later Generation CEO Family Firms

Evidence suggests that family-controlled firms only trade at a premium over non-family controlled firms when the founder serves as CEO or as chairman with a hired CEO. The findings suggest that the positive impact on performance of founder CEOs is not replicated by their heirs as they tend to hinder firm performance (Anderson and Reeb, 2003). This finding is supported by Villalonga and Amit, (2006) who found that when descendants serve as CEOs, firm value is reduced. Their findings suggest that descendant firms (second and later generation family firms) trade at a discount relative to non family firms. To some extent the power performance of descendant

firms where the CEO is a descendant may be related to evidence that founder CEOs are more likely to relinquish the post after periods of unusually high operating performances (Adams *et al*., 2009). They suggest that unusually low operating performance makes it more likely that the founder will step down from the CEO role. These findings warrant further consideration in terms of emerging economies, particularly in countries such as India, where family firm ownership and control is high. The following hypothesis is therefore proposed.

Hypothesis 3b. The performance of family firms in India will be lower in firms where descendant CEOs lead the firm.

DATA AND MODEL SPECIFICATION

Data and Sample Selection

In analysing the hypotheses, our initial sample was drawn from the top 500 Indian firms listed on the Bombay Stock Exchange (BSE) by market capitalisation as at 31 March 2006. Banks and finance firms were excluded from the initial sample due to their intensity of regulation. Data relating to financial information were extracted from the OSIRIS database. In addition, firms with 2005-06 annual reports[3] (together with corporate governance statement) available on the database were considered. Other databases such as Directorsdatabase and SEBI's Corporate Filing and Dissemination System database and company websites were used to complement some of the firm and director information. Firms with insufficient director and financial data were dropped automatically by STATA in the regression analysis. Since the paper analyses only family firms[4], firms that were not deemed to be family firms were excluded from the sample. Thus, the process led to a total of 174 observations from a sample of the top 500 listed Indian companies which were used for regression analyses.

Table 1 provides a snapshot of industry representation by sample family firms. In the sample the Industrial Manufacturing, Textile and Automobiles sector has the highest representation (20%) of family firms. This is followed by the Engineering services, Construction and Building Materials sector (13%) and the Chemical sector (10%). The rest of the sectors have a relatively even spread of representation in the study.

Insert Table 1 about here

Table 2 presents six panels (A to F) of descriptive summary for our sample of family firms. Each of these panels provides the descriptive statistics for firm performance, family related firm characteristics, board independence, leadership, family power and other firm characteristics respectively. The firm size in terms of total assets ranges from Rs26 million to Rs969 billion, while the mean, median and the standard deviation of the sample is Rs30.90, Rs11.30 and Rs81.40 billion respectively. In terms of debt, the sample firms have an average leverage (with mean of about 0.58 and median of 0.61 of total assets respectively) and ranges between 0.13 and 1.25 of total assets. Moving to firm performance, the sample firms appear to be financially stable as indicated by their Return on Assets (ROA mean of about 7 percent for both 2005/06 and 2004/05 financial years).

Insert Table 2 about here

Turning to board independence, most firms (98%) had at least one outside director sitting on the board. The mean of outside members on the board of directors in the sample is 49 percent and ranges between 0 (2 firms) and 0.86 (86 percent). In terms of family firm characteristics, of the family firms 43.1 percent are first generation, and 56.9 percent are descendant generations (47.7 percent are second generation, 9.2 percent are third and fourth generation). The average family firm is about 36 years old (median 29 years old), suggesting that the sample firms are quite established. Using the median, the sample was classified as either young or old family firms. For young firms the mean age of the firm is 19 years while for old family firms, 55 years old.

Focusing on leadership characteristics of the sample, more than two thirds (68% [119 firms]) of the sample have a CEO (or Managing Director) who is a family member (founder of the firm or belongs to the founding family) of the firm. Of these firms, CEOs of 54 firms (31.03 percent) are founders (first generation) and the rest are descendants of the founding family. Relating these characteristics to board independence in terms of outside directors, firms with a family member as CEO (regardless whether founder or descendant) have on average 50 percent outside directors.

Table 3 presents the Pearson correlations for variables in the model. The results suggest that generally the performance variable (ROA) is positively correlated with the proportion of outside directors (OUTSIDE), other than founding firms (DESCENDGEN), old family firms (OLDFIRM), CEOs descendant (CEODESCENDANT), research development (RDEV) and lag performance (LAGROA).

Insert Table 3 about here

The correlation sign for the rest of the variables (FOUNDGEN, YGFIRM, FLYCEO, CEOFOUNDER, ASSET, and CAPEXP) is negative. From the correlation table it is apparent that most of the hypotheses variables have high correlations and as such will be investigated separately. For example, the highest degree of correlations are between founding firms and descendant firms (correlation = 0.966)

which is expected. Since H2, and H3 are tested separately, the issue of multicollinearity does not exist. In addition, to test for multicollinearity, the VIF was calculated for each independent variable and byeach estimation. Prior literature (e.g. Myers, 1990) suggests that a VIF value of 10 and above is a cause for concern. The results (not shown in paper) indicate that all the independent variables had VIF values of less than 10^5.

Model Specification

The relationship between performance, board independence and family characteristics (including leadership and power) is tested using the following models:

Model 1

$$PERFORM = \alpha + \beta_1 OUTSIDE + \beta_3 ASSET + \beta_4 LEV + \beta_5 CAPEXP + \beta_6 RDEV + \beta_7 LAGPERFORM + \beta i \text{ Industry Dummies} + \varepsilon \quad (1)$$

Model 2

$$PERFORM = \alpha + \beta_1 OUTSIDE + \beta_2 FAMILYRELATED\ (FOUNDGEN\ /DESCENDGEN\ /\ YGFIRM\ /OLDFIRM) + \beta_3 ASSET + \beta_4 LEV + \beta_5 CAPEXP + \beta_6 RDEV + \beta_7 LAGPERFORM + \beta_i \text{ Industry Dummies} + \varepsilon \quad (2)$$

Model 3

$$PERFORM = \alpha + \beta_1 OUTSIDE + \beta_2 LEADERSHIP\ (FLYCEO\ /\ CEOFOUNDER/\ CEODESCENDANT) + \beta_3 ASSET + \beta_4 LEV + \beta_5 CAPEXP + \beta_6 RDEV + \beta_7 LAGPERFORM + \beta_i \text{Industry Dummies} + \varepsilon \quad (3)$$

The description of the variables in the model (measurement and source) is listed below in Table 4.

Insert Table 4 about here

The dependent variable in each model is performance (PERFORM) and this is measured using Return on Assets (ROA)[6]. Most US studies in considering the relationship between firm performance and governance variables, utilize a market measure such as Tobin's *Q* as a measure of performance. However, because capital markets in India are not as developed as in the US and also tend to be volatile, the use of market based performance may not accurately reflect the performance of a firm. In Bhagat and Bolton's study (2008)[7] an accounting performance measure (ROA) was also used, given that stock market measures are susceptible to investors' anticipation. Several other studies, such as Jackling and Johl (2009), Erhardt, Werbel, and Shrader (2003) and Muth and Donaldson (1998), have used accounting measures such as ROA in measuring firm performance particularly in emerging economies such as India.

The hypotheses variables of interest in this study are board independence (OUTSIDE - H1), family firm characteristics (founding generation (FOUNDGEN), descendant (DESCENDGEN), young firms (YGFIRM) and old firms (OLDFIRM) – H2), leadership (family CEO (FLYCEO), CEO founder (CEOFOUNDER) and CEO descendant (CEODESCENDANT) – H3).

Based on our hypotheses, the study expects a positive association between the proportion of outside directors (OUTSIDE) and performance (PERFORM), predicting that firms with a greater proportion of outside directors in family firms leads to better performance. With regards to family firm characteristics, we expect a positive relationship between founding generation (FOUNDGEN) young firms (YGFIRM) and performance (PERFORM) whilst a negative relationship is expected between descendant firms (DESCENDGEN) old firms (OLDFIRM) and performance (PERFORM). In terms of leadership variables, the coefficient for family CEO (FLYCEO) and CEO founder (CEOFOUNDER) is anticipated to be positive, whilst CEO descendant (CEODESCENDANT) is predicted to be negative.

Each of the estimations in this study controls for other firm characteristics which have been used in prior corporate governance and performance studies (e.g. Bhagat and Bolton, 2008). Specifically, we control for: 1) firm size measured using the natural log of assets and no direction is predicted; 2) leverage, which is expected to be negatively associated with performance; 3) firm growth opportunities, proxied by capital expenditure to total sales and research development to total sales, which is expected to be inversely related to performance; 4) prior year's performance, which is expected to be positively associated with performance and 5) industry variations.

REGRESSION RESULTS AND DISCUSSION

Tables 5 to 7 present the OLS regression results for each of the estimations carried out. Table 5 reports 5 sets of regression analyses used in testing Hypotheses 1 and 2. Estimation 1 of Table 5 reports results using Model 1 whilst Estimations 2 to 5 report results using Model 2. In each of these analyses, the variable family related (FAMILYRELATED) is substituted with founding generation (FOUNDGEN) or descendant (DESCENDGEN) or young firm (YGFIRM) or old firm (OLDFIRM).

Table 6 and Table 6A report 6 sets of estimations using Model 3. Table 6 addresses Estimations 1 to 3 with the variable leadership (LEADERSHIP) replaced with family CEO (FLYCEO) or CEO as founder

(CEOFOUNDER) or descendant CEO (CEODESCENDANT). Estimations 4 to 6 in Table 6A include an interaction term between leadership (LEADERSHIP) and outside directors (OUTSIDE).

Overall, the F-stat for each model is statistically significant at 0.01 levels and the R^2 is between 54 percent and 57.

Insert Table 5 about here

Board Independence. The first hypothesis tests whether outside directors increase firm performance. As shown in Table 5, the percentage of outside directors relative to total number of directors (OUTSIDE) is not significant at any conventional level of significance. The result is not surprising as family firms have great discretion in pursuing their interest and the role of the independent director may not be as effective as in non-family firms as a form of monitoring devise. However, as argued by Andersen and Reeb (2003) outsiders play an important role since alternative strong governance forms are less prevalent in family firms relative to non-family firms. Andersen and Reeb (2003) using Standard & Poor 500 firms over a period from 1992 to 1999 find that outside directors have a positive influence on performance. The non-significance of our results may in part be due to family firms in Asia and in India in particular; having a tendency to expropriate the wealth of outside shareholders and thus the appointments of outside directors is made only to satisfy listing requirements such as Clause 49. Because outside directors are appointed for compliance purposes, the issue of "truly independent directors" may be questionable and as such outside directors may be inefficient in monitoring the roles of insiders.

Family Related Characteristics. The second hypothesis tests whether various aspects of family related characteristics such as firm generation and firm age, affects firm performance. To test this hypothesis four variables are used: founding generation, descendant generation, young firm and old firm

Prior literature (e.g Andersen and Reeb, 2003; Morck *et al*., 1988) suggests that founding firms (and young firms) play an important entrepreneurial role which is unique and value adding and in turn results in superior accounting performance. As reported in Table 5, Estimations 2 and 3 when the generation of the firm is tested, contrary to expectations the findings for FOUNDGEN, is inconsistent with prior studies (e.g Villalonga and Amit, 2006; Morck *et al*., 1988), in that the coefficient is significant and negatively associated with performance (Estimation 2, Coefficient -2.48 p <0.05). Similarly, when testing the variable descendant generation (DESCENDGEN), the findings is not as expected, in that the coefficient is positive and significant (Estimation 3, Coefficient 2.86 p <0.05). However, we find no significant results (see Table 5, Estimations 4 and 5) when the generation of the firm (FOUNDGEN /DESCENDGEN) was replaced with firm age (YGFIRM /OLDFIRM). One reason for the insignificance of the firm age variable is perhaps some of the young firms in the sample may include family firms which have been in existence for more than one generation while some of the old firms may only be in their first (founding) generation.

The results in the Indian context are quite contrary to prior studies in the US. It appears that well established family businesses in India (i.e. family firms that have existed for more than one generation/descendant firms) exhibit superior performance compared to newly established founding family businesses (first generation/ founding firms). In other words, descendant family firm interests appear to be aligned to outside shareholders thus leading to more value maximization behaviour. In contrast, founding firms tend to exhibit an entrenchment position in which these firms appear to expropriate the firm's wealth at the expense of other shareholders. Another possible explanation for this result is perhaps newly established family businesses in India may be 'window dressing' their financial statements so that lower earnings are projected to minimize tax (i.e. the newly established firms are possibly more tax aggressive).

Leadership Characteristics. The third hypothesis investigates leadership characteristics such as the issue of whether a family run CEO (LEADERSHIP = FLYCEO) outperforms a hired CEO for a sample of top family firms in India. Similar to Villalonga and Amit (2006) we do not find that the presence of a family CEO has any significant effect on firm performance (see Table 6, Estimation 1). However, the result is in contrast to Maury (2006) using a sample of firms from Western Europe where it was found that family management is associated with higher profitability.

Insert Table 6 about here

Since the prior literature suggests that founders and their descendants could have different impacts on firm performance (eg Morck *et al*., 1988; Perez-Gonzalez, 2006; Villalonga and Amit, 2006), we also test for these effects. Estimation 2 and 3 of Table 6 displays the results when LEADERSHIP is replaced with the dichotomous variables 1 if the CEO is the founder of the firm, 0 otherwise (CEOFOUNDER) and where the CEO is a descent of the founder is given the value 1, 0 otherwise (CEODESCENDANT).

The results are contrary to expectations, in that, the coefficient of the variable CEO as founder (CEOFOUNDER) is negative and significant (Table 6 Estimation 2, Coefficient - 2.329 p <0.05), suggesting founder CEOs are associated with lower

performance. The variable CEODESCENDANT as shown in Estimation 3 is positive and significant suggesting that family CEOs who are descendants of the founder CEO appear to be most valuable (Coefficient 1.434 p <0.05). The findings contrast to that in the US and also in Western Europe (eg Villalonga and Amit, 2006; Maury, 2006) where prior findings indicate that the founder CEO has been valuable whilst descendant CEO has been less valuable in terms of firm performance.

There are two plausible explanations for our findings. First, although founder CEOs may bring valuable skills such as inspirational leadership, exceptional visionary or talented scientific skills, they may not be good in managing the firm. Second, following from the findings related to H2 because there is a possibility that founding firms may be tax aggressive, thus firm performance where there is a founder CEO leadership, may be anticipated to be lower than descendant CEO leadership firms.

Board Independence and Leadership Characteristics. As argued by Andersen and Reeb (2004), the participation of family in management of the firm can influence the ability to extract private rents from the firm. So, the next set of estimations investigates the relationship between outside director influence and firm performance, when the firm is led by a family member (family CEO, founder CEO and descendant CEO). Specifically, we interact the variable family CEO (FLYCEO) and founder and descendant CEO (CEOFOUNDER and CEODESCENDANT) with outside director influence (OUTSIDE). As shown in Table 6a (Estimations 1 to 3), the results of the analysis indicate that the interaction term is not significantly different from zero suggesting that family management is not a dominant factor for outside directors in controlling family actions. Also taking the results reported above, the results suggest that outside directors are not effective in controlling the activities of family businesses in the Indian context.

Insert Table 6a about here

Additional Analysis

From the various sets of regressions, outside directors were not influential in adding value to family firms in India. Some may argue that the use of the continuous variable being percentage of outside directors relative to total directors (OUTSIDE) may not be appropriate, thus we also conducted further analyses of the estimations using dummy variables capturing proportion of outside directors at 3 intervals (more than 66%, more than 70% and more than 75%). Similar to the results presented earlier (previous subsection), the role of outside directors was found to be insignificant in adding value to the firm in most of the estimations (results not reported in this paper). The only interesting result relates to the age and the generation of the firm. From Table 7 we find that as the proportion of outside directors increases in firms that are relatively young (below the sample firm median age) the association between outside directors and firm performance increases. However this is not the case for firms that are relatively old (above the sample firm median age). The relationship is opposite (negative) as the proportion of outside directors increases, which seems to indicate that outside directors are inefficient monitors for firms that are relatively old.

Insert Table 7 about here

To further analyse what is driving the results, we re-estimated the regressions by interacting the variable influence of outside directors at 3 interval levels (OUTSIDE66/OUTSIDE70/OUTSIDE75) with young and old firms (YOUNG (OLD)) and founding generation and descendant generation family firms (FOUNDGEN (DESCENDGEN)). It is important to note that forty three percent of the sample firms are founding generation family firms and of these, 83% (17%) of the firms are relatively young (old). Of the firms that fall within the category of descending firms - other than founding generation - 31% (67%) are considered relatively young (old). The findings (not reported) indicate that whilst outside directors do not add value in founding and relatively young firms (we find a significant negative relationship), they appear to moderate (i.e. add value) the effect of family dominance in descending and relatively young firms. Also, as the proportion of outside directors increases in founding and relatively old firms, their presence on the board seems to moderate the effect of family dominance, in turn increasing firm performance. However, this relationship does not hold in the case of descending and relatively old firms.

Control Variables. Similar to prior studies and as expected, the control variable prior year's performance (LAGROA) is significant and positively related to firm performance in all estimations. The coefficient for the variable capital expenditure (CAEXP) is negative and is significant in all OLS estimations. In general, the results of the other variables, leverage (LEV) and research development (RDEV) estimations were insignificant.

CONCLUSIONS

Prior empirical studies relating to governance mechanisms in family firms especially in emerging economies is minimal (almost non-existent), partly due to difficulty in obtaining data on these firms. In order to bridge the research gap in this area, this study has used a unique dataset of family firms from an emerging economy, India, to investigate the relationship of board independence, family firm characteristics (firm generation, and leadership [management]) and firm performance. Because

owners of family firms can exercise control via board influence and/or ownership, they have strong incentives to consume firm resources and hence are more likely to exploit minority shareholders wealth. Outside directors are argued to play a vigilant oversight role that will monitor the family from expropriating minority shareholder wealth. Overall the results highlight that outside directors in the Indian context do not appear to play an important monitoring role. The finding is consistent across all regression analyses in this study. The findings therefore have implications for reform in corporate governance in India (e.g. Clause 49 of the Securities and Exchange Board of India [SEBI] related to outside directors) that have endeavoured to change the operation of boards of directors to improve corporate governance in such a way that firm performance and international competitiveness is enhanced.

This study also addressed aspects of firm characteristics that create value for family firms. Contrary to the studies from the more developed economies (such as the US), we find that more established family businesses i.e. those that have been in existence for more than one generation, outperform founding firms. In fact founding family firms are associated with lower performance, thus suggesting that these firms do not play an important entrepreneurial role which is said to be unique and value adding. Next we analysed whether family leadership (management) adds value. Our findings show that (1) firms led by family CEOs do not add value in terms of firm performance; and (2) family leadership only adds value (in terms of firm performance) when the CEO is from a descendant family rather than when the founder serves as the CEO. The results are inconsistent to that in the US, where founder CEOs are associated with superior performance compared to CEOs from descendant families. We note two plausible explanations: founder CEOs in Indian family firms are possibly not good managers and /or founder CEOs of Indian family firms are perhaps managing the firm's income in order to minimize taxes.

The findings of this study could form the basis of further research on family firms in developing economies, such as India, beyond traditional methodological approaches by examining the intricacies of corporate governance in specific family firms. Such an approach utilising qualitative approaches may provide novel insights into the operation of family firms and more specifically family firms in an emerging economy.

References

1. Adams, R., Almedia, H., and Ferreira, D. (2009), "Understanding the relationship between founder–CEOs and firm performance", *Journal of Empirical Finance*, Vol.16 No.1, pp.136-150.
2. Agrawal, A. and Knoeber, C. (1996), "Firm Performance and Mechanisms to Control Agency Problems between Managers and Shareholders", *Journal of Financial and Quantitative Analysis*, Vol.31 No. 3, pp.77-397.
3. Andersen, R. and Reeb, D. (2003), "Founding-family Ownership and Firm Performance: Evidence from the S&P 500", *The Journal of Finance*, Vol. LVIII No.3, pp.1301-1328.
4. Anderson, R. and Reeb, D. (2004), "Board composition: balancing family influence in S&P 500 firms", *Administrative Science Quarterly*, Vol.49, pp.209-237.
5. Baysinger, B. and Butler, H. (1985), "Corporate Governance and the Board of Directors: Performance Effects of Change in Board Composition", *Journal of Law, Economics and Organisation*, Vol.1, pp.101-134.
6. Bennedsen, M., Nielsen, K., Peréz-González, F., and Wolfenzon, D. (2007), "*Inside the Family Firm: The Role of Families in Succession Decisions and Performance*", SSRN working paper.
7. Bhagat, S. and Bolton, B. (2008), "Corporate governance and firm performance", *Journal of Corporate Finance*, Vol.14, pp.257–273.
8. Brennan, N. and Solomon, J. (2008), "Corporate governance, accountability and mechanisms of accountability: an overview", *Accounting, Auditing & Accountability Journal*, Vol.21 No.7, pp. 885-906.
9. Burkart, M., Panunzi, F., and Shleifer, A. (2003), "Family Firms", *The Journal of Finance*, Vol. 58 No.5, pp.2167-2202.
10. Casson, M. (1999), "The economics of the family firm", *Scandinavian Economic History Review*, Vol.47, pp.10-23.
11. Chakrabarti, R., Megginson, W., and Yadav, P. (2008), "Corporate Governance in India", *Journal of Applied Corporate Finance*, Vol.20, pp.59-72.
12. Coles, J., McWilliams, V., and Sen, N. (2001), "An Examination of the Relationship of Governance Mechanisms to Performance", *Journal of Management*, Vol.27, pp.23-50.
13. Dalton, D., Daily, C., Ellstrand, A., and Johnson, J. (1998), "Meta-analytic Reviews of Board Composition, Leadership Structure and Financial Performance", *Strategic Management Journal*, Vol.19, pp.269-290.
14. DeAngelo, H. and DeAngelo, L. (2000), "Controlling stockholders and the disciplinary role of corporate payout policy: a study of the Times Mirror Company", *Journal of Financial Economics*, Vol.56 No.2, pp.153-207.
15. Demsetz, H. (1983) "The structure of ownership and the theory of the firm", *Journal of Law and Economics*, Vol. 25 pp. 375-390.
16. Demsetz, H. and Lehn, K. (1985), "The structure of corporate ownership: Causes and consequences", *Journal of Political Economy*, Vol. 93, pp.1155-1177.
17. Erhardt, N., Werbel, J., and Shrader, C. (2003), "Board of Director Diversity and Firm Financial Performance", *Corporate Governance: An International Review*, Vol.11 No.2, p.102.
18. Fahlenbrach, R. (2009), "Founder-CEO's, Investment Decisions, and Stock Market Performance", *Journal of Financial and Quantitative Analysis*, Vol.44 No.2, pp. 439-466.
19. Hermalin, Benjamin E. and Weisbach, M. (2001), "*Boards of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature*.",

NBER Working Paper no. 8161. National Bureau of Economic Research (NBER), Cambridge, MA.
20. Jackling, B. and Johl, S. (2009), Board Structure and Firm performance: Evidence from India's top companies. *Corporate Governance: an International Review*, Vol.17 No.4, pp.492-509.
21. James, H. (1999), "Owner as Manager, Extended Horizons and the Family Firm", *International Journal of the Economics of Business*, Vol. 6 No.1, pp.41-56.
22. Maury, B. (2006), "Family Ownership and Firm Performance: Empirical Evidence from Western Europe Corporations", *Journal of Corporate Finance*, Vol. 12 No.2, pp.321-341.
23. Miller, D., Le Breton-Miller, I., Lester., R., andCannella, A. (2007), "Are family firms really superior performers?", *Journal of Corporate Finance*, Vol.13, pp.829-858.
24. Morck, R., Shleifer, A., and Vishny, R. (1988), "Management ownership and market valuation: An empirical analysis", *Journal of Financial Economics*, Vol.20, pp.293-315.
25. Morck, R., Strangeland, D., and Yeung, B. (2000), "Inherited wealth, corporate control and economic growth", In R. Morck (Ed), *Concentrated Corporate Ownership*, pp.319-372. Chicago: University of Chicago Press.
26. Muth, M. and Donaldson, L. (1998), Stewardship theory and board structure: a contingency approach. *Corporate Governance*, Vol.6 No.1, pp. 5-28.
27. Myers, R. (1990), *Classical and modern regression with applications.* Boston: Duxbury Press.
28. Nicholson, G. and Kiel, G. (2007), "Can Directors impact Performance? A case-based test of three theories of corporate governance", *Corporate Governance: An International Review*, Vol.15, pp.585-608
29. Paila, D. and Ravid, S. (2002), *The Role of Founders in Large Companies: Entrenchment or Valuable Human Capital?* Working Paper, Rutgers University.
30. Perez-Gonzalez, F. (2006), "Inherited control and firm performance", *The American Economic Review*, Vol. 96 No.5, pp.1559-1588.
31. Rosenstein, S. and Wyatt, J. (1990), "Outside Directors, Board Independence, and Shareholder wealth", *Journal of Financial Economics*, Vol.26, pp.175-191.
32. Shanker, M. and Astrachan, J. (1996), "Myths and realities: family businesses' contributions to US economy – a framework for assessing family business Statistics", *Family Business Review*, Vol.9 No.2, pp.107-123.
33. Sharma, P. (2004), "An Overview of the Field of Family Business Studies: Current Status and Directions for the Future", *Family Business Review*, Vol.17 No.1, pp.1-36.
34. Stein, J. (1989), "Efficient Capital Markets, Inefficient Firms: A Model of Myopic Corporate Behavior", *The Quarterly Journal of Economics*, Vol.104 No.4, pp.655-669
35. Shleifer, A. and Vishny, R. (1997), "A Survey of Corporate Governance", *Journal of Finance*, Vol.52, pp.759-783.
36. Villaonga, B. and Amit, R. (2006), "How do family ownership, management and control affect firm value?" *Journal of Financial Economics*, Vol.80, pp.385-417.

Appendices

TABLE 1. Number and Percent of Firms by Industry Classification

	All Sample Firms	
Industry	N	%
Oil and Petroleum	3	1.72
Chemicals	18	10.34
Engineering services, Construction and Building Materials	22	12.64
Iron, Steel and Metals	15	8.62
Industrial Manufacturing, Textile and Automobiles	34	19.54
Media and Publishing	11	6.32
Electronics and Electrical Equipment	8	4.60
Consumer Products and Tobacco	6	3.45
Drugs and Health Care	17	9.77
Machinery and Industrial Equipment	4	2.30
Computer Software and Services	11	6.32
Electrical utilities, water works/supply, gas and telecommunications	12	6.89
Others	13	7.47
Total	174	100.00

TABLE 2. Descriptive Statistics

Continuous variables (Categorical variables)	N	Min (% =1)	Max	Mean	Median	Std. Deviation
Panel A: Performance Variables						
2005-06 Return on Assets (%) (ROA)	174	-40.58	45.89	7.452	6.395	7.654
2004-05 Return on Assets (%) (LAGROA)	174	-18.46	42.13	7.791	6.78	7.654
Panel B: Family Related Variables						
First Generation Firms (FOUNDGEN) (%)	75	43.10				
Other than First Generation Firms (DESCENDGEN) (%)	99	56.90				
Young Family Firms in years (YGFIRM)[viii]	93	1	29	19.473	20	6.073
Old Family in years (OLDFIRM)	81	30	129	55.333	47	23.415
Panel C: Board Independence						
Number of Outside Directors	174	0	10	4.626	4	1.728
Proportion of Outside Directors (OUTSIDE)	174	0	.857	.493	0.50	.133
Panel D: Leadership variables (LEADERSHIP)						
CEO a family member (FLYCEO) (%)	119	68.39				
CEO a founder (CEOFOUNDER) (%)	54	31.03				
CEO a descendant (CEODESCENDANT) (%)	65	37.36				
OUTSIDE*LEADERSHIP						
OUTSIDE*FLYCEO	117	0	0.857	0.50		
OUTSIDE*CEOFOUNDER	54	0	0.857	0.52		
OUTSIDE*CEODESCENDANT	65	0	0.833	0.48		
Panel E: Other Control Variables						
Total Assets (Rs'mil)	174	0.026	969	30.90	11.30	81.40
Log of Total Assets (ASSET)	174	10.164	20.691	16.13	16.238	1.438
Leverage (Non-current Liabilities / Total Assets) (LEV)	173	.129	1.254	.579	.614	.192
Growth – Capital Expenditure to Sales (CAPEXP)	173	.007	14.081	1.108	.691	1.625
Growth – Research and Development Expenditure to Sales (RDEV)	174	0	.219	7.791	6.78	7.654

TABLE 3. Variables Definition / Measurement and Source

Variable	Measurement and Operationalization	Source
Dependent Variable		
PERFORM	Firm performance is measured using Return on Asset (ROA)	OSIRIS
Hypotheses Variables		
Board Independence		
H1 – OUTSIDE	Percentage of outside directors (number of outside director / total number of all directors)	Annual Report
Firm Characteristics		
H2 – FAMILYRELATED H2a H2b	Family related variables are measured in the following ways: 1) FOUNDGEN – 1 if the firm is a founding family firm, 0 otherwise. 2) DESCENDGEN – 1 if the firm is a second generation family firm, 0 otherwise. 3) YGFIRM – 1 if the family firm is less than 29 years and the family is present in the firm, 0 otherwise. 4) OLDFIRM – 1 if the family firm is equal to or greater than 29 years and the family is present in the firm, 0 otherwise.	Annual Reports (Director Profile), Directors database, Corporate Filing and Dissemination System, and Firm's website
Firm Leadership		
H3 LEADERSHIP H3a H3b	This variable is measured in the following manner: 1) FLYCEO – 1 if a family member takes the role of a CEO, 0 otherwise. 2) CEOFOUNDER – 1 if the CEO is the founder of the firm, 0 otherwise. 3) CEODESENDANT – 1 if the CEO is a founders' descendant, 0 otherwise.	Annual Reports (Director Profile), Directors database, Corporate Filing and Dissemination System, and Firm's website
OUTSIDE*LEADERSHIP	This variable is an interaction term of the following OUTSIDE and LEADERSHIP variables: 1) OUTSIDE*FLYCEO 2) OUTSIDE*CEOFOUNDER 3) OUTSIDE*CEODESCENDANT	
Control variables		
LEV	Total non-current liabilities over total assets	OSIRIS
ASSET	Natural log of total assets	OSIRIS
CAPEXP	Capital expenditure / total sales	OSIRIS
RDEV	Natural log of research and development expenditure / total sales	OSIRIS
LAGPERFORM	Prior year's performance PERFORM (LAGROA)	OSIRIS

TABLE 4. Pearson Correlation Matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	ROA	1													
2	OUTSIDE	.125*	1												
3	FOUNDGEN	-.072	.088	1											
4	DESCENDGEN	.046	-.096†	-.966**	1										
5	YGFIRM	-.063	.042	.510**	-.540**	1									
6	OLDFIRM	.063	-.042	-.510**	.540**	-1.000**	1								
7	FLYCEO	-.010	.088	.068	-.016	.084	-.084	1							
8	CEOFOUNDER	-.016	.139*	.771**	-.744**	.327**	-.327**	.456**	1						
9	CEODESCENDANT	.006	-.048	-.672**	.696**	-.232**	.232**	.525**	-.518**	1					
10	ASSET	-.120	.028	-.313**	.351**	-.245**	.245**	-.081	-.270**	.180*	1				
11	LEV	-.383**	-.139*	-.133*	.122*	-.070	.070	-.102†	-.168*	.061	.221**	1			
12	CAPEXP	-.008	.066	-.009	.008	.008	-.008	.010	-.003	.012	.345**	.051	1		
13	RDEV	.068	.040	.073	-.067	.070	-.070	-.102†	-.084	-.017	-.010	-.102†	-.002	1	
14	LAGROA	.700**	.151*	.026	-.088	-.019	.019	.012	.087	-.072	-.047	-.452**	-.022	.078	1

†,*, ** = statistically significant at less than the .10 .05, and .01 level (two tailed)

TABLE 5. Results of Regression Analysis – Board Independence and Family Firms Characteristics (Hypotheses 1 and 2)

		Estimation 1		**Estimation 2**		**Estimation 3**		**Estimation 4**		**Estimation 5**	
	Predicted Sign	Coeff	**t-stat**	Coeff	**t-stat**	Coeff	**t-stat**	Coeff	**t-stat**	Coeff	**t-stat**
Board Independence (H1)											
OUTSIDE	+	-.012	-0.00	.653	0.19	.793	0.23	.144	0.04	.144	0.04
Family Related Characteristics (H2)											
FOUNDGEN	+			-2.480	-2.68*						
DESCENDGEN	-					2.862	2.95*				
YGFIRM	+							-.966	-1.09		
OLDFIRM	-									.966	1.09
Control variables											
ASSET	**?**	-.334	-0.94	-.565	-1.48	-.673	-1.71**	-.427	-1.12	-.427	-1.12
LEV	-	-2.300	-0.57	-2.300	-0.59	-2.541	-0.68	-2.11	-0.53	-2.11	-0.53
CAPEXP	+	-.365	-1.93**	-.326	-1.71**	-.219	-0.88	-.325	-1.84**	-.325	-1.84**
RDEV	+	-5.930	-0.29	-2.07	-0.10	-2.627	-0.13	-4.77	-0.24	-4.77	-0.24
LAGROA	+	.620	5.18*	.626	5.41*	.634	5.73*	.620	5.06*	.620	5.06
CONSTANT		11.00	1.32	16.43	1.88	14.73	1.83	12.99	1.44	12.02	1.39
R^2		0.55		0.57		0.57		0.55		0.55	
F-stat / Chi^2		7.02		6.37		6.85		6.83		6.83	
N		172		172		172		172		172	

ROA = Return on Assets for the current year; OUTSIDE = percentage of outside directors, FOUNDGEN = 1 if FOUNDGEN is a first generation/founding firm and 0 otherwise, DESCENDGEN = 1 if DESCENDGEN is other than first generation firm and 0 otherwise; YGFIRM = 1 if YGFIRM is equal to and less than 29 years old and 0 otherwise, OLDFIRM = 1 If OLDFIRM is more than 29 years old, ASSET = natural log of total assets, LEV= non-current liabilities/total assets, CAPEXP = capital expenditure/sales, RDEV = natural log of research and development expenditure / sales, and LAGROA= prior year's ROA. All estimations include dummy variables for industry sector.

†, *, ** = statistically significant at less than the.10, .05, and.01 level, based on one tailed (two tailed) tests for variables where direction of relationship with dependent variable is (is not) predicted.

TABLE 6. Results of Regression Analysis – Leadership of Family Firms: Founder and Descendant CEOs (Hypothesis 3)

		Estimation 1		**Estimation 2**		**Estimation 3**	
	Predicted Sign	Coeff	**t-stat**	Coeff	**t-stat**	Coeff	**t-stat**
Board Independence							
OUTSIDE	+	0.142	0.04	0.932	0.27	0.122	0.04
LEADERSHIP (H3)							
FLYCEO	+	-0.647	-0.80				
CEOFOUNDER	+			-2.329	-2.04*		
CEODESCENDANT	-					1.434	1.62*
Control variables							
ASSET	**?**	-0.343	-0.95	-0.499	-1.29	-0.416	-1.16
LEV	-	-2.479	-0.61	-2.548	-0.64	-1.982	-0.49
CAPEXP	+	-0.373	-1.93*	-0.381	-1.92*	-0.352	-1.80*
RDEV	+	-8.12	-0.40	-12.759	-0.59	-5.138	-0.25
LAGROA	+	0.618	5.08**	0.627	5.34**	0.631	5.38**
CONSTANT		11.709	1.32	14.601	1.65	11.673	1.41
R^2		0.55		0.56		0.55	
F-stat / Chi^2		6.71		7.20		6.49	
N		172		172		172	

ROA = Return on Assets for the current year; OUTSIDE = percentage of outside directors, FLYCEO = 1 if FLYCEO is firm's CEO is a family member of the founding family and 0 otherwise, CEOFOUNDER = 1 if the firm's CEO is the founder of the firm (ie first generation CEO) and 0 otherwise; CEODESCENDANT = 1 if the CEO of the firm is a descendant, ASSET = natural log of total assets, LEV= non-current liabilities/total assets, CAPEXP = capital expenditure/sales, RDEV = natural log of research and development expenditure / sales, and LAGROA= prior year's ROA. All estimations include dummy variables for industry sector.

†, *, ** = statistically significant at less than the.10, .05, and 0.01 level, based on one tailed (two tailed) tests for variables where direction of relationship with dependent variable is (is not) predicted.

TABLE 6A. Results of Regression Analysis – Interaction of the Role of Outside Directors and Family Firm Leadership (Hypothesis 4)

		Estimation 4		**Estimation 5**		**Estimation 6**	
	Predicted Sign	Coeff	**t-stat**	Coeff	**t-stat**	Coeff	**t-stat**
Board Monitoring							
OUTSIDE	+	-2.866	-0.65	2.054	0.41	-3.159	-0.98
LEADERSHIP							
FLYCEO	+	-2.739	-0.88				
CEOFOUNDER	+			-0.553	-0.18		
CEODESCENDANT	-					-2.403	-0.62
OUTSIDE* LEADERSHIP							
OUTSIDE* FLYCEO	+	4.309	0.67				
OUTSIDE* CEOFOUNDER				-3.501	-0.54		
OUTSIDE* CEODESCENDANT						7.769	0.90
Control variables							
ASSET	**?**	-0.359	-0.99	-0.492	-1.25	-0.428	-1.19
LEV	-	-2.397	-0.59	-2.563	-0.64	-1.996	-0.49
CAPEXP	+	-0.376	-1.94*	-0.380	-1.91*	-0.349	-1.78*
RDEV	+	-7.856	-0.39	-13.560	-0.60	-7.149	-0.33
LAGROA	+	0.618	5.07**	0.628	5.37**	0.632	5.47**
CONSTANT		13.342	1.52	13.927	1.49	13.480	1.68
R^2		0.55		0.56		0.56	
F-stat / Chi^2		6.16		7.18		6.01	
N		172		172		172	

ROA = Return on Assets for the current year; OUTSIDE = percentage of outside directors, FLYCEO = 1 if FLYCEO is firm's CEO is a family member of the founding family and 0 otherwise, CEOFOUNDER = 1 if the firm's CEO is the founder of the firm (ie first generation CEO) and 0 otherwise; CEODESCENDANT = 1 if the CEO of the firm is a descendant, ASSET = natural log of total assets, LEV= non-current liabilities/total assets, CAPEXP = capital expenditure/sales, RDEV = natural log of research and development expenditure / sales, and LAGROA= prior year's ROA. All estimations include dummy variables for industry sector.

†, *, ** = statistically significant at less than the.10, .05, and .01 level, based on one tailed (two tailed) tests for variables where direction of relationship with dependent variable is (is not) predicted.

TABLE 7. Results of Additional Regression Analyses – Alternate Measures of the Role of Outside Directors

	Expected Sign	**OUTSIDE*YGFIRM**		**OUTSIDE*OLDFIRM**	
		Coefficient	**t-stat**	**Coefficient**	**t-stat**
OUTSIDE*FAMILYRELATED					
When OUTSIDE is more than 66%					
OUTSIDE66	+	-1.319	-0.58		
YGFIRM	+	-1.545	-1.75**		
OUTSIDE66*YGFIRM	+	5.040	1.51†		
OUTSIDE66	+			3.721	1.63**
OLDFIRM	+			1.545	1.75**
OUTSIDE66*OLDFIRM	+			-5.040	-1.51†
When OUTSIDE is more than 70%					
OUTSIDE70	+	-3.150	-1.00		
YGFIRM	+	-1.448	-1.69**		
OUTSIDE70*YGFIRM	+	8.051	1.64**		
OUTSIDE70	+			4.901	1.32†
OLDFIRM	+			1.448	1.69**
OUTSIDE70*OLDFIRM	+			-8.051	0.102**
When OUTSIDE is more than 75%					
OUTSIDE75	+	-4.266	-0.97		
YGFIRM	+	1.537	-1.86**		
OUTSIDE75*YGFIRM	+	18.314	2.16**		
OUTSIDE75	+			14.048	1.93**
OLDFIRM	+			1.537	1.86**
OUTSIDE75*OLDFIRM	+			-18.314	-2.16**

Note: OUTSIDE = 1 if percentage of outside directors is more than 66% (70%, or 75%) and 0 otherwise, YGFIRM = 1 if YGFIRM is equal to and less than 29 years old and 0 otherwise, OLDFIRM = 1 If OLDFIRM is more than 29 years old. In each of the 6 estimations, control and industry dummy variables were included.
†, *, ** = statistically significant at less than the .10, .05, and .01 level, based on one tailed (two tailed) tests for variables where direction of relationship with dependent variable is (is not) predicted.