AGENCY CONFLICTS AND OPERATING PERFORMANCE IN AN EMERGING MARKET

Manas Mayur*

*Department of Finance & Accounting – Goa Institute of Management, Sanquelim Campus, Poriem Sattari, Goa – 403505, India

Abstract

The study examines the relationship between post-IPO performance of 306 Indian firms and the changes in insiders' ownership around their IPOs? The results illustrated a curvilinear relationship between ownership and performance. Whereas the negative relationship was found for low and very high ownership level and positive relationship was found for intermediate level. This is an attention-grabbing outcome as it contrasts with earlier studies on curvilinear relationship between ownership and performance, where the negative relationship was found for intermediate level and positive relationship was found for both very low and very high ownership level.

1. INTRODUCTION

In the corporate governance literature, there is a continuous debate about the basic relationship between the insiders'[12] shareholding/ownership and the performance of firms[13]. While numerous studies empirically confirmed a positive relationship between changes in the insiders' ownership and the performance of firms as was proposed by Jensen and Meckling (1976), an equal number of studies evidenced a negative relationship between them as was propounded by the Fama and Jensen (1983). Hence, a consensus is lacking regarding the exact relationship between the changes in the insiders' ownership and the performance of firms.

In recent years a few researchers have studied the above relationship in context of going public decision of business firms[14]. Jain and Kini (1994) pioneered the research initiatives in the above direction by investigating the relationship between the ownership level of insiders in the post-IPO period and the post-IPO performance of firms with the help of a sample of 682 US public firms. They found a linear positive relationship between them. Subsequently, Mikkelson et. al. (1996) and Kim et.al. (2002) investigated the above relationship with their samples of firms derived from UK and Thailand, respectively. Mikkelson et. al. (1996) argued against any significant relationship between the changes in the levels of insiders' ownership of firms at the time of IPOs and their post-IPO performance. Kim et.al. (2002) evidenced a curvilinear relationship between them. While they found a positive relationship for firms with very low and very high levels of insiders' ownership, they discovered a negative relationship for firms with intermediate levels of insiders'

ownership. Apparently no consensus has emerged, from the limited number of empirical studies done so far, regarding the nature of relationship between the changes in the levels of insiders' ownership of firms at the time of IPOs and their post-IPO performance.

The present study contributes to the existing IPO literature in many ways. First, there is a dearth of empirical studies conducted to examine the nature of relationship between the changes in the levels of insiders' ownership of firms at the time of IPOs and their post-IPO performance. Although literature on corporate governance is full of studies where relationship between ownership and performance is analyzed, we find very few studies where the changes in ownership around IPO were examined. IPO leads to changes in the concentration of ownership of insiders. Hence IPO should offer an optimum time where the consequence of changes in insiders' ownership concentration on performance of firms can be studied.

Second, even in the already sparse empirical literature, most existing studies are in context of developed countries, and evidence in context of emerging countries[15] is rare and far in between. Indian companies differed from developed country companies, with respect to ownership structure and controls, in many ways. First, most of the largest firms in India are still under the control of founding family. One of the possible reasons could be weak institutional environment prevailing in the Indian market, as compare to active institutional environment in developing countries, that refrain family owned firms from converting into a professional managed firms (Peng and Health,1996 and Yeung, 2006). Another reason could be the controls that founder of companies do not want to

---

[12] In this paper, the terms 'insiders', 'promoters', 'managers' are used interchangeably to refer to the promoters of the firm.
[13] See DeAngelo H. and L. DeAngelo, (1985), Demsetz, H. and K. Lehn (1985), Shleifer, A. and R. Vishny (1986),Brickley, J. and C. James (1987), Grossman, S. and O. Hart (1988), Stulz, R. (1988), Gordon, L. and J. Pound (1990), McConnell, J. and H. Servaes (1990), Hermalin, B. and M. Weisbach (1991),Chang, S. and D. Mayers (1992), Song, M. and R. Walkling (1993), Dhillon, U. and G. Ramirez (1994), Gertner, R. and S. Kaplan (1996), La Porta et al. (1999), Short and Keasey (1999), Dharwadkar et al. (2000), Zhou, X.

(2001), Tan et. al. (2001),, J. Fan and L. Lang (2002), Adams, R. and J. Santos (2004), Filatotchev (2005), etc.
[14] See Pagano, 1993; Jain and Kini, 1994; Zingales, 1995; Mikkelson, W., Partch, M., Shah, K., 1997; Stoughton and Zechner, 1998; Chemmanur and Fulghieri, 1999; etc.
[15] Kim et. al. (2002) and Wang (2005) investigated the relationship between the changes in the levels of insiders' ownership of firms at the time of IPOs and their post-IPO performance with their sample of firms derived from emerging market of Thailand and China respectively.

lose over their firm and hence do not like to dilute their concentration of ownership.

Second, concentrated or dominant ownership is one of the common characteristics of Indian companies. As discussed above one of the key reason is weak institutional environment. Institutional environment ideally should provide legal safeguards to protect the interest of both insiders and outside investors. But since the institutional environment is weak, the founders of companies do not want to disclose sensitive information to outside investors. The firms typically hire only members of the in-group or family (Fukuyama, 1995; Yeung, 2006). This makes the transition of dominant to dispersed ownership more difficult. This is true for most of the emerging countries companies. The second reason is the ineffective role of board of directors in monitoring and control. Unlike developed countries the board of directors in emerging countries lacks the institutional support and hence is less effective in controlling top managers and as a result more emphasis is placed on internal control mechanisms.

Finally, the India specific focus of this study makes it especially useful for the ever increasing pool of investors interested in the Indian Primary market. Growing interest of investors into the Indian primary market is evidenced by the recent buoyancy in the IPO activity of the Indian companies (Table 1). A clear understanding of post-IPO performance of the Indian public firms and its relationship, if any, with the changes in the levels of insiders' ownership at the time of IPOs is useful for the prospective IPO issuers, the security market regulator, the IPO investors and the finance researchers.

The remaining of this paper is organized as follows. Section 2 provides a brief review of the relevant theoretical and empirical studies. Section 3 describes the methodology used in this paper. Section 4 specifies the data sources and the sampling technique used. Section 5 presents the results and Section 6 makes the concluding remarks.

2. REVIEW OF LITERATURE AND HYPOTHESIS DEVELOPMENT

Literature review section is divided into two sections. First, the theories dealing with relationship between ownership structure and performance of firms are discussed. Next, the empirical studies carried out on the theme of this study are reviewed.

2.1. Theories[16]

The relationship between insiders' ownership and performance of firms has received considerable attention in both economics and finance. Beginning with Smith (1776), Berle and Means (1932) and Jensen and Meckling (1976) a growing number of theoretical papers investigated this relationship. However, the

exact nature of this relationship still remains a debatable issue.

Elements from agency theory formed the premise for most of the arguments on the nature of relationship between insiders' ownership and performance of firms (Jensen and Meckling, 1976; Fama and Jensen, 1983; Shleifer and Vishny, 1986; La Porta et al., 1999; Thomsen and Pedersen, 2000; Dharwadkar et al., 2000 etc.). Jensen and Meckling (1976) defined agency relationship as a contract under which principal (one or more persons that determine the work) engage the agent (one or more persons that undertake that work) to perform services on their behalf which involves delegating some decision making authority to the agent. The very concept of maximization of utility[17] by both the parties is enough to give the impression that agent will not always act in the best interest of the principal. The non-alignment of interests of both the parties creates costs for the firms, which are known as the agency costs[18].

Clearly, the relationship between shareholders and managers of a firm fits very well into the framework of agency theory. Therefore, agency theory can be applied to understand the relationship between the changes in the levels of insiders' ownership at the time of IPOs and their post-IPO performance. In the IPO literature, the application of agency theory to the above relationship is viewed from three different perspectives

2.2. Alignment of Interests Argument

As per the first perspective, the interests of owners-managers and shareholders are generally aligned and therefore, the firm performance improves with the increase in the level of ownership of owner-managers and vice versa. In a way, relationship between the level of owner-managers' ownership and firm performance is expected to be positive.

Jensen and Meckling (1976) explained this argument on the basis of relationship between manager's expenditure on non-pecuniary benefits[19] and firm value. In a firm completely owned by managers, all costs incurred to provide non-pecuniary benefits to managers are borne by the owner-managers themselves[20]. Therefore, 100 percent owner-managers of firm tend to avoid all extra costs required to be incurred to provide themselves with any non-pecuniary benefits. Hence, the firm value would be maximized when managers completely own a firm as any extra costs incurred to provide non-pecuniary benefits is to be fully born by owner-managers themselves.

In a situation, where owner-manager has sold (say α) portion of ownership to the shareholders, the cost of extra expenditure on non-pecuniary benefits would be born by both the owner-manager and the buyer or shareholder. The cost[21] would be now shared

---

[16] While several theoretical studies have been propounded and empirically tested regarding the relationship between the changes in the levels of insiders' ownership at the time of IPOs and their post-IPO performance, yet Demsetz (1983) holds different views on this issue. Author asserted that the ownership structure of an organization is an endogenous outcome that is an optimal response to company specific advantages and disadvantages. Therefore there should not be any debate on outcome of this structure because an organization would only have that structure which would be maximizing the profit of firm. Studies like Bergstrom and Rydqvist (1990), Denis and Denis (1994), Kole (1996) and Loderer and Martin (1997) empirically showed non significant relationship between the ownership structure and the operating performance of firms.

[17] Jensen and Meckling (1976) consider this situation as Pareto optimal situation where one can only be better off by making someone worse off.

[18] Jensen and Meckiling (1976) identified and categorized a public firm's agency costs to be the sum total of: monitoring costs, bonding costs and residual losses.

[19] Firms' managers extract two types of benefits: (i) pecuniary benefits (e.g. wages, dividend, interest), and (ii) various non-pecuniary benefits (e.g. facilities and amenities in the office, respect, the purchase of production inputs from friends etc.). Firms bear the costs of providing the pecuniary as well as non-pecuniary benefits to the managers.

[20] The slope of line representing relationship between costs incurred to provide non-pecuniary benefits and firm value for 100 percent owner-manager firm is -1 i.e. with a unit increase in non-pecuniary costs the value of firm decreases by same unit.

[21] Jensen and Meckling (1976) assumed the presence of information asymmetry between owner- manager and shareholders and therefore stated that shareholders would not be aware of the expenditures done by owner-manager on non-pecuniary benefits.

by both the parties but the benefits would be enjoyed by only owner-manager. Therefore, the expenditure on non-pecuniary benefits by owner-manager would be more likely to increase with the degree of diffusion of ownership[22].

Another supporting argument is that with the fall in managers' ownership, the managerial drive to devote their endeavours for creative wealth maximizing activities such as searching out new profitable ventures comes down significantly. They may rather avoid such creative wealth maximizing activities simply because it requires too much effort on their part. Avoidance of these efforts can also result in the value of firm being substantially lower than it otherwise could be.

2.3. Entrenchment Argument

As per the second perspective, a high level of managerial ownership in a high information asymmetry environment allows managers to pursue such decisions (actions) that may only suit their personal objectives and hence, may go contrary to the firm's objectives. Such actions may include rapid self-promotion, personal enrichment or avoidance of stress and competitive conflict both within and in the firm's product markets. In a way, a high level of owner-managers' ownership can be counter productive to the firm performance and value (Fama and Jensen, 1983; Morck, Shleifer and Vishny, 1988 etc.).

Fama and Jensen (1983) explained that in large organizations the decision managers who initiate and implement decisions are not the major residual claimants and therefore do not bear a major share of the wealth effects of their decisions. The number of residual claimants in such organizations is large and dispersed and the decision controls are limited to only few agents/managers. As the level of ownership of these decision managers increases, their control (voting power) over the firm also increases. With high level of ownership these agents also enjoy the benefits of lack of monitoring and control by dispersed residual claimants. With enough voting power and without effective control procedures, such decisions managers are more likely to take actions that deviate from the interests of residual claimants. Such actions give rise to agency problems which result in lower value of output. The loss in output in terms of agency costs leads to low firm value. Therefore, Fama and Jensen (1983) conjectured a negative relationship between the level of owner-managers' ownership and firm value i.e. with increase in ownership of agent/manager the value of firm decreases and vice versa.

2.4. Curvilinear argument

Morck et. al. (1988) argued a curvilinear relationship (rather than a simple linear relationship) between the level of owner-managers' ownership and firm performance. Their argument was that the 'entrenchment effect' dominates the 'alignment of interest effect' for medium levels of owner-managers' ownership. This is so because for low levels of managerial ownership it might not be reasonable to

think that the managers are entrenched at all since their ownership stake is too small to permit them a complete freedom over their decision making. Furthermore, for very high levels of managerial ownership it seems reasonable to assume that there is high degree of alignment between the firm value and managerial wealth. Therefore, at high levels of managerial ownership, the relationship between level of owner-managers' ownership and firm performance is expected to be positive. As a result, the entrenchment effect will have a pre-dominant impact on firm performance only at the changes in the middle ranges of managerial ownership.

2.5. Review of empirical studies

Jain and Kini (1994) investigated the nature of relationship between the levels of ownership retained by the insiders of firms after the IPOs and their post-IPO performance with a sample of 682 U.S. firms that went public between 1976 and 1988. They found that the median of most of the operating performance measures declined after IPO. They also found that Sales and Capital expenditure increased after IPO and hence the decline in operating performance could not be attributed to any adverse impact on sales growth or capital expenditure after IPO. The industry adjusted performance measures followed the same trend and hence they rejected the presence of any industry effect. Further, to investigate the nature of relationship between changes in ownership and performance of firms around their IPOs, they divided their sample firms into two groups using the median ownership of firms two year after IPO as the cut-off point --- one with high ownership and the other with low ownership. Then the performance trend for both the group was determined. They found a linear positive relationship between the levels of ownership retained by the insiders of firms after the IPOs and their post-IPO performance. It was observed that firms with low ownership exhibited more decline in performance compared to the firms with high ownership. Their results supported the alignment of interest hypothesis.

Mikkelson et al. (1997) studied the operating performance of 283 U.S. firms which completed their IPOs between 1980 and 1983. The 'operating returns on assets'[23] was used as the proxy for the firm's operating performance. Each firm's operating return on assets was adjusted by subtracting the median contemporaneous operating return of a group of matched publicly traded firms. The study reported that operating performance declined sharply within the one year after IPO to a level that was below the performance of matched firms. However, performance did not decline appreciably further during the second through tenth years of public trading. Management ownership declined significantly after IPO. The median ownership of firms' officers and directors fell from 67.9% just before the firms' IPOs to 43.7% immediately following the completion of the firms' IPOs. Their stake further fell down to 28.6% and 17.9% after five and ten years, respectively, of going public. However, contrary to Jain and Kini (1994), the study did not find any relationship between the ownership and performance of firms in post IPO period. The study explained that

---

[22] The slope of line representing the relationship between non-pecuniary expenditure and firm value was found to be – α i.e. with a unit increase in non-pecuniary expenditure the firm value reduces by – α. Based on this relationship

it can be said that with increase in α (or decrease in owner-manager ownership (1- α)), the value of firm decreases and vice versa.
[23] operating income before depreciation, interest, taxes, and extraordinary items, divided by end-of-year assets

changes in equity ownership after IPO did not lead to change in incentives that could affect operating performance negatively. Managers' and other stockholders' interests are closely aligned because officers and directors continue to hold substantial ownership stakes in the first years of public trading. In addition, after becoming publicly traded, alternative forces, such as compensation linked to stock price, potentially substitute for the incentive benefits of large ownership stakes of managers. The decline in performance was suspected to be consequence of other factors rather than changes in ownership.

Kim et al. (2002) conducted a study on the sample of 133 Thai firms that went public between 1987 and 1993. They documented a decline in operating performance for Thai firms in post IPO period. Further, they demonstrated a curvilinear relationship (alignment-entrenchment-allignment) between the level of owner-managers' ownership and firm performance as was conjectured by Morck et.al. (1988). Kim et al. (2002) found that firms, where managerial ownership levels changed within a range of 0% to 31% and 71% to 100%, experienced comparably less post-IPO performance decline than firms, where managerial ownership levels changed within a range of 31% to 71% i.e. firm's with low and very high ownership experienced the alignment of interests hypothesis whereas firms with intermediate level of ownership experienced entrenchment hypothesis.

Balatbat, Taylor and Walter (2004) conducted his study on 313 Australian firms that went public between 1976 and 1993. They also found a decline in operating performance for Australian firms in post IPO period. They examined the relationship between ownership and performance up to five years after IPO. They found no significant relationship between ownership and decline in operating performance for first three years after IPO but found a significant positive relationship for 4th and 5th year. They argued that for first three years the decline could be because of other dominant factors like earning manipulation. The impact of ownership on performance is visible only after 4th or 5th years after IPO.

Wang (2005) carried out his study on 747 Chinese firms which completed their IPOs between 1994 and 1999. Majority of Chinese listed firms are transformed from state-owned enterprise (SOEs), and each firm has several types of shares. Shares of a typical SOE are split into state, legal-entity, and tradable shares at the time of IPO. State shares are those owned by the central or local government. Legal-entity shares are those held by domestic institutions such as listed firms, financial institutions, etc., most of which are partially owned by central or local government. Tradable shares are the only class of shares that can be traded on domestic stock exchanges. The study found a sharp decline in post-issue operating performance, measured by return on assets, ratio of operating income to assets and sales to assets. State and individual ownership were unrelated to the performance changes. For legal-entity ownership and non-state ownership, a curvilinear relationship similar to Kim et. al. (2002) was found, i.e. firms with low and high levels of legal-entity ownership

(concentration of non-state ownership) exhibited positive relations between ownership (concentration of non-state ownership) and performance changes, while firms with intermediate levels of legal entity ownership (concentration of non-state ownership) experienced negative relations between ownership (concentration of non-state ownership) and performance changes.

Goergen & Renneboog (2007) investigated the relationship between ownership concentration and post IPO profitability for 764 U.K and 98 German firms that went public between 1981 to 1988. The analysis based on panel data regression denied any impact of ownership concentration on profitability as measured by the cash flow to total assets and the cash flow to market value.

Other than Kim et. al. (2002), we could not find any other article establishing curvilinear relationship between ownership and performance for IPO firms. However most of the research on general firms[24] specially in US and UK market (Short, H. and Keasey, K., 1999; Faccio & Lasfer, 2000; McConnell and Servaes ,1990 etc.) supported the argument given by Morck et.al. (1988) i.e. alignment of interest at low and very high ownership levels and entrenchment at intermediate levels for general firms. However Christina (2005) argued for an opposite curvilinear relationship between ownership and performance. His study was based on family owned firms of China. He proved that for Chinese firms the entrenchment effect was present for low and very high ownership level whereas alignment of interest effect was present for intermediate level.

On the basis of above discussion it can be said that there are very few studies that investigated the research issue taken up by the present study. There are only two studies done with samples from within the emerging markets (Thailand and China), and so far no similar study has been in context of IPOs by the Indian companies. The nature of curvilinear relationship between ownership level and performance is also a matter of debate. Hence the present study aims to add to the literature by empirically investigating the theories, discussed above, in context of Indian market.

Table 1. Number of IPOs and Amount raised by Indian Companies from 2002 to 2012

Year	No. of Issues	Amount (Rs. Cr)
2002-03	6	1,039
2003-04	28	17,807
2004-05	29	21,432
2005-06	102	23,676
2006-07	85	24,993
2007-08	90	52,219
2008-09	21	2,034
2009-10	44	46,941
2010-11	57	46,182
2011-12	36	23,982
2012-13	44	34,313

Source: Prime Database

3. METHODOLOGY

The following two firm specific financial ratios (defined in Table 2) are used as proxies for measuring the operating performance of individual firms: (i)

---

[24] Present study is analyzing the operating performance of firm around their IPO therefore we named our sample of firms as IPO firms and used same convention for studies with similar sample. By general firms we meant firms not necessarily public firms. And even if the firms were public the data period

was not taken considering their IPO date. Since our study is based on IPO firms we have not included detailed literature review on the relationship between ownership and performance for general firms.

operating return on total assets (*PBDIT/TA*); and (ii) cash flow from operating activities divided by total assets (*CF/TA*). Operating return on total assets is used as a measure of efficiency of assets utilization. Cash flow from operating activities are a primary component in net present value (NPV) calculations used to value a firm, therefore *CF/TA* provides an

alternative way to measure operating performance of a firm (Kim et al. (2002).

To assess the relationship between changes in insiders' ownership and operating performance of firms around their IPOs following alternative panel data models are estimated.

$$Performance_{i,t} = \alpha_i + \beta_1 PROM_{i,t} + \beta_2 CURR_{i,t} + \beta_3 D/E_{i,t} + \beta_4 GRW_{i,t} + \beta_5 CAPEX_{i,t} + w_{i,t} \tag{1}$$

$$Performance_{i,t} = \alpha_i + \beta_1 PROM_{i,t} + \beta_2 PROM_{i,t}^2 + \beta_3 CURR_{i,t} + \beta_4 D/E_{i,t} + \beta_5 GRW_{i,t}$$
$$+ \beta_6 CAPEX_{i,t} + w_{i,t} \tag{2}$$

$$Performance_{i,t} = \alpha_i + \beta_1 PROM_{i,t} + \beta_2 PROM_{i,t}^2 + \beta_3 PROM_{i,t}^3 + \beta_4 CURR_{i,t} + \beta_5 D/E_{i,t}$$
$$+ \beta_6 GRW_{i,t} + \beta_7 CAPEX_{i,t} + w_{i,t} \tag{3}$$

where, i = 1,2,......... 204
         t = IPO-1, IPO, IPO+1, IPO+2

The above equations depict the basic fixed effect models. These models conjecture the changes observed in firms' performance around their IPOs to be a function of the changes in the insiders' ownership and changes in the controlling variables. The performance variable is either the change in *PBDIT/TA* or the change in *CF/TA*. *PROM²* and *PROM³* represent the quadratic and cubic forms, respectively. The controlling variables are selected according to previous literature on relationship between ownership and performance particularly Short and Keasey (1999) and Kim et. al. (2002).

Liquidity is a general measure of financial stability and hence included as a determinant of performance by study like Hall (1995). We expect a positive relationship between liquidity and performance. Our study included Current ratio (*CURR*) to measure the liquidity of firms. Previous research (such as Rajan,1992; Pagano et al., 1998 and Kim et al.,2002) included proportion of debt to control for capital structure changes. In the present study Debt-Equity ratio (*D/E*), calculated as ratio of

total borrowings and net worth, is taken as controlling variable. Debt creates discipline and contributes to less agency conflicts inside a firm. Hence according to agency theories, the relationship of performance with debt should be positive. Pecking order however argues for a negative relationship. Hence the exact relationship is a matter of debate. In order to capture firm's growth, studies like Short and Keasey (1999) and Kim et. al. (2002) included growth in sales to as a determinant of performance. In the present study percentage growth in sales in last three years (*GRW*) is used as a controlling variable. A positive relationship is expected between growth and performance. Morck et al. (1988), McConnell and Servaes (1990) and Kim et. al (2002) included capital expenditure to show level of investment as a controlling variable for firm performance. In the present study also, capital expenditure (*CAPEX*) is included as a proxy for level of investment as a controlling variable. We expect a positive relationship between level of investment and performance (for the calculation and definition of variables see table 2).

Table 2. Definitions of firm-specific variables used in this study and their expected relationship with performance in multivariate analysis (model 1, 2 & 3)

Variables	Definition	Expected relationship
CF/TA	Ratio of cash flow from operations and total assets. Cash flow from operations indicates cash generated through the main operations of the company. Total assets include value of fixed assets, investments and current assets.	
PBDIT/ TA	Ratio of profit before depreciation interest and tax and total assets. Total assets include value of fixed assets, investments and current assets.	
SALES	By sales we meant income generated from main business activities like sale of goods and services, fiscal benefits, trading income. It also includes internal transfers.	
CURR	Current ratio is a measure of the short-term liquidity position of a company. This ratio is calculated by dividing current assets by current liabilities of a company.	+
D/E	Debt-Equity ratio is a measure of the financial leverage of a company. This ratio is calculated by dividing total borrowings of a firm by net worth.	+/-
GRW	Sales growth is a measure of growth potential of a company. This variable is measured by calculating annual percentage increase in sales	+
CAPEX	This is the capital expenditure or new fixed assets creation in the firm. It is measured as the ratio of expenditure in purchase of new fixed assets to gross fixed assets.	+
PROM	A promoter is a person(s) who are in control of the company, or a relative of the promoter'. Promoters' ownership is calculated as shares held by promoters (in percentage) including foreign promoters and persons acting in concert as a percent of the total outstanding shares of the firm.	+/-

Table 3. Summary statistics of variables

Variable	Time Window	n	Mean	Median	S.D.
CF/TA	Y-1	306	0.034	0.005	0.126
	Y+0	306	0.012	0.006	0.166
	Y+1	306	-0.056	-0.009	0.301
	Y+2	306	-0.019	0.02	0.760
PBDIT/TA	Y-1	306	0.133	0.129	0.114
	Y+0	306	0.143	0.127	0.124
	Y+1	306	0.109	0.106	0.110
	Y+2	306	0.090	0.095	0.114
SALES	Y-1	306	242.247	72.65	557.854
	Y+0	306	349.481	112.02	753.346
	Y+1	306	518.161	142.5	1128.159
	Y+2	306	603.426	180.86	1360.771
CURR	Y-1	306	4.690	1.65	17.246
	Y+0	306	4.618	1.945	9.827
	Y+1	306	5.674	2.18	29.884
	Y+2	306	4.295	2.02	16.260
D/E	Y-1	306	0.938	0.75	9.914
	Y+0	306	1.685	0.515	14.463
	Y+1	306	0.672	0.347	2.038
	Y+2	306	0.823	0.45	1.977
GRW	Y-1	306	0.320	0.074	0.951
	Y+0	306	0.815	0.278	2.452
	Y+1	306	0.510	0.284	1.233
	Y+2	306	0.201	0.140	0.565
CAPEX	Y-1	306	0.866	0.000	4.828
	Y+0	306	1.474	0.02	7.761
	Y+1	306	2.634	0.172	7.956
	Y+2	306	2.203	0.132	15.132
PROM	Y-1	306	57.294	58	18.365
	Y+0	306	54.902	55.56	18.056
	Y+1	306	52.971	54.22	18.335
	Y+2	306	51.553	53.85	19.161

Models 1, 2 and 3 shows fixed effects estimation, where i represents each company and t represents each time period (with t = IPO-1 to IPO+2). Fixed effects regressions preserve the time series variation, but ignore most of the cross-sectional differences among the firm. In order to study the cross-sectional differences a dummy variable for each time period was added in the form of combined fixed and time effect regression model. This combined firm and time effect model eliminates an omitted variable bias arising from unobserved variables that are constant over time and from unobserved variables that are constant across firms. Hence the relationship between dependent and independent variables are estimated by fixed effect and fixed and time effect regression estimators. The evidence of firm and time effects is found by performing F-test (see table 4 & 5). Breusch-Pagan Lagrange Multiplier test and the Hausman test confirm that the suitable model should be the fixed effects model and not the random effect model (see table 4 & 5). Further Wald test confirm the presence of time effect. Hence the study used both fixed effect model and fixed effect and time effect model.

3.1. Data sources and sample

The sample for the study was derived from 542 firms that went public between 2002 and 2012. Security Exchange Board of India (SEBI) has made the disclosure of information related to promoter's ownership mandatory after 2001. Therefore the data related to promoters' ownership for the firms that went public before 2001 was not readily available. While collecting the data it was found that for some firms the values were missing for some of the

variables. These firms were dropped from the sample. For some firms the values were not available for all the time windows. These firms were also dropped from the sample. The methodology required data from one year before IPO to two years after the IPO. Therefore firms that went public after 2012 were also dropped from the sample as for them the data for next two years would not be available. The final sample of this study consisted of 306 firms. The sample selection process eliminated 215 firms.

4. RESULTS AND DISCUSSION

4.1. Summary statistics

The annual trend in the number of IPOs and capital raised by Indian firms through IPOs are shown in table 1. Year 2005-06 received the maximum number of IPOs in our sample followed by an equivalent optimism by investors and issuers in following two years. The peaking up of boom was followed up by burst during 2008-09 wherein all major stock markets suffered huge losses the summary statistics of firm specific variables are reported in table 3. The summary statistics are reported for: one year prior to IPO (Y-1), IPO Year (Y+0), one year after IPO (Y+1), and two years after IPO (Y+2). The mean scores of *CF/TA* decreased consistently, starting from one year before IPO year to +1 and +2 years after the IPO year. The mean score for the time windows are 0.034, 0.012, -0.056 and -0.019. The mean score in Y+1 and Y+2 time windows are in negative, which means a negative operating cash flow. The median score for the same time windows are 0.005, 0.006, -0.009 and 0.02. The mean and median score in Y+2 is slightly better as

compare to Y+1, however the score is less as compare to Y-1.

Mean operating return on assets (*PBDIT/TA*) of the firms before IPO is 0.133. It increases to 0.143 in the IPO year and then decreases to 0.109 and 0.090 in +1 and +2 year after IPO, respectively. The median score increased from 0.127 before IPO to 0.129 in the IPO year and then decreases to 0.106 and 0.095 in one and two years after the IPO.

The liquidity position of firms, as calculated by their current ratios (*CURR*), appears to follow an unsteady trend. The mean score decreased slightly from 4.690 in IPO-1 year to 4.618 in the IPO year. The mean score is maximum in IPO+1 year and then decreased to 4.295 which is lesser than IPO-1 and IPO year. The mean score of leverage of firm calculated by Debt-Equity ratio (*D/E*) decreases from 0.938 in IPO-1 year to 0.823 in IPO+2 year. However the mean score of (D/E) achieves its peak in IPO year. The median score also decreased from 0.75 in IPO-1 to 0.515 in IPO year. The mean and median score for another two controlling variables growth in sales (*GRW*) and capital expenditure (*CAPEX*) showed huge increase from IPO year to one year after IPO.

The high growth in capital expenditure indicates that IPOs by the Indian companies are primarily done to meet the existing financing needs. In order to analyze the Sales of companies in post IPO period variable (*SALES)* was examined for the same time windows. The mean and median score of *SALES* zoomed from pre IPO to post IPO time windows. Where the mean score increased from 242.247 to 603.426, median score increased from 72.65 to 180.86. The immediate boost in sales indicates that companies do not lack Sales opportunities in post IPO period. The similar trend in capital expenditure and sales points to the fact that the decrease in performance in post IPO period doesn't seems to be because of lack of sales and investment opportunities or cutback in capital expenditure in post IPO period.

Mean score for promoters' ownership (*PROM)* decreased after IPO. The mean score for ownership fell from 57.294 percent before the IPO to 51.553 percent in +2 year after the IPO. The median promoters' ownership followed a similar trend.

4.2. Insiders' Ownership and Performance

To assess the relationship between changes in insiders' ownership and operating performance of firms around their IPOs the alternative panel data models, stated as equations (1), (2) & (3) in the methodology section, are estimated. The standard methods of panel estimation are fixed effects or random effects. The basic assumption behind random effect model is that company specific effects are not correlated with the other explanatory variables. A Hausmann specification test can evaluate whether this independence assumption is satisfied.

The test statistics rejects the null hypothesis at any significance level for all the models and for both the performance variables (see tables 4 & 5) which indicates that the fixed-effects model should be used. Test statistics for F-test confirms the appropriateness of fixed effect model at any significance levels. Test statistics of Wald test confirms the presence of time effect however test statistics of Lagrange multiplier test rejects the chances of random effect with time effect. Hence the models are estimated with fixed effect and fixed effect and time effect model. In order to take care of any possibility of cross-sectional heteroskedasticity, a robust estimation technique was used. The coefficients are the same with and without the robust estimation technique; however the robust estimator produces larger standard errors. Results for both fixed effect and fixed and time effect are presented in Tables 4 & 5.

Table 4. Regression results on the change in CF/TA

variables	Fixed Effects Firm Model (Robust Estimation)			Fixed Effect Firm and Time Model (Robust Estimation)		
	Model 1	*Model 2*	*Model 3*	*Model 1*	*Model 2*	*Model3*
Constant	.053 (.06)	.063 (.15)	.818 (.37)	.085 (.06)	.113 (.16)	-.797 (.37)
PROM	-0.595 (1.05)	-0.960 (5.36)	-0.526** (.021)	-0.873 (1.07)	-1.876 (5.41)	-0.538** (21.47)
PROM²		3.07 (44.41)	.977** (.383)		8.427 (44.57)	1.012*** (383.6)
PROM³			-5.526** (2.147)			-5.757*** (2148.9)
CURR	-8.911*** (1.82)	-8.909*** (1.82)	-9.001*** (1.80)	-8.925*** (1.82)	-8.920*** (1.82)	-9.017*** (1.80)
D/E	-3.483 (5.05)	-3.458 (5.07)	-3.05 (5.02)	-3.96 (5.06)	-3.903 (5.08)	-3.551 (5.02)
GRW	3.842** (1.69)	3.852** (1.70)	4.01** (1.68)	3.623** (1.70)	3.647** (1.71)	3.786** (1.69)
CAPEX	-0.363 (1.17)	-0.367 (1.17)	-0.691 (1.17)	-0.143 (1.18)	-0.153 (1.18)	-0.457 (1.18)
n	1199	1199	1199	1199	1199	1199
R-Squared	0.03	0.03	0.09	0.03	0.03	0.01
Hausman test	2.17 (0.00)	2.60 (0.00)	2.56 (0.00)			
F-test	1.50 (0.00)	1.50 (0.00)	1.50 (0.00)			
Wald test	5.50 (0.01)	5.57 (0.01)	5.50 (0.01)			
LM test	22.42(0.00)	22.30 (0.00)	22.26 (0.00)			

Table 5. Regression results on the change in PBDIT/TA

variables	Fixed Effects Firm Model (Robust Estimation)			Fixed Effect Firm and Time Model (Robust Estimation)		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model3
Constant	0.092 (0.02)	0.061 (0.03)	0.121 (0.04)	0.192 (0.02)	0.167 (0.03)	0.217 (0.04)
PROM	0.497 (0.41)	1.823* (1.33)	-4.135* (3.05)	-0.534 (0.42)	0.520 (1.31)	-4.618* (2.98)
PROM²		-0.012 (0.01)	0.126** (0.06)		-0.009 (0.01)	0.110** (0.06)
PROM³			-0. 910** (0. 42)			-0.001** (0.00)
CURR	-0.559*** (0.17)	-0.545*** (0.17)	-0.545*** (0.17)	-0.593*** (0.17)	-.582*** (0.17)	-0.582*** (0.17)
D/E	-0.129 (0.34)	-0.130 (0.34)	-0.104 (0.34)	-0.211 (0.33)	-0.212 (0.33)	-0.188 (0.33)
GRW	7.40*** (2.08)	7.288*** (2.08)	7.524*** (2.08)	6.617*** (2.02)	6.53*** (2.03)	6.743*** (2.03)
CAPEX	0.068 (0.31)	0.083 (0.31)	0.105 (0.31)	0.188 (0.30)	0.200 (0.30)	0.217 (0.30)
n	1199	1199	1199	1199	1199	1199
R-Squared	0.35	0.37	0.26	0.43	0.47	0.89
Hausman test	3.21 (0.00)	3.61 (0.00)	8.24 (0.00)			
F-test	3.48 (0.00)	3.47 (0.00)	3.50 (0.00)			
Wald test	50.19 (0.00)	49.75 (0.00)	48.65 (0.00)			
LM test	263 (0.00)	261.03 (0.00)	260.48 (0.00)			

Tables 4 & 5 presents the estimation of the panel data used to examine the relationship between change in ownership and performance of firms around IPO. Performance was measured by two variables, as dependent variable: *CF/TA* and *PBDIT/TA*. The influence of insiders' ownership on performance was analyzed by having promoters' ownership as one of the independent variables in the model. In model 1 a linear relationship was tested. The study further tried exploring the cubic and quadratic relationship by including square and square and cube of ownership in model 2 and 3 resp. In addition four controlling variables viz., *CURR, D/E, GRW* and *CAPEX* were also included in the model. The changes were measured by observing the data for following four time periods: (i) one year before IPO (Y-1), (ii) IPO year (Y+0), (iii) one year after IPO (Y+1), and (iv) two years after IPO (Y+2).

Regression results, using (*CF/TA)* as a dependent variable, are reported in Table 4. In model 1 of fixed effect estimation, where only a linear relationship is considered the test statistics of ownership doesn't provide evidence for a relationship with the performance. In model 2 where a nonlinear relationship is considered and square of ownership is taken, the test statistics does not provide evidence for quadratic relationship. Hence there does not appear to be a linear and quadratic relationship between performance and ownership. The result is in contrast to the findings of Jain and Kini (1994) but it supports the findings of Mikkelson et al (1997) and Kim et al (2002).

Estimation of model 3 shows that the estimated coefficients of all of the ownership variables are statistically significant. It rejects our hypothesis that

there is no relationship between promoter's share ownership and firm performance. The coefficients for *PROM* and *PROM³* are negative, while the coefficient for *PROM²* is positive. These results suggests that firms with "low" and "high" levels of managerial ownership experience negative relationships between managerial ownership and changes in firm performance (entrenchment hypothesis), while firms with 'intermediate' levels of managerial ownership exhibit a positive relationship between managerial ownership and changes in firm performance (alignment-of-interest hypothesis). Regression using *PBDIT/TA* as dependent variable showed similar results.

In order to determine the level of ownership at which entrenchment is changing to alignment and then back to entrenchment, the estimated coefficient from model 3 is used to plot the relationship between ownership and performance. Figure 1 shows that the turning point from entrenchment to alignment for managerial ownership for *CF/TA* is around 40%. The turning point back to entrenchment is around 85%. For *PBDIT/TA* the turning point from entrenchment to alignment is around 20% and then back to entrenchment is around 70%.

The above findings (entrenchment-alignment-entrenchment) are in contrast to the findings of some of the earlier studies (eg. Morck et al., 1988; Short and Keasey, 1999 and Kim et al, 2002). Earlier studies exhibited alignment-entrenchment-alignment relationship with the increase in ownership. However the findings support Christina (2005) who has made a study on the relationship between ownership and performance of family based firms, but not IPOs, of Hong Cong.

Figure 1. Curvilinear Relationship Between promoter's ownership and performance
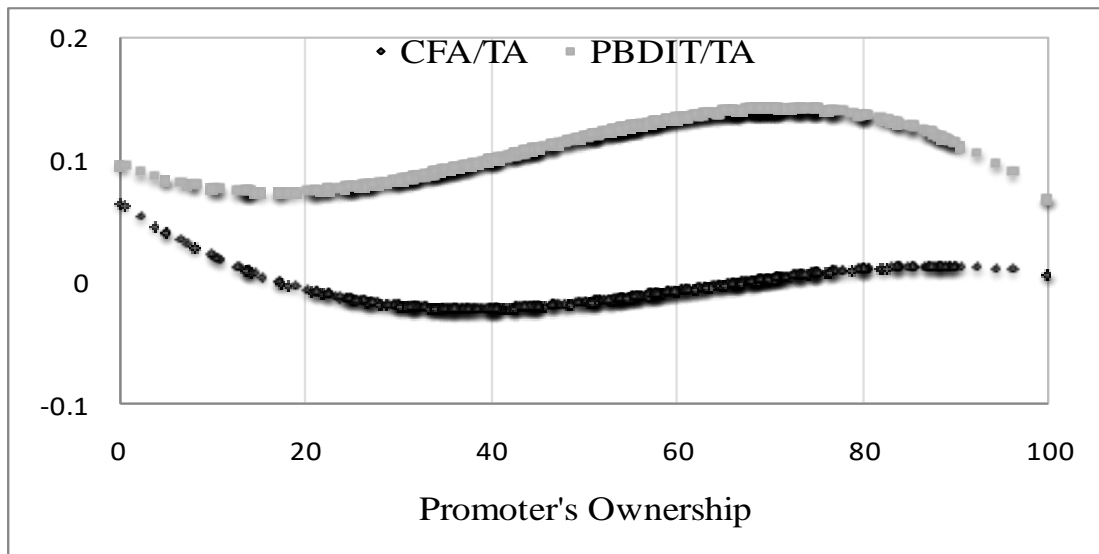
Fan and Wong (2002) conducted a study on seven East Asian economies- Hong Kong, Indonesia, South Korea, Malaysia, Singapore, Taiwan and Thailand and argued that the ownership concentration in Asian countries is different from that of U.S. and U.K. firms therefore the result based on U.S. or U.K. data may not be applicable to Asian countries. According to Fan and Wong (2000) corporate ownership is highly concentrated in East Asia. Further, the owners possess higher voting rights than cash flow rights[25] and hence have more power to expropriate the company, while smaller cash flow rights reduce their share of losses from the extraction of wealth. Pattanaik (2008) supported Fan and Wong (2000) and found entrenchment effect to be present at a very high level of ownership in Indian companies and he attributed the difference in result, as compared to that of advanced countries, to the difference in the concentration of ownership between India and advanced countries. Author argued that in advanced countries, where ownership is diffused, the insiders are able to entrench with their low level of shareholdings due to the diffused non-insiders' shareholdings. Cho (1998) observed managers entrenching at very low levels of insider ownership and commented that the reason could be the absence of major block holdings in such firms.

The results of this study suggest the dominance of entrenchment effect at both lower as well as higher level of ownership. Our results support Morck et al. (1988) view, that interest is aligned for all the ownership level but for some level entrenchment effect dominates the alignment of interest effect. Whereas for Morck et al. (1988) and other previous studies the dominance was observed for intermediate level, for our study the dominance is observed for very low and very high level.

Among the controlling variables, the *GRW* has a significantly positive relationship with the firm performance in all the models. The *Curr* ratio has a significantly negative relationship with the firm performance in all the models which indicates that firms with high liquid ratio tend to underperform more. The relationship between liquidity and performance is contrary to what we expected. A negative relationship here suggest that the asset liquidity of a firm may send a negative signal to the outsiders as it may indicate that the firm is facing problem regarding opportunities for its long term investment decisions (Basil and Taylor,2008). This study, like Kim et. al. (2002), did not find any significant relationship between capital expenditure (*CAPEX*) and firm performance. Insignificant relationship between leverage captured by *D/E* ratio negates the relationship of leverage with underperformance of firms. However the relationship is consistently negative in all the models and for both the performance variables. The negative relationship may support the Fama and French (1998)'s assertion that higher level of debt restricts the decision to invest in profitable projects, which in turn adversely affect the firms' performance.

5. CONCLUSION

The study investigated the change in performance of Indian public firms post to their Initial Public Offerings (IPOs) and its relationship, with the changes in the levels of insiders' ownership at the time of their IPOs. What makes this study distinctive is the fact that the analysis is conducted on Indian market which offers a great deviation in corporate governance issues from other developed countries. Unlike US or UK where similar studies were made, the central problem in Indian corporate governance is the conflict between dominant shareholders and dispersed shareholders not principal and agent. Since the issue is between dominant shareholders and dispersed shareholders, promoters' shareholding is examined in the study. IPO brings changes in the ownership of promoters. Therefore an attempt was made where the consequences of changes in the promoters' ownership on performance of firms was examined.

---

[25] Fan and Wong (2002) divided the owner's rights into three categories. First, the owner has the right of voting to deploy corporate assets, i.e., voting (control) rights. Second, she has the right to earn income, i.e., cash flow rights. Third, the owner has the right of transferring the share to another party.

Analysis based on panel data showed that there is a curvilinear relationship between ownership and performance. These results suggests that firms with "low" and "high" levels of managerial ownership experience negative relationships between managerial ownership and changes in firm performance (entrenchment hypothesis), while firms with 'intermediate' levels of managerial ownership exhibit a positive relationship between managerial ownership and changes in firm performance (alignment-of-interest hypothesis). Our findings (entrenchment-alignment-entrenchment) are in contrast to the findings of earlier studies (eg. Morck et al., 1988; Short and Keasey, 1999 and Kim et al, 2002).

REFERENCES

1. Adams, R. and J. Santos, 2004, The separation between managerial ownership and control in banking, Mimeo, Federal Reserve Bank of New York.
2. Aggarwal, R., 2000, Stabilization Activities by Underwriters after Initial PublicOfferings, Journal of Finance, 55, pp.1075-1103.
3. Alchian, A. A., and H. Demsetz, 1972, Production, information costs, and economic organization, American Economic Review, 62, pp. 777-795.
4. Al-Najjar, Basil and P. Taylor, 2008, The relationship between capital structure and ownership structure: new evidence from Jordanian panel data, Managerial Finance, 34 (12), pp. 919-933
5. Balatbat, M., C., A., Taylor, S., L., and T. S. Walter, 2004, Corporate governance, insider ownership and operating performance of Australian initial public offerings, Accounting and Finance, 44, pp. 299-328.
6. Berle, A., and G. Means, 1932, The Modern Corporation and Private Property, (Macmillan, New York).
7. Brickley, J., and C. James, 1987, The takeover market, corporate board composition, and ownership structure: the case of banking, Journal of Law and Economics, 30, pp. 161-180.
8. Chakrabarti, R., Megginson, W., and Yadav, P. K,. 2008, Corporate Governance in India, Journal of Applied Corporate Finance, Volume 20, No. 1, Winter, pp. 59-72
9. Chang, S., and D. Mayers, 1992, Managerial vote ownership and shareholder wealth, Journal of Financial Economics, 32, pp. 103-131.
10. Chemmanur, T., J., and P. Fulghieri, 1999, A Theory of the going-public decision, Review of Financial Studies, 12, pp. 249-279.
11. Cho, Myeong Hyeon, 1998, Ownership Structure, Investment, and the Corporate Value: An Empirical Analysis, Journal of Financial Economics, 47, pp. 103-21.
12. Christina Y. M. Ng, 2005, An Empirical Study on the Relationship Between Ownership and Performance in a Family-Based Corporate Environment, Journal of Accounting, Auditing & Finance, 20 (2), pp. 121-146.
13. Claessens, S., S., Djankov, J., Fan and L., Lang, 2002, Disentangling the Incentive and Entrenchment Effects of Large Shareholdings, Journal of Finance, 57(6), pp. 2741-2771.
14. DeAngelo, H., and L. DeAngelo, 1985. Managerial Ownership of Voting Rights: A Study of Public Corporations with Dual Classes of Common Stock, Journal of Financial Economics, 14, pp. 33-69.
15. Demsetz, H., 1983, The structure of ownership and the theory of the firm, Journal of Law and Economics, 26(2), pp. 375-390.
16. Demsetz, H., and K. Lehn, 1985, The Structure of Ownership: Causes and Consequences, Journal of Political Economy, 93(6), pp. 1155-1177.
17. Dhillon, U., and G. Ramirez, 1994, Employee stock ownership and corporate control: An empirical study, Journal of Banking and Finance, 18, pp. 9-26.
18. Dharwadkar, R., George, G., & P. Brandes, 2000, Privatization in emerging economies: An agency theory perspective, Academy of Management Review, 25, pp. 650-669.
19. Eisenhardt, K., M., 1985, Control: Organization and Economic Approaches, Management Science, 31 (2), pp. 134-149.
20. Eisenhardt, K., M, 1989, Agency theory: an assessment and review, Academy of Management Review, 14(1), pp. 57-74.
21. Fama, E., F., and M. C. Jensen, 1983, Separation of ownership and control, Journal of Law and Economics, 26, pp.301-325.
22. Fan, Joseph, P., H., and T., J., Wong, 2002, Corporate ownership structure and the informativeness of accounting earnings in East Asia, Journal of Accounting and Economics, 33(3), pp. 401-425.
23. Faccio, Mara, and M Ameziane Lasfer, 2000, Managerial Ownership, Board Structure and Firm Value: The UK Evidence", http://ssrn.com/abstract=179008
24. Filatotchev, I., Lien, Y., & Piess, J. 2005, Corporate governance and performance in publicly listed, family-controlled firms: Evidence from Taiwan. Asia Pacific Journal of Management, 22(3), pp. 257–284.
25. Fukuyama, Francis, 1995, Trust: The Social Virtues and the Creation of Prosperity. New York: Free Press
26. Gertner, R. and S. Kaplan, 1996, "The Value-Maximizing Board", Working Paper, University of Chicago and NBER.
27. Goergen, M. and L. Renneboog, 2007, Does Ownership Matter? A Study of German and UK IPOs, Managerial Finance, 33 (6), pp. 368-387
28. Gosh, S., 2005, The Post-offering Performance of IPOs in the Indian Banking Industry, Applied Economics Letters, 12 (2), pp. 89-94.
29. Gordon, L. and J. Pound, 1990, ESOPs and corporate control, Journal of Financial Economics, 27, pp. 525-555.
30. Grossman, S. and O. Hart, 1988, One Share-One Vote and the Market for Corporate Control, Journal of Financial Economics, 20, pp.175-202.
31. Hall, E., 1995, Corporate diversification and performance: An investigation of causality, Australian Journal Of Management, 20(1), pp. 25-42
32. Healy, P., and J. Wahlen, 1999, A review of the earnings management literature and its implications for standard setting, Accounting Horizons, 13 (4), pp. 365-383.
33. Hermalin, B. and M. Weisbach, 1991, The Effects of Board Composition and Direct Incentives on Firm Performance, Financial Management, 20, pp. 101-112.
34. Jain, Bharat A., and Kini, Omesh, 1994, The post-issue operating performance of IPO firms, Journal of Finance, 49, pp. 1699-1726.
35. Jensen, M., and W., Meckling, 1976, Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure, Journal of Financial Economics, 3, pp. 305-360.
36. Kim, K., A., Kitsabunnarat, and J., R., Nofsinger, 2004, Ownership and operating performance in an emerging market: evidence from Thai IPO firms, Journal of Corporate Finance, 10(3), p.p. 355-381...
37. La Porta, R., F. Lopez de Silanes and A. Shleifer, 1999, Corporate Ownership around the World, Journal of Finance, 54(2), pp. 471-517.

38. Marisetty, V., and M. Subrahmanyam, 2008, Group affiliation and the performance of initial public offerings in the Indian stock market, working paper, New York University

39. McConnell, J. and H. Servaes, 1990, Additional evidence on equity ownership and corporate value, Journal of Financial Economics, 27, pp. 595-612.

40. Michael C.Jensen, 1983, Organization Theory and Methodology, The Accounting Review, 57 (2).

41. Mikkelson, Wayne H., Partch, M. Megan and K., Shah, 1997, Ownership and operating performance of companies that go public, Journal of Financial Economics, 44, pp. 281-307.

42. Morck, R., A. Shleifer, and R. Vishny, 1988, Management Ownership and Market Valuation: An Empirical Analysis, Journal of Financial Economics, 20, pp. 293-315.

43. Myers, S. C. and N. S. Majluf, 1984, Corporate financing and investment decisions when firms have information that investors do not have, Journal of Financial Economics, 13, pp. 187-221.

44. Pagano, M., 1993, The Flotation of Companies on the Stock Market: A Coordination Failure Model, European Economic Review, 37, pp. 1101– 1125.

45. Pagano, M., F. Panetta, and L. Zingales, 1998, Why do companies go public? An empirical analysis, Journal of Finance, 53, pp. 27-64.

46. Pattanayak, Manoranjan,2008, Insider Ownership and Firm Value: Evidence from Indian Corporate Sector, Available at SSRN: http://ssrn.com/abstract=962307

47. Peng, M.W., Health, P.S., 1996, The growth of the firm in planned economies in transition: institutions, organizations, and strategic choice. Academy of Management Review. 21(2):492-529

48. Purnanandam, Amiyatosh K., and B. Swaminathan, 2001, Are IPOs underpriced? unpublished Cornell University working paper

49. Rajan, R., 1992, Insiders and outsiders: The choice between informed and arm's length debt, Journal of Finance, 47, pp. 1367-1400.

50. Rao, K.S., 2002, Stock market. Alternative Economic Survey, 2001-2001.

51. Sarkar, Jayati and Subrata Sarkar (2000), "Large Shareholder Activism in Developing Countries: Evidence from India," International Review of Finance, September.

52. Shah. A., and S. Thomas, 2001, Policy issues in the Indian securities market, Working Paper No. 106, Stanford University.

53. Shleifer, A. and R. Vishny, 1986, Large Shareholders and Corporate Control, Journal of Political Economy, 94(3), pp. 461-488.

54. Short, H. and K. Keasey, 1999, Managerial ownership and the performance of firms: evidence from the UK, Journal of Corporate Finance, 5, pp. 79-101

55. Smith, S. C., Hesuk, Chun and Lynch Merrill, 2002, New Issues in Emerging Markets: Determinants, Effects, and Stock Market: Performance of IPOs in Korea, No. 02-17, Global Management Research Working Paper, School of Business and Public Management, George Washington University.

56. Smith, Adam, 1776, The Wealth of Nations, Edited by Edwin Cannan, 1904. Reprint edition 1937.

57. Sobhan, F. and Werner, W. 2203. A Comparative Analysis of Corporate Governance in South Asia: Charting a Roadmap for Bangladesh, Bangladesh Enterprise Institute

58. Song, M. and R. Walkling, 1993, The Impact of Managerial Ownership on Acquisition Attempts and Target Shareholder Wealth, Journal of Financial and Quantitative Analysis, 28, pp. 439-457.

59. Stoughton, Neal M., and Josef Zechner, 1998, IPO mechanisms, monitoring and ownership structure, Journal of Financial Economics, 49, pp. 45-78.

60. Stulz, R., 1988, Managerial control of voting rights: Financing policies and the market for corporate control, Journal of Financial Economics, 20, pp. 25-54.

61. Tan, R. S. K., Chang, P. L., & Tan, T. W, 2001, CEO share ownership and firm value. Asia Pacific Journal of Management, 18, pp. 355–371.

62. Thomsen S. and T., Pedersen, 2000, Ownership structure and economic performance in the largest European countries, Strategic Management Journal, 21, pp. 689-705.

63. Wang, C., 2005,Ownership and operating performance of Chinese IPOs, Journal of Banking and Finance, 29, pp. 1835-1856

64. Yeung, H. W. C., 2006, Change and continuity in Southeast Asian ethnic Chinese business. Asia Pacific Journal of Management, 23, 229–254.

65. Zhou, X., 2001, Understanding the determination of managerial ownership and its relationship to firm performance: comment, Journal of Financial Economics, 62, pp. 559-571.

66. Zingales, L., 1995, Insider ownership and the decision to go public, Review of Economic Studies, 60, pp. 425-448.