



INDIAN INSTITUTE OF MANAGEMENT CALCUTTA

WORKING PAPER SERIES

WPS No. 602/ May 2007

**Top Management Compensation and Firm Performance in the Emerging Markets:
Evidence from India**

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1. Introduction

The Indian corporate sector has witnessed changes with far reaching implications in the area of executive remuneration, following the reforms process in various areas initiated by the Indian government in 1991. The Indian companies Act, 1956 had detail regulations on managerial remuneration ceilings prior to 1991 reforms. Remuneration guidelines were relaxed in 1993 and again in 1994, and today there are few restrictions on top management remuneration, in India. Top management pay can broadly be characterized as rising both in India and abroad widely discussed by academicians and practitioners alike. The debate is particularly pronounced for pay at the top management level, prone to easy criticism and disclosure at the same time¹. The discussion primarily centers round top management pay being excessive, not at par with firm performance and that it requires monitoring by non-executive directors for ensuring compliance to corporate governance norms.

Several factors apart from regulatory reforms in managerial pay have contributed towards rising importance of the top management role, with consequent rise in their pay. Increasing awareness and compliance with corporate governance issues, taxation policy and income tax reforms, increasing business competition, etc. are a few among them making the area of top management pay in a developing context like India, very important. In a liberalized economy, increasing demand for professional managers different from the owner managers in family firms also has its due share of influence on rising top management pay level. General finding in the family business literature with owner managers in top management position can be summarized as: tendency for lower remuneration to the owner managers (Gomez-Mejia et al., 2001). Moreover individual income tax rates in US are high compared to corporate income tax rates thus lending support to lower owner manager pay appropriations in family businesses. However, the finding for higher top management pay in general is also influenced by the average significant promoter shareholding in the US approximating 5 percent. This overrides the tax and the ‘incentive alignment’ hypothesis of owner manager (in a closely held family business) effect (of lower top management pay), as lower dominant ownership stake in general would lead to higher pay misappropriations by the owner managers. Diversified shareholding and lack of shareholder monitoring in these organizations, results in higher pay appropriations for their top management. Core, et. al. (1999) reported that top management is able to appropriate additional pay from firms with weak governance structures and diffused ownership stakes as greater agency problems are at play in these companies with diversified shareholding and control.

In India, while family business is the dominant corporate form, the personal income tax rates are lower than the corporate income tax rates and the average promoter shareholding² is 45%. Thus analyzing top management pay appropriations for Indian companies in the above-mentioned context would show interesting results with policy implications.

Family ownership effect on pay performance relationship is moderated by rationalization of tax rates following structural adjustments in the Indian economy post liberalization. This includes considerable reduction in individual and corporate income tax rates. With lowering of the tax

¹ Apart from transparency mandated by the SEC in US for details of compensation paid to top five executives in a firm, the Companies Act in India also requires top management pay details to be a part of the schedule to the profit and loss account. This detail is appended as a part of the annual report in addition to the notice for the Annual General Meeting.

² For the BSE 200 sample chosen for the study.

rates, there is an added incentive both for the companies to pay higher tax-deductible salaries and for the executives to accept higher salary levels compared to the past when individual tax rates were much higher. Corporate tax rates in India have declined as – 45% (1994) –40% (1997) – 35% (2003). Personal tax rates similarly have decreased from 50% (1991) –40% 91994) –30% (2003).

Apart from lowering of tax rates per se, individual tax rates in India are less in absolute terms as compared to the corporate tax rates. This is contrary to the US, wherein it is just the opposite. Thus majority of the companies in India (owner managed) would have a dominant tendency of paying their owner managers higher salaries (subject to lower taxes at the individual level) rather than showing higher profits (subject to higher corporate taxes) liable for double taxation, once for the corporate level taxes and again for dividend or capital gains taxes.

Owner managers enjoy a lot more flexibility in their compensation contracts for pay components³, as compared to the hired professional managers generally having a predetermined annual compensation package. The ceiling for managerial remuneration not to exceed 11 percent of the year's net profits under section 198 of the Indian Companies Act 1956 is wide enough to enable these owner managers' sufficient cushions for their pay appropriations. The diversified and minority small shareholders often have no complaints, being satisfied by their return on investments.

Almost all empirical studies on top management compensation conducted in the past have utilized US data and /or have focused on US contexts. There are a few empirical studies on CEO pay in the UK, China and Japan, like Gregg, Machin, and Szymanski (1993) study concluding low pay-performance sensitivity for 288 large UK firms and Dalton and Kesner (1987) study assessing board composition and CEO duality features in Japan compared to US and UK, Kato & Kubo (2006) and Firth, Fung, & Rui (2006) analyzing CEO compensation and firm performance in Japan and China respectively. Other than these, studies on top management pay outside US are very few.

Data on developing countries, like India, are yet to be analyzed for pay performance relationships in the context of factors as specified, with regard to the changing scenario and easing regulatory requirements on managerial pay ceilings, slow but continuous deregulation of industries along with capacity expansion, and considerable reduction in the number of industries earlier restricted in the government owned (public sector) domain. Increasing foreign direct investments by multinational companies in India necessitate understanding of the factors affecting top management pay and pay-performance relationships for their executives in India, characterized by different governance mechanisms. India thus represents a rich, virtually untapped source for understanding the determinants for top management pay and its relation to firm performance, moderated by changes in the macro environment both internal and external to the firm. There is a need to examine whether statistical relationships and directional causality found between pay and performance for the US settings, apply in India having different ownership structures (majority being family owned and managed firms), governance structures, tax regimes, risk exposure, and so on.

Hence, it is important to study factors affecting top management pay practices and their relationship to firm performance in Indian companies, in context of the major changes in managerial remuneration ceilings and income tax rates after 1993-94. The large salary appropriations are simply outcome of relaxation in managerial remuneration ceilings or are they related to performance induced by incentive pay, moderated by the impact of ownership structure, income tax rates, firm risks - is an issue worth examining.

A broad range of factors has been identified as having significant influence upon top management pay -varying from economic variables related to performance, risk, ownership structure and firm

³ Proportion of fixed and variable pay as per mutual convenience of the owners requirement and the firm's free cash flow.

size to top management characteristics like age, tenure, academic qualification, influence upon the board in terms of composition, etc. This study focuses primarily upon firm performance measures (Jensen and Murphy 1990, Gerhart and Milkovich 1990), ownership structure including family business effect (Schleifer and Vishny 1986), business risk (Jensen and Murphy 1990, Hill and Phan 1991), firm size (Baker et. al. 1988, Finkelstein and Hambrick 1989, Boyd 1994) and corporate governance compliance (Yermack 1996, Core et. al. 1999,) by way of remuneration committee constitution for setting top management pay, as the critical determinants with reference to the context chosen.

Rest of the paper has been organized as follows. Top management pay changes in India following the regulatory reforms and the rationale for factors determining top management pay in India has been discussed in section 2. Section 3 describes the research methodology and the sample chosen. The results have been discussed in section 4. Section 5 summarizes the findings along with its policy implications for India.

2.0 Determinants of Top Management Pay

Determinants of executive pay have been the subject of considerable academic research as they interest policy makers, stakeholders and the general public alike. The question popularly raised about top management pay has been whether they deserve the large pay packages as per the contract (Sloan, 1993). Literature has researchers arguing in favor of top management deserving the large pay appropriations made to them (Murphy, 1985) because the right incentive provided by a carefully structured pay package can have a considerable positive influence upon firm performance determination.

Right incentive through proper top management pay is the solution also offered by theoretical literature for divergence of interest problem rising due to separation of ownership from management and control of the firm (Jenson and Meckling 1976). This is also in tune with effective corporate governance solution to the principal agent problem. Principal agent model supports the optimal compensation contract notion for motivating the agents to maximize the shareholder's wealth (Shavell 1979, Holmstrom 1979).

2.1 Regulatory changes in managerial remuneration ceilings

Executive pay determination in India was primarily determined by government regulations, with major proportion of pay comprising of base salary or fixed component (Still applicable for the Government owned public sector companies in India). Gradually the concepts of incentive pay⁴ became important with attention directed towards individual talent and skill in top managerial decision-making. Relating pay to performance basically means that agents agree to commit a part of their remuneration to the risks and uncertainties involved in business. However, highly sensitive pay-performance contracts may not be feasible since agents with limited resources cannot credibly commit to compensating firms in case of poor performance, similarly shareholders cannot agree to paying huge bonuses amounting to literally "giving away the firm" for performance being very good (Baker, Jenson & Murphy, 1988). Thus firm risk⁵ considerations also merit attention in pay performance relations. Basic idea behind incentive pay is putting a part of top management pay at risk, contingent on firm performance. However, a trade-off between risk and incentives is desirable, with the variable component inducing the effort

⁴ Incentive pay is performance-based pay.

⁵ Firm risk for the purpose of this study means the uncertainties which have to be taken into consideration while determining top management pay for balancing say the risks due to volatility of firm's performance against reward of greater flexibility in pay.

and risk-averse agents to work for maximizing owner's (principal's) interests and at the same time minimizing whenever possible, the risks shifted onto them.

In India regulatory ceiling applies on the maximum pay for top management, which is not common in other contexts. For example, corporate laws in the US do not have restrictions on top management pay. For taxation purposes however, section 162(m) was added to the Internal Revenue Code (IRC) limiting the corporate tax deduction for excessive remuneration paid to CEO and next four highest paid executives to \$ 1 million each, effective from January 1994. The regulation however exempted qualified performance based compensation, thereby creating a greater need for performance-linked pay. In India, all ceilings were removed in 1994, subject to overall compliance with section 198 and 309⁶ of the Indian Companies Act 1956. Most companies are now allowed to create appropriate compensation packages for their top management with overall compliance to section 198 of the Companies Act, 1956 (Sarkar and Sen, 1999).

In 1994 the General Agreement on Tariffs and Trade Act (GATT) restricted inflation adjustments for maximum amount which employees could contribute to and receive from qualified compensation plans. These are required for calculating benefit and contribution amounts under profit sharing, pension, 403(b), and 401(k) plans. As a part of the Federal tax package in 1993, the maximum eligible compensation on which benefits could be received from a qualified retirement program was decreased by 36% from \$235,840 to \$150,000. Along similar lines, the Securities and Exchange Commission in 1992 had issued new rules for disclosure of executive compensation on SEC-mandated registration statements, proxy statements, and other mandated filings. This required companies to disclose compensation information on the CEO and the next four highest-paid executives. In addition, it was required that the compensation committee of the reporting company must detail in a signed report, the rationale behind remuneration paid to each executive and its relationship to corporate performance (Duclaux, 1997).

Managerial remuneration in India till nineties was quite detailed with several restrictions on maximum pay appropriations. Government restrictions mandated monthly pay for senior executives to be restricted within ceiling of Rs 15,000 pm for firms with capital of Rs 15 crore or more under Schedule XIII of the Companies Act till 1988. Expenditure on perquisites like housing, car, etc was also limited to Rs 1.35 lakhs per annum (Sen and Sarkar, 1996). Private sector companies complained that these restrictions obstructed their designing effective managerial remuneration contracts. In July 1991 the ceiling was increased to Rs 50,000 and in 1994, it was removed. Commission for directors, earlier limited to 50% of annual pay was raised to 1% of net profit with no upper limit. Perquisites were raised to 4.5 lakhs per annum.

Components constituting total pay also play an important role in determining the size of managerial compensation. Basic salary usually accounted for about 50% of total pay, as there were a sizable proportion of perquisites due to tax advantages to receiving payment in kind. Proposed changes in Indian tax rules will now make most perquisites taxable based on their cost to the employer (previously, many perquisites were not taxed or were taxed based on formulas which greatly undervalued these benefits).

Benefits still being a significant part of any remuneration package continue to play a significant role in attracting and retaining top management talent. In addition, certain perquisites like

⁶ Section 198 of the Companies Act, 1956, limits the overall maximum managerial remuneration payable by a public company to persons entrusted with managerial functions to 11 per cent of the company's net profits (percentage of the net profits as contemplated by Section 198 (1) is to be computed in the manner laid down in Sections 349, 350 and 351 in the Companies Act).

Section 309(1) of the Act requires that the remuneration payable both to the executive as well as non-executive directors is required to be determined by the board in accordance with and subject to the provisions of section 198 either by the articles of the company or by resolution or if the articles so require, by a special resolution, passed by the company in a general meeting.

housing, cars, and loans will continue to be taxed at concessional rates, despite the new tax rules and thus will remain in demand by employees. However, the study focusing on total top management pay with clear division between fixed and variable pay, is not affected by this change. “Remuneration” has the meaning assigned to it in the explanation to section 198 to the Companies Act, 1956.

Top management pay has been on the higher side worldwide. A top management compensation study performed by Mercer Human Resource Consulting revealed that companies are compensating their top executives almost double the compensation they pay to their functional heads⁷. In India, top management salaries have grown tremendously⁸. Is this salary a reward for their performance is a question worth examining, particularly post liberalization with substantial relaxation in managerial remuneration ceilings and considerable decline in income tax rates. Relating pay to performance would be recognition of the need for aligning principal agent interests in furthering corporate goals and performance.

Table 1 Comparative Statement on Managerial pay Guidelines (1974 – 2001)

Salary (includes Dearness Allowance + fixed allowance) (Rupees)

1974	1979	1983	1988	1993	1994	2001
90,000	60,000	90,000	1,80,000	6,00,000	No Limit ⁹	No Limit

Commission on Net Profit (limited to 1% of Net Profit till 1993) (Rupees)

Type	1979	1983	1988	1993	1994	2001
+ Salary	>=20% of salary + com <=72000	50% of salary or 45000, whichever is less	50% of salary or 90000, whichever is less	Ceilings withdrawn subject to sec 198 & 309	NA	NA
Only commission	72000	135000	108000-270000, capital dependent	NA	NA	NA

Source: Kakani & Ray, 2002, XLRI Jamshedpur Working Paper No. 7/2002.

These regulatory changes in managerial remuneration over a period of time provide the required groundwork for analyzing top management pay in Indian companies. Restrictions on maximum pay provide the rationale to believe that the theories on relating pay to performance developed in the US context (Tournament / Self Selection / Neo Classical / Managerial / Principal Agent Theory) cannot be directly applied to India. However, gradual relaxation amounting to removal of all limits post 1994 indicate the awareness for incentive pay, improved principal agent relationships and performance linked pay among Indian companies. Thus a closer look on the consequences of these changes post 1993-94 is expected to show interesting results.

⁷ Business Standard, March 5th, 2003.

⁸ An Outlook report of a (2002) study of 16 top manufacturing companies revealed that top management salaries have grown by 30.4% annually between 1979-80 to 2000-01 while that of other employees had risen by 12.9%.

⁹ In case of years when the company made losses, limit was set to Rs 24 lakhs per annum for companies having effective capital worth 100 crs or more, applicable 1994 henceforth.

2.2 Tax related changes

Existing literature on managerial compensation shows that taxes exert little influence on top management pay in widely held publicly traded firms. With majority family owned and managed businesses in India having higher promoter shareholding as compared to US firms, managerial behaviors are expected to be more responsive to tax regulations here (with regard to pay appropriations) due to lower agency costs of ownership and control. As regards tax effects influencing top management pay appropriation, opinions are broadly divided in literature. There are some studies reporting top management pay decisions to be relatively insulated from tax regulations, motivated by factors, which are more political than regulatory, and hence the effects are short term in nature (Barro and Barro, 1990; Hubbard and Palia, 1995).

On the regulatory front, Woodlock and Antenucci (1997), based on proxy statement of about 376 organizations and Perry and Zenner (1999) based on evidence of salary level reductions made by 25 firms, identified majority of them as responding to the IRC 162(m) ceiling by linking pay to performance for tax deduction compliance purposes.

Apart from incentive effect, tax reforms led to considerable income shifting as well. Lindsey (1987) reports significant increases in reported income of top executives after the tax rates declined in the US in 1981-83. Income of higher end executives was reported to be more sensitive to firm level performances, since they had greater discretionary power and access to tax avoidance tools than other employees (Slemrod, 1994). Feldstein (1995) used panel data on individual tax returns to conclude that the responsiveness to tax changes has been more for the top executives (high income base) as compared to the other employees. He had controlled for the differences between temporary shifts in pay from permanent changes in behavior. Gordon & Slemrod (1998) showed substantial income shifting from corporate to personal tax base, in order to avail of the advantages of the lower personal tax rates and resulting in an increase in reported personal income together with a decline in corporate earnings. However, these results were derived without considering the moderating effect of the ownership structure prevailing in the firms these executive belonged to, as they were largely based on return filed by the individual tax payers. Analyzing the same in the context of ownership structure would be interesting to explore.

On a further note, income shifting was analyzed in the context of ownership structure by Bin Ke (2001), who took a sample of privately held insurers (parallel can be drawn to closely held, owner managed firms) and compared it to a control sample of non-management owned insurers. Results showed that the former sample paid themselves less tax-deductible pay following increase in the personal income tax rates as compared to the corporate tax rates during the period 1989-96. Management owned firms significantly structured their pay to avoid double taxation.

Choice of context being India, results are expected to be influenced by ownership structure and taxes are expected to play a moderating role on top management pay appropriations.

2.3 Ownership Structure

Literature does not guide much on the effect of concentrated or diffused shareholding on firm operations, particularly with regard to the remuneration paid to top management in a firm. However corporate finance and governance literature have liberally paid attention to the issue of ownership structure and firm value. By ownership structure the study has been being limited to the concept of ownership concentration in general, and promoter shareholding in particular.

Agency problems are observed in both closely held firms with significant promoter shareholding but hired top management (owner controlled but non-owner managed) and in widely held firms with no significant promoter shareholding and even lesser control on top management (externally managed). These agency problems are expected to cause decision making conflicts with regard to a host of issues, including top management pay (Ugurlu Mine, 2000).

The terms "ownership control," "ownership concentration," and "management (managerial) ownership" are used somewhat similarly in the literature and deserve a brief comment in the interest of clarity. In a corporation, shareholders are the owners, and ultimately they can determine the course of the firm. The extent of the shareholders' influence (ownership control) depends on their relative stakes in the firm, as well as on how actively they participate in the activities of the firm (occupying top management position). Theoretically, a shareholder with 50 percent of the shares plus one more share can exercise total control over the firm if he or she wants, because this individual can outvote all the other shareholders combined. However, control can be exercised with even lesser ownership stake, depending upon how important a role that individual plays in the firm, and how concentrated the other shareholdings are. There are cases of less than 30 percent promoter shareholding firms in which owner managers exercise total control (Margiotta Mary M, 2000). Shareholders with majority voting shares have power to benefit themselves at the expense of minority shareholders, through their ability to elect and control majority of the directors. They also determine the outcome of shareholders' votes on several other matters (O'Neal, 1987).

Ownership structure as a concept evolved with Berle and Means (1932) 'separation between ownership and control' McEachern (1978) and Mintzberg (1983) distinguishing between concentrated firms with owner managers and hired managers. Baker and Gompers (1999) examined the concept together with incentive pay, showing that ownership concentration improves the effectiveness of both performance linked pay and top management supervision. Core, Holthausen and Larcker (1999) reported that top management is able to appropriate additional pay from the firm (managerially controlled) with weak governance structures and diffused ownership stakes as greater agency problems are at play. Concentrated ownership with significant promoter shareholder plays a positive role in monitoring non-owner managers. Moreover with few large controlling stakeholders in a firm, managers' gaining excessive power is a remote possibility. A study by Ke and Safieddine (2000) supports the above contention on the ground that managers in such closely held firms have subjective compensation contracts (more behavior based pay), possible due to effective monitoring by the shareholders.

The results documented largely support the argument that large promoter shareholding (closely held firms, irrespective of family ownerships) would essentially involve lesser expropriation by the managers due to increased monitoring. In other words there would be lesser tendency for the managers to reward themselves liberally by way of excessive pay and if the managers were also the principal shareholders, then their larger shareholding would anyway entitle them to the residuals either as dividends or capital gains. Thus lesser top management pay would be expected in firms with high promoter shareholding. However, moderated by the tax effect in the Indian context, (lower individual tax rates) the above contention may not hold true. The owner managers would prefer taking larger salaries (paying lower taxes due to lower personal tax rates) compared to paying higher corporate taxes on the profits and thereby reducing the aggregate residuals.

2.4 Family business ownership

Owner controlled and managerially controlled firms differ in terms of top management pay as performance related pay alignment is greater in the former than latter (Allen 1981, Gomez Mejia et. al. 1987). Daily and Dollinger (1991) demonstrated that there were differences between family controlled and non-family controlled firms with respect to firm size, firm age, firm strategy, and internal control systems, with family controlled firms relying less on formal control systems than non-family controlled firms. In the process former had lower agency costs and greater opportunities for higher pay appropriations by the owner managers, depending upon their shareholding in the firm.

There are two overlapping and interdependent roles played by an owner manager in a family business - a work role (as an agent of the company) and a non-work role (for fulfilling family obligations). As a reward for this dual responsibility, they are rewarded with relatively higher job

security (Beehr et al. 1997; Gomez-Mejia et al., 2001). In tune with the agency theory perspective, the argument can be logically presented as the family executive exchanging this relatively assured job with relatively lower pay (alignment of interests principle). The analysis is further strengthened by the fact that the family executive would comparatively be in a better position to identify himself with the family business and its well being than the hired executive. The agency contract thus, should be more calculative and tradeoff based for the latter than the former (Gomez-Mejia, et al., 2001).

However the moderating income tax effect (lower individual income taxes rates with majority family businesses having lesser though significant promoter shareholding and owners in top management position) may encourage the owner managers to appropriate larger amount of the profits as their pay. An owner manager in a family firm (irrespective of promoter shareholding) would pay himself a higher salary (less the lower individual income tax), rather than receive the share of profits as either dividends or capital gains tax after double taxation (corporate income tax and dividends/capital gains tax). More so after substantial lowering of individual income tax rates in India after liberalization, there are enough reasons for the said behavior among family firms with owner managers in top management position¹⁰.

Clearly, the literature raises more questions related to the proposed effect of ownership concentration and family businesses on top management pay than it answers. Nevertheless, a persistent theme emerges, suggesting that family ownership and high promoter shareholding with owners in top management position is beneficial in reducing the principal agent conflicts experienced by non-owner managed firms. This influences their top management pay decisions as well.

2.5 Business Risk

There is a general consensus in literature that studies which have not explicitly accounted for business risk, report pay performance sensitivities nearly equal to zero. Jensen and Murphy (1990) suggested including business risk in top management pay determination, with several reasons for paying a higher total pay to top management in firms characterized with higher risks. Directors hold the top management responsible accountable to the shareholder for organizational performance – good or bad, amounting even to their dismissal in order to save their own reputation (Shavell, 1979). Thus in case of sub optimal performance, total top management pay falls prey to shareholder scrutiny. In other words firms exposed to high business risks require a risk premium (higher total pay) to induce top management to continue accepting risky projects for maximizing shareholder wealth (Fama, 1980)¹¹.

Beatty and Zajac (1994) reported importance of risk factor in incentive pay for executives. Aggarwal and Samwick (1999) have argued quite well on the effect of business risk on pay performance sensitivity for top management in a firm. Say there are two firms, one with a high variance of performance measures and the other with a low variance. Suppose top management of both firms receive same remuneration because the high-variance firm had good performance and the low-variance firm had poor performance. Running a regression of pay on performance, without controlling for the variance of firm performance would incorrectly report no pay-performance sensitivity, since top management with better performance does not receive higher remuneration. Hence omitting business risk would largely understate the average pay-performance sensitivity for top management remuneration.

Hill and Phan (1991) using total cash compensation, found statistically significant though a negative coefficient for beta. The use of beta as a proxy for business risk is questionable, as it measures the systematic market risk for the firm, while top management is exposed to total risk

¹⁰ The argument holds valid even after dividends being exempt from tax.

¹¹ This arrangement is ideally desired, but taking a conservative approach, top management compensation contracts are usually structured on a lower side for high-risk firms.

(including the firm specific unsystematic and undiversifiable risk). Shareholders can choose a portfolio selection strategy eliminating the unsystematic risk, while top management with restricted stock options and relatively larger portion of their wealth tied up in the firm (human capital theory), have to bear the risks unique to the firm (Hill and Phan, 1991). Garen (1994) arguing that pay should increase with firm risk finds weak empirical support for risk measured by beta.

Jin Li (2002) found firm specific (unsystematic) risk to be accountable for the negative coefficient on pay performance sensitivity, when top management cannot trade the market portfolio. Controlling for the level of systematic risk, he found unsystematic risk to be negatively related to top management pay. However, when unsystematic risk was controlled for, there was no significant relation between market risk and compensation. However recent evidence suggests that managers do adjust their portfolio holdings according to the risk characteristics of their firm-specific assets, so as to hedge some of the risk they gain from their firms¹².

Risk and pay relations are influenced by family ties (Gomez Mejia, et. al. 2002). For family businesses, owner managers would be influenced more by the market (systematic) risks than the firm specific (unsystematic) risks. This is contrary to the general contention of managerial decisions getting affected more by firm specific risks they can control as compared to the uncontrollable market risks (Miller et al, 2002). In family firms, personal risk of the owner managers is higher due to their higher stakes in the firm. The systematic risks are treated as 'given' as they have limited opportunities for diversification and face higher risks due to greater reliance on internal sources of finance with a higher cost of capital and limited portfolio diversification sources available, increasing the probability of failures.

Thus it can be said that by underestimating the role of risk in top management pay, their relationship to firm performance is underplayed. The simple prescription that more incentives are always better does not hold, as remuneration committees must carefully consider pay performance sensitivity and firm risk before making pay performance recommendations.

2.6 Role of Remuneration Committee

Ideally the top management pay setting process should be delegated to the board subcommittee popularly referred as the remuneration committee, consisting wholly or primarily of non-executive directors expected to be independent members of the Board. They are expected to fix remuneration in such a manner that it provides an incentive system to align the interest of management with that of the shareholders. Underlying motivation for the same being, top management does not play a role in determining their own pay. The idea manifested itself as important policy formulations in the U.S. and U.K. (Cadbury Committee Report, 1992; Greenbury Committee Report, 1995; Hampel Committee on Corporate Governance, 1998).

In India, the issue has been the focus of attention for quite sometime, with setting up of a remuneration committee being made a part of the Schedule of requirement under Clause 49 of the listing agreement. It has also been recommended by the report of the Kumar Mangalam Birla Committee and subsequent committees like the Naresh Chandra Committee on corporate governance. Theoretically there is a sound rationale for constituting a remuneration committee for top management pay determination since the details required for balancing risks and returns for providing the necessary incentives, demands expertise and knowledge. Thus it seems best to

¹² Economist, "Executive Relief," April 3, 1999, p. 64, reports that the use of derivatives to hedge managerial exposure to firm risk has become a business of hundreds of millions of dollars. Also, Louis Lavelle, in "Undermining Pay for Performance," Business Week, January 15, 2001, p. 70, reports some recent incidences of executives hedging using zero-cost collars.

delegate the task to non-executive independent directors representing the owners, who would take care to maintain the required transparency in the whole process. Remuneration committee hence may be an important determinant for top management pay in the Indian context, with increasing awareness on corporate governance norms.

While a number of studies have examined the relationship between pay and performance and issues related to them, there is limited literature on the pay setting mechanism and the role of the remuneration committee. Williamson (1985) commented that the absence of an independent remuneration committee is akin to an executive's writing his employment contract with one hand and then signing it with the other. Main and Johnston (1993) state "there are strong theoretical reasons for expecting a board sub-committee such as the remuneration committee to exert influence on top executive pay and that influence should be in the interests of the owners, i.e. the shareholders". However, the role of remuneration committees is not simply to reduce the pay of supposedly self-serving managements. More generally, economic and agency theories would suggest that they are forums within which directors determine the appropriate design of reward structures for management and align management and shareholder interests (Conyon et. al., 1995; Ezzamel & Watson, 1997; Main & Johnston, 1993).

However, there may be reasons to question the effectiveness of remuneration committees. O'Reilly and colleagues (1988) found that the average salary of remuneration committee members had a positive effect on CEO pay. Reason for the same suggested was, non-executive directors of one company are often executive directors in other companies. Thus, when non-executive directors establish a "going rate" for the job, they too might benefit from that going rate in their roles as executive directors. Positive influence may also indicate the potential realized by the committee for increasing top management pay to match better firm performance.

Top management pay is expected to be lower in companies that adopt remuneration committees with a higher proportion of non-executives (independent directors) as members of their remuneration committees. However with family businesses in majority, independence of the remuneration committee would be a determining factor in top management pay setting process. With increasing policy regulations, undue top management pay appropriation is expected to be reduced with efficient remuneration committees in place. However, the bidding up hypothesis of Ezzamel & Watson (1997) & the cozy collusion effect between executives & independent directors sitting on each other's remuneration committees cannot be completely ruled out. This could lead to top management pay being significantly higher. Moreover salaries being determined in relation to payments made in peer companies, there might be a spiraling effect of simply bidding up salaries into the top quartile of every industry.

The link between pay and performance is expected to be better and top management pay relatively lower in companies with higher proportions of non-executives on their remuneration committees, due to effective monitoring on top management pay misappropriations. However the family business effect by way of a dominating family member in the top management position influencing the committee for higher salary appropriation, or the cross directorship issue has to be taken into consideration as well.

2.7 Earnings Volatility

Profits have been popularly accepted as the most important criterion for setting top management pay. Linking pay to profitability thus forms the basis of principal agent theory and optimal contracting literature. Incentive role of profits is important for initiating the risk averse agents for putting in their best efforts for maximizing the principal's outcome, but a balance is required to ensure that too much of risk and compensation variability is not shifted onto the naturally risk averse agents. In other words, a certain portion of top management pay has to be assured i.e. fixed pay for uncertainties inherent in the business. Despite having a fixed pay component, linking top management pay to earnings of the organization increases the risk of the agents to a considerable extent (Shavell, 1979, Sloan, 1993) as the firm's outcome good or bad are largely attributed to the

agents. Thus a certain risk premium by way of higher total pay over and above the fixed pay component is desirable in firms with high variability in earnings (Shavell, 1979). A similar view is shared by Finkelstein & Boyd, (1998) regarding a higher pay level for the top management in order to compensate for the risk they bear in case of volatile earnings. The argument holds good in case of firms with relatively larger variable component in top management pay, as in lieu of the high compensation risk of the executive a higher total pay is desired (Jensen and Murphy, 1990). Thus uncertain or rather volatile earnings have a negative influence on total top management pay. This forms the basis for fluctuation in earnings or earnings volatility being considered a determinant of top management pay¹³.

3.0 Methodology

Ordinary least squares regression has been used to examine the influence of factors chosen from literature as determinants influencing top management pay in firms. Top management pay measured as total cash compensation given in the annual report of firms under notes to account with breakup of salary bonus and commission, is the dependent variable in the regression. In order to normalize it, logarithmic transformation of variables has been used, which also avoids the bias caused by outliers (Ueng 2001). It has been regressed upon Adj Tobin's Q, ROA (performance measures), promoter shareholding (ownership structure), family business ownership and other dummy variables for ownership, beta (business risk), remuneration committee dummy, earnings volatility, size, age, and industry dummies.

The basic regression equation is as follows.

$$\ln(\text{TM pay}) = \alpha + \beta_1 \ln(\text{Adj Tobin's Q}) + \beta_2 \ln(\text{Promoter Shareholding}) + \beta_3 \ln(\text{Family ownership}) + \beta_4 \ln(\text{Government ownership}) + \beta_5 \ln(\text{Foreign promoter ownership}) + \beta_6 \ln(\text{Remuneration committee}) + \beta_7 \ln(\text{beta}) + \beta_8 \ln(\text{Earnings volatility}) + \beta_9 \ln(\text{Size}) + \beta_{10} \ln(\text{Age}) + \sum \beta_{11} \ln(\text{Industry dummies}) + e$$

..... Equation 1,

$$\ln(\text{TM pay}) = \alpha + \beta_1 \ln(\text{ROA}) + \beta_2 \ln(\text{Promoter Shareholding}) + \beta_3 \ln(\text{Family ownership}) + \beta_4 \ln(\text{Government ownership}) + \beta_5 \ln(\text{Foreign promoter ownership}) + \beta_6 \ln(\text{Remuneration committee}) + \beta_7 \ln(\text{beta}) + \beta_8 \ln(\text{Earnings volatility}) + \beta_9 \ln(\text{Size}) + \beta_{10} \ln(\text{Age}) + \sum \beta_{11} \ln(\text{Industry dummies}) + e$$

.....Equation 2

Short description of the variables can be summarized as follows:

Table 2 Brief Descriptions of the Variables

Variables	Measures
TM Pay (Rs crores)	Average of 5 years total Top management pay (salary + perquisites + Contribution to Provident Fund + Commission) as given in the Notes to Accounts.
Adj Tobin's Q	Average of 5 years {(Adjusted closing price ¹⁴ * Outstanding shares) + Preference Share Capital + Total Borrowings + Current Liabilities and Provisions} / Total Assets
ROA	Average of 5 years {Profits after Tax (PAT) / Average Total Assets}

¹³ It is important to note that earnings volatility as implied here is taken to be different from business risks which the firm has to face. Though the arguments put forward for business risks have a certain bearing on this section as well. Effort has been made to segregate the effects by way of the proxies used for these two variables reflecting accounting earnings and market responsiveness effect respectively.

¹⁴ Closing price as at march 31st 2003 taken from the Prowess database.

Promoters Shareholding (%)	Total of Promoters' shareholding may be Indian Promoter (IP) (private firm category or Government in case of public sector firms) + Foreign Promoter {(FP) if any} as per Prowess ¹⁵
Family ownership	Zero / One Dummy variable if the firm is a family firm, i.e. belonging to the Indian promoter controlled private category as per prowess classification taken. Even if a hired professional holds top management position but there is reason to believe that family exerts influence on the board, the same is taken to be a family firm for the purpose of the study. For e.g. Geometric Software Solutions Co. Ltd., BSES Ltd. and Zee Telefilms Ltd. Omitted reference category for the ownership dummy variable is the diversified firms group.
Government	Zero / One Dummy variable if the firm is a public sector firm, belonging to the government category under the Indian promoter group of prowess classification taken.
Foreign promoter	Zero / One Dummy variable if the firm belongs to the Foreign promoter category of the prowess classification taken ¹⁶ .
Remuneration committee	Zero / One Dummy variable for existence of a formally constituted Remuneration committee in place as per the Corporate Governance report of March 2003 /December 2002 in prowess.
Beta	Beta as per the prowess database for March 31 st 2003. Crosschecked some of them were with manual calculation for some of the companies.
Earnings volatility	Standard Deviation over 5 years of Profits before Interests and Taxes (PBIT) less Non operating Incomes / Total Sales
Size	Log of average of 5 years total assets of the firm
Age	Number of years from the date of incorporation as per prowess till 2003.

Most of the data for the study have been collected from objective, secondary sources, wherein the financial statement and ownership data have been obtained from the prowess database maintained by Centre for Monitoring the Indian Economy (CMIE). It has information taken from annual reports, filed by all publicly traded firms in India together with press releases from companies and daily stock prices for companies. Data has been randomly crosschecked for its veracity with published annual reports and the Capitaline database, which has also filled few gaps on data related to ownership structure.

Data on top management remuneration has been collected from the annual reports available in the electronic form from the Insight database maintained by the Asian CERC. The primary data source for the study thus would be Annual Report of the respective companies, including notices for the annual general meetings. The sample for the study consists of the BSE 200 companies, which is quite large and representative for generalizability. The equity shares of 200 selected companies from the specified and non-specified lists of the Bombay Stock Exchange have been considered for inclusion in the sample for 'BSE-200'. The selection of companies has primarily been done on the basis of current market capitalization of the listed stocks on the exchange¹⁷. This makes the sample sufficiently large for generalizing the findings of the study.

¹⁵ Cross-checked some in case of doubt with annual report and Capitaline database

¹⁶ The omitted reference category for all the above three ownership dummies is the Management controlled / diversified firms as per prowess classification taken.

¹⁷ Information taken from the BSE website www.bseindia.com/about/abindices/bse200.asp

3.1 Analysis and Discussion of Results

Analysis for the first objective of the study starts with the descriptive summary statistics of the variables as outlined above. This is followed by collinearity statistics and the OLS regression estimates.

3.1.1 Descriptive Statistics

The median total compensation reported for the top management in the sample firms is Rs 0.712 crores while the average total pay reported is Rs 1.21 crores¹⁸. The range for top management pay is considerable (19.89 crores) as the third quartile statistic shows that the highest total top management pay reached for 75% of the sample firms remains Rs 1.522 crores, despite excluding the outlier firms from the analysis.

The breakup of total pay into fixed (salary, perquisites, contribution to funds and others) and variable part (commission) shows that fixed pay has a median value of 0.563 crores, while variable pay has a much smaller median of 0.105 crores. The average for variable pay is quite higher (0.564 crores) with a large standard deviation (1.725 crores). The range for variable pay is also higher showing that this is the preferred medium for providing required incentives for management, to balance the risks and returns for both the principals and the agents. However, it the higher 25% of the sample firms which, pay the considerably higher incentives as the third quartile statistic is less than 0.5 crores¹⁹.

Commission as a percentage of total pay has a median value of only 13%, with the maximum being as high as 94%²⁰.

Median value for the performance measures Adj Tobin's Q (0.99) and ROA (0.065) shows that the sample firms are quite profitable and valued favorably by the market due to considerable investment opportunities. The mean values are higher than the median values and the third quartile figures show the sample firms to be financially sound.

The mean promoter shareholding is 50.07%, which is similar to the median value of 51%. The considerably higher maximum values represent the government firms, with the other extreme being diversified organizations with no dominant promoter shareholding.

Business risk proxied with beta has a median value of 0.77 with a closer average of 0.811. The third quartile statistic (1.00) shows that 75% of the sample firm's stock has average volatility matching the benchmark index with the respective stock and the market moving up and down together. However the sample has two rare, though theoretically possible negative beta firms showing that their stock and the benchmark index move in the opposite directions, giving a negative minimum statistic.

The median age for the sample firms is 32 years with a closer average value of 38 years. The median logarithm of total assets as a proxy for firm size is 6.998 with a closer mean of 7.292.

¹⁸ 7 outlier firms from the BSE 200 sample have been excluded for calculating the summary statistics, based on preliminary regression analysis, identifying the cases on the basis of residual statistics.

¹⁹ The proper break up for fixed and variable pay is available for about 60% of the sample firms, with the balance comprising mostly of banking companies having no mandatory variable pay and disclosure norms or firms mostly in the public sector having primarily fixed pay component. Some family firms also do not disclose.

²⁰ A popular automobile firm paid considerable top management salary as variable pay (commission) for the last two years (2001-02 & 2002-2003).

Table 3 Variable- wise Descriptive statistics

Variable	Mean	Median	Std. Dev.	Minimum	Maximum	First Quartile	Third Quartile	Observations
Top management Pay	1.210	0.712	1.794	0.033	19.89	0.373	1.522	193
Fixed Pay	0.799	0.563	0.782	0.121	5.297	0.335	0.993	115
Variable Pay	0.564	0.105	1.725	0.00	19.21	0.00	0.477	115
Commission (%)	21.74	13.24	25.483	0.24	94.3	0.00	38.43	115
Adj Tobin's Q	1.58	0.99	1.598	.06	8.62	0.75	1.65	193
ROA	0.082	0.065	0.083	-0.122	0.394	0.018	0.126	193
Promoters Share	50.073	51.01	20.120	0	97.64	36.915	62.770	193
Beta (Business risk)	0.811	0.77	0.420	-0.61	2.16	0.56	1.00	193
Remuneration Committee dummy	0.482	0	0.501	0	1	0	1	193
Family Firm dummy	0.564	1	0.497	0	1	0	1	193
Government firm dummy	0.168	0	0.374	0	1	0	0	193
Foreign Promoter firm dummy	0.225	0	0.419	0	1	0	0	193
Age	38.848	32	24.816	4	125	20	55	193
Size (log of total assets)	7.292	6.998	1.847	4.242	12.841	6.262	8.075	193
Earnings Volatility	0.05	0.03	0.094	0.008	0.299	0.018	0.057	193
Financial Leverage	0.279	0.268	0.218	0.0001	0.889	0.067	0.423	193
Advertising Intensity	0.033	0.018	0.038	0.0022	0.222	0.005	0.051	193
R/D Intensity	0.008	0.001	0.02	0	0.18	0	0.007	193
Industry 1 dummy	0.089	0	0.285	0	1	0	0	193
Industry 2 dummy	0.016	0	0.125	0	1	0	0	193
Industry 3 dummy	0.791	1	0.408	0	1	1	1	193

Volatility of earnings has a median estimate of 3% with an average of 5%, and majority of the sample lies within 5.7% variability in earnings. The median debt to equity ratio (financial leverage) for the sample is 0.268 with a closer mean value of 0.279. The firms have a median advertising and research and development intensity of 0.018 and 0.001 respectively. The corresponding averages are 0.033 and 0.008 respectively. The third quartile figures for both advertising and research and development intensity are not considerably higher than the median values signifying that Indian companies need to increase their allocation for discretionary investment opportunities.

3.1.2 Collinearity Diagnostics

The correlation table for the variables in the study shows that some of the explanatory variables are correlated with each other. Top management pay is positively correlated with ROA and Adj Tobin's Q, remuneration committee and family firm variables whereas it is negatively correlated

with promoter shareholding, beta, and government firm variables. Most of the correlation values have signs as hypothesized except for remuneration committee dummy.

Table 4 Correlation Matrix for the Variables

	TM Pay	ROA	Adj Tobin's Q	Promoters Share	Beta	Age	Leverage	Size	Earnings Volatility	Adv Intensity	R&D Intensity
TM Pay	1.000										
ROA	0.243**	1.000									
Adj Tobin's Q	0.466**	0.485**	1.000								
Promoters Share	-0.151*	0.101	0.019	1.000							
Beta	-0.198**	0.074	0.050	-0.056	1.000						
Age	-0.028	-0.204**	-0.268**	-0.080	-0.312**	1.000					
Size	-0.139	-0.447**	-0.388**	-0.140	0.004	0.271**	0.160*	1.000			
Earnings Volatility	-0.022	0.245**	0.080	-0.019	0.258**	-0.204**	0.005	-0.288**	1.000		
Remuneration Committee	0.335**	0.077	0.142	-0.273**	0.102	-0.007	0.030	-0.078	0.121	-0.039	0.040
Family Firm	0.291**	0.143*	0.071	-0.055	0.174*	-0.236**	0.205**	-0.262**	0.082	-0.255**	-0.070
Government	-0.492**	-0.193**	-0.452**	0.238**	0.038	0.187**	0.123	0.501**	-0.128	0.135	0.008
Foreign Promoter	0.121	0.099	0.350**	0.128	-0.239**	0.108	-0.366**	-0.264**	0.022	0.079	0.077
Industry 1	-0.306**	-0.506**	-0.598**	-0.068	0.006	0.183*	0.150*	0.536**	-0.066	0.583**	0.227**
Industry 2	-0.117	-0.098	-0.023	-0.197**	-0.042	-0.072	0.095	0.061	-0.097	0.236**	-0.072
Industry 3	0.255**	0.299**	0.436**	0.031	-0.036	-0.019	-0.104	-0.334**	-0.138	-0.407**	-0.129

* Correlation is significant at the 5% level (2-tailed) ** Correlation is significant at the 1% level (2-tailed).

Checking for the collinearity diagnostics in the linear regression models required multicollinearity tests among the variables to be done. The coefficient table for the tests showed that multicollinearity is not a problem, as the part and partial correlations do not drop abruptly from the zero-order correlation. This implies that the variance in top management pay is primarily explained by the main independent variables identified in the OLS model and not by other regressors (control variables and other omitted variables not included in the study). The part and partial correlation values also do not differ significantly from the zero order correlations indicating for example that the variance in top management pay accounted for by Adj Tobin's q is significantly higher than that explained by say beta or remuneration committee variable. Variance inflation factor (VIF) and tolerance statistics were checked, which showed that multicollinearity is not a problem as none of the VIF scores are greater than 4, nor the tolerances are less than 0.2.

Even with a more stringent cutoff of VIF greater than 3 and tolerance less than 0.3, the scores are safe enough²¹.

Further support is provided by the eigen values for the explanatory variables. None of them are very close to zero indicating that the regressors are not correlated, moreover the condition indices are all less than 30 (except for the industry dummies they are all less than 15²²). Thus small changes in data would not cause large changes in coefficient estimates.

Table 5 Collinearity Statistics for the variables

Variables	Collinearity Statistics		Eigen Value	Condition Index
	Tolerance	VIF		
Constant			10.093	1.000
ROA	.581	1.722	2.226	2.123
Adj Tobin's Q	.399	2.507	1.243	2.840
Promoters Share	.677	1.478	1.047	3.095
Remuneration Committee dummy	.802	1.246	.751	3.654
Beta	.762	1.312	.706	3.770
Family firm dummy	.301	3.317	.468	4.631
Government firm dummy	.314	3.184	.409	4.951
Foreign promoter dummy	.307	3.259	.303	5.753
AGE	.720	1.390	.277	6.021
Leverage	.783	1.278	.140	8.455
Size	.454	2.204	.120	9.126
Earnings Volatility	.725	1.379	.103	9.852
Advertisement Intensity	.508	1.970	.059	13.041
R&D Intensity	.870	1.150	.050	14.092
Industry 1	.262	3.815	.039	16.015
Industry 2	.654	1.528	.023	20.781
Industry 3	.485	2.061	.019	28.032

²¹ Except for the dummy variables on account of dominant shareholding and an industry dummy for banking firms.

²² Values greater than 15 indicate a possible problem with collinearity and greater than 30, indicate a serious multicollinearity problem.

3.1.3 OLS Results

The model fit statistics are good for both the OLS regression equations (as per earlier specification), with most of the predictors having hypothesized association with the dependent variable²³. The numbers of predictors are reasonable, as most of the coefficient values contribute significantly to the model.

Table 6 OLS regression results for Top management pay

Dependent variable – TM pay						
	Equation 1 – Adj Tobin's Q			Equation 2 - ROA		
	Coefficient estimates			Coefficient estimates		
Independent Variables	Unstandardized	Beta	t value	Unstandardized	Beta	t value
Constant	-1.392		-2.405*	-1.034		-1.703
Adj Tobin's Q	.444	.413	5.169**			
ROA				.138	.178	2.533**
Promoters Shareholding	-.248	-.192	-2.239*	-.170	-.132	-1.470
Remuneration committee	.326	.154	2.532**	.393	.186	2.918**
Beta	-.650	-.263	-4.293**	-.573	-.232	-3.612**
Family firm	1.246	.583	2.621**	.770	.360	1.566
Government	-.200	-.071	-.388	-.533	-.190	-1.013
Foreign promoter	.909	.354	1.826	.740	.288	1.413
Age	.014	.010	0.158	-.072	-.050	-.761
Size	.106	.183	2.342*	.149	.258	3.109**
Earnings Volatility	-.021	-.021	-.341	-.051	-.052	-.782
Industry 1	-.079	-.021	-.237	-.564	-.151	-1.677
Industry 2	-1.017	-.119	-1.831	-1.180	-.138	-2.021*
Industry 3	-.188	-.072	-.933	-.100	-.038	-.474
F value	12.494**			9.902**		
R square	0.438			0.376		

* Significant at 5 percent level and ** Significant at 1 percent level.

Regression results for equation 1 show that adj tobin's q, remuneration committee, family firm and firm size variables have positive association with top management pay, while beta and promoter shareholding have negative association with top management pay.

Adj tobin's q has a significant positive relation with top management pay, with a 1% increase in adj tobin's q increasing top management pay by 0.413% showing that firm performance measure is a significant determinant for top management pay in majority companies in India. However, the

²³ Data has been checked for robustness by computing the averages based on different combinations of period and running the regression for each combination. There is no significant difference between the regression co-efficients.

positive association between top management pay and adj tobin's q may not hold true for firms facing a downtrend with unfavorable performance, as total top management pay cannot be negative due to the fixed pay component (mean difference test was done for the same –results can be given).

Promoter shareholding variable finding support suggests that, concentrated shareholding possibly has a better monitoring effect on top management pay misappropriations in order to keep agency problems arising from diffused ownership stakes in control. Thus firms with higher promoter shareholding would not be encouraging higher top management pay. However, with majority family owned and managed businesses having a preference for higher top management appropriations (due to the income tax effects discussed earlier), the relationship between top management pay and promoter shareholding needs to be examined separately for family and non family organizations (next table).

Support for family business variable lends support to the moderating tax influence dominating the conventional 'dual responsibility' and 'higher job security' perspective (Allen & Panian, 1982; Gomez-Mejia et al., 2001). This causes a positive association between family firms and their top management pay appropriations in the Indian context.

The interpretation for the regression coefficients of the dummies for dominant ownership categories (family, government and foreign promoter firms) has to be made with reference to the omitted ownership category, being the diversified firms category belonging to the management-controlled group (Balasubramanian 2003). The statistically positive coefficient for the family firm dummy suggests that top management pay in a family firm is higher compared to a diversified firm by 1.246 units. In case of a foreign promoter firm, it is higher by 0.909 units and for a government firm lower by 0.200 units as compared to a diversified firm (though not significant). Firm risk having negative coefficient again strengthens the notion of firms in the high-risk category possibly having lower top management pay due to conservatism. Total pay increase is important for these firms exposed to high market wide systematic risks. This would safeguard against unwarranted risk avoidance on the part of top management (due to their incentive pay being determined by firm performance), harmful for the long-term profitability of the firm (Garen, 1994; Kraft and Niederprum, 1999). The interpretation was further facilitated by the results for the segregated (family versus non-family) sample of firms as the coefficient is significantly negative for family firms enjoying the flexibility with regard to variable pay component to match the firm's free cash flow.

Dummy variable for remuneration committee has a significant positive sign contrary to the hypothesized negative sign. O'Reilly and colleagues (1988) also had reported positive relation, though the reason given for the same (cross directorship between executive and non executive directors) may not hold true for the BSE 200 sample of Indian firms used here. Firms in this group abide by corporate governance norms by selecting only non-executive directors for remuneration committee membership. However, pay being determined in relation to market studies and top management pay in peer companies, the spiraling effect may explain the positive relation to a certain degree. Positive association may also indicate the top management potential for improved pay realized by the remuneration committee to match better firm performance. This is in tune with the institutional monitoring role for remuneration committees of not simply reducing top management salaries but designing better pay structures by aligning conflicting objectives of the owners and the managers.

The statistically significant positive sign for size is consistent with previous studies reporting a favorable association between firm's size and its top management pay. There is a consensus in literature about bigger firms paying their top management well who, in a bid to gain more power (due to larger salaries) with the firm getting bigger, may compromise on performance and shareholder's interest to the point of accepting lesser or even negative net present value projects (Kroll, Simmons, & Wright, 1990).

Despite the sample having considerable older firms (median value of 32 years), age has positive coefficient sign. This possibly suggests that the firms are flexible enough to accept environmental changes for growth, such as competitive top management salaries for better talent and have given up on organizational inertia to continue with the old remuneration practices. Literature also argues for firms in the Information Technology and services sectors with foreign promoter as the majority shareholding (relatively younger firms), offering lucrative top management salaries to attract the best talent in the industry. Equation 2 results show a negative coefficient sign for the age variable, conforming to the same.

The results were much forthcoming by segregating the pooled sample into family versus non-family businesses, where the non-family category consisted of government, foreign promoter and diversified firms together for comparison. The results for the family firms category supports both the measures of firm performance (ROA and Adj Tobin's Q) having significant positive association with top management pay, whereas for the non-family category only Adj Tobin's Q is shown to have a significant relationship with top management pay, similar to the pooled sample results. Asset returns being an important determinant for top management pay (standardized value being higher still compared to the unstandardized value) probably explains considerably higher pay appropriations in family firms compared to say the foreign promoter group. Both the categories may have comparable performances and incentive systems in place but family firms having top management pay related to ROA in addition to Adj Tobin's Q, definitely enjoy greater leverage. This finding is consistent with Jensen & Murphy (1990) and Ely (1991) explanation about accounting returns providing better information to the board about the value added to the firm by top management decision-making. Relating pay to returns based on pure accounting numbers (amenable to adjustments) would be appreciated by the owner managers in family firms. Non-Family firms with hired top management, on the other hand would possibly prefer relating top management incentives to Adj Tobin's Q (if at all), which is supposed to be a better determinant for top management incentives as it reflects some of the market expectations through closing stock prices.

Promoter shareholding variable is supported for non-family firms category, suggesting that higher promoter shareholding does have a better monitoring effect on top management pay appropriations for these firms. While for family firms, percentage of shareholding in the organization is not an important factor for determining top management pay, as they would anyway exercise the required flexibility in pay appropriations due to their influence in decision-making²⁴. The income tax effect possibly contributes towards the positive coefficient estimate for promoter shareholding variable in family firms. The segregation of the sample into family and non-family firms category resolves the issue of higher pay appropriations for family firms (assumed to have concentrated shareholding). Preference for higher top management pay due to the income tax effect may be dominating the monitoring effect of higher ownership stake, resulting in a lack of significant relationship between promoter shareholding and top management pay. Promoter shareholding variable thus has very low standardized value contributing insignificantly to the dependent variable in these family firms.

Business risk has the hypothesized significant negative influence for family firms showing the conservative effect in their pay determination, while for the non-family firms the relation is not statistically significant. This suggests that determining top management pay relatively on the lower side may be feasible for family firms (greater flexibility to the owner managers to determine pay appropriation balancing their tax requirements and the firm's free cash flow position) as compared to hired professionals in their counterpart requiring minimum assured returns and compensation for the high risk exposure of their firms. Another significant difference

²⁴ There are cases of less than 30 percent promoter shareholding firms in which owner managers exercise total control (Margiotta Mary M, 2000).

is shown by the remuneration committee variable which is significant for the non-family category, while for the family firms is important at a lesser significance level (less than 10% level for Equation 1). Effectiveness of remuneration committee functioning in top management pay determination for family firms thus seems debatable as compared to non-family firms.

Failure of firm size to show any significant relationship with top management pay (in table 7 and 8) is not common as per literature. Literature has a consensus about bigger firms paying their top management more. The managerialist theory also argues for top management gaining excessive powers and increasing firm size to reward themselves generously even at the cost of sub optimal firm performance (Kroll, Simmons, & Wright, 1990). Table 3.5 for the complete sample shows firm size having a significant positive relationship with top management pay. Pay size relationship however, might be context specific with decision makers (owner managers with majority family owned and managed firms) being primarily concerned with improving shareholder returns rather than increasing their incentives tied to firm size. Similar results on pay-size relationship have also been reported by Deckop (1988) and Kannan (2000). There is also a possibility that the positive association effect reported for the pooled sample is too small to be captured by the OLS regression model for the segregated sample, in terms of its statistical significance. Another reason may be that in general, Indian corporate houses do not believe in encouraging managerial drives for acquisitions and expansions at the cost of sub-optimal firm performance.

Table 7 OLS regression results for Family firms

Dependent variable – TM pay-- Family businesses (110 firms)						
	Adj Tobin's Q			ROA		
	Coefficient estimates			Coefficient estimates		
Independent Variables	Unstandardized	Beta	t value	Unstandardized	Beta	t value
Constant	-1.628		-1.370	-1.667		-1.338
Adj Tobin's Q	.483	.390	3.958**			
ROA				.182	.239	2.388*
Promoters Shareholding	.193	.082	.810	.240	.102	.964
Remuneration committee	.345	.179	1.842	.429	.222	2.207*
Beta	-.844	-.374	-3.786**	-.669	-.296	-2.964**
Age	.057	.044	.446	-.033	-.025	-.251
Size	.047	.080	.810	.097	.161	1.537
Earnings Volatility	.034	.041	.391	-.026	-.032	-.294
Industry 1	.292	.041	.418	.245	.034	.335
Industry 2	-.395	-.039	-.424	-.297	-.029	-.303
Industry 3	.051	.019	.181	.163	.060	.556
F value	3.228**			2.087**		
R square	0.017			0.091		

* Significant at 5 percent level and ** Significant at 1 percent level.

Table 8 OLS regression results for Non Family firms

Dependent variable – TM pay—Non Family businesses (83 firms)						
	Adj Tobin's Q			ROA		
	Coefficient estimates			Coefficient estimates		
Independent Variables	Unstandardized	Beta	t value	Unstandardized	Beta	t value
Constant	-1.218		-1.587	.382		.467
Adj Tobin's Q	.627	.699	5.058**			
ROA				.00009	.000	.001
Promoters Shareholding	-.206	-.220	-2.682	-.263	-.281	-2.970
Remuneration committee	.600	.269	3.330**	.776	.347	3.749**
Beta	-.425	-.165	-1.824	-.767	-.298	-2.909**
Age	.163	.103	1.091	.044	.028	-.251
Size	.056	.104	.911	-.016	-.029	-.226
Earnings Volatility	-.087	-.016	-.868	.026	.023	-.230
Industry 1	-.152	-.054	-.348	-1.285	-.457	-2.611
Industry 2	-1.714	-.243	-2.665*	-1.972	-.280	-2.611
Industry 3	-.429	-.180	-1.368	-.388	-.163	-1.063
F value	11.621**			6.687**		
R square	0.564			0.410		

* Significant at 5 percent level and ** Significant at 1 percent level.

The OLS regression model validates the factors chosen from literature as important determinants for top management pay in firms.

In this context, there was a need to examine top management pay changes (incremental pay) across firms categorized on the basis of positive and negative firm performance in any given two years. This would clarify issues with regard to whether, the changes in top management pay are related to the changes in firm performance for firms in both the categories (with positive and negative change in performance). The analysis would rather, show if firm performance were an important determinant for top management pay in both categories of firms (with good and bad performance) at the same time. A mean difference test was done on annual change in top management pay (in terms of percentage change over the previous year) by dividing the sample firms in two categories with respect to positive and negative change in profits after tax (PAT). The mean values show that firms having positive change in PAT have increased their top management pay significantly as compared to firms with negative change in PAT. But the change in top management pay is not negative for poor performance firms, though the increase is very marginal (average of 1.29% as compared to 48.12% for the positive PAT firms). The results of the mean-difference test shows that the mean values of changes in pay for positive-change PAT groups and negative-change PAT groups are statistically different at 1% level. This suggests that firms having favorable performance pay significantly higher remuneration to their top management as compared to firms having poor performance. However the mean and median values are positive for the firms having negative change in PAT due to the fixed pay component

also being a part of top management pay. It suggests that top management remuneration is possibly sticky and not related to firm performance during a downtrend.

Lagged effect was introduced to test for the relation between future and past firm performance (if any) and current top management pay²⁵. Table 9 shows that both future and past firm performance have significant positive association with current top management pay for the sample as a whole. Rather prospective asset returns (ROA) in the future have relatively better association with current top management pay as compared to Adj Tobin's Q measure (in standardized beta estimate terms) in the future. As regards past firm performance influencing current top management pay, Adj Tobin's Q scores better again. Other variables have their usual interpretations given earlier. This indicates that top management pay determination is influenced by how the firm has performed in the past as well as the future performance prospects of the firm.

Table 9 OLS regression results for Top management pay with lag effects

Dependent variable – TM pay						
Independent Variables	Future Performance effect			Past Performance effect		
	Coefficient estimates			Coefficient estimates		
	Unstandardized	Beta	t value	Unstandardized	Beta	t value
Constant	-1.275		-1.780	-.645		-1.076
ROA	.223	.260	2.940**	.025	.031	.397
Adj Tobin's Q	.300	.231	2.259*	.350	.298	3.362**
Promoters Shareholding	-.080	-.060	-.788	-.125	-.093	-1.380
Remuneration Committee	.329	.149	2.155*	.416	.181	2.817**
Beta	-.618	-.240	-3.499**	-.528	-.197	-3.073**
Family firm	.356	.160	1.228	.612	.263	2.259*
Government	-.277	-.093	-.848	-.497	-.161	-1.631
Foreign promoter firm	.083	.031	.265	.364	.132	1.201
AGE	.098	.065	.881	-.026	-.016	-.226
Leverage	-.070	-.116	-1.633	-.020	-.025	-.383
Size	.070	.125	1.401	.126	.249	2.692**
Earnings Volatility	-.181	-.156	-1.757	-.129	-.114	-1.352
Advertisement Intensity	.130	.218	2.544**	.086	.144	1.874
R&D Intensity	-.037	-.101	-1.535	-.028	-.071	-1.070
Industry 1	-.175	-.045	-.338	-.806	-.199	-1.702
Industry 2	-.999	-.112	-1.491	-1.502	-.161	-2.368*
Industry 3	-.108	-.040	-.462	.066	.023	.285
F value	5.037**			7.664**		
R square	0.263			0.371		

²⁵ Three year averages were taken for e.g. current top management pay was taken as average for the years 2000-2001, 2001-02 & 2002-03, while lagged past firm performance for past effect was average for the years 1997-98, 1998-99 & 1999-2000.

3.2 Summary and Conclusions

Top management pay has been the subject of debate for quite sometime with the central issue remaining its determination. Literature ranging from the neoclassical, managerial and agency theories have been covered to identify the important determinants for top management pay in India and to empirically validate, whether they indeed explain top management pay variance significantly. Besides firm performance, ownership structure and firm risk (measured as beta), it is the presence of remuneration committee in the firm, which is a significant determinant for the firm's top management pay. Though corporate governance compliance is relatively a recent phenomenon in India, the questionnaire-based survey done on the influence of remuneration committee on top management pay determination process, suggests that remuneration committee has a positive role to play²⁶. Though the survey was not representative enough (due to low response rate), the results of the same strengthen the significant positive association suggested between the remuneration committee dummy variable and firm's top management pay as per the OLS regression model. However, the positive relationship might be a simple 'ratcheting' effect for the firm's top management pay to be comparable as per industry standards. Independence of the board subcommittee in top management pay determination, for the sample at large is also debatable. Firm risk is another important determinant for top management pay particularly for family firms, with a risk return trade off desired to manage agency costs while setting top management pay. The results do not provide significant support for all large and old firms in the sample paying their top management higher, which may be context driven with majority family businesses in the sample.

However, the factors chosen are not conclusive but only illustrative of the complexities involved in determining top management pay in an organization. Corporate pay consultants themselves admit that in reality, the process is more intuitive than methodical. Majority of the pay packages are determined not only by considering the variables outlined above. A host of factors like corporate strategies and competitors policies play an important role in tune with the overall vision of the firm for the future.

The results of this chapter lend support to the notion of high top management pay appropriations for family firms in the sample (with family business being the dominant organizational structure in India). The results also suggest that the higher salaries are determined by performance and have not simply resulted from removal of restrictions on managerial pay limits or taxation leverages. However, firm performance being an important determinant for top management pay (significant positive association indicated by the regression coefficient estimate) for both family and non-family organizations (table 7 and 8) -- the relationship between top management pay and firm performance needs to be analyzed further.

Literature broadly argues that family firms have lower agency problems of separation of ownership from control and have lesser reliance on formal control systems, as compared to non-family organizations primarily due to concentrated shareholding interests (Gomez Mejia et. al. 1987; Daily and Dollinger, 1991). However, family firms in India have relatively lower dominant shareholding interests²⁷. In the 25-50% shareholding category for the pooled sample²⁸, 82% of the

²⁶ 52% of the respondents choose option 1 out of four confirming that the top management pay setting process in their firm is initiated by the remuneration committee, independent of the board or top management interference.

²⁷ Average promoter shareholding for family firms is 44% while for non-family organizations in the sample, it is 66%.

sample firms belong to the family firm category, which indicates that owner managers on an average have lesser ownership stake (with the attendant agency cost problems of diversified shareholding²⁹). This situation necessitates transparency in pay setting policies by relating top management pay to firm performance (by way of incentive pay), which would reduce the agency conflicts (due to convergence of principal-agent interests) to a certain extent. Remuneration committees may play an important role by providing the required incentives to clearly relate pay and performance while determining top management pay packages. This provides the necessary groundwork for examining the relationship between top management pay and firm performance as to the direction of causality³⁰.

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²⁸ General descriptive analysis also done for different shareholding categories of <25%, 25-50%, 50-75% & >75%.

²⁹ Nested or cross shareholding may be the avenue for some of these firms to maintain lower stakeholding on the face of it and at the same time have lower agency costs.

³⁰ For pay to be determined by performance, the causality should flow from performance to pay and not vice versa (without considering the lag effect).

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