

## **Agency Problems and Corporate Governance Mechanisms in Indian Companies**

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### **INTRODUCTION**

The separation of ownership and control in modern corporations leads to conflict of interests between managers and stakeholders. The firm's managers may have personal goals that contend with the shareholders' wealth maximization goals. Since the shareholders authorize managers to administer the firm's assets, there is bound to have conflict of interests between these two groups. The conflict of interests between the agent and principal has different incentive characteristics and has differential impact on the value of the firms. Firm's managers have personal goals that contend with the shareholders' wealth maximization goals. The problem of moral hazard exists whenever agents take unobserved action in their own self-interest, because it is infeasible for shareholders to monitor all managerial actions. However, the moral hazard problems can be mitigated and managers can be encouraged to act in the shareholders' best interest through costly monitoring process. To mitigate and reduce the moral hazard problems, shareholder must incur agency costs in the form of monitoring cost. Jensen and Meckling (1976) suggest that the leverage and debt maturity are effective ways to mitigate the agency problems due to the conflicts of interest between the managers and shareholders.

The conflict of interest between bondholders and shareholders may also cause agency problems. Smith and Warner (1973) suggest that given the investment, financing and dividend policies are endogenous; there are four sources of agency conflicts, which arise between bondholders and stockholders. The dividend pay-off, claim dilution, asset substitution and underinvestment present potential opportunities for wealth transfer from bondholders to stockholder. The capital market recognizes the agency conflicts and the rational bondholders understand the incentives of stakeholders. If risky debt is outstanding, the management acting on behalf of the shareholders have an incentive to design the investment plan, which is beneficial to the stockholders and detrimental to the bondholders. The bondholders recognise these incentive problems and overvalue the bonds as the reflection of the possible wealth transfer from bondholders to stockholder. The risky corporate debt in the capital structure may reduce the present market value of the firm by weakening the corporations' incentives to undertake good future investments. This is the problem of agency cost induced by debt. The agency cost theory suggests that the short-term debt with covenants, debt with call and sinking fund provisions and maturity matching are effective strategies to mitigate agency problems. Myers (1997), Barnea, Haugen and Senbet (1980), Venugopalan and Vij (2014)

Firm's future investment opportunities are like options and the conflict of interest between the shareholders and bondholders over the exercising of this investment option is another significant source of agency problems. Myers (1977) argues that the firms' growth opportunities are like call options and the value of the growth options dependent on undertaking the discretionary future investment by the firm. Issuing risky debt for financing growth options induces a suboptimal investment strategy in which the benefits will accrue to the bondholders in the form of reduction in the probability of default and corresponding increase in the value of debt. Hence, the risky debt financing deteriorates firm's incentive to undertake goods future investments. Myers suggests that agency problem due to the conflict of

interest between bondholders and stockholders over the exercise of growth options can be mitigated by employing low leverage, shortening the maturity of debt or including restrictive covenants in the bond indenture. Barnea, Haugen, and Senbet (1980), Venugopalan and Vij (2014)

Corporate governance is defined as the system by which companies are directed and controlled (Cadbury Report (1992)). Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting back a return on their investments. (Shleifer and Vishny (1997)). The product market competition may reduce the return on capital and hence cut the amount that managers can possibly expropriate, but it does not prevent the managers from expropriating the competitive return after the capital is sunk. The corporate governance mechanisms are economic and legal institutions that can be altered through the political process which provide assurance to the investors who sunk capital that the investments are safe and would get a reasonable rate of return by monitoring and controlling the managers. (Shleifer and Vishny (1997)) A vast literature on corporate governance has empirically examined various internal and external corporate governance mechanisms that can mitigate the agency problems caused by the conflicts of interest between various stakeholders in the organizations. The leverage and debt maturity, ownership structure such as institutional shareholders, concentrated ownership and managerial ownership, board structure, composition of independent directors and executive directors, managerial remuneration, and board committees such as audit committees, remuneration committees, nomination committees and shareholders' committees are the corporate governance mechanism which can mitigate the agency problems and bring about better corporate governance. Ang, Cole and Lin (2000), McKnight and Weir (2009), Grossman and Hart (1988), Shleifer and Vishny, (1986, 1997)

Indian corporate sector has been imbued with numerous endogenous imperfections inherited from the history of evolution of industrialization. Indian firms are characterized by a complex industry structure in which numerous state-owned huge enterprises and public sector companies, large number of family controlled firms, huge number of small and medium sized firms and opaque firms co-exist. The complex industry structure and imperfect financial market conditions coupled with the weaknesses in the legal systems have increased the agency conflicts between various stakeholders of the organizations, which have resulted in many corporate scandals. The corporate scandals and collapse of multinational companies which spread shock waves across the world and shaken the investors trust and confidence. Subsequently, global initiatives on corporate governance such as Code of Best Practices of corporate governance developed by Cadbury Report, Sarbanes-Oxley Act and host of corporate governance codes, including the OCED Principles of Corporate Governance prompted India to adopt and implemented various governance codes and provisions to bring about better governance systems in corporate sector.

This research paper discusses the various internal and external corporate governance mechanisms introduced to mitigate the agency problems in Indian companies. It also examines the nature of relationship between agency cost and corporate governance mechanisms. The major focus of this research paper is to examine empirically whether these corporate governance mechanisms are able to mitigate the agency problems and bring about better governance in the Indian corporate sector or not, using the panel OLS regression methodology.

## **LITERATURE REVIEW AND HYPOTHESES**

This section provides a brief discussion on the theoretical framework and a review of major empirical works on agency theory and corporate governance. The corporate governance mechanisms ensure wealth maximization by mitigating agency problems exist in organizations between the managers and other stakeholders. There are various internal and external governance mechanisms, which have been adopted and implemented for bringing better governance. Hence, the null hypothesis is that the corporate governance mechanisms have no significant impacts on the agency conflicts and hence no relationship is expected between the governance mechanisms and agency costs. However, this research paper has stated the traditional agency propositions as alternative hypothesis for empirically testing and validating whether the governance mechanisms are able to mitigate the agency problems in Indian companies.

## **AGENCY COST**

The social and private cost of agency conflicts between owners and managers due to incomplete alignment of the interests of various stakeholders in the corporations have been in the forefront of financial management literature for more than four decades. The agency theory brought the roles of managerial decision rights and various internal and external monitoring and bonding mechanisms to mitigate the agency conflict between various stakeholders of the corporations. The theoretical and empirical studies have revealed various dimensions and manifestations of agency conflicts and how these conflicts impact on various managerial financing decisions like financing, investing and dividend decisions of organizations. However, the actual and precise measurement of the variable agency cost is a contentious issue in the financial management literature. Jensen and Mackling (1976) provide absolute measure of agency cost which is the zero agency cost base when the firm owned solely by a single owner manager. When manager owns less than 100% of the firm's equity, the shareholders incur agency costs resulting from management's shirking and perquisite consumption. However, the Jensen and Meckling's zero agency cost base cannot be found among the publically traded firms. Ang, Cole and Lin (2000)

This research paper has utilized three alternative efficiency ratios, which are generally used in the accounting and financial economics literature for measuring the agency cost. The Tobin's Q, Free Cash Flow (FCF) and Sales to Asset Ratio or Asset Utilisation are the common measures of agency cost. Tobin's Q is the first measure of agency cost, which is the ratio between the market value of the assets and value of the firm. Tobin's Q is the growth opportunities and it is measured as market capitalization plus total debt divided by total assets. The empirical research has identified Tobin's Q as the proxy for measuring the agency cost and also establish that firms with high growth options in the investment opportunity set will experience agency problem induced by the conflict of interest between managers and stakeholders over the exercising these investment opportunities. Myers (1977), Barnea, Haugen and Senbet (1998).

The Free Cash Flows (FCF) is another common proxy used for the agency problem and the resulting empire building incentives. Free Cash Flows (FCF) is defined as operating income before depreciation minus sum of taxes plus interest expenses and dividend paid standardized by total assets. The agency cost hypothesis proposed by Jensen (1986) predicts that managers with high levels of FCF are likely to invest in operations or negative NPV projects instead of paying off to shareholders. If managers have less opportunity for empire building, they are more likely to reduce the agency conflicts in response to demand decrease in order to avoid negative career consequences. Opler and Titman (1993), McKnight and Weir (2009)

The third measure of agency cost is Asset Utilisation, which is the ratio of annual sales to total asset. This measure how effectively the firms' management deploys assets. The lower asset utilisation ratio explains the presence of positive agency cost. These costs arise when the managers act in some or all of the following ways: make suboptimal investment decisions, exert insufficient effort, resulting in lower turnover and revenues and consume executive perquisites.

## **CORPORATE GOVERNANCE MECHANISMS**

The theoretical and empirical research have identified that the concentrated ownership, size of the board, composition of independent directors, executive directors in the board, CEO-Chairperson duality, audit committees, nomination and remuneration committees, shareholders' grievance committees, leverage and bank debt and debt maturity are the corporate governance mechanism which can bring in better governance in corporations.

**Concentrated Ownership:** Ownership structure of the firms is another alternative corporate governance mechanism, which can prevent the expropriation of investors. Individual shareholders with relatively small equity holdings have little incentive to gather and bear the relatively fixed costs of collecting information to enable them to monitor and control the behaviour of the board. (Wiesbach (1998), Stiglitz (1985)) Alternatively, large shareholders may have sufficient incentives to obtain the information necessary to effectively control the management if the benefits of such monitoring outweigh the associated costs. (Grossman and Hart (1988), Shleifer and Vishny, (1986, 1997)) The

presence of large shareholders may curb managerial discretion, reduce agency cost and enhance performance. The monitoring will only be cost effective if a single party becomes large enough to internalize the cost of corporate control, Renneboog (2000). Volpin (2002) argues that low investor protection due to agency problem arising from separation of ownership from control is obtained through pyramidal groups and non-voting shares, because these institutions preserve sufficiently high ownership concentration to help solve the managerial agency problems because controlling shareholders have the incentives and the power to discipline management. The shareholders could take themselves an active role in monitoring the management. However, given that monitoring benefits for shareholders are proportionate to their equity stakes small shareholders have no incentive to exert monitoring the behaviour of management. (Floracksis and Ozkan (2000), Grossman and Hart (1988)) For examining the impact of ownership concentration on agency cost, this paper has used promoters' holdings as the proxy for concentrated ownership. The promoters' holdings are measured as the ratio of promoters' equity holdings to total equity shares.

### **HYPOTHESIS 1: PROMOTERS' HOLDINGS AND AGENCY COST ARE INVERSELY RELATED IN FIRMS WITH STRONGER CORPORATE GOVERNANCE.**

**Size of Board:** Extant literature on corporate governance establishes that size of the board of directors is an effective corporate governance mechanism. The small boards are less susceptible to agency problems and associated agency costs. Smaller boards are more organizationally functional and effective in decision-making and less easily controlled by dominating influence. Moreover, the small boards offer greater flexibility and speed in re-negotiating contracts with managers. (Shleifer and Vishny (1986, 1997)) however, some researchers argue that the large boards are usually more powerful than small boards and hence, considered necessary for organizational effectiveness. Pearce and Zahra (1991) establish that large powerful boards help in strengthening link between corporations and their environment, provide counsel and advice regarding strategic options for the firm and play crucial role in creating corporate identity. The large boards make coordination, communication, and decision making more cumbersome than it is in smaller groups. [Eisenberg et al. (1998), Beiner et al, (2004)]. However, we have adopted the empirical hypothesis that small boards are far effective in mitigating agency problems than the large boards. Board size is measured as the number of directors in the board.

*Hypothesis 2 : Size of board is inversely related to agency cost.*

**Independent Directors:** One of the key elements of market oriented corporate governance is the presence of independent members in the board who represent shareholder interest can influence the firm performance and agency environment in corporations, Jackson (2010). Renneboog (2000) proposes that a balanced board including both executives and non-executives reduces the potential conflict of interest among decision makers and residual risk bearers. It also reduces the transaction or agency cost associated with separation of ownership and control. The non-executive directors have fiduciary duty to monitor management and board performance. Moreover, in an equity market with strong ownership concentration, large shareholders appoint many executive directors to protect the interest of large shareholders. Thus, non-executives have incentives to develop reputations as decision control expert whose human capital depends on performance. Consequently, directors themselves face an external labour market, which provide some form of disciplining for passive leadership. Fama and Jensen (1983), Kaplan and Renneboog (1990), Gilson (1990)

Corporate governance regulations envisage that non-executive directors should make up at least one third of the board. The greater the proportion of non-executive directors, lower the potential that the board dominated by management and the higher the monitoring ability of the non-executive directors. [Renneboog (2000), McKnight and Weir (2009)]. However, the boards dominated by non-executive directors are not effective because they are usually characterized by lack of information about the firm, lack of requisite skills and expertise compel them to monitor rather than confront with the management. (Aggarwal and Knober (1996) and Franks et al., (2001)) The board characteristics as governance mechanism and agency costs have been the focus of a number of researches around the world, which illustrate that boards should consist of a balance of executive and non-executive directors.

Hence, an inverse relationship exists between the between the percentages of non-executive directors and executive director in the board and agency cost. (McKnight and Weir (2009), Ezzamel and Watson (2005)) This research paper is empirically testing two hypotheses on the composition of the executive directors and independent directors in the board.

**HYPOTHESIS 4 : AN INVERSE RELATIONSHIP EXISTS BETWEEN THE PROPORTION OF**

**INDEPENDENT DIRECTORS AND AGENCY COST.**

**HYPOTHESIS 5 : PROPORTION OF EXECUTIVE DIRECTORS IN THE BOARD IS INVERSELY RELATED**

**TO THE AGENCY COST**

**CEO Chairperson Duality:** The chairperson and CEO duality is another specific internal governance mechanism, which can mitigate agency problems. The separation of the roles of chief executive officer (CEO) and chairperson of the board can affect the degree of independency of a board of directors and result to better board performance. The CEO is key in the relationship between the board and the management. There should be a clear delineation of the roles and responsibilities of the CEO and chairperson. (McKnight and Weir (2009) The offices of the chairperson and the chief executive officer should be separated to prevent excessive concentration of power in boardroom and the companies should appoint independent non-executive directors with high caliber so that their views will carry weight in board discussions. Faccio and Lasfer (2000)

Renneboog (2000) argues that separating the functions of CEO and chairperson facilitates disciplining of underperforming management and such dual control should lead to higher turnover. Separation of the role of CEO and of non-executive chairperson is also supposed to strengthen the boards monitoring ability, better board performance and less agency conflicts, since non-executive chairperson could ensure more independence from management. (Hermalin and Wiesbach (1991)) Separation of role of CEO and chairperson limits the control or influence one individual as board decision-making and separation of the posts of CEO and chairperson should lead to lower agency costs. Shleifer and Vishny (1986, 1997), McKnight and Weir (2009)

**HYPOTHESIS 6: SEPARATION OF THE POSTS OF CEO AND CHAIRMAN OF THE BOARD LEADS TO LOWER AGENCY COST.**

**Audit Committees:** The constitution of audit committee is a statutory requirement and one of the most important governance mechanisms, which acts as bulwark against the mounting agency conflicts. Audit committee is constituted to assist board of directors in oversight of company's accounting, auditing and financial reporting process of financial statements. Board of directors appoint and remove external auditors and fix the audit fees on the recommendation of audit committee. It examines the performance of the management, external and internal auditors and the adequacy of internal audit and control systems. It is also empowered to review findings of any internal investigation by internal auditors into matters where there is suspected fraud, irregularities, or failure of internal control systems of material nature and report to the matter to the board, including financial and risk management policies of company. According to Varma (1997), the audit committee is the most powerful and well-established board committees, apart from acting as deterrent against financial irregularities and frauds, it enables the board to keep a pulse of the financial health of the company. Therefore, an efficiently functioning audit committee can significantly reduce the agency problems prevailing in the corporations.

**HYPOTHESIS 7: AUDIT COMMITTEE AND AGENCY COSTS ARE NEGATIVELY RELATED.**

**Nomination and Remuneration Committee:** The board committees are specific governance mechanism, which can reduce agency costs. Nomination committees key function is to ensure that directors appointments, whether executive or non-executives are made on merit rather than by patronage. It ensures the appointment of non-executive directors whose interests are aligned with those of the shareholders and so help to reduce agency costs. An effective committee should have balance of executive and non-executive directors and the presence of non-executive directors on the nomination committee will lead to lower agency cost (McKnight and Weir 2009).

Excessive director's remuneration remains a concern around the world. The executive compensation is appropriate incentive for executives to act in the interests of shareholders through stock options and other equity based incentive mechanisms. However, the executives who have substantial influence over their own salaries have used their power to weaken the link between pay and performance. Remuneration committee is a major step in the corporate governance disclosure. The remuneration committee maintains check on excessive director's remuneration, good governance demands fairness and transparent procedure for setting the remuneration level of executive directors and other senior executive. Varma (1997) argues that the compensation committee of the Board has been strengthened to exercise greater control over managerial compensation following widespread complaints that top management pay is disproportionate to performance. While recommending remuneration package, the remuneration committee not only ensures the voluntary alignment and transparency of pay package of directors and other senior officials in the company but also warrants the remuneration arrangements support the strategic aims of the business. (Jackson (2010)) The empirical prediction is that presence of nomination and remuneration committee reduces agency costs in organizations.

**HYPOTHESIS 8 : NOMINATION AND COMPENSATION COMMITTEE IS INVERSELY RELATED TO AGENCY COST.**

**Shareholders' Grievance Committee:** Concentrated ownership and large shareholders may help in reduction of agency problems associated with conflicts of interest between managers and shareholders, but they may also harm the firm by causing conflicts between large and minority shareholder. When large shareholders gain full control of the corporation, they may engage in self-dealing expropriation procedures at the expense of minority shareholders. (Shleifer and Vishny (1997), Grossman and Hart (1986) Floracksis and Ozkan (2004)) When the laws do not effectively protect small shareholders, the expropriation incentives are stronger and the diversity between cash and control rights of large shareholders is immense. (Grossman and Hart (1986)) The shareholders' grievance committee is another governance system that has been constituted to impart governance in corporations under the chair of a non-executive director, who shall be specifically address the grievance of shareholders regarding their rights and privileges including the alleged oppression and mismanagement by dominant groups. The empirical research proposition is that the presence of shareholders committee mitigates the agency conflicts between large shareholders and minority shareholders.

**HYPOTHESIS 9: SHAREHOLDERS COMMITTEE IS NEGATIVELY RELATED TO AGENCY COST.**

**Leverage:** Empirical literature on corporate governance suggests that the proportion of debt in the capital structure or leverage is corporate governance mechanism that can reduce agency cost. The leverage has positive incentive effects on firm management resulting from adverse consequences associated with defaulting on debt obligations. The use of external debt finance will also result in the firm likely being subjected to additional outside monitoring by debt providers, which have similar incentive to major institutional investors or external block holders in relation to protecting their investment interests. Increasing leverage use should reduce the extent of agency costs inherent in a firm operating structure. (Shleifer and Vishny (1986, 1997), Henry (2009)) The high leverage encourages management to generate sufficient funds to service the debt commitment. Consequently, a high debt equity ratio is expected to reduce management's discretion and summon more intensive creditor monitoring, where executive director replacement is positively correlated with a higher gearing. Executive monitoring increases especially when corporate performance is negative market adjusted returns, loss of earnings and changes in ROE, and cash flow adjusted for industry means, Renneboog

(2000). The empirically testable hypothesis is leverage is negatively related to agency conflicts. Leverage is measured as the proportion of debt to total assets.

#### **HYPOTHESIS 10 : LEVERAGE IS INVERSELY RELATED TO AGENCY COST.**

**Debt Maturity:** The dividend payoff, claim dilution, asset substitution, and underinvestment are different manifestation of agency conflict, which present potential opportunities for wealth transfer from bondholders to stockholders. The short debt maturity, covenanted long-term debt, debt with call and sinking fund provisions, and maturity matching are effective strategies for mitigating agency problems due to the conflict of interests among various stakeholders including the managers, shareholders and bondholders. (Myers (1977), Smith and Warner (1979), Barnea et al, (1980)) The debt maturity is a potential governance mechanism that is effective in reducing the expected cost of agency conflict between shareholders and debenture holders over the information asymmetry, growth options and underinvestment problems. (Leland and Pyle (1977), Campbell and Kracaw (1980), Stulz and Johnson (1985), Flannery (1991) and Jun and Jen (2005), Venugopalan and Vij (2014)) Hence, the research hypothesis is that debt maturity is inversely related to agency cost.

#### **HYPOTHESIS 11: DEBT MATURITY IS NEGATIVELY RELATED TO AGENCY PROBLEMS.**

**Bank Debt:** Agency conflict between managers and outside investors happens in firms, which are usually exposed to high information asymmetry and having free cash flows. (Jensen (1986) and Myers and Majluf (1984)). The debt servicing obligation help to reduce agency problems and this is particularly true for privately held debt. Bank debt incorporates significant signaling characteristics about the credit worthiness of borrower and that can mitigate informational asymmetry and conflicts between managers and outside investors. (Jensen, (1986), Stulz (1990) and Ross (1977), Floracksis (2008) Fama (1985) proposes that private bank loans can significantly reduce the agency cost because through granting loans, the banks maintain strong bargaining position, which enables closely monitoring the activities of borrowers and exercising control by enforcing debt covenants and shortening maturity of the debt. Hence, the short-term bank loans can signify the creditworthiness and can lower information cost of other contracts in all types of firms. The high growth firms choose private bank debt over public debt because bank debts are short-term nature and can mitigate the information asymmetry and contracting cost. Thus, the empirical prediction is that bank debt is an effective governance mechanism, which can reduce agency conflicts between managers and debt holders. Bank debt is measured to the proportion of bank debt to total debt.

#### **HYPOTHESIS 12: BANK DEBT IS INVERSELY RELATED TO AGENCY COST.**

**Firm Size:** Agency cost hypothesis establishes that firms with relatively large amount of future investment opportunities are tend to be smaller and are more likely to face potential conflicts of interest between managers and shareholders on one hand and shareholders and bondholders on the other hand over the risk shifting and claim dilution. Generally, smaller firms tend to have more growth options and these are subjected to high agency problems. As the small firms are likely to face more severe agency cost problems than larger firms, they use short-term debt to alleviate the agency problems. Hence, the empirical prediction is that small firms are subjected to high levels of agency costs. Firm size is measured to the natural logarithm of market value of the firm.

#### **HYPOTHESIS 13: FIRM SIZE IS INVERSELY RELATED TO AGENCY COSTS.**

#### **RESEARCH METHODOLOGY**

## SAMPLE, RESEARCH DESIGN AND METHODS

The empirical investigation of the agency problems and corporate governance mechanism is based on secondary data derived from the *PROWESS*, the database of Centre for Monitoring Indian Economy (CMIE). The sample is drawn from the BSE 500 index, which represents nearly 93% of the total market capitalization on Bombay Stock Exchange (BSE) and comprised of 20 industries including manufacturing and service sector. The financial firms and firms with missing information are excluded from the sample. The study is confined to a span for 5 years beginning from 2009-2014. The panel regression methodology is adopted for examining the agency problems and corporate governance in Indian corporate sector, by creating panel data by pooling cross sectional data across time. The final panel data set composed of 1893 observations from 380 companies spanning 5 years was created. For examining the suitability panel data, the specification tests such as normality, pool ability, autocorrelation, serial correlation, heteroskedasticity and cross sectional dependence were performed. This paper has used a non-parametric covariance matrix estimator Driscoll and Kray standard errors that produces heteroskedasticity consistent standard errors, which are robust to very general forms of spatial and temporal dependence. Hoechle and Basel (2008)

The fixed effect regression and random effect are important methods of panel data analysis. The general formulation of the fixed effect linear panel data model is given below:

$$Y_{it} = \alpha_i + X'_{it} \beta + U_{it}$$

Where  $i = 1, \dots, N$  firms,  $t = 1, \dots, T$  time periods with  $k$  regressors  $X'_{it}$  in and  $U_{it}$  is standard error term and  $Y_{it}$  is agency cost. The constant  $\alpha_i$  represents the unobservable individual firm-specific effects with which differs between firms and is time invariant. In a random effects model, the constant is random outcome variable and has a cross section specific error component, which is uncorrelated with the errors of regressors variables. Thus, and,  $\epsilon_i$  has a zero-conditional mean.

$$\alpha_i = \alpha + \epsilon_i$$

Hausman test can be employed to ascertain the feasibility of appropriate method and the Hausman specification test enables us to differentiate between random and fixed effects models by testing for correlation between the  $X$  variables and the individual random effects. If there is no correlation, random effects should be utilized and if the correlation exists, the fixed effect regression should be used. Hausman test concludes that the fixed effect regression is the most appropriate method for analyzing the panel data. The Hausman test on Model 1 (Tobin Q), Model 2 (Free Cash Flow) and Model 3 (Asset Utilisation) reject the null hypothesis that no correlation exists between independent variables and .

## VARIABLE MEASUREMENT

### DEPENDENT VARIABLE

**Agency Costs:** To measure the agency cost of the firm we use three alternative efficiency ratios that are generally used in the accounting and financial economics literature. The Tobin's Q, Free Cash Flow (FCF) and Asset Utilisation or Sales to Asset Ratio are the usual measures of agency cost. **TOBIN'S Q** is defined as the ratio of the market value of the assets of the firm to the book value of the firm. **TOBIN'S Q** is the growth opportunities and it is measured as market capitalization plus total debt divided by total assets. **FREE CASH FLOWS (FCF)** is defined as operating income before depreciation minus sum of taxes plus interest expenses and dividend paid standardized by total assets. **ASSETUTILITITY** is asset utilization ratio, which is derived by dividing annual sales with total asset ratio.

**Independent Variables:** For examining the corporate governance mechanism and agency problems in Indian corporate sector, this paper has identified eleven proxies of corporate governance mechanisms, which have been used in empirical studies, conducted across the world. **BOARDSIZE**

(Board Size) is the number of directors appointed in the board. INDIRECTOR is the proportion of independent directors to total directors. EXEDIRECTOR (Executive Directors) is the composition of non-executive directors in the board of directors is the proportion of non-executive directors to total directors. PROMHOLD (Promoters' Holdings) is the ratio of promoters' equity holdings to total equity shares. DUALITY (CEO-chairperson duality) is a binary variable that takes a value of 1 if the post of Chief Executive officer and Chairman of the board are held by the same person and 0 otherwise. AUDITCOM (Audit Committee) is a dummy variable, which takes a value of 1 if the firm has an audit committee comprised of independent directors and 0 otherwise. NREMUCOM (Nomination and Remuneration Committee) is a dummy variable, which takes a value of 1 if the firm has a formal nomination committee and 0 otherwise. SHARECOM (Shareholders Committee) is a binary variable 1 if the firm has shareholders' committee and 0 otherwise. LEVERAGE (Leverage) is the proportion of Debt capital in the total capital employed by the firm. DEBTMAT is the proportion of debt matures in more than one year. BANKDEBT (Bank Debt) is measured as the proportion of borrowed capital from banks and financial institutions to the total debt capital. FIRMSIZE (Size of the Firm) is the natural logarithm of market value of the firm. This paper has utilized three models based on the proxies of agency costs, TOBIN'S Q, FREE CASH FLOWS (FCF) and ASSETUTILITY for examining the agency cost and corporate governance mechanism in Indian corporate sector.

## DESCRIPTIVE STATISTICS

The descriptive statistics such as mean, median and standard deviation are used to describe precisely the nature of dependent and independent variables.

**Table 1:** Descriptive Statistics

Variables	N	Mean	Standard Deviation
TOBIN'S Q	1895	1.876	2.159
FREE CASH FLOW (FF)	1895	0.078	0.080
ASSET UTILITY	1895	0.897	0.675
PROM HOLD	1893	53.186	20.620
BOARD SIZE	1895	10.512	3.744
INDIRECTOR	1895	48.225	16.742
EX-DIRECTOR	1895	25.504	13.144
DUALITY	1895	0.554	0.497
AUDIT COM	1895	0.923	0.270
REMU COM	1895	0.468	0.499
SHARE COM	1895	0.589	0.492
LEVERAGE	1895	0.175	0.177
DEBT MAT	1895	0.532	0.406
BANK DEBT	1895	0.457	0.367
FIRM SIZE	1895	9.660	1.802

**NOTE :** Table exhibits the Descriptive Statistics on dependent variables, TOBIN'S Q, FREE CASH FLOW (CFC) and ASSET UTILITY and independent variables. The BOARDSIZE is the number of directors appointed in the board. INDIRECTOR is the proportion of independent directors to total directors. EXEDIRECTOR is the composition of executive directors in the board of directors. PROMHOLD is the ratio of promoters' equity holdings to total equity shares. DUALITY is a binary variable that takes a value of 1 if the post of Chief Executive officer and Chairman of the board are held by the same person and 0 otherwise. AUDITCOM is a dummy variable, which takes a value of 1 if the firm has an audit committee comprised of independent directors and 0 otherwise. NREMUCOM is a dummy variable, which takes a value of 1 if the firm has a formal nomination committee and 0 otherwise. SHARECOM is a binary variable 1 if the firm has shareholders' committee and 0 otherwise. LEVERAGE is the proportion of

Debt capital in the total capital employed by the firm. DEBTMAT is the proportion of debt, matures in more than one year. BANKDEBT is measured as the proportion of borrowed capital from banks and financial institutions to the total debt capital. FIRMSIZE is the natural logarithm of market value of the firm.

Table 4.1 presents descriptive statistics for the dependent and independent variables used in this research paper. It reveals that the agency cost proxies Tobin Q, Free Cash Flow and Asset Utilisation or annual sales to total asset recorded mean values of 1.872, 0.806 and 1.87 respectively. The average number of directors in board (BOARDSIZE) is 10.51 of which 48.23% of board members are comprised of independent directors (INDIRECTORS) and the executive directors (EXEDIRECTORS) represent 25.50% of the board. In Indian companies, on an average the ownership concentration as represented by the promoters' holdings (PROMHOLD) is 53.525%. The mean value of DUALITY is 0.554, which indicates that 55.4% of the Indian companies (212 companies out of 380) have identified the necessity of dichotomy of CEO-Chairperson and appointed different persons to hold the positions of CEO and Chairperson of Board (DUALITY).

Table 4.1 shows that 92.3% of the sample companies have duly constituted audit committees (AUDITCOM) to assist board of directors in oversight of company's accounting, auditing and financial reporting process of financial statements. However, 46.8% of the companies have constituted nomination and remuneration committees(NOREMUCOM) for recommending the appointment of board members and fixing the managerial remuneration. Similarly, only 58.9% of the companies have constituted shareholders' grievance committee (SHARECOM) to address the redresses of shareholders grievances. The average leverage (LEVERAGE) of sample company is 0.175 which shows that the approximately 17.5% of the capital is contributed through debt. Table 4.1 shows that the debt maturity (DEBTMAT) of sample firms is averaged at 0.53, which reveals that 53% of the total debt has maturity of more than one year. The average value of debt is 0.459, which establishes that 45.9% total debt capital is financed through bank debt (BANKDEBT).

### CORRELATION ANALYSIS

Table 3 provides the Pearson's correlation coefficients that disclose the nature and extent of relationship between dependent variables and independent variables. Tobin's Q, Free Cash Flow (CFC) and Asset Utilisation are dependent variables. The promoters' holdings (PROMHOLD), board size (BOARDSIZE), independent directors (INDIRECTOR), executive directors (EXEDIRECTOR), CEO-Chairperson duality (DUALITY), audit committee (AUDITCOM), nomination and remuneration committee (NOREMUCOM), shareholders' committee (SHARECOM), Leverage (LEVERAGE), debt maturity (DEBTMAT), bank debt (BANKDEBT), and firm size (FIRMSIZE) are independent variables.

**Table 2:** Pearson's Coefficient of Correlation

VARIABLES	TOBIN'S Q	FREE CASH FLOWS (CFC)	ASSET UTILITY
TOBIN'S Q	1.0000		
FREE CASH FLOW (CFC)	0.1349*	1.0000	
ASSET UTILITY	0.1566*	0.1364*	1.0000
PROM HOLD	0.1717*	0.476*	0.0220
BOARD SIZE	-0.0338	-0.0309	0.0213
IN DIRECTOR	-0.0063	0.0326	-0.1032*
EXEDIRECTOR	0.0559*	0.0367	0.0423
DUALITY	0.0007	-0.0216	0.0523*
AUDIT COM	0.0287	-0.0297	0.0886*
NOREMUCOM	0.0153	-0.0034	-0.0128
SHARE COM	0.0201	-0.0021	-0.0190
LEVERAGE	-0.3793*	-0.2784*	-0.2422*
DEBT MAT	-0.1116*	-0.0911*	-0.2197*
BANK DEBT	-0.0299	-0.0604*	0.0334

FIRM SIZE	-0.0667*	0.0361	0.3280*
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**Note:** Table exhibits the correlation coefficients for dependent variables TOBIN'S Q, FREE CASH FLOW (CFC) and ASSET UTILITY and independent variables. The BOARDSIZE is the number of directors appointed in the board. INDIRECTOR is the proportion of independent directors to total directors. EXEDIRECTOR is the composition of executive directors in the board of directors. PROMHOLD is the ratio of promoters' equity holdings to total equity shares. DUALITY is a binary variable that takes a value of 1 if the post of Chief Executive officer and Chairman of the board are held by the same person and 0 otherwise. AUDITCOM is a dummy variable, which takes a value of 1 if the firm has an audit committee comprised of independent directors and 0 otherwise. NREMUCOM is a dummy variable, which takes a value of 1 if the firm has a formal nomination committee and 0 otherwise. SHARECOM is a binary variable 1 if the firm has shareholders' committee and 0 otherwise. LEVERAGE is the proportion of Debt capital in the total capital employed by the firm. DEBTMAT is the proportion of debt matures in more than one year. BANKDEBT is measured as the proportion of borrowed capital from banks and financial institutions to the total debt capital. FIRMSIZE is the natural logarithm of market value of the firm *t*-statistics are reported in the parentheses below parameter estimates: \*  $p < 0.05$ .

Table 4.3 shows that the Pearson's correlation coefficients on promoters' holdings (PROMHOLD) and executive directors (EXEDIRECTOR) are statistically significant and positively related to agency cost (TOBIN'S Q). On the contrary, correlation coefficients on LEVERAGE, DEBTMAT and FIRMSIZE establish that leverage, debt maturity and firm size are statistically significant and negatively correlated with agency cost (TOBIN'S Q). The correlation coefficient on DUALITY, AUDITCOM, SHARECOM and NOREMUCOM reveal the positive but insignificant correlation between the agency cost (TOBIN'S Q) and the CEO-chairperson duality, audit committee, shareholders' committee and nomination and remuneration committee. However, the coefficients on BOARDSIZE, INDRIECTOR and BANKDEBT establish insignificant and negative correlation between the agency cost (TOBIN'S Q) and board size, independent directors and bank debt.

From the table 4.3, the coefficient of correlation on second proxy of agency cost, FREE CASH FLOW (CFC) and PROMHOLD is statistically significant and positively correlated. However, the statistically insignificant coefficients on leverage (LEVERAGE), debt maturity (DEBTMAT) and bank debt (BANKDEBT) are negative and significantly correlated to the FREE CASH FLOW (CFC). However, the independent variables such as board size (BOARDSIZE), CEO-Chairperson duality (DUALITY), audit committee (AUDITCOM), shareholders' committee (SHARECOM) and, nomination and remuneration committee (REMUCOM) are not significant but negatively correlated to FREE CASH FLOW (CFC). The correlation coefficients on Executive Directors (EXEDIRECTOR), independent directors (INDIRECTOR) and firm size (FIRMSIZE) establish that these variables are positive but insignificantly correlated with FREE CASH FLOW (CFC).

Table 4.3 establishes that statistically significant and negative correlation exist between the annual sales to total assets (ASSETUTILITY) as proxied to agency cost and the independent directors (INDIRECTOR), leverage (LEVERAGE) and debt maturity (DEBTMAT). The correlation coefficients on CEO-Chairperson duality (DUALITY), audit committee (AUDITCOM) and firm size (FIRMSIZE) are statistically significant and positively correlated to ASSETUTILITY. However, the Pearson's correlation coefficients on board size (BOARDSIZE), executive directors (EXEDIRECTOR), promoters' holdings (PROMOTORS) and bank debt (BANKDEBT) are not significant but positively correlated to annual sales to total assets (ASSETUTILITY). Similarly, the insignificant coefficient on shareholders' committee (SHARECOM) and nomination and remuneration committee (NOREMUCOMM) are negatively correlated with annual sales to total assets (ASSETUTILITY).

## MULTIVARIATE REGRESSION ANALYSIS

This research paper examines how these independent variables control and mitigate the agency problems in the Indian corporate sector, using panel OLS regression methodology. The dependent variables are regressed on the independent variables to analyze the nature and direction of relationship

between agency costs and corporate governance mechanisms. The dependent variables are TOBIN'S Q, FREE CASH FLOW (CFC) and Annual Sales to Total Assets (ASSETUTILITY). The independent variables are identified as the board size (BOARDSIZE), executive directors (EXEDIRECTOR), independent directors (INDIRECTOR), promoter's holdings (PROMOHOLD), CEO-Chairman Duality (DUALITY) audit committee (AUDITCOM), remuneration committee (NOREMUCOM), shareholders' committee (SHARECOME), leverage (LEVERAGE), debt maturity (DEBTMAT) and firm size (FIRMSIZE). This paper utilized three regression models for examining the agency costs and corporate governance mechanism in Indian corporate sector based on the proxies of agency cost TOBIN'S Q (model 1), FREE CASH FLOWS (FCF) (Model 2) and ASSETUTILITY (Model 3). Table 4.3 presents the multivariate regression results on dependent variable and the independent variables.

**Table 3:** Panel Data on Fixed Effects Regression of Governance Mechanism and Agency Cost

Variables	Predicted Sign	Model 1	Model 2	Model 3
		TOBIN Q	FREE CASH FLOW (CFC)	ASSET UTILITY
INTERCEPT		-0.310 (-0.71)	0.503*** (22.48)	0.250 (1.63)
PROM HOLD	-	-0.0119 (-1.80)	-0.000397 (-1.21)	0.00100 (1.44)
BOARD SIZE	+	0.0500*** (8.68)	-0.00343*** (-4.44)	0.00556*** (6.36)
IN DIRECTOR	-	0.00923*** (15.22)	-0.000218*** (-6.62)	-0.000919 (-1.87)
DIRECTORATE	-	0.0164*** (3.62)	-0.000417* (-2.39)	-0.00228*** (-11.45)
DUALITY	-	2.025*** (4.75)	-0.677*** (-33.94)	-0.433* (-2.25)
AUDIT COM	-	-0.156 (-1.64)	0.00874 (1.70)	0.0387 (1.46)
COMMODORE	-	0.0734 (1.11)	-0.00177* (-2.02)	-0.0303** (-2.93)
SHARE COM	-	-0.0867* (-2.13)	-0.00612*** (-17.88)	0.0142 (0.81)
LEVERAGE	-	-5.031*** (-13.91)	-0.153*** (-21.74)	-0.190** (-2.74)
DEBT MAT	-	0.124 (1.40)	-0.0101*** (-7.13)	0.00371 (0.12)
BANK DEBT	-	0.215 (1.60)	0.00145 (0.69)	0.108*** (20.51)
FIRM SIZE	+	0.123*** (5.84)	0.00579*** (8.91)	0.0859*** (12.98)
N		1893	1893	1893

**NOTE:** First column provides independent variables and the predicted sign of the relation between dependent variable and independent variables are indicated in the second column. The third column exhibits regression results on the model 1, model 2 and model 3 respectively for dependent variables TOBIN'S Q, FREE CASH FLOW (CFC) and ASSET UTILITY. The BOARDSIZE is the number of directors appointed in the board. INDIRECTOR is the proportion of independent directors to total directors. EXEDIRECTOR is the composition of executive directors in the board of directors. PROMHOLD is the ratio of promoters' equity holdings to total equity shares. DUALITY is a binary variable that takes a value of 1 if the post of Chief Executive officer and Chairman of the board are held by different persons and 0 otherwise. AUDITCOM is a dummy variable, which takes a value of 1 if the firm has an audit committee comprised of independent directors and 0 otherwise. NREMUCOM is a dummy variable, which takes a value of 1 if the firm has a formal nomination committee and 0 otherwise. SHARECOM is a binary variable 1 if the firm has shareholders' committee and 0 otherwise. LEVERAGE is the proportion of Debt capital in the total capital employed by the firm. DEBTMAT is

the maturity structure of debt, which is the proportion of debt, matures in more than one year. *BANKDEBT* is measured as the proportion of borrowed capital from banks and the financial institutions to the total debt capital. *FIRMSIZE* is the natural logarithm of market value of the firm. Heteroskedasticity, autocorrelation and cross-sectional dependence consistent *t*-statistics are reported in the parentheses below parameter estimates: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 4.3 presents the multivariate regression results on three proxies for agency costs, the TOBIN'S Q, FREE CASH FLOW (CFC) and ASSETUTILITY (Annual Sales to Total Assets). These proxies are regressed against the intendent variables: PROMOHOLD, BOARDSIZE, EXEDIRECTOR, INDIRECTOR, DUALITY, AUDIOM, NOREMUCOM, SHARECOM, LEVERAGE, DEBTMAT, BANKDEBT and FIRMSIZE using the fixed effect regression of panel regression methodology.

**Ownership Concentration (PROMOHOLD):** Shareholders with substantial stakes have more incentives to exert monitoring the behaviours of managers and protect the investment of shareholders. The empirical hypothesis is that the promoters' holdings and agency cost are inversely related in firms with stronger corporate governance.

In model 1, the regression coefficient on PROMHOLD and TOBIN'S Q is insignificant but negative (-0.0119,  $t = -1.80$ ). The insignificant coefficient rejects the empirical prediction that promoters holding and agency costs are inversely related and the high proportion of promoters' holdings in the total equity shareholding can lower the agency costs.

Model 2 establishes a negative but insignificant Regression coefficient on PROMHOLD and FREE CASH FLOW (FCF) (-0.000397,  $t = -1.21$ ), which rejects the research hypothesis promoters holding is inversely related to agency cost and promoters holdings. This contradicts with the arguments that large shareholders make more rigorous and efficient monitoring managerial decisions.

Model 3 establishes that the regression coefficient on PROMHOLD and ASSETUTILITY is positive and insignificant (0.00100,  $t = 1.44$ ). The insignificant coefficient on promoters holding rejects the empirical prediction that promoters holding can reduce agency problems. All regression specifications of agency costs, the research findings reject the arguments that the firms dominated by the promoters lead to the conclusion that presence of large shareholders has failed to curb the managerial discretion and agency problems. Floracksis and Ozkan (2000), Grossman and Hart (1988) and Lehmann and Weigand (2000)

**Board Size (BOARDSIZE):** Board size is an effective corporate governance mechanism, which cans effectively monitor the management and mitigate the agency costs substantially. The empirical hypothesis is agency cost is directly related to board size. From Table 4.3, Model 1 reveals that the regression coefficient on BOARDSIZE and TOBIN'S Q is positive and statistically significant (0.0500,  $t = 8.68$ ). The significant and positive coefficient on board size strongly support the empirical hypothesis that board size and agency costs are directly related; large boards are less superior in effectively monitoring the management and mitigating the agency costs. On the contrary, Model 2, alternate proxy for agency cost FREE CASH FLOW (CFC) establishes that the coefficient on BOARDSIZE and FREE CASH FLOW (CFC) is statistically significant and negative (0.00343,  $t = -4.44$ ), which is inconsistent with the empirical hypothesis that board size and agency cost are directly related. Model 3 on asset utilisation, which is the alternative proxy of agency cost displays that the coefficient of BOARDSIZE and ASSETUTILITY is statistically significant and positive (0.00556,  $t = 6.36$ ). The positive and significant coefficient on board size strongly support the empirical hypothesis that the board size and asset utilisation ratio are directly related and large boards are far inefficient in effectively monitor the management and improving the corporate decision making and optimizing corporate performance and accountability in the interest of shareholders and the broader economy.

**Independent Directors (INDIRECTOR):** The presence of independent members of the board who represent shareholder interest can influence the firm performance and agency environment in corporations. The empirical hypothesis is that an inverse relationship exists between the independent directors and agency cost. Model 1 on Tobin's Q disclose that the regression coefficient on the INDIRECTOR and TOBIN'S Q is statistically significant but positive (0.00923,  $t = 15.22$ ) as against the empirical prediction that independent directors and agency costs are inversely related; the greater the representation of independent directors on the board, the lower the agency cost. It appears that as a powerful governance mechanism, the representation of independent directors in the board has failed to deal with the agency problems induced by conflict of interest between managers and stakeholders.

Model 2 on Free Cash Flow (CFC) reveals that coefficient on INDIRECTOR and FREE CASH

FLOW (CFC) is negative and statistically significant (0.000218,  $t=-6.62$ ). The significant coefficient strongly supports empirical hypothesis that independent directors and agency costs

The regression coefficient on INDDIRECTOR and ASSETUTILITY in Model 3 on Asset Utilisation is negative and statistically significant (-0.00228,  $t=-11.45$ ), which strongly supports empirical hypothesis that independent directors and agency costs are inversely related; the in firms with higher proportion of independent directors have higher potential to dominate and monitor the management.

**Executive Directors (EXEDIRECTOR):** A balanced board including both executives and nonexecutives reduces the potential conflict of interest between managers and shareholders. Hence, the empirically testable hypothesis is that the proportion of Executive directors in the board is inversely related to the agency cost. The regression coefficient on EXEDIRECTOR and TOBIN'S Q from Model 1 Tobin's Q statistically significant and positive (0.0164,  $t=3.62$ ), which contradict with the empirical prediction that an inverse relationship exists between executive directors in the board and agency cost, the presence of executive directors in the board can reduce agency problems significantly. The finding implies that the high representation of executive directors in the board has not been able to monitor the management and limit the managerial discretion in decision-making. Model 2 on Free Cash Flow (CFC) states that the coefficient on EXEDIRECTOR and FREE CASH FLOW (FCF) (-0.000417,  $t=-2.39$ ) is negative and significant, which provides a weak support for the empirical prediction that executive directors and agency cost are negative related and the presence of executive directors in the board can reduce the agency costs. Model 3 on Asset Utilisation establishes that the regression coefficient on EXEDIRECTOR and ASSETUTILITY is insignificant and negative (-0.000919,  $t=-1.87$ ). The insignificant coefficient rejects the empirical hypothesis that agency costs and executive directors are inversely related. The result findings conclude that the high representation of executive directors in the board has not helped to mitigate the agency problems prevailing in the Indian corporations.

**CEO-Chairperson Duality (DUALITY):** The chairperson and CEO duality is a specific governance

mechanism, which can mitigate agency problems because the separation of the roles of chief executive officer (CEO) and chairperson of the board can affect the degree of independency of a board of directors and result to better board performance. Hence, the empirical hypothesis is that separation of the posts of CEO and Chairman of the board leads to lower agency cost. Model 1 shows that the regression coefficient on DUALITY (2.025,  $t=4.75$ ) is statistically significant and positively related to TOBIN'S Q. The statistically significant and positive coefficient on DUALITY contradicts with the empirical prediction that the CEO and chairperson duality and agency costs are inversely related. The findings suggest that the separation of role between CEO and chairperson of the board has significantly magnified the agency problems in Indian corporate sector.

Model 2 states that the statistically significant and negative relation between DUALITY and Free Cash Flow (CFC) (-0.677,  $t=-33.94$ ) is consistent with the empirical prediction that separation of the role of CEO and chairperson is inversely related to agency cost. The separation of the roles of chief executive officer (CEO) and chairperson of the board affect the degree of independency of a board of directors and result to better board performance. In contrast, Model 3 exhibits that the negative and significant regression coefficient on DUALITY and ASSETUTILITY (-0.433,  $t=-2.25$ ) is providing support to the empirical prediction that CEO and chairperson DUALITY is inversely related to agency cost. The CEO and Chairperson duality as a governance mechanism has enabled the companies to reduce agency problems significantly.

**Audit Committees (AUDITCOM):** The audit committee is acting as deterrent against financial irregularities and frauds, and it enables the board to keep a pulse of the financial health of the company. Hence, the empirically testable hypothesis is that the audit committee and agency problems are negatively related.

Model 1 shows that the coefficient on AUDITCOM and TOBIN'S Q shows a negative but insignificant (-0.156,  $t=-1.64$ ) association between the agency cost and audit committee. The regression coefficient on AUDITCOM and FREE CASH FLOW (CFC) (0.00874,  $t=1.70$ ) in Model 2 is not significant but positive, which strongly repudiates the empirical hypothesis that audit committee and agency cost are inversely related. Similarly, Model 3 also establishes that the regression coefficient on AUDITCOM and ASSETUTILITY is insignificant and positive (0.0387,  $t=1.46$ ) as against the empirical hypothesis that agency cost is inversely related to audit committee. The regression

specifications in all models establishes that the organization of audit committees in Indian companies have aggravated the agency problems and the audit committees have failed to act as an efficient and effective internal corporate governance mechanism.

**Nomination and Remuneration Committee (NOREMUCOM):** The nomination and remuneration committee, which is entrusted with the task of nominating the board of directors and recommends the executive compensation, is the specific governance mechanism that can reduce the agency problems. The research hypothesis is that the presence of nomination and remuneration committee is negatively related to agency costs.

Model 1 discloses that the coefficient on NOREMUCOM and TOBIN'S Q is positive and insignificant, (0.0734,  $t=1.11$ ), which contradicts with the empirical prediction that nomination and remuneration committee is inversely related to agency cost; the presence of nomination and remuneration committee should reduce agency cost. Similarly the Model 2 also establishes insignificant and negative regression coefficient on NOREMUCOM and FREE CASH FLOW (CFC) (-0.00177,  $t=-2.02$ ). The finding contradicts with the empirical prediction that nomination and remuneration committee is statistically and negatively related with agency cost. The findings on agency cost proxies Tobin's Q and Free Cash Flow (CFC) disclose that constitution of nomination and remuneration committees could not mitigate the agency problems between the managers and shareholders because the committee has failed to exercise control over the selection of board of directors and fix appropriate managerial compensation packages.

However, in Model 3, the regression coefficient on NOREMUCOM and ASSETUTILITY is negative and statistically significant (-0.0303,  $t=-2.93$ ), which strongly support the empirical prediction that the presence of nomination committee is inversely related to agency costs. The presence of the nomination and remuneration committees reduce the agency costs in Indian companies by exercising control over the selection of board of director and fixing their managerial compensation.

**Shareholders' Committee (SHARECOM):** Shareholders committee is a corporate governance mechanism that can mitigate the agency problems in organizations. The empirical research hypothesis is that shareholders committee and agency costs are negatively related.

Model 1 demonstrates that the regression coefficient on SHARECOM and TOBIN'S Q is negative and significant (-0.0867,  $t=-2.13$ ), which provides a weak support for the empirical prediction that shareholders' committee is inversely related to agency cost and the shareholders' committee is an effective corporate governance mechanism that can address the grievances of shareholders. Model 2 on Free Cash Flow (CFC), the regression coefficient on SHARECOM and FREE CASH FLOW (CFC) is negative and statistically significant (-0.00612,  $t=-17.88$ ), which establishes that shareholders' committee and agency costs are inversely related and the shareholders' committee is an effective internal corporate governance mechanism, which can effectively address the grievances of shareholders especially the minority shareholders. The agency cost proxy of Asset Utilisation from Model 3, shows that the regression coefficient on SHARECOM and ASSETUTILITY is insignificant but positive (0.0142,  $t=0.81$ ), which strongly reject the empirical prediction that shareholders' committee is inversely related to agency cost.

**Leverage (LEVERAGE):** Leverage is an external corporate governance mechanism which can discipline and monitor management and mitigate the agency problems in organizations. The empirical research hypothesis is that leverage and agency costs are negatively related.

The regression coefficient on LEVERAGE and TOBIN'S Q is statistically significant and negative (-5.031,  $t=-13.91$ ), which strongly support the empirical prediction that leverage is an effective governance mechanism which can reduce the agency cost. Similarly, Model 2 also discloses that the coefficient on LEVERAGE and FREE CASH FLOW (CFC) (0.153,  $t=-21.74$ ) is statistically significant and negative and that strongly substantiate the argument that that Leverage is negatively related to agency cost (-0.0101,  $t=-7.13$ ). Model 3 also establishes that the regression coefficient on LEVERAGE and ASSETUTILITY is negative and significant (-0.190,  $t=-2.74$ ) as per the empirical prediction that leverage is inversely related to leverage and that firms with higher leverage enables the firms to discipline the management by exercising strict monitoring and control over the entrenched management.

**Debt Maturity (DEBTMAT):** Maturity structure of Debt is an effective governance mechanism, which can reduce the conflicts of interest between various stakeholders in the organization. Hence, the empirical research hypothesis is that leverage and agency costs are negatively related. Model

1 on the Tobin's Q states that the coefficient of regression on DEBTMAT and TOBIN'S Q is positive but insignificant (0.124,  $t=1.40$ ). The insignificant coefficient on debt maturity and Tobin's Q rejects the empirical prediction that debt maturity is inversely related to agency cost and debt maturity is an effective strategy to mitigate agency problems. Model 2 explicitly establishes that the regression coefficient on DEBTMAT and FREE CASH FLOW (CFC) (-0.0101,  $t=-7.13$ ) is negative and statistically significant, strongly supports the empirical prediction that debt maturity is an effective strategy of governance to mitigate agency problems. Contradicting with empirical prediction, model 3 exhibit an insignificant and positive coefficient on DEBTMAT and ASSETUTILITY (0.00371,  $t=0.12$ ). The research result on debt maturity repudiates the empirical finding that the maturity structure of debt is not a potential governance devise that is effective in reducing the expected agency cost due to the conflict of interest between shareholders and debt holders.

**Bank Debt (BANKDEBT):** Bank debt is also another external corporate governance mechanism, which can minimize the agency costs because the banks have comparative advantage over other private lenders in monitoring and controlling borrowers' activities efficiently and cost less by enforcing debt covenants and shortening maturity of the debt. Hence, bank debt is inversely related to agency costs. From the Model 3, the coefficient on BANKDEBT and TOBIN'S Q is insignificant and positive (0.215,  $t=1.60$ ) as against the empirical hypothesis that bank debt is an effective defence against agency problems. Similarly, the positive and insignificant regression coefficient on BANKDEBT and FREE CASH FLOW (FCF) (0.00145,  $t=0.69$ ) from Model 2, strongly reject the empirical prediction that bank debt is an effective defence against agency problems. However, in Model 3, the coefficient on BANKDEBT and ASSETUTILITY (0.108,  $t=20.51$ ) is positive and statistically significant, which contradict with the direction of empirical prediction that bank debt and agency costs are negatively related. The research findings summarily reject the argument that the private bank loans can significantly reduce the contracting cost because when granting loans, the banks maintain strong bargaining position, which enables closely monitoring the activities of borrowers and exercising control by enforcing debt covenants and shortening maturity of the debt.

**Firm Size (FIRMSIZE):** Agency theory suggests that the smaller firms, which tend to have more growth options, are subjected to high levels of agency conflicts between shareholders and bondholders. Hence, the empirical prediction is that firm size is inversely related to agency cost.

The coefficient on FIRMSIZE and TOBIN'S Q from Model 1 is statistically significant and positive (0.123,  $t=5.84$ ). Similarly the regression coefficient on FIRMSIZE and FREE CASH FLOW (CFC) (0.00579,  $t=8.91$ ) is statistically significant and positive in Model 2. Model 3 also shows that the regression coefficient on FIRMSIZE and ASSETUTILITY is statistically significant and positive (0.108,  $t=20.51$ ). The coefficients on FIRMSIZE and proxies of agency costs (TOBIN'S Q, FREE CASH FLOW (CFC) and ASSETUTILITY) contradict with the direction of the empirical hypotheses that that firm size is inversely related to agency cost. However, the positive and statistically significant coefficients on FIRMSIZE and agency costs proxies direct to the conclusion that agency problem is rampant in Indian companies.

## CONCLUSION

This research paper has attempted to examine the nature of relation between the corporate governance mechanisms and agency problems. It has also explored how various governance mechanisms mitigate the agency problems in Indian corporate sector using panel regression methodology. The data show that Indian companies are gradually moving towards compliance to the governance mechanisms. The research findings render certain insights about the corporate governance system and nature and extent of conflict of interest prevailing among various stakeholders.

The regression results on the proxy of agency cost, TOBIN'S Q establish that the governance mechanism such as board size, independent directors, executive directors, CEO-chairperson duality, and promoters' holdings failed to monitor the managers and mitigate the conflicts of interest between various stakeholders in the corporations. Similarly, the audit committees, nomination and remuneration committees, debt maturity and bank debt are not viable corporate governance mechanisms. However, the findings prove that leverage and shareholders' committees are the governance mechanisms, which mitigate the agency problems. In Model 2, the regression results on agency cost - Free Cash Flow (FCF) prove that board size, independent directors, non-executive directors, CEO-chairman duality,

shareholders' committee, leverage, debt maturity and firm size are important governance mechanisms which mitigate the agency problems in the organizations. However, the findings on promoters holding, nomination and remuneration committee and bank debt have failed to mitigate agency problems. The research findings from Model 3 based on Asset Utilisation establish that board size, bank debt and firm size are aggravating the agency problems in Indian companies. The executive directors, promoters' holdings, audit committees, nomination and remuneration committee, shareholders' committees, debt maturity have as failed to provide monitoring the managers and thus reducing agency costs. However, the independent directors, CEO-Chairperson duality and leverage are effective and efficient governance measures in mitigating agency problems in Indian companies. Thus, the research findings lead to the conclusion that the corporate governance mechanisms, which have been introduced in the Indian corporate sector for bringing in transparency, integrity and accountability have partially successful to deal with the different manifestations of agency conflicts.

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