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Corporate Governance and Agency Problems During Pre-And Post-Indian Companies Act 2013 Regimes

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ABSTRACT

This research paper makes a comparative analysis of the effectiveness of governance mechanisms in mitigating the agency problems in the Indian corporate sector during the pre-and post-Indian Companies Act 2013 periods, using the panel OLS regression methodology on a sample of 315 companies drawn from the BSE 500 index of the Bombay Stock Exchange (BSE) for 10 years spanning from 2008-2018. Based on the review of literature, this paper has utilized proxy Operating Ratio for measuring the agency cost as the dependent variable. It also has identified ten governance mechanisms as independent variables; board size, independent directors, CEO-chairperson separation, audit committee, stakeholders relationship committee, nomination and remuneration committee, promoters' holdings, leverage, bank debt, and firm size. The descriptive statistics, Pearson's correlation coefficients, and multivariate regression analysis have been performed for evaluating the effectiveness of the governance mechanism in mitigating agency problems. The descriptive statistics reveal that agency problems in Indian companies have drastically increased during the post-Companies Act 2013 period. The findings also disclose that Indian firms have adopted the provisions of the Indian Companies Act 2013 on internal corporate governance mechanisms. However, the multivariate regression results prove that the internal governance mechanisms are not effective in mitigating agency problems during the post-Companies Act 2013 regime.

Key Words: CEO, Leverage, Corporate Governance, Stockholder, Ownership Structure

INTRODUCTION

The separation of ownership and management in body corporates causes the conflict of interest between managers and stakeholders [1]. Agency problems emerge when shareholders delegate power to managers to administer the organization's assets. However, the self-centered and entrenched managers tend to maximize their wealth at the cost of shareholders' wealth maximization objectives. Monitoring all the decisions and actions of the managers is not feasible for shareholders. As the agency conflicts between agents and principals have diverse incentive characteristics the agency problems will inflict far-reaching consequences on the market value of the firms and even shake the very foundations for corporations. The conflicting and contradicting objectives of the principals (shareholders) and the agents (managers) are the core of the agency cost theory. Agency theory established that the moral hazard may be eradicated and managers can be disciplined to pursue the shareholders' wealth maximization

objectives by incurring agency cost; cost incurred for monitoring and evaluating managers' unobserved decisions and actions [1,2]. The literature on agency theory has empirically tested and verified certain internal and external governance mechanisms that can alleviate agency problems caused by the conflict of interest between managers and stakeholders. The internal corporate governance mechanisms such as board characteristics, CEO-chairperson separation, board committees, and the external governance mechanisms such as ownership concentration, leverage, bank debt, debt maturity, and managerial ownership can reduce agency conflicts and bring about good governance in corporations [1,3-7]. Corporate governance is defined as "the system by which companies are directed and controlled," Cadbury Report [8]. "Corporate governance deals with how the suppliers of finance to corporations assure themselves of getting back a satisfactory return on their investments. It encompasses the political and legal institutions through which the investors who sunk the capital can ensure that their investments are safe and would generate a reasonable rate of return" [9].

The innumerable scandals and failures have occurred in the Indian corporate sector, which has not only devastated the fortunes of millions of investors but also shaken the trust and confidence of investors in the capital market. The reasons for the corporate scandals and eventual collapse of corporations were attributed to the absence or failure of corporate governance mechanisms and the blatant violations of the provisions of the Indian Companies Act. According to agency theory, the genesis of corporate scandals and failures are entrenched in bad governance which stems from the agency problems caused by the conflict of interests between managers' various shareholders of the corporations. Recognising the need for reforming the governance system in corporations, the Government of India incorporated various mandatory and non-mandatory provisions under the Indian Companies Act 2013. Some of these provisions are regarding the size of the board and the composition of independent directors, the powers and duties of the board of directors, the constitution of board committees such as audit committee, corporate social responsibility committee, nomination, and remuneration committee, stakeholders' relationship committee, etc., [10]. Indian Companies Act 2013 has brought about revolutionary changes in the internal governance systems of Indian companies over half a decade. However, no research has been undertaken so far to evaluate how far the provisions of the Indian Companies Act 2013 on the internal governance mechanisms are effective in mitigating the various manifestations of agency conflicts prevailing in Indian companies.

This research paper examines the nature and extent of agency problems prevailing in Indian companies and discusses the various internal and external governance mechanisms that can mitigate the agency problems in corporations. This research paper also attempts to analyse the agency problems and governance mechanisms during the pre-and post-Indian Companies Act 2013 regimes. It also aims at examining empirically the efficacy of the internal corporate governance mechanisms, which are introduced in the Indian Companies Act 2013 for mitigating agency conflicts and bring about good governance in Indian companies. Hence, the research findings can contribute immensely to the existing literature on agency theory and corporate governance. The findings can also provide new insights about the agency problems and corporate governance mechanisms which may guide the government agencies and managers while formulating and implementing policy decisions.

This research paper has three objectives. Firstly, this research paper discusses the agency problems and various internal corporate governance mechanisms introduced in the Indian Companies Act 2013 for imparting good governance in Indian companies. Secondly, this research attempts to compare the agency problems and corporate governance mechanisms in pre-and post-Indian Companies Act 2013 regimes. Finally, it empirically evaluates the effectiveness of the internal governance mechanisms in mitigating the agency problems post-Indian Companies Act 2013.

The panel OLS regression methodology has been adopted for examining the agency problems and corporate governance mechanisms in the Indian corporate sector based on a sample of 315 companies derived from the BSE 500 index of the Bombay Stock Exchange (BSE) during the period 2008 to 2018. The research findings establish that there has been significant improvement occurred in the internal governance systems of the Indian companies during the post-Indian Companies Act 2013 regime. However, the multivariate regression results disclose that the governance mechanisms could not yield the desired results in mitigating the agency problems prevailing in the corporate sector, especially during the post-Companies Act 2013.

This research paper is designed as follows. Section 2 review of the literature gives a discussion about the previous researches on agency problems and corporate governance. Section 3, research methodology describes the sample and methods and materials adopted for measuring the variables and analysing the data. Section 4 data analysis and discussion, examine, validate, and discusses the empirical research hypothesis using descriptive statistics, correlation analysis, and multivariate regression analysis. Section 5 Conclusion, concludes the research paper, states the limitations of the research, and discusses the future directions for the research.

REVIEW OF LITERATURE

This section provides an outline of the theoretical and empirical framework derived from various research conducted across the world on agency theory and corporate governance.

Agency Cost

Agency theory establishes that the managers' moral hazard may be exterminated and they can be disciplined to pursue the shareholders' wealth maximization objectives by adopting rigorous monitoring and evaluation procedures. The cost incurred for monitoring and controlling managers' unobserved sub-optimal investment decisions and other actions to discipline them for maximizing the stakeholders' welfare is known as agency cost [1]. The operating ratio is a commonly used proxy to represent and measure agency cost which is caused by the conflict between the managers and shareholders over the utilization of resources of the firm. The operating ratio or expense ratio is derived by dividing the operating expense by annual sales [11]. The operating ratio determines how effectively and efficiently the firm's management control operating costs, including the disproportionate managerial remuneration, consumption of excessive perquisites, and additional direct agency costs [6,11,12]. This paper has utilized operating ratio (OPRATIO) to represent and measure the agency cost prevailing in Indian companies.

Governance Mechanisms

The theoretical and empirical research has recognized the governance mechanisms such as the size of the board, composition of independent directors, CEO-Chairperson separation, audit committee, nomination and remuneration committee, stakeholders relationship committee, leverage, and bank debt which can bring about better governance in corporations.

Board of Directors: According to section 149 (1) of the Indian Companies Act 2013, all companies should constitute a board of directors with a minimum number of three directors for a public company, two directors for a private company, and one director for a one-person company subject to maximum fifteen directors [10]. The board of directors is the central decision-making body, which exercises strategic oversight over the business operation, confirms compliance with legal requirements, the truthfulness of financial accounting and reporting system, and measuring and rewarding performance of management. Board aligns the interests of the stakeholders and management by monitoring the managerial decisions because the separation of ownership and management creates information asymmetry in the organization [9,13].

Board Size: The huge boards are influential and help to strengthen the association between the firm and its environment, render direction and guidance about strategic choices, and building a unique corporate identity and existence. The large boards are more effective in coordination, communication, and decision-making process in corporations [14,15]. Large boards have adequate time to evaluate, monitor, and improve the quality of managerial decisions, and maximize the firm performance. The large powerful boards help in strengthening the link between corporations and their environment, provide counsel and advice regarding strategic options for the firms, and play a crucial role in creating a corporate identity [16-19]. Hence, this paper presumes an inverse relationship between agency cost and board size (BOARD SIZE).

Independent Directors: Independent directors are supposed to discharge their fiduciary duty independently and impartially by closely monitoring the decisions and performance of the management and the Board. As per section 149(6) of the Indian Companies Act 2013, all companies should constitute a board of directors and one-half of such board of directors shall be composed of independent directors. The boards with a significant percentage of non-executive directors help to monitor and discipline the management effectively by limiting managerial discretion on decision making [20]. A board composed of both executive directors and independent directors in judicious proportion can mitigate the potential agency conflict between the managers and shareholders [22,12]. This paper predicts an inverse relationship between the agency cost and independent directors (INDIRECTOR).

CEO-Chairperson Duality: Duality is the phenomenon of concentration of the powers of CEO and board chairperson in a single person, which may give unreasonable dominance to a single person in the board decisions and increase the agency problems in corporations. A major path to the good governance system is the appointment of different persons as the chairperson of the board and the chief executive officer (CEO) for preventing the concentration of disproportionate authority and power on the board.

The appointment of an independent director with high capabilities as chairperson of the board can limit the dominance of a single person in the decision-making process and give due consideration to other members' opinions in the board discussions [23]. The separation of the posts of board chairperson and CEO enables the boards to independently monitor and discipline poorly performing management for achieving higher turnover [7,22]. The empirically verifiable hypothesis is that agency cost is inversely associated with CEO-Chairperson Separation (SEPARATION).

Audit Committee: According to section 177 of the Indian Companies Act 2013, all the listed companies and certain specified companies should constitute an audit committee, composed of a minimum of three directors and two-third of such members should be independent. The chairperson of the audit committee should be an independent director. It should convene a minimum of four meetings in a financial year [10]. The audit committee integrates the functionsof the board, external auditors, and internal audit department for the preservation of good financial practices in the corporation. The audit committee appraises the excellence and truthfulness of financial accounting and reporting practices, the degree of compliance with legal and regulatory provisions, the performance of the management, and the capability of internal control and audit system [7,9,24]. The audit committee is recognized as a dynamic governance mechanism in corporations. This research paper predicts an inverse relationship between agency cost and audit committee (AUDITCOM).

Nomination and Remuneration Committee: According to section 178 of the Indian Companies Act 2013, all listed companies and certain specified classes of companies should constitute a nomination and remuneration committee. The committee must be composed of a minimum of three non-executive directors and among them, more than one-half must be independent directors. Clause 49 of the securities and exchange board of India (SEBI) prescribes that the chairman of the committee should be an independent director. In a financial year, a minimum of two meetings shall be convened [10]. The nomination and remuneration committee imparts good governance and reduces the agency cost by integrating the interest of independent directors and management with shareholders' wealth maximization objectives. It can ensure the appointments of directors are purely made on merit rather than by patronage. It maintains control on the executive compensation packages and also provides a transparent system for determining the remuneration packages to both the executive and non-executive directors. [7,24,25]. The empirically verifiable hypothesis is that agency cost is negatively related to the nomination and remuneration committee (NRCOM).

Stakeholders Relationship Committee: Section 178 (5) of the Indian Companies Act 2013 lays down that all the companies having more than one thousand shareholders, debenture holders, deposit holders, and any other security holders at any time during a financial year must constitute the stakeholder's relationship committee. The chairperson of such committee should be a non-executive director and the composition of the committee may be determined by the board of directors. The committee addresses the grievances of the security holders of the company [10]. The large shareholders in collision with the manager may engage in the expropriation of resources of the organization at the cost of minority shareholders. Stakeholders' relationship committee is a powerful governance mechanism to address the grievances of stakeholders regarding their rights as well as alleged mismanagement and oppression by large shareholders [9,17]. The empirically testable research hypothesis is that agency cost is inversely related to stakeholders' relationship committee (SHRCOM).

External Governance Mechanisms

Ownership Concentration: Concentrated ownership is an external governance mechanism that can reduce the expropriation of stakeholders. Minority shareholders have disincentives to incur the fixed cost for collecting and processing information that empower them to monitor the behaviour of entrenched and dishonest managers. If the block shareholding is sufficiently huge to assume the cost of corporate control, the block shareholders can regulate managerial discretion, mitigate agency problems, and augment performance[22,26,27]. The proportion of promoters' shareholdings to total shares is used as a proxy to represent concentrated ownership. The empirically verifiable hypothesis is that agency cost is negatively related to promoters' holdings (PROMHOLD).

Leverage: Leverage is considered a governance mechanism, which may decrease agency conflicts. The utilization of debt capital in the financial structure provides additional external monitoring by debtors, which have similar incentives as block holders adopt measures to safeguard their investment interest. Thus, the increasing external debt in the financial plan can reduce the agency cost substantially [9,17,28]. This paper empirically examines the research hypothesis that agency cost is negatively associated with leverage (LEVERAGE).

Bank Debt: The bank debt can significantly minimize the informational asymmetry and the associated agency cost triggered by the agency conflict between managers and outside investors. Having a superior bargaining position, the banks can monitor the activities of the creditors and discipline them by imposing debt contracts and changing the maturities of debt. Thus, bank debt is considered an efficient governance system that can mitigate the agency cost in corporations [29-31]. The empirically testable research hypothesis is that agency cost and bank debt (BANKDEBT) are inversely related.

Firm Size: Firm size is included as a control variable in the model as suggested by the empirical literature. Large firms can attract and deploy huge amounts of resources and adopt improved corporate governance systems that reduce agency costs in such firms as compared to smaller firms [6,12,19]. An inverse relationship is predicted between agency cost and the size of the firm (FIRMSIZE).

The review of literature provides an insight into the important governance mechanisms, which have introduced in the Indian Companies Act 2013. For evaluating the agency problems and governance mechanism during the pre-and post-Indian Companies Act 2013, this research paper has derived the following null and alternative hypotheses: -

Ho: There is no significant difference between the mean values of agency costs and governance mechanisms in the pre-and post-Indian Companies Act 2013.

Ha: There is a significant difference between the mean values of agency costs and governance mechanisms in the pre-and post-Indian Companies Act 2013.

RESEARCH METHODOLOGY

Data and Research Methods

The empirical examination of the agency cost and governance mechanisms during the pre and post-Indian Companies Act 2013, is performed by utilizing panel OLS regression methodology. The sample is taken from the BSE 500 index, which embodies more than 90% of the market capitalization on the Bombay Stock Exchange (BSE). The sample is composed of 315 companies from 20 industries excluding banking and financial companies and companies with missing data. The secondary data was generated from PROWESS, the database of CMIE. The period of study spans ten years beginning from 2008-2018. The panel data was split into two parts, 2008 to 2013 and 2013 to 2018 for comparing the agency cost and effectiveness of governance mechanisms during the pre-and post-Companies Act 2013 regimes. Each panel data set is composed of 1575 observations from 315 companies for 5 years by pooling cross-sectional and time-series data. The suitability panel data was examined by conducting specification tests (for normality, poolability, autocorrelation, serial correlation, heteroskedasticity, and cross-sectional dependence assumptions) before the data process being undertaken. For examining the presence of autocorrelation, heteroskedasticity, cross-sectional dependence, and serial correlation, this paper has applied the Wooldridge test, modified Wald statistics, and Pesaran's CD test [17,33). For determining the feasibility of the appropriate econometric model from the random effect and fixed effect, this paper has used the Hausman test. The Hausman test explicitly establishes that the fixed effect regression model is a suitable model for examining the panel data. This paper has applied Driscoll and Kray standard errors which are robust to heteroskedasticity, autocorrelation, and cross-sectional dependence [32].

Measurement of Variables

Dependent Variable: Based on the review of literature, this paper has utilized the Operating ratio for measuring the agency cost. The operating ratio or expense ratio is derived by dividing the operating expense by annual sales [12]. The operating ratio determines how effectively and efficiently the firm's management control operating costs, including the disproportionate managerial remuneration, consumption of excessive perquisites, and additional direct agency costs [6].

$$\text{Operating Ratio (OPRATIO)} = \frac{\text{Operating Expenses}}{\text{Annual Sales}}$$

Independent Variables: The research paper has used ten proxies for representing governance mechanisms as independent variables for econometric modelling.

1. Bard size (BOARDSIZE) = Number of directors appointed on the board.
2. Independent director (INDIRECTOR) = $\frac{\text{Indepedent Direcctors}}{\text{Total Directors}}$
3. CEO-Chairperson Separation (SEPARATION) = Binary variable is assigned, a value 1 if the posts of CEO and
   board chairperson are occupied by different persons, and 0 otherwise.
4. Audit Committee (AUDITCOM) = Number of directors appointed in the audit committee.
5. Nomination and Remuneration Committee (NRCOM) = Number of meetings convened in a financial year.
6. Stakeholders relationship committee (SHRCOM) = Number of meetings convened in a financial year.

7. Promoters' holdings (PROMHOLD) = $\frac{\text{Promoters' Equity Share Holdings}}{\text{Total Equity Shares}}$
8. Leverage (LEVERAGE) = $\frac{\text{Debt}}{\text{Total Captial}}$
9. Bank debt (BANKDEBT) = $\frac{\text{Borrowings from Banks}}{\text{Total Debt Captial}}$
10. Firm size (FIRMSIZE) = Natural log of firm's market value.

The following econometric model has been developed based on the dependent variable; Operating Ratio (OPRATIO):

- ***OPRATIO = βo+ β1(BOARDSIZE) + β2(INDIRCTOR)+ β3 (SEPARATION) + β4 (AUDITCOM) + β5(NRCOM) + β6(SHRCOM)+ β7(PROMHOLD) +β8(LEVERAGE) + β9(BANKDEBT) + β10(FIRMSIZE) + εί***

DATA ANALYSIS AND DISCUSSIONS

Descriptive Statistics

The descriptive statistics, mean and standard deviation have been used for precisely describing the basic characteristics of agency costs and governance mechanisms in Indian companies. The hypothesis test has been employed for evaluating the agency cost and comparing the governance mechanisms during the pre-and post-Indian Companies Act 2013 regimes.

Table 1: Descriptive Statistics

Variables	Mean and SD (Post-Companies Act 2013)	Mean and SD (Pre-Companies Act 2013)	Ho: Mean (Post-Companies Act 2013) - Mean (Pre-Companies Act 2013) = 0	
			The difference in Mean and SE	t- value
OPRATIO	82.8828 (13.7282)	81.0883 (14.6713)	1.7944*** (0.5063)	3.5441
BOARDSIZE	10.2 (3.0860	9.9130 (3.2852)	0.2870** (0.1136)	2.5269
INDIRECTOR	49.4628 (14.1709)	48.2525 (16.8621)	1.2102** (0.5550)	2.1806
SEPARATION	0.8356 (0.3709)	0.8375 (0.3691)	-0.0019 (0.0132)	-0.1445
AUDITCOM	4.9327 (2.0363)	4.6565 (2.8587)	0.2762*** (0.0884)	3.1229
SHRCOM	1.4876 (3.4320)	2.3391 (5.5923)	-0.85143*** (0.1653)	-5.1498
NRCOM	1.6432 (1.6726)	0.8781 (1.3171)	0.7651*** (0.0536)	14.2620
PROMHOLD	54.9818 (15.7445)	55.6077 (17.3009)	-0.6259 (0.5894)	-0.6259
LEVERAGE	0.2235 (0.1820)	0.1910 (0.1865)	0.0325*** (0.0066)	4.9486
BANKDEBT	0.5621 (0.3794)	0.5911 (0.3567)	-0.0290** (0.0131)	-2.2076
FIRMSIZE	10.3489 (1.3611)	9.7615 (1.4459)	0.5874*** (0.0500)	11.7390

Note: Below parameter estimates, t-statistics are reported in the parentheses: p<0.10* p<0.05, **p<0.01***

Source: Prowess Database

Table 1 on descriptive statistics shows that the average operating ratio (OPRATIO) is 82.88 with a standard deviation of 12.73 during post-Companies Act 2013 as compared to the average value of 81.0883 and standard deviation of 14.671 during the pre-Indian Companies Act 2013. The t-test has been employed to examines the null hypothesis that there is no significant difference between the operating ratio in pre-and post-Companies Act periods. The significant test statistics reject the null hypothesis (Mean difference 0.7944, t=5.8740, p=0.00) and establishes that the increase in operating ratio is significant and the agency problem has increased during the period 2013- 2018 in Indian companies. The high operating ratio or expense ratio reveals that the managers have high discretionary powers over the revenues of the firms which may be used for extractingexcessive managerial remuneration and perks. The descriptive statistics disclose the prevalence of high levels of agency problems in Indian companies which is due to the agency conflict between managers and various stakeholders over the utilization of resources.

Table 1 shows that the average board size (BOARDSIZE) in the post-and pre-Companies Act 2013 are 10.2 and 9.91 respectively, which shows that the board size has increased over the period. The t-test examines the empirical hypothesis that there is no significant difference in the board size during the pre-and post-Companies Act 2013 period. However, the test statistics repudiates the null hypothesis and proves that there is a significant increase in the board size (Mean difference 0.2870, t= 2.5269, p= 0.01) in the post-Companies Act 2013. The Indian Companies Act 2013 prescribes that the maximum number of members of the board shall not exceed 15. The research findings show that Indian companies are characterized by large-sized boards.

Table 1 shows that the independent directors (INDIRECTOR) represent 49.46 % of the total directors of the board during the post-Companies Act 2013 period. However, the composition of independent directors on board was 48.25% in the pre-Companies Act 2013. The test statistics (Mean difference = 1.2102, t=2.5269, p= 0.03) reject the null hypothesis that there is no significant difference in the composition of independent directors during pre and post-companies Act 2013. The descriptive statistics show that independent directors dominate the board of directors of Indian companies and the composition of the independent directors on the board is more than the one-third prescribed by the Indian Companies Act 2013.

The mean values of CEO and chairperson (SEPARATION) 0.8355 and 0.8374 respectively in pre-and post-Companies Act 2013, prove that approximately 84% of total firms have appointed different persons to hold the positions of CEO and board chairperson. The test statistic fails to reject the null hypothesis (Mean difference = -0.0019, t= -0.1445, p= 0.86) that there is a significant difference in the separation of the posts of CEO and chairperson of the board during the pre-and post-Companies Act 2013 period. The majority of the Indian firms have adopted the principle of separation of the posts of CEO and chairperson of the board before the enactment of the Companies Act 2013.

The mean values of the audit committee (AUDITCOM) are 4.9226 in the post-Companies Act and 4.6565 in the pre-Indian Companies Act 2013. The findings on AUDITCOM reveals that every firm has constituted audit committees and the audit committee is composed of at least 5 directors who are supposed to perform the impartial and independent evaluation of the firms'

accounts and financial performance. The test statistic rejects the null hypothesis that there is no significant difference in the size of the audit committee (AUDITCOM) (Mean difference = 0.2762, t = 3.1229, p=0.00) during pre-and post-Companies Act 2013. The findings reveal that there has been an increase in the number of directors in the audit committee in the post-Companies Act 2013 period.

The average number of meetings held by the stakeholders relationship committee (SHRCOM) is 1.487 in the post-Companies Act 2013 whereas it was 2.339 during the pre-Companies Act 2013. The t-test rejects the null hypothesis (Mean difference = -0.85143, t= -5.1498, p=0.00) that there is no significant difference between the averages of stakeholders' relationship committee (SHRCOM). It establishes that there has been a drastic decline in the number of meetings held by the stakeholders relationship committee during the post-Companies Act 2013. The findings conclude that the majority of firms have failed to hold a mandatory minimum of 2 meetings in each financial year.

The nomination and nomination and remuneration committee (NRCOM) held 1.643 meetings during the post-Companies Act 2013 period as compared to 0.878 meetings per year during the pre-Companies Act 2013 period. The test statistic rejects the null hypothesis (Mean difference = 0.7651, t= 14.2620, p=0.00) and establishes that the increase in the nomination and remuneration committee meeting is significant during the post-Companies Act 2013. The findings conclude that the majority of firms have failed to hold a mandatory minimum of 2 meetings in each financial year.

The average promoters holding (PROMHOLD) is 54.98% of the total share capital of the sample firms during the post-Companies Act 2013, which is slightly lesser than the shareholding of 55.60% during the pre-Companies Act 2013. The test statistic fails to reject the null hypothesis (Mean difference = -0.6259, t= -1.0619, p= 0.29) and establishes that there is no significant difference in promoters' holdings in the pre-and post-Companies Act 2013 periods.

The mean value of leverage (LEVERAGE) is 0.2235 for the sample firms during the post-Companies Act 2013, as compared to 0.1910 during the pre-Companies Act 2013 period. The test statistic (Mean difference = 0.0325, t= 4.9486, p=0.00) validates that the composition of debt in the capital structure (leverage) has significantly increased during the post-Companies Act 2013 period. The descriptive statistics prove that roughly 22% of the total capital is financed by way of borrowings.

The descriptive statistics also show that 56% of the debt capital is contributed by banks and financial institutions (BANKDEBT) during the post-Companies Act 2013 as compared to 59% during the pre-Companies Act 2013. The test statistics (Mean difference = -2.2076, t= -2.2076, p=0.03) validates that there has been a significant decline in the bank debt to total debt capital during the post-Companies Act 2013. The mean firm value of firm size (FIRMSIZE) is 10.06, which demonstrates that the sample is predominantly composed of large firms.

Correlation Analysis

Pearson's correlation coefficients are exhibited in Table 2, which establishes the bivariate relationship between the dependent variable and independent variables during pre-and post-Companies Act 2013 regimes.

Table 2 Pearson's Correlation Coefficients

Variables	Post-Indian Companies Act 2013	Pre-Indian Companies Act 2013
	Operating Ratio (OPRATIO)	Operating Ratio (OPRATIO)
OPRATIO	1.0000	1.0000
BOARDSIZE	-0.0881*	-0.0217
INDIRECTOR	0.0554*	0.0296
SEPARATION	0.0238*	-0.0014
AUDITCOM	0.0289*	-0.0230
SHRCOM	0.0002	-0.0425
NRCOM	0.0306*	0.0344
PROMHOLD	-0.1353*	-0.0715*
LEVERAGE	0.1108*	-0.0715*
BANKDEBT	-0.0120	0.1601*
FIRMSIZE	0.0591*	-0.0474

Note: Below parameter estimates, t-statistics are reported in the parentheses: * p<0.10.
Source: Prowess Database

Correlation Coefficients During Post-Indian Companies Act 2013: Table 4.2 demonstrates the correlation coefficients on OPRATIO and other independent variables such as independent directors (INDIRECTOR), CEO-Chairperson separation (SEPARATION), audit committee (AUDICOM), nomination and remuneration committee (NRCOM), leverage (LEVERAGE) and firm size (FIRMSIZE), which are positive and significantly correlated with agency cost. The coefficients on board size (BOARDSIZE) and promoters' holdings (PROMHOLD) establish negative and significantly correlated with agency cost (OPRATIO). The correlation coefficient on the stakeholders' relationship committee (SHRCOM) is positively correlated with agency cost (OPERATIO). The coefficient on bank debt (BANKDEBT) is insignificant but has negative relations with the agency cost (OPRATIO).

Correlation Coefficients During Pre-Indian Companies Act 2013: From Table 2, the correlation coefficients on promoters' holdings (PROMHOLD) and leverage (LEVERAGE) have established a significant and negative relationship with the agency cost (OPRATIO). The correlation coefficient on bank debt (BANKDEBT) establishes a significant and positive correlation with the agency cost (OPERATIO). The correlation coefficients on board size (BOARDSIZE), separation (SEPARATION), audit committee (AUDICOM), stakeholders' relationship committee (SHRCOM), and firm size (FIRMSIZE) are negative but insignificantly correlated with agency cost (OPRATIO). However, an insignificant and positive correlation is established by agency cost (OPRATIO) with independent directors (INDIRECTOR) and bank debt (BANKDEBT).

Multivariate Regression Analysis

Table 3 shows the fixed effect regression results on the dependent variable OPRATIO during post- and pre-Companies Act 2013 regimes. For evaluating the agency problems and governance mechanisms in the Indian corporate sector, the dependent variable (OPRATIO) is regressed against the independent variables, BOARDSIZE, EXDIRECTOR, INDIRECTOR, PROMHOLD, SEPARATION, AUDITCOM, NRCOM, SHRCOM, LEVERAGE, BANKDEBT, and FIRMSIZE utilizing the fixed effect regression model of panel OLS regression Methodology.

Table 3: Fixed Effect Regression Results on Agency Cost and Corporate Governance

Variables	Predicted Sign	Post-Indian Companies Act 2013	Pre-Indian Companies Act 2013
		Operating Ratio (OPRATIO)	Operating Ratio (OPRATIO)
BOARDSIZE	-	0.0107 0.0569 0.19	0.1608 0.0806 1.99
INDIRECTOR	-	0.0041 0.0092 0.44	0.0050 0.0037 1.37
SEPARATION	-	-2.4167* 1.0450 -2.31	6.5091** 1.7122 3.80
AUDITCOM	-	0.2211*** 0.0393 5.63	-0.0339 0.0778 -0.44
SHRCOM	-	-0.0024 0.0503 -0.05	0.0033 0.0079 0.42
NRCOM	-	0.0666 0.0731 0.91	0.0500 0.0522 0.96
PROMHOLD	-	-0.0687 0.0472 -1.46	-0.0452 0.0293 -1.54
LEVERAGE	-	13.6063*** 1.3807 9.85	4.9134** 1.3519 3.63
BANKDEBT	-	0.2116 0.3724 0.57	-1.5700** 0.5082 -3.09
FRMSIZE	-	-4.3020*** 0.4742 -9.07	0.0134 0.3659 0.04
INTERCEPT		128.626*** 5.1350 25.05	75.872*** 3.2055 23.67
R2		0.8855	0.8882
ADJUSTED R2		0.8557	0.8591
N		1575	1575

Note: Heteroscedasticity, autocorrelation and cross-sectional dependence consistent t-statistics are reported in the parentheses below parameter estimates: p<0.10* p<0.05, ** p<0.01***

Sources: Prowess Database.

Board Size (BOARDSIZE): Table 3 shows that in the post-Companies Act 2013 period, the regression coefficient on BOARDSIZE and OPRATIO (β = .01067, se = .0569, t = 0.19) is insignificant, which rejects the empirical prediction of an inverse relationship between the board size and agency cost. In the pre-Companies Act 2013 period, the regression coefficient on BOARDSIZE and OPRATIO (β = .16088, se = .0806, t = 1.19) is insignificant as against the empirical prediction of an inverse relationship between the agency cost and board size. These findings corroborate with the results of Singh and Davidson [12], McKnight and Weir [7], and Vijayakumaran [19] from the US, UK, and Chinese corporate sectors respectively. The research findings on operating ratio (OPRATIO) show that the large-sized boards are not able to reduce the managerial discretion over the operating expenses and disproportionate consumption of perquisites, and other agency costs during the pre-and post-Companies Act 2013period.

Independent Directors (INDIRECTOR): During the post-Companies Act 2013, the regression coefficient on the INDIRECTOR and OPRATIO is insignificant and positive (β = .0041, se =.0092, t =0.44), which rejects the empirical prediction of the inverse relationship between the agency costs and independent directors. Similarly, the insignificant but positive regression coefficient on the INDIRECTOR and OPRATIO (β = .0050, se =.0037, t =1.37) during the pre-Companies Act 2013, rejects the empirical hypothesis that the agency cost is inversely related to independent directors. These results substantiate the findings of Singh and Davidson [12], McKnight and Weir [6], and Vijayakumaran [19] on the US, UK, and Chinese corporate sectors respectively. Thus, the dominance of independent directors on the boards have failed to monitor and discipline the non-value maximizing behaviour of managers and thereby reduce the agency cost in Indian companies.

CEO-Chairperson Separation (SEPARATION): In the post-Companies Act 2013 period, the regression coefficient on SEPARATION and OPRATIO (β = -2.4167, se = 1.0450, t= -2.31) is significant and negative, which supports the empirical prediction that agency cost is negatively related to CEO-Chairperson separation. On the contrary, during the pre-Companies Act 2013, the regression coefficient on SEPARATION and OPRATIO (β = 6.5091, se = 1.7122, t= 3.80) is significant but positive as against the direction of the empirical hypothesis that agency cost is inversely related to CEO- Chairperson Separation [7]. The descriptive statistics reveal that the majority of sample firms have appointed different persons to hold the positions of CEO and board chairperson. The regression findings on SEPARATION and OPRATIO reveal that separation of these key posts has reduced the agency problems in firms during the post-Companies Act 2013 period.

Audit Committee (AUDITCOM): During the post-Companies Act 2013, the coefficient on AUDITCOM and OPRATIO is statistically significant but positive (β = .2211, se= .0393, t = 5.63) as against the direction of the empirical hypothesis that agency cost is inversely related to the audit committee. The direct relationship between the audit committee and agency cost leads to the conclusion that the audit committees have increased the agency conflict between managers and shareholders over the excessive consumption of managerial remuneration and perquisites. However, in the pre-Companies Act 2013 period, the coefficient on AUDITCOM and OPRATIO is insignificant (β = -.03389, se= .0778, t = -0.44) which repudiates the empirical prediction of aninverse relation between agency cost audit committee.

Stakeholders' Relationship Committee (SHRCOM): During the post-Companies Act 2013 period, the regression coefficient on SHRCOM and OPRATIO (β = -.0024, se = .0503, t = -0.05) is insignificant and negative that discards the empirical hypothesis that agency cost and stakeholders relationship committee are inversely related. Similarly, in the pre-Companies Act 2013, the regression coefficient on SHRCOM and OPRATIO (β = 0.0033, se = 0.0079, t = 0.42) is also insignificant and positive, which rejects the empirical hypothesis that agency cost and stakeholders relationship committee are negatively related. The research results on SHRCOM and OPRATIO establish that the functioning of the stakeholders relationship committee has not been able to reduce the agency conflict prevailing between managers and shareholders over the consumption of excessive managerial remuneration and perquisites.

Nomination and Remuneration Committee (NRCOM): In the post-Companies Act 2013, the regression coefficient on NRCOM and OPRATIO (β=.0666, se =.0731, t= 0.91) is insignificant but positive, which repudiates the research hypothesis of an inverse relationship exists between the agency cost and nomination and remuneration committee. Similarly, the insignificant and positive coefficient on NRCOM and OPRATIO (β= .0500, se =.0522, t=0.91) during the pre-Companies Act 2013, discards the empirical research hypothesis. Thus, the regression results on OPRATIO and NRCOM prove that the nomination and remuneration committee (NRCOM) has not been able to mitigate the agency problems existing between the managers and shareholders over the managerial remuneration during the post-Indian Companies Act 2013 [7].

Promoters' Holdings (PROMHOLD): The insignificant regression coefficient on PROMHOLD and OPRATIO (β = -.0687, se = .0472, t = -1.46) repudiates the research hypothesis that agency cost and promoters' holdings are inversely related, during the post-Companies Act 2013 period. During the pre-Companies Act 2013, the regression coefficient on PROMHOLD and OPRATIO (β = -.0452, se = .0293, t = -1.54) recorded an insignificant relationship, which rejects the research hypothesis that agency cost and promoters' holdings are inversely related. However, Ang et al. [6], Singh and Davidson [12], Florackis [31], and McKnight and Weir [7] find a significant and negative relationship between the agency cost and ownership concentration.

Leverage (LEVERAGE): In the post-Companies Act 2013 the regression coefficient between LEVERAGE and OPRATIO are statistically significant but positive (β = 13.6063, se =1.3807, t = 9.85) as against the direction of empirical research hypothesis that agency cost is negatively related to leverage. Similarly, the regression coefficient on LEVERAGE and OPRATIO recorded a statistically significant but positive relationship (β = 4.9134, se =1.3519, t = 3.63) in the pre-Companies Act 2013 period, as against the direction of the empirical hypothesis that agency cost and leverage are negatively related. The findings conclude that leverage has failed as an effective governance mechanism that can restrain managers from extracting excessive perks and undertaking risk and suboptimal investment decisions [1,34,35]. Similar findings were observed between leverage and agency cost in Chinese firms by Vijayakumaran [19].

Bank Debt (BANKDEBT): In the post-Companies Act 2013 regime, the regression coefficient on BANKDEBT and OPRATIO is insignificant and positive (β = .2116, se =.3724, t = 0.57), which rejects the empirical hypothesis that agency cost is inversely related to bank debt. However, during the pre-Companies Act 2013, the regression coefficient on BANKDEBT and OPRATIO (β =1.5700, se =.5082, t =-3.09) reported a statistically significant and negative relation, which strongly support the empirical prediction that agency cost is negatively related to bank debt.

Firm Size (FIRMSIZE): The coefficient on FIRMSIZE and OPRATIO is statistically significant and negative (β = 4.3020, se = .4742, t = -9.07) during the post-Companies Act 2013, which is consistent with the empirical prediction that agency cost and firm size are negatively related. The research findings are consistent with the empirical hypothesis that large firms have more resources, experience and economies of scale to effectively monitor and discipline the entrenched and dishonest managers [6,12,19]. Conversely, in the pre-Companies Act 2013 period, the coefficient on FIRMSIZE and OPRATIO were recorded as an insignificant and positive association (β = 0.1339, se = .3659, t = 0.04).

CONCLUSION

This research paper makes a comparative analysis of the effectiveness of governance mechanisms in alleviating the agency conflicts in the Indian corporate sector during the pre and post-Indian Companies Act 2013 periods, using the panel OLS regression methodology. The descriptive statistics reveal that agency problems have increased considerably during the post-Indian Companies Act 2013 regime. The Indian companies are characterized by large-sized boards, which are dominated by independent directors. Indian firms have adopted the principle of separation of the posts of CEO and board chairperson. All firms in the sample have constituted audit committees that are composed of at least 5 directors for conducting the impartial and independent evaluation of the firms' accounts. However, the findings conclude that the majority of firms have failed to hold meetings of the nomination and remuneration committee and the stakeholders' relationship committee as per the Indian Companies Act 2013.

The multivariate regression results on operating ratio (OPRATIO) establish that the board size (BOARDSIZE), independent directors (INDIRECTOR), stakeholders relationship committee (SHRCOM), nomination and remuneration committee (NRCOM), promoters' holdings (PROMHOLD), and bank debt (BANKDEBT) have no significant influence in reducing agency problems in Indian companies, during post-Indian Companies Act 2013. However, the separation of the posts of CEO and chairperson and the size of the firm have significant impacts in mitigating conflicts in Indian firms. Conversely, the audit committee (AUDITCOM) and leverage (LEVERAGE) have aggravated the agency problems in the Indian corporate sector. Thus, the research findings prove that corporate governance mechanisms are not effective in dealing with agency conflicts in the Indian corporate sector. However, Indian companies have been gradually adopting and assimilating the corporate governance mechanisms.

This research paper has attempted to comprehensively evaluate the agency cost and corporate governance mechanisms in the pre-and post-Indian Companies Act 2013 Regimes. This research paper is subjected to certain limitations, which stem from the limitations of the accounting system and methodological lacunae of panel OLS regression methodology. However, this paper has considered these limitations and attempted to eliminate these limitations by applying rigorous data collection and processing methods, and conducting appropriate specification tests for generating unbiased results. An important extension to this research would be to examine the agency cost and governance mechanisms by incorporating more variables and firms in the sample.

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