

AGENCY COST: OWNERSHIP STRUCTURE AND BOARD COMPOSITION — AN EMPIRICAL ANALYSIS

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Abstract

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This study evaluates the ownership structure and board composition as an effective corporate governance mechanism to control agency costs. It uses pooled ordinary least squares (OLS) regression methodology on the annual panel data from 2010–2011 to 2021–2022 for 985 non-financial companies listed on the National Stock Exchange (NSE) of India, collected from the ProwessIQ database. Globally, agency costs have been measured mainly by two proxies: asset turnover ratio (ATR) and operating cost ratio (OPEX) whereas, this study has used two additional proxies: return on total assets (ROA) and interest coverage ratio (ICR). The study also takes into account the impact of all types of ownership holdings namely, promoters', government, domestic and foreign institutional investors on the agency cost. It is observed that agency costs are significantly lower with both foreign and domestic institutional investor ownerships and it is inversely related to the number of independent directors, as well as the size of the board. The findings of this study, on the one hand, will be beneficial for the corporate houses in resolving the problem of principal-agent conflicts whereas, on the other side, it will help the policymakers in deciding the policies with respect to the composition of the board members and ownership structure.

Keywords: Agency Cost, Corporate Governance, Ownership Structure, Board Composition, Institutional Investors

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1. INTRODUCTION

Agency cost is a frequently discussed topic in management as its prevention ensures the efficient functioning of companies and promotes economic growth. If someone else is managing an organization on shareholders' behalf and they have delegated

the necessary authority to make decisions to the managers keeping the ownership stake to themselves, the divergence of interests is bound to happen. This divergence incurs costs to the organization in the form of inefficiencies and lower performance. Berle and Means (1933) and Jensen and Meckling (1976) form the foundation of

agency theory. However, this problem might seem intangible but has tangible effects on the profitability and performance of the firm in the long term.

Since the development of agency theory, researchers have continued to refine and expand the concept of agency cost. Agency cost is a function of quality corporate governance. In a developed country like the United States (US), corporate governance is monitored by the Securities and Exchange Commission (SEC) which enforces the United States Corporate Governance Code (USCGC). Similarly in an emerging economy like India, the corporate governance mechanisms are regulated by the Ministry of Corporate Affairs (MCA) and the Securities and Exchange Board of India (SEBI). The Companies Act 2013 is the governing law for companies in India which contains key provisions relating to corporate governance including the composition of the board, functioning of independent directors and enhancing board responsibilities.

Most of the empirical studies have focused on developed economies like the US and the United Kingdom (UK) where they have tried to examine the role of quality corporate governance for mitigating agency costs. It is normally found that poor corporate governance leads to an increase in agency costs (Core et al., 1999; Henry, 2010). Even recent studies (Mishra & Mohanty, 2018) have explored the relationship between agency cost and a firm's performance and found that higher agency costs may lead to poor performance of the firm.

Widely used corporate governance mechanisms are in the form of board characteristics, such as board size and independence, ownership concentration, and institutional investment and board committees such as audit committees, remuneration committees, nomination committees and shareholders' committees. There have been two conflicting views on the impact of board sizes on the performance of the organization. Lipton and Lorsch (1992) and Eisenberg et al. (1998) suggested that larger board sizes lead to a lack of coordination and communication among members affecting their efficiency whereas contrasting views have been presented by Monks and Minow (2004) and Uadiale (2010) suggesting that a large number of directors bring with them their expertise to enhance firm performance.

One of the important research made in developed markets by Ang et al. (2000), analyzed a sample of 1708 small US companies to measure agency costs under different ownership structures. This study found that agency costs, proxied by the operating cost ratio and the asset utilization ratio, increase when an outsider manages the firm and it decreases as the ownership is more concentrated. Similarly, Gogineni et al. (2022) in their study on over 42,000 private and public UK firms suggest that agency costs are higher in private firms with complex ownership structures created through joint ownership by corporate entities and individuals/families, relative to firms with just individuals/families as shareholders.

As the ownership structures have evolved, so has the nature of agency costs. Before 1991, Indian corporates were stringently regulated and primarily dominated by public sector units. Higher state ownership is generally associated with higher agency

costs as they focus less on performance with resources being used less efficiently and having bureaucratic issues. After 1991's economic liberalization, foreign investments kept on increasing gradually year after year making the corporate boards more professional and global. It is believed that institutional investors are an effective controller of agency cost (Brickley et al., 1997; Bhattacharyya & Vivek Rao, 2005) as they have access to superior information which enables them to select companies with good governance mechanisms for their investment.

From the above discussion, it is clear that agency cost has been an important area of research in management and economics for some decades. While the concept has evolved over time, the fundamental issue of diverging interests between principals and agents remains a central concern. Researchers continue to explore ways to mitigate agency costs through the use of incentives, monitoring, and corporate governance mechanisms.

This research paper aims to evaluate corporate governance mechanisms in the form of board characteristics and ownership structure to mitigate agency problems in Indian companies. This research paper examines the nature of the relationship between agency cost and corporate governance mechanisms in all NSE-listed (National Stock Exchange of India Limited) non-financial Indian corporations with a minimum of 10 years of required variables, whereas most of the published work on India is based on the study of a particular stock market index. The major focus of this research paper is to examine empirically whether these corporate governance mechanisms are able to mitigate agency problems and bring about better governance in the Indian corporate sector or not, using the panel ordinary least squares (OLS) regression methodology. This study finds that both foreign and domestic institutional investors lower agency costs of the organization. Similarly, a larger board size & higher proportion of independent directors in the board mitigates agency conflict in the organization.

In response to the research gap and relevance of this issue, this study uses return on total assets and interest coverage ratio in addition to widely used traditional ratios like asset turnover ratio and operating ratio as proxies of agency cost. Secondly, most of the previous studies on India have analyzed a smaller number of companies (maximum of 380 listed companies) and for a shorter period (maximum of 5 years), whereas this study considers all NSE-listed non-financial companies (985 companies) for 10 years. Thirdly, in contrast to the previous research, where the evaluation of ownership structure as an effective controller of agency cost is limited to the extent of promoters' holding and foreign institutional investors, the current study additionally considers the impact of government ownership and domestic institutional investors on the agency cost.

With an aim to appraise various corporate governance mechanisms to mitigate agency costs, this study has the following four objectives:

1) to evaluate the board composition and ownership structure as an effective mechanism to control agency costs;

2) to evaluate the impact of board composition and ownership structure on the efficiency of the firm, measured through asset turnover ratio;

3) to analyze the effect of board composition and ownership structure on firm performance, measured by return on total assets;

4) to analyze the relationships between the nature of the board of a company and its interest coverage ratio.

The remaining sections of the study are organized as follows. The literature on board characteristics (size of the board, non-executive directors, independent directors, etc.) and ownership structures (Institutional investors, government ownership, etc.) as well as their impacts on agency cost, is examined in Section 2. The data and research methodology are described in Section 3 whereas Section 4 highlights the results and discussion. The study's summary and conclusion are provided in Section 5.

2. LITERATURE REVIEW

There are multiple approaches to reign agency costs such as board composition, board committees, ownership structure, leverage utilization etc. This study aims to evaluate the board composition and ownership structure as an effective mechanism to control agency costs using the data of Indian companies. Most studies reviewed have used regression analysis as the primary methodology to examine the problem of agency conflict.

The principle and agent relationship was first mentioned in *An Inquiry into the Wealth of Nations* by Smith (1776), in which he stated that there is a difference between the vigilance by the managers of a sole proprietorship or partnership firm as humans have a natural tendency to fulfill their self-interest. However, intensive work on agency problems started after almost 200 years. The extensive literature on agency issues stems from the seminal work of Berle and Means (1933) and Jensen and Meckling (1976) which stated that both the owners and managers are guided by their self-interests which creates a potential for agency conflict. This conflict can reduce efficiencies due to increasing agency costs to the organization.

With an increase in the number of decision-makers, coordination and communication takes a backseat. The agency theory proposition given by Jensen (1993), analyzing 432 US firms, associates an increase in board size with a fall in its efficiency due to problems of coordination and communication. Similarly, Yermack (1996) supported the view of smaller boards, by analyzing a sample of 452 large US industrial corporations between 1984 and 1991, being more effective in decision-making as they reach solutions faster than the large group. In contrast, studies on Australian firms by Nicholson and Kiel (2007) and Muniandy et al. (2016) state that directors bring resources to the firm which enhances performance and efficiency.

Managers with superior information about the company's performance and financial position most probably use their authority for personal gains. To keep this misuse of information in check, externally owned equity which is held principally by institutional investors provides an effective method of monitoring the actions of management.

For example, Brickley et al (1988) show that institutional investors are more likely to oppose proposals that appear to be harmful to shareholders. Pound (1988) also argued that institutional investors have greater expertise and resources and can monitor management actions at lower costs than the average, less well-informed, private shareholder. Similarly, by analyzing a sample of 661 US firms, Brickley et al. (1997) argued that institutional shareholders are more capable, compared to an individual, to act as efficient controllers and monitors in the company, thus reducing agency costs, as they have more information about the financial position of the company. In contrast, Doukas et al. (2000) argued that institutions may have neither the time nor expertise to act as effective monitors. This is consistent with Singh and Davidson's (2003) finding no evidence that outside block ownership affects agency costs, measured by asset utilization, for US public companies.

Shleifer and Vishny (1986), Maug (1998), and Ang et al. (2000) stated that agency costs decrease when the ownership is more concentrated and it increases when an outsider manages a firm. Boone et al. (2007) conducted a study on US firms which tracked their corporate board development through the initial 10 years after the initial public offering (IPO). It argued that board size and independence increase over time and board independence is negatively related to the manager's influence. Another study by Gaur et al. (2015), on all the sample firms listed on New Zealand Stock Exchange (NZX) from 2004 to 2007, highlighted that the effectiveness of a particular governance mechanism (such as board members) may depend on the presence or absence of another governance mechanism (such as ownership concentration). It stated that high ownership concentration attenuated the positive effects of board size and board independence on firm performance.

McKnight and Weir's (2009) study on UK non-financial firms from 1996 to 2000 observed that representation of non-executive directors does not influence agency costs. However, when they use several acquisitions as a proxy for agency costs, they found an association of a higher proportion of non-executive directors with lower agency costs. Hence, acquisitions may be viewed as a way of reducing agency conflicts in firms with more non-executive directors. Similarly, non-executive directors work for shareholders' interest due to their independence from company management activities as stated in Brown et al. (2011). The independence of the board assists in objective governance which is free from any bias. Therefore, board independence can play a positive role in enhancing the firm's performance and controlling agency costs, as noted in Mishra and Mohanty's (2018) study on 126 Indian firms.

Vijayakumaran (2019) studied 1420 publicly listed non-financial companies on the Shanghai and Shenzhen Stock Exchange from 2003 to 2010 to observe the impact of management ownership, board characteristics and debt financing on agency costs. The paper stated that higher management ownership and debt financing eliminated agency costs, while board characteristics such as board size and the representation of non-executive directors do not affect agency costs.

Nguyen et al. (2020) analyzed 281 Vietnamese companies listed on Ho Chi Minh Stock Exchange (HOSE) in the period 2013–2018 which stated that higher management and state ownership are associated with higher agency costs. Managers can steer the company in a direction that is beneficial to them and their relatives. It observed that as the company grows bigger, its agency cost reduces, also noted by Guillen (2017).

In the Indian context, very limited literature is available in the public domain which has analyzed agency costs. No study had used more than 380 listed companies. Bhattacharyya and Vivek Rao (2005) studied a sample of 76 listed companies from 2001 to 2003 and observed foreign institutional investors are effective controllers of agency costs whereas larger board sizes are ineffective to reign agency costs. Venugopalan and Shaifali (2018) analyzed the role of board characteristics and different governance committees in mitigating agency costs and found larger board sizes and executive directors fail to monitor the managers and thus fail to reduce agency costs. A study on the comparative effectiveness of governance mechanisms in mitigating the agency problems in the Indian corporate sector during the pre- and post-Indian Companies Act 2013 periods by Venugopalan (2021) observed that board size, independent directors, stakeholders relationship committee and promoters' holdings have no significant influence in reducing agency problems in Indian companies post-Indian Companies Act 2013. Chaudhary (2022) studies the effect of institutional ownership and board characteristics as effective governance mechanisms to alleviate agency costs to observe that institutional ownership helps in agency-related issues whereas larger boards may create a problem of coordination and thus increase agency conflicts.

To achieve the objectives of this research paper, the following seven hypotheses are postulated and tested subsequently:

H1: There is a negative correlation between the promoter's shareholding and agency costs.

H2: There is a negative correlation between the government's shareholding and agency costs

H3: There is a negative correlation between domestic institutional investors' shareholding and agency costs.

H4: There is a negative correlation between foreign institutional investors' shareholding and agency costs.

H5: There is a negative correlation between board size and agency costs.

H6: There is a positive correlation between the number of executive directors and agency costs.

H7: There is a negative correlation between the number of independent directors and agency costs.

3. RESEARCH METHODOLOGY

3.1. Data collection

This study is based on the total number of companies listed on the NSE. As on March 31, 2022, a total of 1871 companies are listed. From this sample, financial firms are excluded as they have complex capital structures and corporate governance mechanisms. However, to maintain consistency and minimize the impact of the global financial crisis, the selected time period is from 2010–2011 to 2021–2022, i.e., a total of twelve years. Further, companies are taken for the latest available 10 financial periods (annual) out of the last 12 financial periods ending March 2022. This resulted in a total of 985 non-financial companies testing the relationship in Models I, II and III and 526 non-financial companies testing the relationship in Model IV, due to the unavailability of interest coverage ratio for the rest of the non-financial companies. This may be due to inadequate reporting by the companies. This study has applied pooled OLS regression for establishing the relationship among variables using the panel data taken from the ProwessIQ database.

3.2. Model specification

The study evaluates the impact of ownership structure and board composition on agency cost, proxied through four variables, namely, *asset turnover ratio (ATR)*, *return on total assets (ROA)*, *operating cost ratio (OPEX)*, and *interest coverage ratio (ICR)*, represented in the following models. These models are multivariate regression equations specific to particular proxy variables.

Model I

$$ATR_{it} = \alpha_0 + \alpha_1 * Prom(\%)_{it} + \alpha_2 * Govt(\%)_{it} + \alpha_3 * FII(\%)_{it} + \alpha_4 * DII(\%)_{it} + \alpha_5 * Bsize_{it} + \alpha_6 * Execs_{it} + \alpha_7 * Indep_{it} + \varepsilon_{it} \quad (1)$$

Model II

$$ROA_{it} = \beta_0 + \beta_1 * Prom(\%)_{it} + \beta_2 * Govt(\%)_{it} + \beta_3 * FII(\%)_{it} + \beta_4 * DII(\%)_{it} + \beta_5 * Bsize_{it} + \beta_6 * Execs_{it} + \beta_7 * Indep_{it} + \varepsilon_{it} \quad (2)$$

Model III

$$OPEX_{it} = \gamma_0 + \gamma_1 * Prom(\%)_{it} + \gamma_2 * Govt(\%)_{it} + \gamma_3 * FII(\%)_{it} + \gamma_4 * DII(\%)_{it} + \gamma_5 * Bsize_{it} + \gamma_6 * Execs_{it} + \gamma_7 * Indep_{it} + \varepsilon_{it} \quad (3)$$

Model IV

$$ICR_{it} = \delta_0 + \delta_1 * Prom(\%)_{it} + \delta_2 * Govt(\%)_{it} + \delta_3 * FII(\%)_{it} + \delta_4 * DII(\%)_{it} + \delta_5 * Bsize_{it} + \delta_6 * Execs_{it} + \delta_7 * Indep_{it} + \varepsilon_{it} \quad (4)$$

3.3. Variables

3.3.1. Dependent variables

The following variables are taken as a proxy (or performance indicators) for agency cost:

- *ATR* — this is a measure of efficiency which is proposed to have an inverse relationship with agency cost (Ang et al., 2000; Vijayakumaran, 2019);
- *ROA* — it captures firm performance having an inverse relationship with agency cost (Fama, 1980; Nagar et al., 2011);
- *OPEX* — it is cost efficiency measured as operating expenses divided by sales having a direct relationship with agency cost (Ang et al., 2000; Nagar et al., 2011);
- *ICR* — it is taken as a measure of financial flexibility having an inverse relationship with agency cost as an increase in agency cost reduces the realized profit and consequently, interest coverage.

3.3.2. Independent variables

We have taken the following ownership structure and board composition as explanatory variables.

Ownership structure involves holdings of the promoter (*Prom*, %), government (*Govt*, %), foreign institutional investors (*FII*, %) and domestic institutional investors (*DII*, %) and board composition

involves the size of the board (*Bsize*), number of executive directors (*Execs*) and number of independent directors (*Indep*). Table 1 represents the expected relationship between explanatory variables and performance indicators.

Table 1. The expected relationship between explanatory variables and performance indicators

Variable	ATR	ROA	OPEX	ICR
<i>Prom</i> (%)	+	+	-	+
<i>Govt</i> (%)	+	+	-	+
<i>FII</i> (%)	+	+	-	+
<i>DII</i> (%)	+	+	-	+
<i>Bsize</i>	+	+	-	+
<i>Execs</i>	-	-	+	-
<i>Indep</i>	+	+	-	+

Note: + implies direct relationship, - implies inverse relationship.

4. RESEARCH RESULTS

4.1. Descriptive results

Table 2 represents the correlation matrix. It shows that explanatory variables are poorly correlated to each other except in the case of board size with a number of executive directors and a number of independent directors where there exists a strong positive relationship which is expected as board size is made up of executive directors and independent directors.

Table 2. Correlation matrix

Variable	<i>Prom</i> (%)	<i>Govt</i> (%)	<i>FII</i> (%)	<i>DII</i> (%)	<i>Bsize</i>	<i>Execs</i>	<i>Indep</i>
<i>Prom</i> (%)	1.000000						
<i>Govt</i> (%)	-0.040007	1.000000					
<i>FII</i> (%)	-0.270730	0.007689	1.000000				
<i>DII</i> (%)	-0.289206	0.030760	0.313204	1.000000			
<i>Bsize</i>	-0.013492	0.062223	0.282388	0.291349	1.000000		
<i>Execs</i>	0.035439	0.038334	0.107151	0.143552	0.609933	1.000000	
<i>Indep</i>	-0.059346	-0.016628	0.277776	0.206742	0.749141	0.258654	1.000000

Descriptive statistics of the variables are represented in Table 3. All the descriptives are calculated for $n=9850$ observations except in the case of *ICR* ($n=5260$ observations). It is observed that the average and median promoter holding in Indian non-financial companies is 55.38% and 56.64% respectively. However, the average government holding is 0.16% as most companies listed on NSE are non-government institutions. Foreign institutional investors and domestic institutional investors own similar average stakes at 5.87% and 5.61% respectively. The median size of Indian corporate boards is 11 whereas the average size is 11.23. These boards are, on average, composed of 4.5 executive directors and 4.79 independent directors. The median number of executive directors and independent directors present in Indian boards are 4 and 5 respectively. These companies have an average profitability and *ICR* of 3.61% and 167 times respectively, whereas median profitability and *ICR* is 3.43% and 6.06 times respectively, followed by average asset utilization of 10.86 times.

Table 3. Descriptive statistics

$n = 9850$	Average	Std. dev.	Median
<i>Prom</i> (%)	55.385758	16.249813	56.64
<i>Govt</i> (%)	00.168304	01.561666	0
<i>FII</i> (%)	05.876319	08.56953	01.55
<i>DII</i> (%)	05.614477	07.971771	02.12
<i>Bsize</i>	11.2316751	3.19052082	11
<i>Execs</i>	4.50690355	1.78771983	4
<i>Indep</i>	4.79624365	1.68517155	5
<i>ATR</i>	10.8615665	77.9036004	3.23
<i>ROA</i>	03.612309	0.09876232	03.43
<i>OPEX</i>	93.661218	1.3705869	89.00
<i>ICR</i> ($n = 5260$)	167.758846	1695.441652	6.06

4.2. Empirical results

Regression results are presented in Table 4. All evaluations are made at a 5% level of significance unless otherwise stated.

Prom (%) is found to be significant in all four models with a coefficient of -11.611, 0.121, -0.219, and 786.266 for *ATR*, *ROA*, *OPEX* and *ICR* respectively. The positive correlation of *Prom* (%) with *ROA* and negative correlation with *OPEX* highlights the promoters' aim of profit maximization for the organization by focusing on its cost efficiencies. The aim to realize more profit for

the organization is also presented by a positive correlation of *Prom (%)* with *ICR*. These findings are consistent with *H1* in Models II, III and IV. This is also in congruence with previous studies (Sahoo et al., 2022) which have found a positive relationship between promoters' ownership and firm's performance. However, a profit maximization-centric approach only by reducing costs may result in below-par realization or miss-out of potential revenues as evidenced by the negative correlation of *Prom (%)* with *ATR*. This negative correlation is in disagreement with previous studies (Bhattacharyya & Vivek Rao, 2005) which have found that higher promoters' ownership results in greater efficiency of utilization of assets.

Govt (%) is significant in only Model II with a 0.335 coefficient, consistent with *H2*. One possible explanation for this is that in Indian public sector undertakings, the appointment of non-official directors is governed by the concerned administrative ministries/departments based on recommendations of the search committee. These appointments ensure that government orders are implemented in a time-bound manner which ensures greater performance, thereby reducing agency costs. This result is in contrast to the study by Nguyen et al. (2020). However, evidence of a positive relationship between government ownership and firm performance is consistent with a similar study done on Malaysian companies by Ab Razaka et al. (2008).

Similar to *Prom (%)*, *FII (%)* is significant in all four models. It has a coefficient of 24.130, 0.301, -0.445, and 1079.187 with *ATR*, *ROA*, *OPEX* and *ICR* respectively. Foreign institutional investors conduct their due diligence of the firm before investing in it and once they provide foreign capital to domestic firms, they ensure efficient functioning of the organization and help them to adopt international standards of governance. This results in the lowering of agency cost to the organization and hence, foreign institutional investors are an effective controller of agency cost, consistent

with earlier findings by Nguyen et al. (2020) and Bhattacharyya and Vivek Rao (2005).

DII (%) is statistically significant in Models I and II with coefficients -22.133 and 0.068 respectively. This negative relation of *DII (%)* with *ATR* may be due to an increase in assets not being followed by an immediate increase in revenues in the short run. Domestic institutional investors invest their corpus in firms having robust corporate governance mechanisms. Since most of these institutional investors' corpus is made up of public money, they strive for better supervision of the management and ensure greater returns from the investee companies. These findings of Models I and II are consistent with the findings of Bhattacharyya and Vivek Rao (2005) and Kumar (2004) respectively.

Bsize, *Execs* and *Indep* are found to be significant in Model I which has the coefficients of 1.750, -2.137, and -3.680, respectively. This suggests that the size of the board has a positive impact on *ATR* indicating that a larger board size will always increase the efficiency of decision-making and production activities, i.e., better utilization of assets. Also, larger boards are able to commit more time and effort to monitoring operations which improves the quality of managerial decision-making. The positive effects of larger boards are consistent with the findings of Nguyen et al. (2020). However, this is in contradiction with the findings by Chaudhary (2022) and Bhattacharyya and Vivek Rao (2005). However, the increase in the number of executive or independent directors on the board may lead to a delay in the decision process because of a delay in generating consensus over policy issues leading to an increase in agency costs for the organization. These findings are in agreement with the findings of Jensen (1993). Moreover, *Indep* has a significant coefficient of 0.003 with *ROA* in Model II. It highlights that independent directors bring with them their industrial expertise and knowledge to enhance firm performance and ensure business decision-making is objective to keep agency costs in check. The result is consistent with the findings of Mishra and Mohanty (2018).

Table 4. Regression results

Particulars	Model I (ATR)		Model II (ROA)		Model III (OPEX)		Model IV (ICR)	
	Coefficients	T-stat	Coefficients	T-stat	Coefficients	T-stat	Coefficients	T-stat
Intercept	24.870951	6.1272607	-0.068008	-13.88921	1.2401007	17.355041	-419.6431	-2.884138
<i>Prom (%)</i>	-11.611563	-2.235232	0.1207789	19.273731	-0.2198930	-2.4045746	786.26621	4.371300
<i>Govt (%)</i>	-74.279107	-1.467903	0.3352080	5.4914590	-1.2904779	-1.4486921	-59.03069	-0.051301
<i>FII (%)</i>	24.130602	2.3771342	0.3010888	24.587971	-0.4454873	-2.4929620	1079.1870	3.676969
<i>DII (%)</i>	-22.133261	-2.015504	0.0686690	5.1837208	-0.2984915	-1.5440636	525.23255	1.441168
<i>Bsize</i>	1.7501430	3.4688860	7.62607E-	0.1253025	-0.0015996	-0.1801097	-9.531389	-0.619403
<i>Execs</i>	-2.1376722	-3.567745	-0.0001143	-0.158162	-0.0131764	-1.2492436	1.4390541	0.082507
<i>Indep</i>	-3.6802337	-4.797556	0.0030822	3.3308256	-0.0123509	-0.9146199	26.379519	1.137946

4.3. Discussion of the results

This study assesses ownership structure and board composition as a measure to control agency costs to the organization. The main objective for promoters is profit maximization by incorporating cost efficiencies. This includes reducing costs arising on account of manager-shareholder conflict by aligning the interests of shareholders. Therefore, promoters' ownership is an effective controller of the agency costs. The increase in efficiency of operations by the promoters' ownership is consistent with the findings by Sahoo et al. (2022). However,

the focus on only profit maximization may result in inefficient utilization of assets which may not be a healthy approach in the long run. This finding is inconsistent with the findings of the previous studies (Bhattacharyya & Vivek Rao, 2005) where it has been observed that higher promoters' ownership induces greater efficiency in utilization of assets.

This study also examines the relationship between government ownership and agency cost where it is found that government ownership has a key role in reducing agency costs in Indian companies. It highlights that the government can mitigate the principal-agent conflict by appointing

a board of directors to its companies through its selection committee. This result is in disagreement with the findings of previous studies (Nguyen et al., 2020) which suggested that government ownership may lead to agency costs due to bureaucratic issues of red tape and duplication of activities prevalent in the organizations owned by the government. The findings are consistent with a previous study by Ab Razaka et al. (2008) on Malaysian companies.

Foreign institutional investors provide external oversight to the management practices which leads to better company performance and lowering of agency costs. These investors conduct due diligence on the company's activities before investing in it, which brings transparency to the company's operations. This further reduces agency conflicts in the organization.

Domestic institutional investors utilize a corpus of public money to generate returns over a long period of time by investing in companies. They continuously monitor and assess decisions taken by the management to safeguard the interests of shareholders. They are entitled to voting power in proportion to their holding in the company, which can influence key corporate decisions to align them with shareholders' interests. This results in lowering the agency cost to the organization and better firm performance.

This study highlights that large board sizes in Indian companies are able to effectively monitor the management decisions and operating activities of the firm. This enhances the quality of decision-making and the efficiency of the operations of the firm. This reduces the cost associated with agency problems. This finding is consistent with the findings by Nguyen et al. (2020). This paper finds that as the proportion of executive or independent directors increases, there might be a delay in generating consensus among them over policy issues. This delays the process of decision making which affects the performance of the firm and consequently, increases the agency costs for the organization.

5. CONCLUSION

Agency conflict is widely discussed in the field of management caused primarily by the misalignment of interests between managers and their principals. Agency problems are prevalent in organizations which reduces their efficiency resulting in

suboptimal decision-making. This affects investor confidence leading to lower investments and low economic growth. Therefore, various studies worldwide have been evaluating different corporate governance mechanisms to mitigate the impact of this agency problem. Initially, the studies were focused on developed markets like the US and later spread through developing markets like Vietnam. This study adds to the literature on corporate governance and agency problems, specifically with respect to emerging economies. This study has examined 985 Indian non-financial companies through different models to evaluate two corporate governance mechanisms, ownership structure and board composition, to alleviate agency costs. It is found that foreign institutional investors and the magnitude of the company board provide efficiency to the decision-making in the firm, resulting in lower agency costs and higher revenue realization. Foreign institutional investors conduct due diligence before investing and ensure quality governance structures while larger boards are able to enhance supervision of the management activities. However, it is found that executive and independent directors affect efficiency as there is a delay in generating consensus among them over policy issues. It is also observed that all types of owners including the government have a positive impact on the firm performance as they make and implement decisions in a time-bound manner to generate returns and maximize profit. These decisions are supervised by independent directors on the board to ensure their effective implementation and achieve the aim of wealth maximization. This lowers the agency's cost to the organization.

We make the following recommendations: promoters should broaden their horizon to utilize assets efficiently instead of solely focusing on maximizing profits by incorporating cost efficiencies; government should continue relaxing rules regarding foreign investments; companies should increase the proportion of independent directors on their boards.

This study has certain limitations as follows. It does not take into account the financial companies. It does not study unlisted companies due to the unavailability of data. Corporate governance mechanisms other than ownership structure and board composition are not considered.

These limitations give opportunity to the researcher to extend this study on the subject after incorporating more variables and firms in the sample.

REFERENCES

1. Ab Razaka, N. H., Ahmad, R., & Ali Ahmed, H. J. (2008). Government ownership and performance: An analysis of listed companies in Malaysia. *Corporate Ownership & Control*, 6(2-4), 434-442. <https://doi.org/10.22495/cocv6i2c4p2>
2. Ang, J. S., Cole, R. A., & Lin, J. W. (2000). Agency costs and ownership structure. *Journal of Finance*, 55(1), 81-106. <https://doi.org/10.1111/0022-1082.00201>
3. Berle, A. A., & Means, G. C. (1933). *The modern corporation and private property*. Transaction Publishers.
4. Bhattacharyya, A. K., & Vivek Rao, S. (2005). *Agency costs and foreign institutional investors in India* (Working Paper No. 548). Indian Institute of Management Calcutta. <https://doi.org/10.2139/ssrn.773845>
5. Boone, A. L., Field, L. C., Karpoff, J. M., & Raheja, C. G. (2007). The determinants of corporate board size and composition: An empirical analysis. *Journal of Financial Economics*, 85(1), 66-101. <https://doi.org/10.1016/j.jfineco.2006.05.004>
6. Brickley, J. A., Coles, J. L., & Jarrell, G. (1997). Leadership structure: Separating the CEO and chairman of the board. *Journal of Corporate Finance*, 3(3), 189-220. [https://doi.org/10.1016/S0929-1199\(96\)00013-2](https://doi.org/10.1016/S0929-1199(96)00013-2)
7. Brickley, J. A., Lease, R. C., & Smith, C. W., Jr. (1988). Ownership structure and voting on antitakeover amendments. *Journal of Financial Economics*, 20, 267-291. [https://doi.org/10.1016/0304-405X\(88\)90047-5](https://doi.org/10.1016/0304-405X(88)90047-5)

8. Brown, P., Beekes, W., & Verhoeven, P. (2011). Corporate governance, accounting and finance: A review. *Accounting & Finance*, 51(1), 96–172. <https://doi.org/10.1111/j.1467-629X.2010.00385.x>
9. Chaudhary, P. (2022). Agency costs, board structure and institutional investors: Case of India. *Asian Journal of Accounting Research*, 7(1), 44–58. <https://doi.org/10.1108/AJAR-12-2020-0130>
10. Core, J. E., Holthausen, R. W., & Larcker, D. F. (1999). Corporate governance, chief executive officer compensation, and firm performance. *Journal of Financial Economics*, 51(3), 371–406. [https://doi.org/10.1016/S0304-405X\(98\)00058-0](https://doi.org/10.1016/S0304-405X(98)00058-0)
11. Doukas, J. A., Kim, C., & Pantzalis, C. (2000). Security analysts, agency costs, and firm characteristics. *Financial Analysts Journal*, 56(6), 54–63. <https://doi.org/10.2139/ssrn.223512>
12. Eisenberg, T., Sundgren, S., & Wells, M.T. (1998). Larger board size and decreasing firm value in small firms. *Journal of Financial Economics*, 48(1), 35–54. [https://doi.org/10.1016/S0304-405X\(98\)00003-8](https://doi.org/10.1016/S0304-405X(98)00003-8)
13. Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy*, 88(2), 288–307. <http://doi.org/10.1086/260866>
14. Gaur, S. S., Bathula, H., & Singh, D. (2015). Ownership concentration, board characteristics and firm performance: A contingency framework. *Management Decision*, 53(5), 911–931. <https://doi.org/10.1108/MD-08-2014-0519>
15. Gogineni, S., Linn, S., & Yadav, P. (2022). Vertical and horizontal agency problems in private firms: Ownership structure and operating performance. *Journal of Financial and Quantitative Analysis*, 57(4), 1237–1278. <https://doi.org/10.1017/S0022109021000363>
16. Guillen, M. F. (2017). Business groups in emerging economies: A resource-based view. *Academy of Management Journal*, 43(3), 362–380. <https://doi.org/10.5465/1556400>
17. Henry, D. (2010). Agency costs, ownership structure and corporate governance compliance: A private contracting perspective. *Pacific-Basin Finance Journal*, 18(1), 24–46. <http://doi.org/10.1016/j.pacfin.2009.05.004>
18. Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance*, 48(3), 831–880. <https://doi.org/10.1111/j.1540-6261.1993.tb04022.x>
19. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
20. Kumar, J. (2004). *Agency theory and firm value in India*. Arab Planning Institute. <https://doi.org/10.2139/ssrn.501802>
21. Lipton, M., & Lorsch, J. W. (1992). A modest proposal for improved corporate governance. *The Business Lawyer*, 48(1), 59–77. <https://www.jstor.org/stable/40687360>
22. Maug, E. (1998). Large shareholders as monitors: Is there a trade-off between liquidity and control? *The Journal of Finance*, 53(1), 65–98. <https://doi.org/10.1111/0022-1082.35053>
23. McKnight, P. J., & Weir, C. (2009). Agency costs, corporate governance mechanisms and ownership structure in large UK publicly quoted companies: A panel data analysis. *The Quarterly Review of Economics and Finance*, 49(2), 139–158. <https://doi.org/10.1016/j.qref.2007.09.008>
24. Mishra, S., & Mohanty, P. (2018). Does good governance lead to better financial performance? *International Journal of Corporate Governance*, 9(4), 462–480. <http://doi.org/10.1504/IJCG.2018.096276>
25. Monks, R. A. G., & Minow, N. (2004). *Corporate governance* (5th ed.). Wiley.
26. Muniandy, P., Tanewski, G., & Johl, S. K. (2016). Institutional investors in Australia: Do they play a homogenous monitoring role? *Pacific-Basin Finance Journal*, 40(Part B), 266–288. <http://doi.org/10.1016/j.pacfin.2016.01.001>
27. Nagar, V., Petroni, K., & Wolfenzon, D. (2011). Governance problems in closely held corporations. *Journal of Financial and Quantitative Analysis*, 46(4), 943–966. <http://doi.org/10.1017/S0022109011000226>
28. Nguyen, A. H., Doan, D. T., & Nguyen, L. H. (2020). Corporate governance and agency cost: Empirical evidence from Vietnam. *Journal of Risk and Financial Management*, 13(5), Article 103. <https://doi.org/10.3390/jrfm13050103>
29. Nicholson, G. J., & Kiel, G. C. (2007). Can directors impact performance? A case-based test of three theories of corporate governance. *Corporate Governance: An International Review*, 15(4), 585–608. <https://doi.org/10.1111/j.1467-8683.2007.00590.x>
30. Pound, J. (1988). Proxy contests and the efficiency of shareholder oversight. *Journal of Financial Economics*, 20, 237–265. [https://doi.org/10.1016/0304-405X\(88\)90046-3](https://doi.org/10.1016/0304-405X(88)90046-3)
31. Sahoo, M., Srivastava, K. B. L., Gupta, N., Mittal, S. K., Bakhshi, P., & Agarwal, T. (2022). Promoter ownership, institutional ownership, and firm performance. *Corporate Ownership & Control*, 20(1), 162–175. <https://doi.org/10.22495/cocv20i1art15>
32. Shleifer, A., & Vishny, R. W. (1986). Large shareholders and corporate control. *Journal of Political Economy*, 94(3), 461–488. <http://doi.org/10.1086/261385>
33. Singh, M., & Davidson, W. N., III. (2003). Agency costs, ownership structures and corporate governance mechanisms. *Journal of Banking & Finance*, 27(5), 793–816. [http://doi.org/10.1016/S0378-4266\(01\)00260-6](http://doi.org/10.1016/S0378-4266(01)00260-6)
34. Smith, A. (1776). *An inquiry into the wealth of nations*. Methuen & Co.
35. *The Companies Act 2013*. (2013). Ministry of Corporate Affairs. <https://www.mca.gov.in/Ministry/pdf/CompaniesAct2013.pdf>
36. Uadiale, O. M. (2010). The impact of board structure on corporate financial performance in Nigeria. *International Journal of Business and Management*, 5(10), 155–166. <http://doi.org/10.5539/ijbm.v5n10p155>
37. Venugopalan, T. (2021). Corporate governance and agency problems during pre-and post-Indian Companies Act 2013 regimes. *Archives of Business Research*, 9(4), 180–197. <http://doi.org/10.14738/abr.94.10042>
38. Venugopalan, T., & Shaifali. (2018). Agency problems and corporate governance mechanisms in Indian companies [Special issue]. *JK International Journal of Management and Social Science*, 1(2), 23–41. <https://jkbschool.org/wp-content/themes/jkbs/images/agency.pdf>
39. Vijayakumaran, R. (2019). Agency cost, ownership, and internal governance mechanisms: Evidence from Chinese listed companies. *Asian Economic and Financial Review*, 9(1), 133–154. <https://doi.org/10.18488/journal.aefr.2019.91.133.154>
40. Yermack, D. (1996). Higher market valuation for firms with a small board of directors. *Journal of Financial Economics*, 40(2), 185–211. [https://doi.org/10.1016/0304-405X\(95\)00844-5](https://doi.org/10.1016/0304-405X(95)00844-5)