Corporate Governance Mechanism, Ownership Structure, and Firm Performance : Evidence from India

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Abstract

Purpose : Corporate governance (CG) is the mechanism to direct and control companies. Corporate governance and ownership structure have a direct influence on firm performance. This research paper examined the relationship among three variables: CG, ownership structure, and firm performance.

Methodology : CG mechanisms included board independence, CEO duality, and audit committee independence. Insider ownership and foreign ownership determined ownership structure. Return on assets and return on equity were used to assess a company's performance, and Tobin's *Q* was used to assess market performance. A sample of 50 NSE-listed firms was taken. STATA 14.1 was used for analysis, and multiple and hierarchical regression were used.

Findings : The findings indicated that CG variables and ownership structure positively affected firm performance. To elaborate, CEO duality, audit committee independence, insider ownership, and foreign ownership were positively related to firm performance. However, board independence was the only variable that influenced firm performance negatively.

Practical Implications : One of the study's essential findings was the negative impact of board independence on firm performance. This had some practical implications because only a few persons are qualified to act as independent directors. Hence, one person is appointed in many companies simultaneously, leading to biased decision-making. Thus, companies must ensure that independent directors are appointed after proper screening and deliver their duties as expected.

Originality : Instead of utilizing the standard system found in the literature, we relied on a single measure structure and used a variety of CG mechanisms.

Keywords : board independence, corporate governance, firm performance, ownership structure

JEL Classification Codes : G30, G32, G34, G38, G39

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Corporate governance (CG) has been a long-standing issue since the corporate entity was conceived, characterized by separation of ownership and control. Adam Smith recognized this issue of separation early in the 18th century in his seminal book. The directors of such companies, however, being managers of other people's money than of their own, it is not expected that they should watch over it with the same anxious vigilance with which partners in a private co-partner frequently watch over their own. This analysis led to the evolution of the agency theory. Furthermore, the stewardship theory argues that an organization's success depends mainly on shareholders' satisfaction. The steward's role is to protect and maximize shareholders' wealth through enhanced firm performance, as it is the leading utility function of the steward. The stakeholder theory proposes that a corporation has an important task to balance the interests of its diverse stakeholders. The emphasis of resource dependency theory connects the organization with external resources. According to this theory, agents are the organization's resources that build social and business networks. This argument goes on to say that a company's directors on the boards of other companies give it access to knowledge and other critical resources in its best interests. Resource dependency theory argues that communication plays a crucial role in ascertaining the strength of a company. To sum up, almost all CG theories advocate the board of directors' appointment, covering both executive and nonexecutive directors, for the company's effective governance (Jain & Bagga, 2021).

Extensive research is present concerning the impact of CG variables on firm performance in developed nations. However, research studies on this topic regarding developing countries have been attempted. Soon after the 1997–1998 Asian financial crisis in Thailand, the CG problem gained international attention. Increasing corporate breakdowns and scams have recently called for improved governance standards and policies. Many stakeholders, such as scholars, media, policymakers, stakeholders, and institutional investors, have raised the issue of better management or good governance.

As a consequence, Asian countries have proposed numerous measures to improvise CG standards, e.g., the concept of independent directors, listing/ disclosure rules, code of governance, etc. International bodies have since taken several initiatives in the field of governance. The Organization for Economic Cooperation and Development (OECD) issued the OECD Principles of CG in 1998 to assist member and nonmember countries in assessing and strengthening the legal, institutional, and regulatory frameworks linked to CG. Pearce II and Zahra (1992) mainly contributed to new scholarly research on CG in their fundamental book. They concluded that the management of a firm appears to decide for their benefit rather than for the benefit of shareholders. This principle-agent problem led to agency problems. The agency model suggests a range of CG mechanisms intended to minimize the expense of agency ownership and control (Jensen & Meckling, 1976).

Different countries and industry sectors demand varied CG structures and systems. Maher and Andersson (2000) categorized the CG structure according to ownership and control as an essential feature of a firm's CG characteristics. The influence of CG mechanisms on company performance differs across countries. In a study conducted by Venkatraman and Selvam (2014) in Germany, France, the United Kingdom, the United States, and Canada, statistically substantial changes were observed in the association between ownership structure and firm performance among countries. An analysis of 12 European nations revealed similar findings and disparities between nations concerning ownership structures and CG (Vinten, 2002).

In India, a hybrid form of the Anglo-Saxon CG system is present, the same as in the United States, and the United Kingdom, like Germany and Japan, where banks dominate the system. A distinct characteristic that differentiates Indian businesses from their peers in developing countries is their high debt-to-equity ratio. Indian firms depend heavily on foreign funding sources. The banking system and finance companies (FIs) are both lenders and owners in India. With heavy dependence on outside funding, the role of audit becomes more to safeguard lenders' interests. According to the SEBI (LODR) Regulations, 2015, the Audit Committee shall consist of at least three directors. Two-thirds of the directors must be independent. In addition, the audit committee's chairperson must be an independent director. The Company Secretary will serve as the audit committee's secretary. The Committee must be financially knowledgeable, with at least one member having accounting or comparable financial management expertise.

We have tried to add some value to the extant literature. To begin, we chose organizations from the banking sector, the food processing sector, the automobile sector, the financing sector, pharmaceuticals, and others to make our data set used in the research a representative sample of an important Indian industry. Second, instead of utilizing the standard system found in the literature, we relied on a single-measure structure. We used a variety of CG mechanisms, namely board independence, CEO duality structure, insider ownership, foreign ownership, audit committee independence, size, leverage, etc.

Theoretical Background

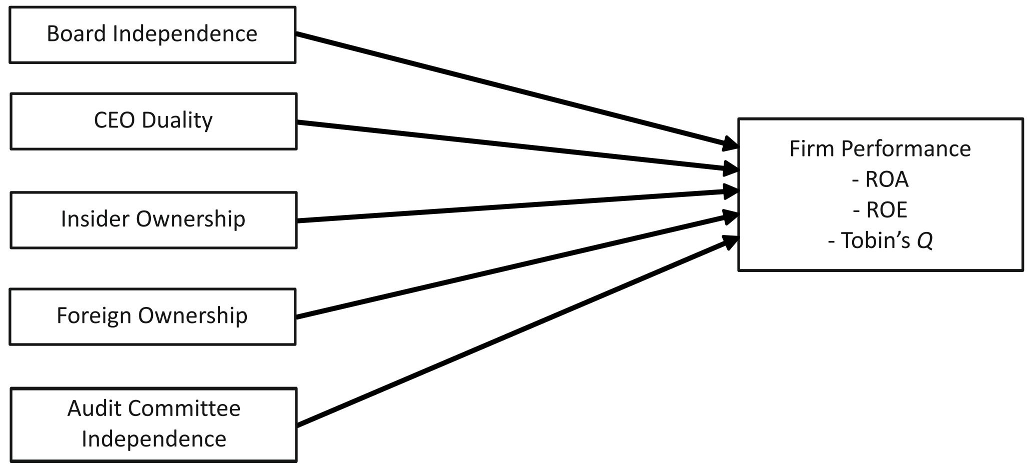
The agency theory postulates that those who manage the firm and those who own the firm have different interests, leading to the agency problem. This theory mainly involves principals (owners) and agents (managers). In agency theory, CG mechanisms such as board size, CEO duality, and the presence of nonexecutive directors (NEDs) play an important role in mitigating the agency problem between shareholders and managers, thus enhancing the shareholders' return and improving firm performance. The ownership structure of firms can also be considered as one of the main features reducing the inherent dichotomy between principals and agents to increase firm performance.

On the contrary, stewardship theory and resource dependence theory provide different views on the association between the functioning of the board of directors and how it affects firm performance. Also, some overlapping may be seen in these two theories compared to the agency theory. In stewardship theory, managers are stewards of the firm who work for the beneficial interest of their principals. This theory emphasizes the psychological and sociological aspects of the board of directors rather than the economic concerns compared to agency theory (Jain et al., 2021). Psychological factors such as job empowerment and job satisfaction are essential for improved managerial performance. Socially, managers self-identify themselves as organizational representatives and contemplate the powers shareholders provide as a tool to enhance employee and organizational performance. According to the stewardship theory, a board with a majority of inside directors is more effective and results-oriented than a board with a majority of outside directors because inside directors are thought to have more in-depth knowledge than outside directors. The idea also supports CEO–Chairman duality since it leads to consistent decision-making and strategy creation, contributing to increased business performance. At the same time, resource dependency theory has a more worldly perspective and is less organization-centered. It primarily focuses on the degree of access to resources such as expertise and capital (Pfeffer, 1973). The theory posits that boards with a majority of NEDs lead to greater exposure to directors' wide knowledge and expertise. It further leads to enhanced networking with the external environment and stakeholders. The presence of NEDs also facilitates access to capital, information, and political and business networks. To summarize, boards with diverse members possessing varied knowledge, experience, and expertise are expected to have solid external links, leading to greater access to external resources, and improving firm performance and value.

Conceptual Framework and Hypotheses Development

A thorough literature review has proposed a conceptual model to elucidate the relationships among various components of CG mechanism, ownership structure, and firm performance. In Figure 1, CG is broadly divided into two parts, i.e., board independence and CEO duality. The ownership structure is categorized by insider and foreign ownership. Finally, audit committee independence is also included to ensure transparency of firm operations. Furthermore, firm performance is determined by accounting and market-based criteria.

Figure 1. *Conceptual Model*



The following section reviews the relevant literature that links CG mechanism ownership structure and firm performance. Furthermore, the hypotheses are formulated and tested based on such a literature review to establish empirical evidence.

The Governance Role of Independent Directors in Firm Performance

The board of directors has a crucial role in lowering agency costs and overseeing the business. They have a dual responsibility of performance and, at the same time, protecting shareholders' interests. Singh et al. (2022) stated that the board has the absolute power to recruit, educate, and decide managers' remuneration. In addition, the principle of agency theory and resource dependency theory (RBV) postulate that organizations should ensure stronger oversight and regulation of the activities of the Executive Directors by naming NEDs to the board (Jain et al., 2021). Previous research on the relationship between the proportion of NEDs and firm output yielded varied results. Kumar et al. (2021) discovered a positive link between market value and the appointment of NEDs. Similar findings were found by Singh and Maurya (2018). Their analysis revealed that independent NEDs on the board could reduce the likelihood of financial malfeasance. CG mechanisms, including board composition (board size, insider directors, and outsider directors), board committees (audit, remuneration, and nomination), chief executive officer (CEO) duality/separation, board meetings, and shareholder concentration, were investigated in a study conducted in Ghana to determine their impact on firm performance. According to the study, the corporate board should contain outsiders and insiders to improve firm performance (Puni & Anlesinya, 2019). According to Gupta and Maurya (2021), the number of directorships a director holds and his/her competence and skill set significantly impact the price at which an IPO is priced.

However, some studies have drawn different conclusions. Arora and Sharma (2016) concluded that a high proportion of independent directors was negatively connected with firm performance. Many studies, however, have failed to show a link between the participation of outside directors and market value. Bhagat and Bolton (2008) could not provide evidence of a link between the structure of the board of directors and the firm's performance. Furthermore, the research continues to be ineffective in establishing a relationship between the two variables. As a result, we propose the following hypothesis:

➪ **H_1 :** Board independence has a positive impact on firm performance.

The Governance Role of CEO Duality in Firm Performance

Agency theory postulates that CEO duality leads to inferior shareholder returns. A study on similar lines found that firms where the CEO and Chairman are separate perform better than firms with CEO duality. In another study, Dhar (2014) investigated the influence of CEO duality on risk-based shareholder returns. They established that there was no substantial distinction between the systems. At the same time, another study analyzed the association between CEO duality and risk-adjusted returns for shareholders and reported the exact reverse of the results. The findings revealed that the average return on equity (ROE) of boards with different persons as CEO and chairman was 11.5%, below the average ROE of firms with CEO duality at 14.8%. The disparity was statistically important, i.e., the structures of two CEOs outperformed the structures of just one. Hence, the study tests the following hypothesis:

➾ **H_2 :** CEO dualism is detrimental to corporate performance.

The Governance Role of Insider/Director Ownership and Firm Performance

The relationship between insider ownership and company success has been extensively researched. Morck et al. (1988) and McConnell and Servaes (1990) conducted the first series of experiments. In both studies, insider control is calculated by the shareholdings of top management. The studies conclude that a crucial nonlinear correlation exists between insider ownership and company performance. They argued that as the number of shareholders grows, so does the company's valuation, but if ownership becomes too concentrated, the company's worth begins to drop. As a result, the second crucial finding from existing literature is that the concentration of insider ownership has a considerable impact on business performance. Insider ownership was shown to be linked favorably to the firm performance of American companies if ownership falls below 5%. However, it indicates a negative relationship as ownership extends from 5%–25 %. Another study using a sample of Taiwanese listed firms from 1997–2015 tried to test the effects of ownership structure and board of directors on firm value. The results revealed that ownership structure, block holders' ownership, institutional ownership, foreign ownership, and family ownership were all positively related to firm value (Kao et al., 2019).

Sarkar and Sarkar (2000) researched the influence of executive ownership on business value in India, and they established similar factual proof under foreign studies, showing firm value tends to drop up to 25% of management ownership, and after that, it increases. Another research by Khanna and Palepu (2000) found that insider ownership was closely and positively connected to firm value, while holdings by directors had no effect. In a recent study, the empirical findings concluded that ownership concentration positively and significantly impacted firm value (Negi & Jain, 2022). Thus, the study seeks to investigate the following hypothesis:

➾ **H_3 :** Insider ownership has a detrimental impact on company performance.

The Governance Role of Foreign Ownership in Firm Performance

Foreign ownership is a direct source of new cash and advanced technologies flowing into host-country firms (Benfratello & Sembenelli, 2002). Companies with international holdings often expand industry competitiveness and push domestic companies to enhance product efficiency, upgrade technical performance, and improve CG. Douma et al. (2006) found that agency costs can be majorly decreased by monitoring the role of foreign shareholders and discovering the association between foreign investment. The performance of the company is favorable. However, it argued that in the case of a developing market, such surveillance cannot be successfully carried out because international investors are challenged by knowledge asymmetry, and foreign investment is not concentrated. Hence, they discovered that foreign investment had a detrimental effect on company performance in emerging markets.

In the case of Russian companies, Yudaeva et al. (2003) concluded that firms with foreign ownership are more productive as they are in a better position regarding access to updated technologies and superior management. Empirical research conducted by Boubakri (2003) analyzed a sample of 189 firms from 32 developing nations and concluded that foreign owners' presence leads to increased profitability and efficiency of the firm. In the Indian context, they studied the impact of foreign ownership and company performance for pre and post-1991 periods. For the time before 1991, the study did not include observational evidence on the relationship between international ownership and firm results (ROA). In the post-1991 era, when international shareholding rose to 51%, firm success correlated with foreign ownership. Kumar (2003) concluded that foreign ownership did not influence a firm's performance. However, other studies conducted in the Indian context have shown that foreign ownership positively affects performance (Khanna & Palepu, 2000; Sarkar & Sarkar, 2000).

The latest research concentrates on how corporate board characteristics affect the relationship between ownership structure and firm performance. The study used a sample of Bangladeshi-listed public limited firms and revealed that foreign ownership substantially impacted a firm's accounting and market-based performance (Rashid, 2020). We test the following hypothesis:

- **H_4 :** Foreign ownership has a positive impact on firm performance.

The Governance Role of Audit Committee Independence in Firm Performance

Past literature has included audit committee independence as an external governance characteristic of CG (Aswadi Abdul Wahab et al., 2011; DeFond & Francis, 2005). There is a general assumption that external audit increases the reliability of financial statements prepared by the management. Additionally, another research argued that information asymmetry and agency problems could mitigate audit services' committee independence. Big Four audit firms have a high authority to detect opportunistic behavior and managers to be more accountable (Fuerman, 2004; Krishnan & Schauer, 2000). Meanwhile, a recent study aimed to evaluate the changes in the composition and duties of the audit committee in the Indian context and reached the opinion that the size, board meeting frequency, and independence of the audit committee members had a direct and substantial impact on the value of the firm (Heggede & Jadhav, 2021).

On the other hand, some research studies offered alternative perspectives. A research study that used data from 58 companies registered on the Dhaka Stock Exchange (DSE) and spanned 2016–2021 attempted to establish the relationship between CG and a firm's performance. The research showed no statistically substantial association between the audit committee's independence and the firm's performance (Zandstra, 2002). Hence, we construct the following hypothesis :

- **H_5 :** Audit committee independence has a positive impact on firm performance.

Control Variables

The link between CG mechanism, ownership structure, and firm performance was controlled for factors that could impact firm performance. Hence, two control variables, namely, firm size and firm leverage, are included in this empirical study.

There are numerous ways of calculating firm size, such as total sales, total asset size, sales growth, etc. In this study, firm size is determined by the natural log of sales (lnSales). As per the capital structure decision, size is one of the important factors influencing firm performance. Also, according to economies of scale, firm size is positively related to firm performance. Previous research has shown a favorable relationship between a firm's size and profitability to support these beliefs (Doğan, 2013). Leverage is calculated as the total debt ratio to a firm's total assets (Lev). As per the Modigliani–Miller framework, popularly known as the MM Approach, the market value of a firm is not much affected by its capital structure. However, if a higher level of debt leads to a reduction of agency cost of the firm, in such a scenario, the capital structure will influence firm performance.

Data, Variables, and Methodology

This section will discuss the criterion for selecting firms, data sources, variables adopted, and the empirical model used to identify the association between CG mechanism, ownership structure, and firm performance.

Sample and Data

The paper takes sample data from 50 companies. These companies appeared in Forbes as India's top 50 companies in terms of shareholder returns and return on equity in 2021. These companies represent six important sectors of the Indian industry: the financial sector; pharmaceuticals ; the banking industry ; the food processing sector; automobiles; and paints & varnishes. The final sample consisted of 47 companies; some data for three companies were missing. The research data were extracted from the PROWESS database, and from the annual and CG reports for 2021–2022.

Variables

Dependent Variables

The study employed market and accounting performance indicators as dependent variables. Return on assets (ROA) and ROE measure accounting performance. In contrast, Tobin's *Q* measures a firm's market performance, as suggested by Arora and Sharma (2016) and Hassan Che Haat et al. (2008).

Independent Variables

Independent variables include CG variables such as board independence, CEO duality, ownership variables categorized as insider and foreign ownership, and audit committee independence.

Control Variables

To control the regression model, firm size and leverage are added as control variables in the set of independent variables. Table 1 discusses the construction of these variables in detail.

Methodology

We used the ordinary least square (OLS) multiple regression method to verify the association between independent and dependent variables. Also, a three-stage hierarchical multiple regression was used with ROA, ROE, and Tobin's *Q* as dependent variables in Models 1, 2, and 3, respectively. Earlier studies concentrated on testing the relationship between ownership structure, CG mechanism, and firm performance using regression only. However, no study verified this relationship using three-stage hierarchical multiple regression in the Indian

Table 1. ***Variables and Definitions***

Variables	Acronym	Definition
Board Independence	*BI*	Square of the number of nonexecutive independent directors on board/Total board size
CEO Duality	*CEOdual*	Dummy variable with value 1 if role duality and 0 if there is no role duality
Insider Ownership	*IO*	Percentage of shares held by insiders (promoters, directors, and management)
Foreign Ownership	*FO*	Percentage of shares held by foreign shareholders
Audit Committee Independence	*ACI*	Percentage of independent directors in audit committee
Company Size	*Size*	Natural log of sales
Debt to Asset	*Lev*	The ratio of total debt to total assets
Return on Asset	*ROA*	PBDIT/Total assets
Return on Equity	*ROE*	PBDIT/Total equity
Tobin's *Q*	*QRatio*	The total book value of long-term obligations plus the market value of ordinary shares divided by net worth (total assets less total liabilities)

context, which helps us contribute to the extensive literature on the topic. Block 1 consisted of board-related variables with board independence and CEO duality as independent variables. In Block 2, ownership-related variables such as insider and foreign ownership are introduced. Finally, in Block 3, one audit-related variable, i.e., audit committee independence, is included. All the regression equations were run in STATA 14.1.

To investigate the impact of CG on firm performance, we construct the following model:

$$Y_i = \alpha + \beta_1 BI_i + \beta_2\, CEOdual_i + \beta_3\, IO_i + \beta_4\, FO_i + \beta_5\, ACI_i + \beta_6\, Size_i + \beta_7\, Lev_i + \varepsilon_i \qquad ..... (1)$$

where,

Y_i = firm accounting and market performance indicators, i.e., ROA, ROE, and Tobin's Q,

BI_i, $CEOdual_i$, IO_i, FO_i, ACI_i = CG variable of firm i,

$Size_i$, Lev_i = control variables of firm i,

ε_i = *Error.*

Table 2 shows three alternative models based on three business performance measures: ROA and ROE as indications of the firm's accounting performance and Tobin's *Q* as indicators of the firm's market success. The proposed models are estimated using the OLS multiple regression approach. Table 2 further shows the results of the study that examine the impact of independent variables, namely board independence, CEO duality, insider ownership, foreign ownership, and audit committee independence (indicators of CG), on accounting performance measure, i.e., ROA, ROE, and market performance measure, i.e., Tobin's *Q*.

Analysis and Results

This section discusses the estimation results of the impact of the CG mechanism, ownership structure, and audit committee independence on firm performance. Table 2 analyzes a sample set of companies based on industry classification. Most companies covered in the data set belonged to the financial sector. The financial industry

Table 2. ***Industry Classification of Companies***

S. No.	Nature of Industry	No. of Companies
1	Financial Sector	18
2	Pharmaceuticals	8
3	Banking Industry	8
4	Food Processing Sector	6
5	Paints & Varnishes	5
6	Automobiles	5
	Total	50

includes investment, housing, nonbanking financial institutions (NBFCs), leasing and hire purchase, and general sectors. The pharmaceutical and banking industries accounted for most enterprises following the financial sector. The food processing sector covers the remaining companies in the data set, the paints and varnishes industry, and the vehicle industry.

Multiple Regression Results Using OLS

Table 3 depicts the analysis results using firm performance measures, i.e., ROA, ROE, and Tobin's *Q* as the dependent variable in alternative models using multiple regression via OLS. The results of Model 1, where ROA is the dependent variable, show that, except for board independence, all independent variables are significant at the 95% confidence level, as shown in Table 3. However, at a 90% level, board independence is also substantial and negatively impacting ROA; whereas, CEO duality, insider ownership, and foreign ownership have a significant positive impact on ROA. Hence, in Model 1, all the hypotheses from H_1 to H_5 are accepted.

Model 2, where ROE is a dependent variable, reveals that board independence and CEO duality are significantly related to ROE at a 90% level. The study fails to establish a relationship with other independent variables on ROE. In the study, board independence and CEO duality are inversely related to ROE. Thus, in Model 2, only H_1 and H_2 are accepted.

Concerning Tobin's *Q*, an indicator of market performance as a dependent variable, Model 3 shows that board

Table 3. ***Results of Multiple Regression***

Variables	Model 1 ROA	Model 2 ROE	Model 3 Tobin's *Q*
Constant	0.794 (0.219)*	–21.020 (13.121)***	4.817 (2.282)**
BI	–0.256 (0.149)***	–20.877 (12.706)***	–2.096 (1.046)**
CEOdual	0.197 (0.084)**	5.898 (5.263)***	1.251 (0.630)**
IO	0.001 (0.012)**	–0.011 (0.041)	0.004 (0.008)***
FO	0.002 (0.009)**	0.017 (0.073)	0.012 (0.016)***
ACI	0.004 (0.003)**	0.231 (0.320)	0.001 (0.0328)**
Size	0.030 (0.013)**	2.227 (1.021)**	0.050 (0.114)**
Lev	–0.005 (0.004)	–0.349 (0.354)**	–0.097 (0.050)**

Note. *, **, and *** indicate significance at 1%, 5%, and 10% levels, respectively; the figures in parentheses show the standard error.

independence, CEO duality, and audit committee independence are significantly related to Tobin's Q at a 95% level. However, at a 90% level, insider and foreign ownership are significant. In the present study, board independence is negatively related to firm performance ; whereas, CEO duality, insider ownership, foreign ownership, and audit committee independence are positively impacted. Hence, in Model 3, all the hypotheses from H_1 to H_5 are accepted.

Our findings on the control variable signify that leverage is negatively related to all dependent variables, highlighting that firms with low power perform better. Company size indicated by the natural log of sales is directly related and significantly impacts all three dependent variables.

Hierarchical Multiple Regression

A three-stage hierarchical multiple regression is conducted with ROA, ROE, and Tobin's Q as dependent variables in Models 1, 2, and 3, respectively. Block 1 consists of board-related variables with board independence and CEO duality as independent variables. In Block 2, ownership-related variables such as insider and foreign ownership are introduced. Finally, in Block 3, one audit-related variable, i.e., audit committee independence, is included. Table 4 reports the results of the hierarchical multiple regression analysis. In hierarchical regression, each block is an individual model; change in R^2 value (i.e., ΔR^2) indicates the increased ability of each model to predict the criterion variable statistically. In Model 1, Block 1, containing board independence and CEO duality as predictors, shows a 41.99% variation in ROA due to predictors. When insider and foreign ownership are introduced in Block 2, all four variables result in a 50.60% variation (an additional 8.61%, i.e., $\Delta R^2 = 0.861$) in the model. Finally, when audit committee independence is added in Block 3, all the predictors account for 64.12% variation (an additional 13.52%, i.e., $\Delta R^2 = 0.1352$) in the model. Also, each block is statistically significant in providing added predictive ability for ROA.

In Model 2, Block 1, containing board independence and CEO duality as predictors, shows a 32.35% variation

Table 4. *Results of Hierarchical Multiple Regression*

Variables	**Model 1 ROA**	***R*²**	**Model 2 ROE**	***R*²**	**Model 3 Tobin's *Q***	***R*²**
BLOCK 1		0.4199		0.3235		0.3000
BI	–0.229 (0.18)		–17.938 (12.98)		–1.679 (1.32)	
CEOdual	0.183 (0.08)		6.802 (5.17)		1.246 (0.58)	
BLOCK 2		0.5060		0.3355		0.3325
BI	–0.220 (0.17)		–19.016 (13.84)		–1.769 (1.18)	
CEOdual	0.266 (.09)		7.952 (6.33)		1.713 (0.65)	
IO	0.002 (.009)		–0.008 (0.03)		0.006 (0.01)	
FO	0.003 (.008)		0.041 (0.07)		0.016 (0.02)	
BLOCK 3		0.6412		0.4520		0.3633
BI	–0.256 (0.15)		–20.877 (12.71)		–2.096 (1.05)	
CEOdual	0.197 (0.08)		5.898 (5.26)		1.251 (0.63)	
IO	.001 (0.007)		–0.011 (0.04)		0.004 (0.01)	
FO	.002 (0.00)		0.017 (0.07)		0.012 (0.02)	
ACI	.004 (0.00)		0.231 (0.32)		0.000 (0.03)	

Note. The figures in parentheses show the standard error.

in ROE due to predictors. When insider and foreign ownership are introduced in Block 2, all four variables result in 33.55% variation (additional 1.2%, i.e., $\Delta R^2 = 0.012$) in the model. Finally, when audit committee independence is added in Block 3, all the predictors account for a 45.20% variation (an additional 11.65%, i.e., $\Delta R^2 = 0.1165$) in the model. Also, each block is statistically significant in providing added predictive ability for ROE (above and beyond the previous block).

In Model 3, Block 1, containing board independence and CEO duality as predictors, shows a 30% variation in Tobin's *Q* due to predictors. When insider and foreign ownership are introduced in Block 2, all four variables result in 33.25% variation (additional 3.25%, i.e., $\Delta R^2 = 0.325$) in the model. Finally, when audit committee independence is added in Block 3, all the predictors account for 36.33% variation (an additional 3.08%, i.e., $\Delta R^2 = 0.308$) in the model.

Discussion

The present empirical research focuses on the relationship between CG mechanisms, ownership structure, and firm performance. The analysis was conducted for 50 companies listed on the NSE. These companies appeared in Forbes as India's top 50 companies in terms of shareholder returns and return on equity in 2021. These companies represent six critical sectors of the Indian industry: the financial sector, pharmaceuticals, the banking sector, the food processing sector, automobiles, and paints & varnishes. Multiple regression using the OLS method and hierarchical multiple regression are adopted for the empirical analysis. Based on the majority of past studies, it is a widely accepted view that a better CG mechanism leads to improved firm performance. The study's empirical results add confidence to the conceived notion that CG mechanism, ownership structure, and audit committee independence significantly influence firm performance. The study's findings suggest that CEO duality, insider ownership, and foreign ownership significantly impact ROA. In contrast, board independence substantially and negatively impacts ROA. The results agree with previous studies in India (Arora & Sharma, 2016; Bhagat & Bolton, 2008). ROE as the dependent variable, board independence, and CEO duality are inversely related to ROE. The results persist with prior research (Hassan Che Haat et al., 2008; Khanna & Palepu, 2000). The study fails to establish a relationship with other independent variables on ROE.

Concerning Tobin's *Q,* an indicator of market performance as a dependent variable, the results show that all independent variables are significantly related to Tobin's *Q*. However, board independence is negatively related to firm performance ; whereas, CEO duality, insider ownership, foreign ownership, and audit committee independence are positively impacted. The results agree with the past literature in the Indian context (Bhagat & Bolton, 2008; Dwivedi & Jain, 2005).

Our control variable findings indicate that leverage is negatively associated with all dependent variables, indicating that firms with limited power perform better. The natural sales log indicates the company's size, which directly and considerably impacts all three dependent variables. A three-stage hierarchical multiple regression was conducted with ROA, ROE, and Tobin's *Q* as dependent variables with Models 1, 2, and 3, respectively. Board independence is significant and inversely related to all three dependent variables. It reflects a lack of autonomy provided to the outside directors, often selected by the existing management. CEO duality shows a positive relationship with ROA, ROE, and Tobin's *Q*, and the results are consistent with the previous studies. Our results also support that insider and foreign ownership are significant and positively related to ROA and Tobin's *Q*, indicating that both insider and foreign ownership have an influential role in the firm performance. Hence, insider ownership increases firm performance, but high ownership concentration may be detrimental to performance. Foreign firms are said to make business decisions more strategically, thus increasing firm performance significantly compared to their local counterparts. Audit committee independence is also significantly related to ROA and Tobin's *Q*.

Conclusion

The present study provides strong performance linkages to indicate a CG mechanism for the Indian industry. This study employs Indian data to test the association between CG mechanisms and company performance. The study's empirical findings indicate a weak association between CG and company performance in India. It is attributed to the fact that organizations do not strictly follow the rules and regulations. Our principle discoveries in the present study are: first, the findings represent that board independence is adversely associated with and significantly impacting all three dependent variables, i.e., ROA, ROE, and Tobin's *Q*. Second, CEO duality is positively and significantly related to all three indicators of performance. Third, it is concluded that businesses' CG indicators are unrelated to ROE because only two independent factors are observed to have a substantial influence on ROE. Finally, audit committee independence is significantly related to ROA and Tobin's *Q*. However, in the case of hierarchical multiple regression analysis, each block is statistically significant in providing added predictive ability for all three dependent variables.

Research Implications

This empirical study's findings have important implications as it lays the foundation for corporations to follow acceptable CG practices across developing countries. The study concludes that companies with good CG practices are likely to have enhanced firm performance. However, not all indicators of CG significantly influence performance variables. Hence, only a few CG indicators are essential to enhance firm performance. One of the study's most important and problematic conclusions is the negative impact of board independence on firm performance. This could be because the concept of independence is new in India and in most emerging countries. It still requires a few more years to establish a positive influence of board independence on firm performance. Also, an individual serves as an independent director on various companies' boards simultaneously because very few qualified and suitable can act as independent directors. This may lead to biased decision-making by the independent directors, and they are more likely to be influenced by executive directors' actions. Hence, companies must ensure that independent directors are appointed after proper screening and deliver their duties as expected. They should not be mere puppets in the hands of the management.

Limitations of the Study and Scope for Future Research

The study has many limitations that provide a way to further research in this area. We used single-year data to measure CG indicators. However, average data for at least three years may be used to measure CG indicators. Other factors that influence firm performance not covered in this study may be adopted, such as gender diversity in the board, representation of independent directors on various board committees, board remuneration, etc. Finally, future research can study the association between board diversity and firm value.

Authors' Contribution

All the authors together conceived the idea and found the research gap. Surbhi Jain and Teena Bagga were involved in research methodology and data analysis, and Lakhwinder Kaur Dhillon and Rashmi Aggarwal focused on the literature review and finding the research gaps.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial or nonfinancial interest in the subject matter or materials discussed in this research paper.

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References

Arora, A., & Sharma, C. (2016). Corporate governance and firm performance in developing countries: Evidence from India. *Corporate Governance, 16*(2), 420–436. https://doi.org/10.1108/cg-01-2016-0018

Aswadi Abdul Wahab, E., Haron, H., Lee Lok, C., & Yahya, S. (2011). Does corporate governance matter? Evidence from related party transactions in Malaysia. In K. John, & A. K. Makhija (eds.), *International corporate governance (Advances in financial economics*, Vol. 14, pp. 131–164). Emerald Group Publishing Limited. https://doi.org/10.1108/s1569-3732(2011)0000014009

Benfratello, L., & Sembenelli, A. (2002). Research joint ventures and firm level performance. *Research Policy, 31*(4), 493–507. https://doi.org/10.1016/s0048-7333(01)00122-6

Bhagat, S., & Bolton, B. (2008). Corporate governance and firm performance. *Journal of Corporate Finance, 14*(3), 257–273. https://doi.org/10.1016/j.jcorpfin.2008.03.006

Boubakri, A. (2003). A new conception of an adsorptive solar-powered ice maker. *Renewable Energy, 28*(5), 831–842. https://doi.org/10.1016/s0960-1481(02)00038-1

DeFond, M. L., & Francis, J. R. (2005). Audit research after Sarbanes-Oxley. *AUDITING: A Journal of Practice & Theory, 24*(s-1), 5–30. https://doi.org/10.2308/aud.2005.24.s-1.5

Dhar, Z. (2014). Foreign direct investment in Bangladesh: Policy, incentives, and trends. *Arthshastra Indian Journal of Economics & Research, 3*(3), 39–46. https://doi.org/10.17010/aijer/2014/v3i3/55983

Doğan, M. (2013.). Does firm size affect the firm profitability? *Research Journal of Finance and Accounting, 4*(4), 53 – 59.

Douma, S., George, R., & Kabir, R. (2006). Foreign and domestic ownership, business groups, and firm performance: Evidence from a large emerging market. *Strategic Management Journal, 27*(7), 637–657. https://doi.org/10.1002/smj.535

Dwivedi, N., & Jain, A. K. (2005). Corporate governance and performance of Indian firms: The effect of board size and ownership. *Employee Responsibilities and Rights Journal, 17*(3), 161–172. https://doi.org/10.1007/s10672-005-6939-5

Fuerman, R. D. (2004). Accountable accountants. *Critical Perspectives on Accounting, 15*(6–7), 911–926. https://doi.org/10.1016/j.cpa.2003.03.003

Gupta, L., & Maurya, S. (2021). Board composition and underpricing : The role of business experts, support specialists, community influentials, and gender diversity. *Indian Journal of Finance, 15*(11), 8–24. https://doi.org/10.17010/ijf/2021/v15i11/160392

Hassan Che Haat, M., Abdul Rahman, R., & Mahenthiran, S. (2008). Corporate governance, transparency and performance of Malaysian companies. *Managerial Auditing Journal, 23*(8), 744–778. https://doi.org/10.1108/02686900810899518

Heggede, S., & Jadhav, A. M. (2021). Regulatory changes and role of audit committee : Indian evidence. *Indian Journal of Finance, 15*(3), 8–22. https://doi.org/10.17010/ijf/2021/v15i3/158126

Jain, S., & Bagga, T. (2021). Role of e-governance in corporate governance and board effectiveness. In, *2021 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO)*, (pp. 1–6). https://doi.org/10.1109/icrito51393.2021.9596441

Jain, S., Bagga, T., & Aggarwal, R. (2021). ICICI Bank Ltd. - Quintessence of corporate governance failure and board ineffectiveness. *Prabandhan: Indian Journal of Management, 14*(12), 8–18. https://doi.org/10.17010/pijom/2021/v14i12/167457

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

Kao, M.-F., Hodgkinson, L., & Jaafar, A. (2019). Ownership structure, board of directors and firm performance: Evidence from Taiwan. *Corporate Governance, 19*(1), 189–216. https://doi.org/10.1108/cg-04-2018-0144

Khanna, T., & Palepu, K. (2000). Emerging market business groups, foreign intermediaries, and corporate governance. In, R. K. Morck (ed.), *Concentrated corporate ownership* (pp.265–294). University of Chicago Press.

Kiel, G. C., & Nicholson, G. J. (2003). Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. *Corporate Governance: An International Review, 11*(3), 189–205. https://doi.org/10.1111/1467-8683.00318

Krishnan, J., & Schauer, P. C. (2000). The differentiation of quality among auditors: Evidence from the not-for-profit sector. *AUDITING: A Journal of Practice & Theory, 19*(2), 9–25. https://doi.org/10.2308/aud.2000.19.2.9

Kumar, J. (2003). Does ownership structure influence firm value? Evidence from India. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.464521

Kumar, N., Kumar, P., & Nigam, D. (2021). A study of interaction effect of financial performance on the relationship of board gender diversity and corporate social responsibility. *Prabandhan: Indian Journal of Management, 14*(8), 8–24. https://doi.org/10.17010/pijom/2021/v14i8/165676

Maher, M., & Andersson, T. (2000). Corporate governance: Effects on firm performance and economic growth. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.218490

McConnell, J. J., & Servaes, H. (1990). Additional evidence on equity ownership and corporate value. *Journal of Financial Economics, 27*(2), 595–612. https://doi.org/10.1016/0304-405x(90)90069-c

Morck, R., Shleifer, A., & Vishny, R. W. (1988). Management ownership and market valuation: An empirical analysis. *Journal of Financial Economics, 20,* 293–315. https://doi.org/10.1016/0304-405x(88)90048-7

Negi, G., & Jain, A. (2022). Corporate governance and firm value – An empirical study of financial services firms in India. *Indian Journal of Finance, 16*(9), 42–53. https://doi.org/10.17010/ijf/2022/v16i9/172159

Pearce II, J. A., & Zahra, S. A. (1992). Board composition from a strategic contingency perspective. *Journal of Management Studies, 29*(4), 411–438. https://doi.org/10.1111/j.1467-6486.1992.tb00672.x

Pfeffer, J. (1973). Size, composition, and function of hospital boards of directors: A study of organization-environment linkage. *Administrative Science Quarterly, 18*(3), 349–364. https://doi.org/10.2307/2391668

Puni, A., & Anlesinya, A. (2019). Corporate governance mechanisms and firm performance in a developing country. *International Journal of Law and Management, 62*(2), 147–169. https://doi.org/10.1108/ijlma-03-2019-0076

Rashid, M. M. (2020). Ownership structure and firm performance: The mediating role of board characteristics. *Corporate Governance, 20*(4), 719–737. https://doi.org/10.1108/cg-02-2019-0056

Sarkar, J., & Sarkar, S. (2000). Large shareholder activism in corporate governance in developing countries: Evidence from India. *International Review of Finance, 1*(3), 161–194. https://doi.org/10.1111/1468-2443.00010

Singh, A. K., & Maurya, S. (2018). Corporate governance, ownership structure, and IPO underpricing: Evidence from the Indian new issue market. *Indian Journal of Research in Capital Markets, 5*(1), 7–24. https://doi.org/10.17010/ijrcm/2018/v5/i1/122905

Singh, A. K., Sardana, V., Singhania, S., Vikram, A., & Attree, A. K. (2022). Impact of board composition on bank performance : Evidence from the Indian banking sector. *Prabandhan: Indian Journal of Management, 15*(11), 8–23. https://doi.org/10.17010/pijom/2022/v15i11/172520

Venkatraman, K., & Selvam, M. (2014). Impact of corporate governance practices and firm performance: An empirical study. *Indian Journal of Finance, 8*(12), 34–45. https://doi.org/10.17010/ijf/2014/v8i12/71691

Vinten, G. (2002). The corporate governance lessons of Enron. *Corporate Governance, 2*(4), 4–9. https://doi.org/10.1108/14720700210447632

Yudaeva, K., Kozlov, K., Melentieva, N., & Ponomareva, N. (2003). Does foreign ownership matter? The Russian experience. *Economics of Transition, 11*(3), 383–409. https://doi.org/10.1111/1468-0351.00157

Zandstra, G. (2002). Enron, board governance and moral failings. *Corporate Governance, 2*(2), 16–19. https://doi.org/10.1108/14720700210430333

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