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Effect of Board and Ownership Structures on Firm Performance: A Study on Chinese Listed Firms

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ABSTRACT

Research on corporate governance has been the subject of debate around the globe. Many studies have been conducted on the impact of corporate governance (CG) on firm performance. However, besides adopting CG mechanisms from the developed economies, the goal to achieve market efficiency remains crucial for the Chinese listed companies. Therefore, it is mandatory to find out the most important governance components that aid the financial stability of an organization. In this study, we examined the impact of the most important components of corporate governance, such as board and ownership structures, on firm performance in Chinese listed firms. Three measures of performance, such as return on assets, return on equity, and Tobin's Q are incorporated for an in-depth analysis of CG structures. To achieve the objective of the study, we used the latest annual data of non-financial companies from the Chinese stock market, ranging from 2015 to 2023. By employing the panel regression estimation technique, we found a significant positive effect of board independence, state ownership, and institutional ownership on Chinese listed companies. Whereas the firm size has a negative effect on the firm's performance, which implies that larger firms show lower profitability. Notably, family ownership, board size, and board meetings have no effect on firm performance. The findings, besides significantly adding to the existing literature, have practical and managerial implications for the firms to reform their firm performance procedures. Policymakers and managers can induce informed decisions that encourage the effectiveness of corporate governance practice with improved performance.

Introduction

The Sarbanes Oxley Act 2002 (SOX) was approved because of the major financial misappropriations that occurred in the world's leading organizations such as Enron, which enhanced the interest of researchers on the importance of corporate governance.

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Many studies focused on the monitoring role in organizations through ownership percentages (Bushee et al., 2003), governance structure (Armstrong et al., 2014), audits (Fan & Wong, 2005), and regulation (Armstrong et al., 2012). The researchers tried to explore the actual phenomenon of governance mechanisms and the most important components of CG in organizational success. These studies highlighted the fact that the function of governing bodies in organizations demands a more focused supervisory role.

The organizational success or failure is primarily linked to the role of corporate governance and its components (Diri, Lambrinoudakis, & Alhadab, 2020; Firnanti & Pirzada, 2019). These studies conclude that the directors and major shareholders (block holders), due to their monitoring role, can play a significant part in determining the future of an organization. Furthermore, monitoring of the managers by corporate governors is important to minimize the agency issues and maximize the firm's performance. However, management may deviate from its agency's role and may affect the firm's performance. It is also hypothesized that, besides a strong monitoring role in the past, the severity of false reporting led to organizational liquidation. Thus, there is a need to conduct studies on the role of the supervisory board and ownership structures to overcome agency issues and secure organizations from a big collapse. Most of the previous studies conducted on developing economies (Asghar et al., 2020) produce mixed results (Buertey, Sun, Lee, & Hwang, 2020). Therefore, we further explored and extended the existing literature on the importance of corporate governance units (Board structure and ownership patterns) in organizational performance.

The owners prefer to have major shareholding rights with the intention to monitor the management for better capital gain (Maug,1998) and to reduce the possibility of availing private benefits of management, which ultimately reduces the organizational expenditures (Yafeh & Yosha, 2003). Major Stockholders as large proprietors have a great impact on the market and book value of equity (Thomsen & Pedersen, 2000) by increasing trade volume and earnings announcements (Hotchkiss & Strickland, 2003). Moreover, providing institutional block holdings also reduces the liquidity chances of firms' stock (Heflin & Shaw, 2000). These block holders, along with independent directorship on the board, may control firms for better financial performance (Cheng & Firth, 2006). This may lead investors or owners to direct and execute their decisions to managers to avoid the agency issue (Asghar, Sajjad, Shahzad, & Matemilola, 2020). In this way, to stabilize the organizational settings, all the constituencies may work efficiently for a collective goal. Hence, to serve this purpose, corporate governance comes into play as a mechanism through which financial reporting quality is improved, and management is controlled to make fair decisions (Bajra & Cadez, 2018). Therefore, the current study is focused on two main objectives: the first objective was to examine the effect of board structure on firm performance in the Chinese listed firms. The second objective was to investigate the effect of ownership structure on firm performance in the Chinese listed firms. So, the study was conducted to respond to the subsequent research question, i.e., what is the effect of board and ownership structures on firm performance in Chinese listed firms? Research on developing economies (China) is theoretically and empirically appealing since most of the research on corporate governance (CG) and firm value (FV) comes from developed countries. The suitability of the research context is revealed from past studies (Mutlu et al., 2018), which stated that China has a different market structure as compared to developed economies (Shao, 2018) and, to some extent, weak financial structures too (Jiang & Kim, 2015). Moreover, the previous studies provided mixed results on the corporate governance components and their impact on financial performance. So, we conducted this study on the latest data, ranging from 2015 to 2023.

This paper is notably significant for other researchers due to the outcome of the latest data on market capitalization based on the top companies in an economy. This

study has both theoretical and practical significance. Theoretically, it adds a reliable resource for theoretical frameworks to the existing body of knowledge on CG in the Chinese market. It also supports the meta-analysis on the issue. Practically, it is useful for researchers, firm managers, and policy makers regarding the board structure on firm-specific characteristics. It is also important for managers and board directors to maximize regulations to improve the governance of the firms.

By employing the panel regression estimation technique, we found a significant positive effect of board independence, state ownership, and institutional ownership on Chinese listed companies. Whereas the firm's size has a negative effect on the firm's performance, which implies that larger firms show lower profitability. The empirical findings offer valuable insights to adapt corporate governance regulations that address the unique challenges in China's market environment, such as state ownership and market inefficiencies. It also insists on improving enforcement mechanisms to ensure compliance with existing laws. The findings highlight the critical role of governance structures, particularly board independence and ownership structures, in driving firm performance. This reinforces and builds upon prior research, contributing to a deeper understanding of how these mechanisms operate within varying institutional and cultural frameworks.

Literature Review

Theoretical Orientation for the Study

Agency problems occur through either the manager's lack of ability to maximize shareholders' wealth or through managers' working in their own self-interest. These result in agency costs in two ways. Firstly, a handful of incentives are required to align the interests of managers with the company's interests. Secondly, costs are incurred in hiring new personnel who work as monitors so that managers would not deviate from their goal (Roberts, 2005). Connelly et al. (2010) also agreed that monitoring of managers is important to achieve the goals. They further added that the nexus of ownership structure and monitoring of external investors can help to increase the efficiency of managers. However, incentive schemes are an important factor in maximizing wealth.

The principal-agent conflict has both immediate negative financial consequences and a potential long-term decline in the economic worth of organizations (Mahrani & Soewarno, 2018). Management strategies for self-interest are suited to attain personal goals and advantages. However, the firm's true aim, which is to maximize shareholder value, is jeopardized. In this scenario, the problem of agency arises, and corporate governance plays its role. Our research model is informed by the agency theory, which is the fundamental theory of organizations. It binds executives neither to work for self-interest nor to snub the interests of other stakeholders while controlling the agency costs (Jensen & Meckling, 1976). Strong CG mechanisms of firms increase the value and reliability of firms. It is considered a suitable corporate tool to overcome agency conflicts and enhance the performance of organizations (Subanidja et al., 2016). Similar findings are given by Ren, Lee, and Hu (2023). They also found that effective management strategies improve corporate governance and help to reduce agency conflict by accelerating firm performance.

We also engaged in the stewardship theory. Stewardship theory introduces an optimistic picture of management. This perspective holds that family owners work for the satisfaction of not only themselves but also all stakeholders or any other group affiliated with the company (Breton-Miller & Miller, 2009). A unique comparative approach is taken by Davis, Schoorman, and Donaldson (1997) in explaining the managers to that of agency theory, which assumes them as self-interested and own-interest maximisers. The concept of Stewardship holds that between management and

owners, there is no conflict of interest, and given an optimum governance structure, managers are good stewards as they act in the best interest of their owners (Letza, Sun, & Kirkbride, 2004). Jasir, Khan, and Barghathi (2023) viewed that family members on board can benefit the business, while conflict can arise. This issue of conflict can be addressed by recruiting non-family members to the board.

Corporate Governance and Firm Performance

Numerous studies have been conducted on the functionality and importance of corporate governance mechanisms (Orazalin, 2020; Mersni & Othman, 2016). They agreed that corporate governance is the best mechanism in the workplace for minimizing agency issues. Ahmed and Hamdan (2015) also supported the argument that corporate governance mechanism has a positive effect on firm performance. The empirical results indicate that performance measures of return on assets (ROA) and return on equity (ROE) are significantly related to corporate governance in Bahrain. According to Darmadi (2011), the composition or board structure, the ownership patterns in organizations and the monitoring systems are main parts of these mechanisms. The responsibility of monitoring internal mechanisms is devoted to the board of directors and the major investors. Therefore, the important factors of corporate governance that are found in multiple studies and considered the most influential are board composition and ownership structure. In this study, the composition of the board, among others, is determined by its size, frequency of meetings, and its independence on the one hand. On the other hand, the ownership structure is determined by family ownership, state, and institutional ownership.

Research is conducted on the board structure, organizational performance and its positive impact across organizational contexts (Rouf, 2011; Darmadi, 2011). These studies show that the most prominent role is exalted by the size of the board. Board size includes all the board members present on the board of each firm for each year, i.e. CEO and Chairman. Arora and Sharma (2016) put forth the argument that smaller boards facilitate fast communications between members, and focused decisions with fewer conflicts, resulting in enhanced performance of the board and organization as well. Almadi (2016) added that a combination of privileged backgrounds and government representatives on the board results in a better return of assets. Yermack (1996) further added that a smaller board facilitates effective decision-making, while board size reveals a positive relationship with firm performance.

The other component of the board structure is board meetings held during the year. A board meeting is an annual gathering of a company's board of directors to address company-wide policy or concerns (Nuryana & Surjandari, 2019). These meetings are important to allow the company's leaders to discuss, establish, and determine the company's future path. Tarighi et al. (2023) also emphasized that the higher the meetings of the board, the higher the performance will be because performance is assessed with the passage of time, which accelerates the performance. Vafeas (2005) hypothesized that the higher the frequency of meeting activities, the higher the organizational performance. Drawing on CG literature, we identified AGM as an important tool for owners to effectively perform monitoring on managers to ensure their accountability. According to Apostolides (2010), the productive meetings of board members of organizations bring success to the organizations. Moreover, Xie et al. (2003) found that board activities in the form of meeting frequency support in increasing performance and decreasing the severity of managerial negative inputs.

Shareholders' interests are best protected through board independence with respect to the effective monitoring role (Block, 1999). An independent director is a non-executive director of a company aiming to aid the company in improving its reputation and governance standards. They have no relationship with the firm that may sway his or her impartial evaluation. There will be external directors, executive directors, and

non-executive directors. All these components shape a board structure carrying a diverse role in managing and controlling firms, with the long-term sustainability of corporations. Regarding board structure, Napitupulu et al. (2023) stated that the board of directors has an influence on the firm's performance because performance is improved by an independent board of directors. Garcia-Torea et al. (2016) show that effective boards are more likely to address the interests of both the shareholders and the rest of the firm's stakeholders.

Beasley (1996) found a link between board independence and the risk of financial statement fraud. Similarly, according to Klein (2002), the board and audit committee confirm true financial reporting. Thus, lessens agency disputes, which supports enterprises with essential capital and contract resources. Moreover, independent directors are likely to engage in raising more funds and firming market positions. Khatib et al. (2020) underlined directors' influence on corporate performance through policy making. Based on the above literature, the following hypothesis is drawn:

H1: Board Structure has a significant positive effect on firm performance.

Shareholders compose a firm's ownership structure. They have special privileges that other stakeholders lack and uniquely position them to influence the priorities and practices of corporations (Des Jardine, Zhang, & Shi, 2023). Regarding ownership structure, three major proxies of ownership (family, institutional, and state) are considered in the current study. Family ownership is the proportion of the stocks of an organization owned by family members. Jaggi and Leung (2007) argued that family ownership discourages agency conflict. A similar argument is supported by Wang (2006). He asserted that founding family ownership is linked with limited managerial issues. However, Wang (2006) justified the point that corporations having chunks of concentrated ownership commit more agency issues.

In emerging economies, public and private firms are mostly owned by founding families aimed to secure their personal benefits (Wang, 2006). This badly affected the performance of such family-owned businesses, while the companies with less concentrated ownership showed higher performance (Gürsoy & Aydoğan, 2002). In another study, it was revealed that family ownership facilitates the owners to get more involved in self-benefits (Siregar & Utama, 2008). Therefore, family ownership also negatively affects corporate performance.

Convergence or union of the interest hypothesis leads towards a considerable positive link between family ownership and firm value. The idea of convergence or union of the interest hypothesis suggests that greater family ownership in the firm results in a high business value and less agency cost (Javaid, 2017). Therefore, some sort of mixed conclusions have been drawn in the previous research.

The second component of the ownership structure is state ownership. In this study, we included most of the Chinese-listed state-owned firms. According to Yu (2013), the government maintained its controlling rights over the important sectors. Studies have found a negative association between state ownership and firm value (Wei et al., 2005). While Ng et al. (2009) revealed a positive association between the two, as being the state as the greatest support to firms.

The other main component of ownership structure, institutional ownership, is the proportion of the stocks of an organization held by large institutions. In this regard, it is believed that institutional ownership is more responsible towards accounting disclosures and fairness (Ajinkya et.al., 2005). They further stated that the institutional investors, being the largest shareholders, may not only get greater access to the corporate information but also exercise the control rights of ownership and avail the benefits at the expense of other minor shareholders. This enables them to closely monitor the management of an organization and drive them towards either higher firm value or

misuse these rights for doing nothing (Nagar & Schoenfeld, 2021). Chung and Zhang (2011) analyzed the connotation between institutional ownership and performance due to the supervisory role of institutional stakeholders. Ultimately, institutional ownership controls the managerial possibility to minimize the conflicts that result in higher firm performance. Similar assertions are given by Park and Shin (2004). Therefore, multiple contradictory statements about institutional ownership are found in past literature. Based on the above literature, the following hypothesis is drawn:

H2: Ownership Structure has a significant positive effect on firm performance.

Besides observing the effect of CG and FP, we used certain control variables in this study. These variables include firm size, liquidity, cash holdings, and leverage. Xie et al. (2003) determined a significant negative connection between the size of a firm and its performance. On the other hand, Hu and Izumida (2008) showed a significant positive link between company size and its performance. Sanghani (2014) determined that liquidity positively affects the performance of non-financial companies. Considering corporate cash holdings, prior studies have proven that companies are encouraged to keep cash. A significant positive and negative effect of cash holdings is documented on firms (Jensen, 1976; Bhuiyan & Hooks, 2019). It is predictable that the leverage would negatively connect to the firm's performance (Hu & Izumida, 2008).

***Conceptual Framework**:* This study is conceptualized as follows.

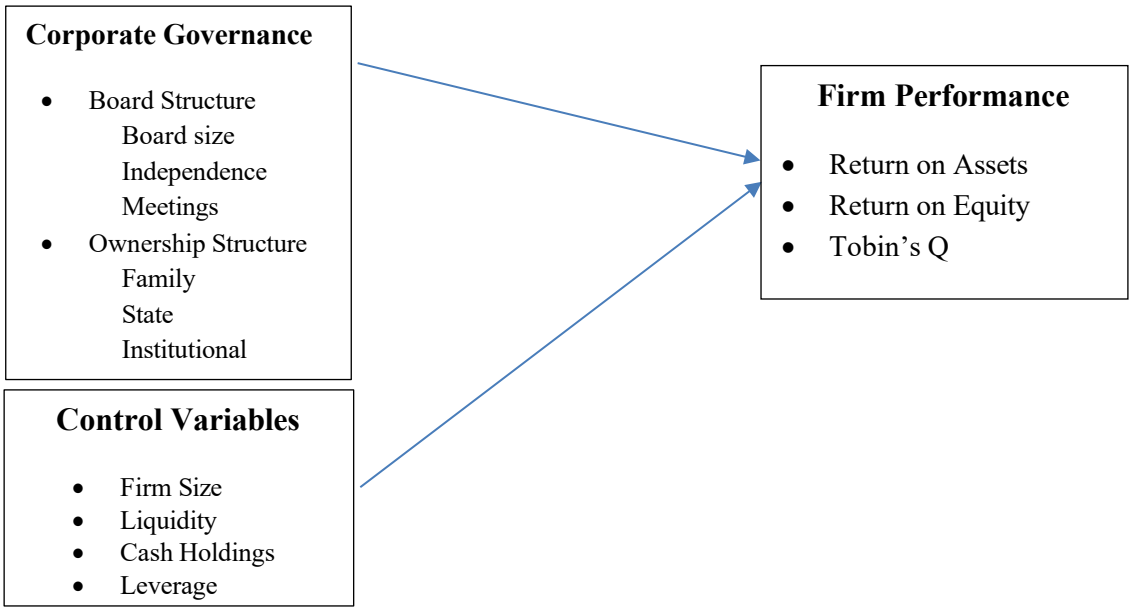

Figure 1. Effect of Board and Ownership Structures on Firm Performance.

Research Methodology

Sample Selection and Data Sources

In this study, the top hundred non-financial listed companies are considered from the emerging economy of China. This selection of a balanced data set for 9 years, ranging from 2015 to 2023, is based on the market capitalization of the firms. The companies having limited or incomplete required information were removed from the sample. Moreover, due to the lagged values of the variables, the companies having missing values of two or more consecutive years were also removed from the sample. Thus, the final selection of balanced panels of the top 100 companies has been found suitable for analysis of CG and firm performance. For all the firm-specific and CG variables, the annual data is collected from WRDS and DataStream.

Measurement of the Variables

The main purpose of the study is to find the effect of corporate governance components on firm performance. The firm's performance is measured by the following previous research studies through three main proxies, one is book-based, i.e. ROA and the other two are market-based such as ROE and Tobin's Q. Tobin's Q is defined as the market value of equity plus the book value of debt divided by the total assets. Usually, the performance is measured by this market ratio because it assesses the financial markets through the value of ROI, which helps in investment diversification and the selection process, along with the association between ownership and corporate performance (Subanidja et al., 2016).

The corporate governance mechanisms are measured by using the board and ownership structures of companies. The components of board structure, such as board size, board independence, and board meetings, are taken as the independent variables of the study. On the other hand, ownership structure includes family ownership, state ownership, and institutional ownership as independent variables. Moreover, we included firm-specific control variables such as firm leverage, firm size, liquidity, and cash holdings that contribute to the firm's performance (Liang, Huang, & Lin, 2011).

Data Analysis Procedure

The data is analyzed by using the panel regression estimation technique. Pooled or panel regression is the most commonly used regression technique, which assumes that errors are homoscedastic and normally distributed (Hayes & Cai, 2007). In this study, the following regression equations are used.

$$ROA_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BI_{it} + \beta_3 BM_{it} + \beta_4 FOWN_{it} + \beta_5 SOWN_{it} + \beta_6 IOWN_{it} + \beta_7 Size_{it} + \beta_8 LIQ_{it} + \beta_9 CHOLD_{it} + \beta_{10} LEV_{it} + year\ dummies + industry\ dummies + \varepsilon_{it} \quad \ldots\ldots\ldots (1)$$

$$ROE_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BI_{it} + \beta_3 BM_{it} + \beta_4 FOWN_{it} + \beta_5 SOWN_{it} + \beta_6 IOWN_{it} + \beta_7 Size_{it} + \beta_8 LIQ_{it} + \beta_9 CHOLD_{it} + \beta_{10} LEV_{it} + year\ dummies + industry\ dummies + \varepsilon_{it} \quad (2)$$

$$TQ_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BI_{it} + \beta_3 BM_{it} + \beta_4 FOWN_{it} + \beta_5 SOWN_{it} + \beta_6 IOWN_{it} + \beta_7 FSize_{it} + \beta_8 LIQ_{it} + \beta_9 CHOLD_{it} + \beta_{10} LEV_{it} + year\ dummies + industry\ dummies + \varepsilon_{it} \quad \ldots\ldots (3)$$

In the above equations, ROA is return on assets, ROE is return on equity and TQ is Tobin's Q. BS represents the board size, BI is board independence, BM is board meetings, FOWN is family ownership, SOWN is state ownership, IOWN is institutional ownership, Size is firm size, LIQ is the liquidity of the firm, CHOLD is the cash holdings in the firm, and LEV is the leverage of the firm. Moreover, ε_{it} stands for the error term, and "it" stands for firm observations at time T.

Results and Discussions

This section provides descriptive, correlation, and regression results with discussions.

Table 1: Summary Statistics of the Variables.

	n	Mean	SD	Median	Min	Max
ROA	900	0.05	0.07	0.05	-0.39	0.33
ROE	900	6.18	8.75	5.1	-33.58	69.4
TQ	900	1.4	1.08	1.14	0.05	7.88
BS	900	10.98	3.58	11	5	98
BI	900	81.65	10.62	81.82	0	100
BM	900	9.85	2.49	10	2	14
FOWN	900	0.03	0.17	0	0	1
SOWN	900	0.36	0.48	0	0	1
IOWN	900	0.71	0.21	0.73	0	1.97
F Size	900	10.46	1.52	10.33	6.67	14.97
LIQ	900	1872.88	3642.85	1008.5	-7799	21671
CHOLD	900	0.09	0.07	0.08	0	0.49
LEV	900	0.28	0.16	0.28	0	1

In the above table, the key insights of CG and performance variables of 900 firms, year observations reveal diverse performance (ROA & ROE) across Chinese firms. The TQ ratio slightly surpasses the replacement cost of assets. Highly independent boards comprised of 11 members meet almost 10 times annually. Ownership structures disclose extensive institutional ownership of around 71%, while family ownership (3%) and state ownership (36%) are relatively low. Overall, a stable governance structure with varied financial performance is reflected in the data.

Table 2: Correlation Matrix of Variables.

	ROA	ROE	TQ	BS	BI	BM	FOWN	SOWN	IOWN	F Size	LIQ	CHOLD	LEV
ROA	1												
ROE	-0.002	1											
TQ	0.653	0.006	1										
BS	-0.040	-0.018	-0.011	1									
BI	0.033	0.032	0.023	-0.049	1								
BM	-0.053	-0.023	-0.015	-0.069	-0.034	1							
FOWN	-0.057	0.015	-0.081	-0.076	-0.073	-0.021	1						
SOWN	0.119	0.033	0.129	0.043	0.139	0.048	-0.132	1					
IOWN	-0.007	-0.086	-0.027	-0.022	-0.011	-0.034	0.003	-0.016	1				
F Size	0.331	0.112	0.486	0.074	0.167	0.044	-0.131	0.004	0.010	1			
LIQ	0.241	0.034	0.237	0.019	0.071	0.011	-0.055	0.154	0.001	-0.118	1		
CHOLD	0.354	0.065	0.445	-0.107	-0.097	0.020	0.028	-0.036	-0.033	-0.589	-0.478	1	
LEV	0.067	0.008	0.363	0.068	-0.099	0.019	0.029	0.009	0.027	-0.305	-0.199	-0.045	1

The above correlation matrix of 13 financial variables depicts a strong association of cash holdings with Tobin's Q and ROA, indicating that higher profitability is associated with higher cash holdings. The negative correlation of Firm Size with TQ and CHOLD suggests larger firms tend to have a lower performance ratio and cash holdings. Moreover, a positive correlation of Liquidity (LIQ) with both ROA and CHOLD indicates that more liquid firms are generally more profitable and have higher returns. A positive correlation between Leverage and TQ suggests that firms having higher leverage show higher market performance. Other variables do not have significant associations between them.

Table 3: Regression Analysis of Return on Assets

Coefficients	Estimate	Std. Error	t value	PR (>|t|)	
(Intercept)	8.37	2.90	2.887	0.003983	**
BS	-2.61	5.69.	-0.458	0.646933	
BI	4.82	1.93	2.5	0.012593	*
BM	1.03	8.05	1.279	0.201223	
FOWN	9.69	1.19	0.812	0.416964	
SOWN	11.26	3.59	2.479	0.00251	**
IOWN	-9.92	9.37	-0.011	0.991557	
F Size	-9.32	1.78	-5.232	0.000000	***
LIQ	2.49	6.60	3.774	0.000171	***
CHOLD	1.56	4.22	3.698	0.000231	***
LEV	1.18	1.38	0.856	0.392214	
Industry Dummies	Yes				
Year Dummies	Yes				
R-squared	0.5734	Adj. R-squared	53.284	P-value	0.000

Table 3 provides the panel regression results on Return on Assets (ROA). The regression analysis on Return on Assets (ROA) discloses a significant positive effect of board independence (BI) and state ownership (SOWN) and a significant negative effect of firm size on ROA. It indicates that the higher number of independent directors on the board plays a significant role in the performance of the firm. Moreover, the superior performance of the state-owned firms is also depicted in the above table. These results are aligned with the findings of Bhagat and Bolton (2008). These independent boards are supposed to enhance profitability through strong monitoring, effective decision-making making and mitigating agency conflicts (Wang & Hsu, 2021). The firm size results indicate the inefficiency of larger firms. Moreover, the significant positive results of liquidity and cash holdings indicate their importance in organizational performance. However, all other variables do not exhibit substantial effects on return on assets. However, other variables do not show substantial effects on ROA. The value of R^2 is 57% and depicts that the variation in ROA is adequately explained by the variables of the study, including the industry and year effects in the model. These findings make the model statistically significant, indicating that governance structures are important in generating positive outcomes.

Table 4 Regression Analysis of Return on Equity

Coefficients	Estimate	Std. Error	t value	PR (>|t|)	
(Intercept)	12.27	5.11	2.675	0.00569	*
BS	-0.07	0.04	-0.342	0.69484	
BI	0.03	0.07	1.505	0.15253	
BM	-0.21	0.17	-0.816	0.39222	
FOWN	-0.24	1.93	-0.214	0.87435	
SOWN	7.95	2.41	0.06	0.4294	
IOWN	4.57	1.96	2.386	0.00684	**
F Size	-0.69	0.37	-3.583	0.00163	**
LIQ	0.02	0.04	0.486	0.8460	
CHOLD	-1.14	6.95	-0.462	0.81326	
LEV	-1.63	2.17	-0.701	0.59637	
Industry Dummies	Yes				
Year Dummies	Yes				
R-squared	0.5325	Adj. R-squared	51.482	p-value	0.007586

The panel regression analysis on ROE provides a significant positive effect of institutional ownership (IOWN) on the dependent variable. Whereas a significant negative effect of firm size (F Size) on the performance is observed. All the proxies of board structure, family ownership, and state ownership do not show the effect on ROE. However, the overall model is statistically significant. The model accounts for 53.25% of the variation in ROE, with industry and year dummies controlling external factors. The overall model is statistically significant, emphasizing the importance of ownership structure and firm characteristics in influencing equity returns. These results are consistent with past studies (Nguyen et.al. 2020), which affirm the role of institutional owners in better monitoring and policy guidance.

Table 5 Regression Analysis of Tobin's Q

Coefficients	Estimate	Std. Error	t value	PR (>|t|)	
(Intercept)	1.978	0.694	7.583	0.00063	***
BS	-0.033	0.018	-0.069	0.72014	
BI	0.025	0.094	5.46	0.00026	***
BM	-0.004	0.452	-0.456	0.24594	
FOWN	0.546	0.362	1.352	0.36464	
SOWN	4.371	0.485	8.315	0.0004	***
IOWN	0.865	0.753	1.426	0.43469	
F Size	-0.348	0.246	-7.526	0.0000	***
LIQ	0.035	0.042	6.464	0.0000	***
CHOLD	3.648	0.024	5.437	0.0000	***
LEV	2.748	0.314	14.467	0.000	***
Industry Dummies	Yes				
Year Dummies	Yes				
R-squared	0.7221	Adj. R-squared	69.21	P-value	0.000

In the above Table, the regression analysis on Tobin's Q (TQ) shows a significant effect of control variables, board independence, and state ownership. It can be depicted that all the control variables, board independence (BI), and state ownership (SOWN) significantly influence the market ratio of firms. All of them have a positive effect on

Tobin's Q except the firm size. This negative relation of firm size suggests that larger firms tend to have lower market valuations relative to their assets (Zhou et al., 2012). Other variables, such as board size (BS), board meeting frequency (BM), foreign ownership (FOWN), and institutional ownership (IOWN), show no significant impact on Tobin's Q. The positive relation of State-owned firms with performance implies that they have the advantage of easy access to the resources with policy guidelines (Kusuma et.al., 2020). The model is statistically significant, explaining approximately 72.21% of the variance in TQ. The overall significance of the model highlights the importance of governance factors and firm-specific characteristics in determining market-based performance.

Conclusion

This study investigated the main components of corporate governance i.e. board and ownership structure, participating in three important dimensions of performance such as return on asset, return on equity, and Tobin's Q in Chinese firms. The regression results enabled us to reach some interesting conclusions through each measure of performance. We found that the main difference prevails in the form of high institutional and state ownership in Chinese listed companies. Both types of ownership contribute positively to determining performance; however, family ownership is not depicted in these firms. This implies that the Chinese companies with institutional and state owners flourish in the economy as compared to the family-owned firms. Both state-owned and institutional-owned firms have a positive influence due to their strong monitoring power and better decision-making capacity. It facilitates not only mitigating agency issues but also increasing firm performance. To optimize these benefits, companies can engage actively with institutional investors, ensuring their voices are represented in critical decisions.

Moreover, regarding the structure of the board, these firms have a strong positive influence of independent directors on the performance of the firms. It is implied that the meeting frequency and board size do not have a significant effect on the performance. Therefore, companies are required to include more non-executive or independent directors on their boards in order to achieve performance goals. Independent directors bring impartial perspectives, reduce agency conflicts, and contribute to strategic planning, which is critical for improving profitability and market valuation.

Moreover, while analyzing the firm-specific control variables, an interesting aspect of these firms is that the larger firms showed less profitability. The negative effect of firm size on all three dimensions of performance is observed, which inculcates inefficiency in larger firms. Liquidity, cash holdings, and leverage also have significant positive effects on the performance measures. So, for better organizational performance, the companies need to focus on these profit-driven indicators. All three models demonstrate the strong explanatory power of the variables while highlighting the importance of CG structures in determining both asset-based and equity-based performance. This study supports the hypothesis drawn previously that both the board and ownership structures play a significant role in determining the firm's performance. Among the components of the board, independence is crucial in Chinese firms. Whereas among the ownership structures, the state and institutional ownership hold more weight in gaining financial stability.

This study contributes in multiple ways. Firstly, as the latest data of market-based top companies from Chinese markets is utilized, the findings have drawn strong evidence of corporate governance components on firm performance. It highlighted the significant determinants of corporate performance, which ultimately play a pivotal role

in the economy. Secondly, this study contributes to the body of literature on corporate governance in emerging markets that is underrepresented in academic discourse. Lastly, this study provides a base for researchers to conduct comparative studies on corporate governance mechanisms across diversified economies. The findings of the study have useful implications not only for researchers and academicians but also for policymakers and managers who are seeking improved firm performance and market valuation. For policymakers, the study underscores the need to refine corporate governance codes in emerging markets. Policymakers and managers can induce informed decisions that encourage the effectiveness of corporate governance practices with improved performance. Overall, these planning insights stress the importance of tailoring governance structures and policies to the unique needs of the corporate environment in emerging markets.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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