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Research on the Influence of Equity Structure on Corporate Performance

Limei Fu*

Hainan Vocational University of Science and Technology, Haikou 571126, Hainan Province, China

***Corresponding author:** Limei Fu, orange2022155009@163.com

Abstract: Equity structure constitutes a crucial component of corporate internal governance. A scientifically and reasonably structured equity system aids in enhancing the level and efficiency of corporate governance. Through empirical analysis of data spanning from 2013 to 2022, the study aims to verify the influence mechanism of equity structure on corporate performance. The results indicate that enhancing equity concentration and balance positively impacts corporate performance, with this effect persisting over time. Consequently, optimizing the degree of equity concentration, shareholder types, and the board of directors' structure can assist enterprises in maximizing long-term value.

Keywords: Equity structure; Corporate performance; Corporate governance

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1. Introduction

The equity structure serves as the foundation of the corporate governance mechanism, delineating the composition of shareholders, the level of equity concentration, and the identity of major shareholders. These factors give rise to significant variations in the means and outcomes of shareholder power exercise, exerting a profound influence on the establishment, operation, and performance of corporate governance models. A close correlation exists between equity structure and corporate performance, a notion supported by numerous researchers. For instance, Du *et al.*'s study of Chinese listed companies revealed that higher proportions of state-controlled ownership correspond to poorer corporate performance, while increased corporate shareholding percentages, particularly with the largest shareholder exceeding 50%, are associated with enhanced performance, with state-owned enterprises exhibiting a significant negative efficiency impact compared to private enterprises [1]. Liu *et al.* delved into the influence and regulation of equity structure elements, such as the type of controlling shareholder, foreign investment, and equity concentration, on the performance of academic derivative enterprises from the vantage point of institutional logic theory. Their findings suggested that the developmental disparities among derivative enterprises stem from the logical variances in enterprise systems induced by equity structure. Moreover, Liu demonstrated a positive correlation between the shareholding ratio of the largest shareholder and corporate performance [3]. This paper primarily investigates the relationship between equity structure and corporate performance, subsequently proposing strategies to enhance corporate performance.

2. Theoretical analysis and hypothesis presentation

The influence of equity structure on corporate performance is constrained by industry characteristics, environmental variables, property rights reform, corporate governance structure, and other factors. Equity structure impacts shareholders' control over the company; various control arrangements may influence business decisions and strategic formulation, thereby affecting enterprise performance. Equity structure also affects shareholders' ownership of the company, with different ownership distributions impacting shareholder supervision and incentive mechanisms. Additionally, equity structure may influence shareholder behavior, including cooperation, investment decisions, and risk-taking, all of which can impact business performance. Moreover, the degree of equity concentration also plays a role, as overly centralized equity structures may prioritize short-term interests at the expense of long-term development, while decentralized structures may lead to inefficient decision-making and hinder responsiveness to market changes, thereby affecting corporate performance. The debt structure is another integral aspect of equity structure, and creditor participation and oversight can further impact corporate performance. Building upon these insights, this paper proposes the following hypothesis H_1: There is a positive relationship between equity structure and corporate performance.

3. Empirical research design

3.1. Sample data

This paper selects listed companies from the years 2013 to 2022 as the initial research sample. The relevant data for the sample companies is sourced from the CSMAR database. The initial sample is processed as follows: (1) excluding ST and PT company samples; (2) excluding financial industry companies; (3) eliminating missing values. Consequently, a total of 26,426 sample observations are obtained. To mitigate the influence of extreme values, continuous variables are winsorized at 1%.

3.2. Variable definition

Table 1 provides descriptions of the research variables utilized in this paper.

Table 1. Research variables

Type	Name	Notation	Definition
Response variable	Return on total assets	ROA	Return on total assets = Net profit / Average total assets × 100%
	Return on net assets	ROE	Return on net assets = Net profit / Average net assets × 100%
Explanatory variable	Equity structure	TOP1	Expressed as the percentage of shares held by the first largest shareholder, i.e., the amount of capital contribution divided by the amount of registered capital, which is held at 50% and above. Taking logarithms
Control Variable	Years of listing	Age	Refers to the time elapsed since the birth of a business
	Enterprise size	Size	Expressed in logarithmic terms of total assets
	Revenue growth rate	Growth	Operating income growth rate = (Operating income growth / Previous year's total operating income) × 100%
	Tobin's Q-value	TobinQ	Market capitalization/total assets
	Industry	IND	Secondary classification according to SEC industry classification standards

3.3. Linear regression model

Drawing from the hypothesis of previous theories and consulting relevant literature, this paper establishes the following linear regression models to examine the relationship between ownership structure and corporate performance:

$$ROA_{it} = \beta_0 + \beta_1 TOP1_{it} + \beta_2 Age_{it} + \beta_3 size_{it} + \beta_4 Growth_{it} + \beta_5 Growth_{it} + \beta_6 TobinQ_{it} + \beta_7 IND_{it} + \varepsilon_{it} \quad (1)$$

$$ROE_{it} = \beta_0 + \beta_1 TOP1_{it} + \beta_2 Age_{it} + \beta_3 size_{it} + \beta_4 Growth_{it} + \beta_5 Growth_{it} + \beta_6 TobinQ_{it} + \beta_7 IND_{it} + \varepsilon_{it} \quad (2)$$

where β_0 is the intercept and is the residual.

4. Empirical analysis

4.1. Descriptive statistics

Table 2 presents the descriptive statistics. The mean return on total assets (ROA) for the sample companies is 0.0312, with a maximum of 0.2295, a minimum of -0.5562, and a standard deviation (SD) of 0.0702. Similarly, the return on net assets (ROE) exhibits noticeable variations in corporate performance. This indicates diverse levels of earnings among the sample companies. The average equity structure value is 33.2892, with a considerably high standard deviation of 14.643, suggesting concentrated controlling power. The average listing duration is 11.5985 years, with a median of 10, indicating that the sample companies are relatively young on average. Other variables such as Tobin's Q (TobinQ), enterprise size (Size), and revenue growth rate (Growth) also display significant differences, suggesting the selection of indicators is reasonable.

Table 2. Descriptive statistics for variables

Variable	*n*	Mean	Max	SD	Median (P50)	Min
ROA	26,426	0.0312	0.2295	0.0702	0.0332	-0.5562
ROE	26,426	0.0407	0.3849	0.1790	0.0627	-2.1749
TOP1	26,426	33.2892	75.4581	14.6430	30.9293	7.5971
TobinQ	26,426	2.0968	16.6472	1.4629	1.6430	0.7954
Size	26,426	22.3936	26.5439	1.2958	22.2123	19.5850
IND	26,426	6.6253	20.0000	3.8984	5.0000	1.0000
Age	26,426	11.5985	29.0000	7.4855	10.0000	2.0000
Growth	26,426	0.3543	12.3665	0.9751	0.1275	-0.8737

4.2. Correlation analysis

Correlation tests were conducted according to the model, and the results in **Table 3** demonstrate that the relationship between equity structure (TOP1) and return on total assets (ROA), as well as return on net assets (ROE), is consistently positive and significant. Hypothesis H_1 is thus confirmed, indicating that an appropriate equity structure can effectively enhance corporate performance. This underscores the importance of focusing on controlling shareholders and granting them more authority to maximize benefits, while simultaneously improving regulatory mechanisms.

4.3. Multicollinearity Test

To ensure the absence of covariance issues among the selected variables, a multicollinearity test was conducted, with results presented in **Table 4**.

Table 3. Analysis of correlation

Variable	ROA	ROE	TOP1	TobinQ	Size	IND	Age	Growth
ROA	1							
ROE	0.869***	1						
TOP1	0.148***	0.138***	1					
TobinQ	0.134***	0.044***	-0.101***	1				
Size	0.068***	0.120***	0.218***	-0.399***	1			
IND	-0.092***	-0.057***	-0.004	-0.025***	0.076***	1		
Age	-0.092***	-0.046***	0.002	-0.104***	0.358***	0.113***	1	
Growth	0.003	0.040***	0.008	0.024***	0.004	0.168***	0.053***	1

***, **, * denote significant at 1%, 5% and 10% level respectively.

Table 4. Multicollinearity test

Variable	VIF	1/VIF
TOP1	1.06	0.945
TobinQ	1.19	0.838
Age	1.17	0.856
Size	1.42	0.706
IND	1.04	0.959
Growth	1.03	0.969

4.4. Robustness test

To further validate the results' reliability, this paper conducted a robustness test by replacing the explanatory variable with ROE to measure corporate performance. Additionally, the lagged value of equity structure (TOP1) by two periods was tested. Results in columns (1) to (3) of **Table 5** show a positive impact of TOP1 on ROE, indicating that higher shareholding ratios lead controlling shareholders to exert greater efforts to enhance corporate performance and reap governance-related benefits.

Table 5. Robustness test results

Variable	(1)	(2)	(3)
	ROE	ROE	ROE
TOP1	0.00153***		
	(15.77)		
L.TOP1		0.00129***	
		(10.57)	
L2.TOP1			0.00118***
			(7.98)
TobinQ	0.0131***	0.0157***	0.0161***
	(14.97)	(15.31)	(13.51)

Table 5 (Continue)

Variable	(1)	(2)	(3)
	ROE	ROE	ROE
Size	0.0266***	0.0325***	0.0386***
	(20.73)	(19.68)	(19.13)
IND	-0.00368***	-0.00508***	-0.00612***
	(-9.91)	(-10.73)	(-10.71)
Age	-0.00330***	-0.00299***	-0.00266***
	(-16.15)	(-11.31)	(-8.17)
Growth	0.0134***	0.0156***	0.0159***
	(11.49)	(11.45)	(10.21)
_cons	-0.578***	-0.708***	-0.845***
	(-20.45)	(-19.47)	(-19.03)
n	26,426	21,838	18,099

5. Conclusion

The data analysis presented above demonstrates the significant impact of equity structure on firm corporate performance, with this significance underscored by the findings depicted in **Figure 1**. It is imperative to consider various factors such as equity concentration, shareholder type, and board structure, while assessing the influence of different equity structures on corporate performance. In general, an appropriate equity structure coupled with a well-structured board contributes to enhanced corporate performance and facilitates sustainable development. Nonetheless, it is essential to recognize that the circumstances of individual enterprises vary, necessitating consideration of the specific environment and business characteristics in decision-making processes.

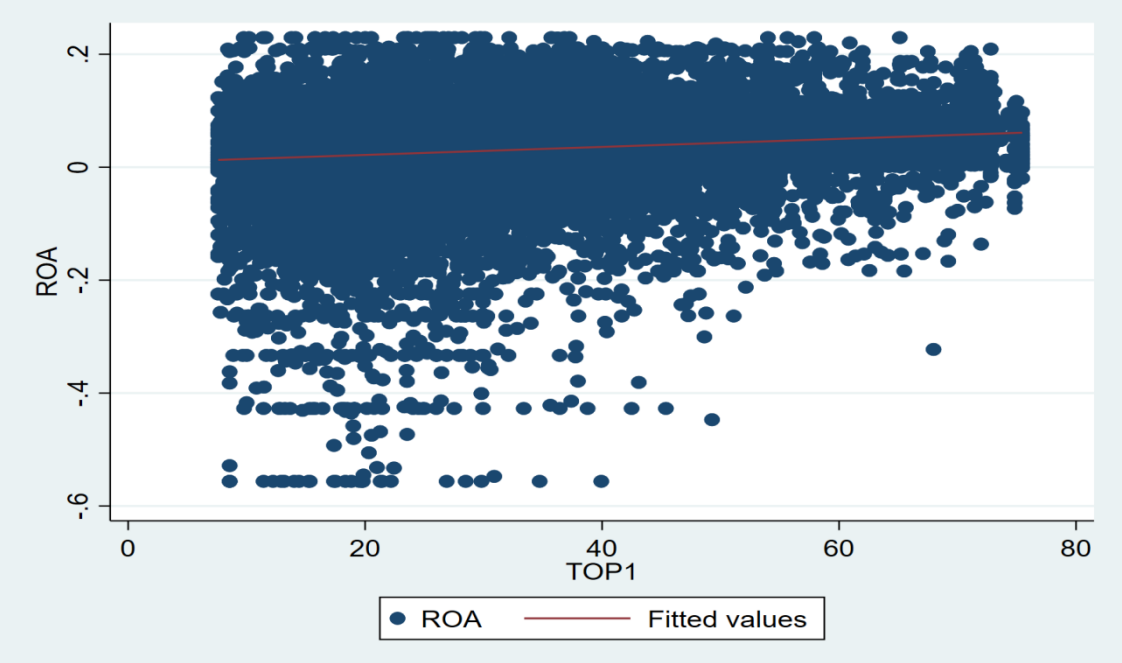

Figure 1. The relationship between TOP1 and ROA

Disclosure statement

The author declares no conflict of interest.

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