

Research on the Relationship between the Ownership Structure and Business Performance of Listed Companies

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Abstract: A sound corporate governance structure is conducive to avoiding the company's business risks and improving the company's operating performance. This article uses a fixed effects model for research. The data comes from 623 non-financial listed companies in the A-share markets. The time span is 2012-2020. The results show that the concentrated and the balanced ownership structure has obviously positive correlation with business performance. When the major shareholders own most of the company's shares, they will have greater interest and enthusiasm for the management of the company, which will constrain the behavior of managers, and improve corporate performance. Concentration of equity has a more significant positive impact on non-state-owned enterprises than on state-owned enterprises. When other major shareholders can restrain the largest shareholder, they can significantly restrict the "interest encroachment" behavior of large shareholders, which is beneficial to the sustainable operation of the company. In addition, the positive correlation is particularly significant in the eastern region.

Keywords: Ownership Concentration, Equity Balance Degree, Business Performance

1. Introduction

Ownership structure is the core content of corporate governance. It means that shares of different nature accounted for the share of the total shares of the joint-stock company and their relationship. It essentially determines the company's organizational structure, operating mode and supervisory mechanism, and plays a decisive role in company performance. Only a reasonable equity structure can form a sound governance structure.

The current equity structure of listed companies in China has the following characteristics: (1) There are many types of stocks but poor liquidity. Company stocks can be divided into tradable shares and non-tradable shares. Different types of stocks are divided into different markets, the prices are also different, and the stocks are separated from each other. (2) The high concentration of major shareholders' equity and the high dispersion of public shares coexist. The phenomenon of "one share dominance" is still widespread, which weakens the external binding force of market transactions on listed companies and is not conducive to the sustainable development of the company. Moreover, 80% of the largest shareholders are state institutions or state-owned legal persons. The interests of public shareholders are not entirely consistent.

There are many unreasonable aspects in the equity institutions of listed companies in China. The establishment and improvement of the company's equity structure and governance structure has always been the focus and difficulty in the field of economic research. Scholars have conducted extensive and in-depth researches on the relationship between ownership structure and company performance, but the research results have not yet been unified.

The research on equity concentration(CR) and corporate performance is as follows: Claessens and Djankov (1999) [1] found that CR has a obvious positive impact on corporate earnings and employee efficiency, and increasing equity concentration can significantly improve company performance. Bhagat and Bolton (2008) [2] considered the endogenousness between corporate governance, performance, capital structure, and ownership structure, and concluded that the degree of ownership concentration is negatively related to company operation. Because the ownership structure is too concentrated, it is easy to form a dominance situation, which will damage the rights and interests of small and medium shareholders, which is not conducive to the improvement of company performance.

Fama (1980) [3] believes that CR has no effect on corporate operation, because in a fully developed manager market, the company as a contract set can effectively restrict managers and solve the incentive problem caused by the separation of ownership and control.

The research results of equity balance degree (EBD) and business performance are also not unified. Konijn, Krüssl, Lucas (2011) [4] used US company data to find that a higher equity balance degree is good to business performance growth, because major shareholders may sacrifice other stakeholders for private interests. Perrini, Rossi, and Rovetta (2008) [5] found that a high equity balance degree intensified the struggle for rights among shareholders, weakened supervision of managerial behavior, increased agency costs, and had a negative impact on company performance. Demsetz and Villalonga (2001) [6] randomly selected 223 companies for research, and the results showed that there was no significant correlation between EBD and corporate performance.

How does the ownership structure affect company performance? How to improve company performance by improving the ownership structure? In order to find out the relationship between shareholding structure and business performance, this paper selects the data of listed companies in A-stock exchanges from 2012 to 2020 to analyze and discusses the impact of shareholding structure on company performance from the two aspects of shareholding concentration and shareholding checks and balances.

2. Research Methods

2.1. Sample Selection

This article takes the listed companies on the A-share markets as the research object, and excludes ST, ST* companies, banks, insurance and other financial institutions with abnormal financial conditions. Finally, 623 companies that meet the conditions are obtained, and the companies in 2012-2020 The data are research samples

The main data used in this article is downloaded from the CSMAR Database. Excel2019 is selected to process and sort some of the original data as needed, and Stata15.0 software is used to process the empirical test process.

2.2. Index Setting

Most scholars use Tobin'Q to measure company performance. This is because the capital market in developed countries is an efficient market, and company stock prices can be reasonably valued in the capital market. However, China's capital market mechanism is not sound enough, the free flow of funds is restricted and the information disclosure of listed companies is not standardized, which does not meet the valid premises of Tobin'Q theory. As a result, this paper selects the return on equity (*ROE*) to reflect company performance.

Scholars mostly use the CR index or the H (Herfindahl) index to express the concentration of equity. This paper filters the shareholding ratio of the largest shareholder (CR_1) to study the degree of equity concentration. The higher the CR_1 index, the more concentrated the equity.

EBD is usually expressed by the ratio of the sum of the proportions of shares held by the N-1 largest shareholders to the proportion of shares enjoyed by the largest shareholder. This paper uses the ratio (Z_{2-10}) of the sum of the second to tenth largest shareholder's shareholding ratio to the first largest shareholder's shareholding ratio to express the degree of equity balance.

There is a correlation between company size and company performance, and the debt-to-asset ratio will have an impact on the company's operating risks. This paper selects the natural logarithm of the company's total asset size ($\ln SIZE$) and the asset-liability ratio (LEV) as the control variables.

2.3. Model Building

This article builds the following model:

$$ROE = \alpha_0 + \alpha_1 CR_1 + \alpha_2 Z_{2-10} + \alpha_3 \ln SIZE + \alpha_4 LEV + \varepsilon \quad (1)$$

Among them, *ROE* represents company performance, α_0 is a constant term, $\alpha_i (i=1,2,3,4)$ is a variable coefficient, CR_1 is the shareholding ratio of the largest shareholder, Z_{2-10} is the degree of equity balance,

and $\ln SIZE$ is the company The logarithm of the scale, LEV is the financial leverage, and ε is the error term.

3. Results and Analysis

3.1. Descriptive Statistical Analysis

Table 1: Variable Descriptive Statistics

Variable	N	Mean	S.D.	Minimum	Max
ROE	5607	0.0688933	0.1753136	-7.220308	1.466924
CR1	5607	0.368954	0.1529865	0.05269	0.899858
Z2-10	5607	0.7555641	0.7005645	0	4.437019
$\ln SIZE$	5607	22.20411	1.335431	18.28677	28.25083
LEV	5607	0.4454882	0.2133801	0.000074	1.049563

From the Table 1, we can see that the overall performance of listed companies in the A-share markets is not high, and the performance differences between companies are relatively large, but the overall performance volatility is not very large.

The average CR_1 is 0.369, the shareholding concentration is relatively high, and the S.D. is 0.153, indicating that the volatility of CR_1 is not large, but the difference in the CR_1 of each company is relatively large. The average of Z_{2-10} is $0.756 < 1$, indicating that the second to tenth largest shareholders of listed companies can effectively restrict the behavior of the largest shareholder, but the effect is not satisfactory. The standard deviation of Z_{2-10} is 0.701, which means that the balance of equity balance degree of various companies are very different. Only some listed companies have significant checks and balances. Most companies have low checks and balances. The phenomenon of "one share dominates" still exists.

3.2. Correlation Analysis

Table 2: Correlation Analysis

	ROE	CR1	Z2-10	$\ln SIZE$	LEV
ROE	1				
CR1	0.0389***	1			
Z2-10	0.0376***	-0.6754***	1		
$\ln SIZE$	0.0739***	0.3188***	-0.0583***	1	
LEV	-0.1703***	0.1296***	-0.1507***	0.3936***	1

Note: * means significant at the 10% level, ** means significant at the 5% level, *** means significant at the 1% level

From the Table 2, we can know that CR_1 is obviously positively correlated at the 1% significance level, which means that the increase in CR can help improve corporate performance. Z_{2-10} and company performance have passed the significance test at the 1% level, and the correlation coefficient is positive, that is, EBD has a positive correlation with business performance. Improving the degree of equity balance degree has a good influence on the improvement of corporate performance.

The control variable $\ln SIZE$ has a obvious positive correlation with business operation at the 1% significance level, and LEV has a obvious negative relationship with business operation at the 1% significance level. The correlation results mean that the selected control variables have played a good control role in this article. The correlation coefficients between the control variables are all lower than 0.5, which means that there is no serious multicollinearity between the control variables.

3.3. Regression Analysis

3.3.1. Total Sample Analysis

(1) Hausman Test

In this paper, the Hausman test method is used to determine whether to choose a fixed-effects

model or a random-effects model. According to the test results, the P values of model (1) are $0.024 < 0.05$, so the null hypothesis is rejected, and the basic assumptions of the random effects model are not satisfied, and the fixed effects model should be used.

(2) Fixed Effects Model

The regression analysis model for panel data is as follows:

$$y_{it} = \alpha_i + x_{it}\beta + \varepsilon_{it} (i=1,2,\dots,N; t=1,2,\dots,T)$$

From the Table 3, Among them, α_i represents individual characteristics that do not change with time, and different individuals have different intercept terms; x_{it} can vary with individuals and time; ε_{it} is the disturbance term; y_{it} is the explained variable.

Table 3: Fixed Effects Model Regression Analysis

Variable	B	t
Constant	-0.3533511***	-3.03
CR1	0.1611496***	3.55
Z2-10	0.0249444***	3.26
lnSIZE	0.020211***	3.84
LEV	-0.2353054***	-11.86

Note: * means significant at the 10% level, ** means significant at the 5% level, *** means significant at the 1% level

According to the regression results, the model (1) passed the significance test. The regression coefficient of the explanatory variable CR_1 is 0.161, indicating that the CR has a significant positive influence on business operation. When the shareholding is highly concentrated in the largest shareholder, the enthusiasm of the major shareholders to improve production and operation efficiency and supervise the behavior of managers increases, thereby driving the steady development of the enterprise and promoting the improvement of business operation.

EBD has a significant same direction influence on business operation. This is because when the second to tenth largest shareholders can constraint the largest shareholder, they can effectively supervise the performance of the largest shareholder and prevent he from encroaching on the rights and interests of other small and medium shareholders for their own interests. It has a good effect on the company's long-term development and is conducive to the improvement of corporate performance.

3.3.2. Sub-sample Analysis

From the Table 4, This article re-divides the total sample according to the nature of the company and the place where the company is registered, and divides it into state-owned enterprises (SOE) and non-state-owned enterprises (NSOE); eastern region and non-eastern region.

Table 4: Comparison of SOE and NSOE

Variable	SOE		NSOE	
	B	t	B	t
Constant	-0.1255318	-0.67	-0.5122479***	-5.21
CR1	0.1613712**	2.37	0.1768819***	4.24
Z2-10	0.0306649**	2.53	0.0212429***	3.25
lnSIZE	0.0106825	1.28	0.0266308***	5.82
LEV	-0.2802955***	-9.75	-0.1591687***	-8.21

Note: * means significant at the 10% level, ** means significant at the 5% level, *** means significant at the 1% level

From the Table 5, According to the results, whether it is a SOE or a NSOE, the degree of CR and EBD have a significant positive impact on corporate operation. However, the relationship between equity concentration and corporate performance of SOE is weaker than that of NSOE. Because state shares are performed by the state or local governments as investors, but they do not enjoy the ownership of the enterprise and cannot directly benefit the enterprise. Therefore, when the shareholding increases, the enthusiasm of the administrative department to participate in enterprise supervision and management is less than that of the major shareholders of non-state enterprises. In addition, because state-owned enterprises have an overly long principal-agent chain, which increases the cost of principal-agent, the supervisory role of agents is weaker than that of NSOE.

Table 5: Comparison of Eastern Regions(ER) and Non-Eastern Regions (NER)

Variable	ER		NER	
	B	t	B	t
Constant	-0.4171587***	-3.18	-0.0383067	-0.21
CR1	0.1610828***	3.16	0.2322284***	3.15
Z2-10	0.0290872***	3.34	0.0066964	0.60
lnSIZE	0.0235948***	3.95	0.0022198	0.28
LEV	-0.2646604***	-11.64	-0.0779691***	-2.79

Note: * means significant at the 10% level, ** means significant at the 5% level, *** means significant at the 1% level

Companies registered in the eastern region have a significant positive correlation between CR and EBD and business operation, while companies established in NER only have a obvious relationship between CR and business operation, and the EBD have not passed the significance test. The economic development of non-eastern regions is relatively backward, the capital market is still in the preliminary stage of development, there is a lack of complete laws and regulations, and the information disclosure system of listed companies is not standardized which will greatly weaken the restriction of other major shareholders to the largest shareholder. Therefore, the increase in the EBD has minimal impact on the performance of listed companies in non-eastern regions.

3.4. Robustness Test

From the Table 6, In order to verify the reliability of the above analysis and research, this paper conducts a robustness test. Using the replacement method of explained variables, replace the measurement index of corporate performance with Tobin'Q.

Table 6: Robustness Test

Variable	B	t
Constant	9.473578***	10.60
CR1	0.9177673***	2.64
Z2-10	0.1807262***	3.09
lnSIZE	-0.3072704***	-7.62
LEV	-1.451806***	-9.56

Note: * means significant at the 10% level, ** means significant at the 5% level, *** means significant at the 1% level

When the explanatory variable is changed to Tobin'Q, the total sample equity concentration and equity balance still have significant Same direction influence with corporate performance, which is consistent with the previous analysis. Therefore, the robustness of the above empirical results is very good.

4. Conclusion and Suggestion

4.1. Conclusion

This article comprehensively analyzes the development status of China's listed companies in the past 9 years, and draws the following conclusions:

(1) There is a significant positive correlation between equity concentration (CR₁) and corporate performance, that is, the "supervision effect" brought by equity concentration exists.

When the equity is relatively dispersed, the shareholders lack the enthusiasm to supervise the managers. Because the goals of the business owner and the managers are inconsistent, the managers will act in their own interests to harm the company's benefits, which is not conducive to the company's longterm development. With the increase in equity concentration, the company's efficiency is closely related to the vital interests of major shareholders. Major shareholders actively participate in the company's operation and management, effectively supervise and restrict the behavior of managers, improve the company's production and operation efficiency, and promote the continuous improvement of corporate performance.

(2) The equity balance degree (Z₂₋₁₀) has a positive effect on corporate performance, that is, as the

degree of equity balance degree increase, the company's performance is getting better and better.

When other shareholders have a check and balance effect on the largest shareholder, they can supervise and constrain the behavior of the largest shareholder, prevent the largest shareholder from encroaching on the interests of other shareholders for their own benefit, and be effective against the motives and behaviors of the largest shareholder for personal gain. To restrict. In addition, when the degree of equity balance degree is relatively low, because the company owner's supervision of managers requires high management costs, shareholders in order to avoid this expense, they hold the mentality of other shareholders to supervise, resulting in "free riders". The behavior of the company leads to the unsupervised state of the company, which is not conducive to the development of the company and harms the performance of the company.

4.2. Suggestion

Both the concentration of equity and the degree of equity balance degree have a significant positive effect on corporate performance. Based on this, relevant policy recommendations for improving the equity structure of listed companies are proposed:

(1) Appropriately increase the concentration of corporate equity and increase the enthusiasm of major shareholders to participate in corporate governance. The higher the concentration of equity, the greater the control of the company by major shareholders, and they will actively participate in the operation and management of the company for their own interests. When the equity is relatively dispersed, the shareholders' enthusiasm for the supervision and management of the management is not high, and the management will harm the interests of the company for their own interests, which is not conducive to the long-term development of the enterprise. China's listed companies have relatively high equity concentration, but the differences between companies are relatively large. Companies with more dispersed equity can appropriately increase equity concentration to promote corporate performance.

Due to the particularity of the property rights of state-owned enterprises, the improvement of corporate performance cannot only rely on the concentration of equity, but should strengthen market competition and encourage agents to improve corporate performance through external competition. Private capital can also be introduced to give play to its supervisory and restrictive role in corporate governance.

(2) Promote checks and balances among major shareholders and optimize the shareholding structure. Company performance will increase significantly as the degree of equity balance degree increase. Appropriately increase the shareholding ratio of the second to tenth largest shareholders, and increase the control of the company by these largest shareholders, which can enable other major shareholders to effectively supervise and check and balance the largest shareholder, and prevent the first largest shareholder from encroaching on the interests of the largest shareholder. For listed companies with low equity balance degree, it is possible to rationally adjust the original shareholder's shareholding ratio by increasing capital or introducing new shareholders to dilute the shareholding of the largest shareholder, in order to achieve effective checks and balances of the remaining shareholders against the largest shareholder.

Due to the backward economy, policies, and systems in the non-eastern regions, the degree of equity balance degree cannot effectively exert a positive impact on corporate performance. Therefore, the non-eastern regions can learn from the development experience of the eastern region, continuously improve laws and regulations and the company's management mechanism, make corporate information public and transparent, and strengthen the checks and balances of other shareholders on the largest shareholder.

4.3. Shortcoming and Prospect

(1) This article uses A-share listed companies as the research sample, and does not classify the samples according to the industry. Due to the different characteristics of each industry, the relationship between the ownership structure and corporate performance is also quite different. In future research, we can try to study companies in a certain industry, so that the research conclusions are more pertinent.

(2) This article only considers the impact of the ownership structure on corporate performance, and does not consider whether corporate performance has a reaction mechanism to equity institutions, and whether the improvement of corporate performance will increase the enthusiasm of shareholders to participate in the company's management. Therefore, studying the interaction between the ownership

structure and corporate performance is of great significance for improving the theory of corporate governance structure.

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