An Analysis of the Relationship between Ownership Structure and Corporate Value of Listed Companies in China

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Abstract: The concept of corporate value has been deeply rooted in the 1950s. In fact, the so-called corporate value is only the central point of all corporate activities. For example, the corporate management activities including financing, investment and governance are based on the value of the company. Corporate management is nothing more than value-based activity with the goal of maximizing value, which belongs to the strategic content of the company. Although the China's capital market developed relatively late, which also has undergone a once-through reform of equity splitting, it has overcome some of institutional deficiencies that have appeared in the past capital markets. For basic research on corporate value, there has also been new verification in a specific context. This paper takes the ownership structure as a research point, and the company's value is regarded as the research core, combined with the mainline of "equity structure-capital structure-company value" path, to explore the relationship between the company's shareholding structure and value.

1. Introduction

The concept of company value was first proposed by two scholars Modigliani and Miller in the United States in 1958. The views of different economic schools about company differ greatly, and the aforementioned two scholars did not indicate the value of the company clearly, which is market value equivalent to the sum of market interest and value actually according to the subsequent research. Until the 1980s, the American consultant McKinsey really put forward the concept of value management, which is called VBM for short as follows. In his opinion, the company value is based on the company's value laws, where the core value management method is used to make all of company's stakeholders obtain satisfaction in return [1]. In 2004, Mullins W and Schoar A [2] put forward a point of view that the company value is that workers produces value based on the labor contracting function in the course of the operation and creation of a business, which is related to the necessary labor time. On the contrary, the reduced necessary labor time will cause the reduction in the value of company. Therefore, when defining the company's value, the current financial economy usually refers to the expected free cash flow of the company, which is equivalent to the present value of the discounted cost of average capital. The enterprise value is closely related to the company's financial decisions, and it will also reflect the financial risk, sustained development ability and time value.

Many social enterprises use a variety of company value measurement rules when conducting company performance evaluation, mainly including listed company's price-earnings ratio method, Tobin's Q-value method, company profitability accounting index method, discounted cash flow method and economic value added method. The discounted cash flow method and the economic value added method are used to assess the future and current profitability of company, while the other assessment methods are static, which are based on the company's net assets [3]. The corporate values can be divided into a variety of arguments, mainly including cost value theory, capital value theory, labor value theory, cash supreme concept and present value of earnings concept. There are different forms and characteristics in the aforementioned different values have, which can be roughly divided into five types:

Book value. The book value is relatively easy to understand, that is, all the record values on the company's balance sheet. Generally, the balance shows the results of the company's total assets and total liabilities. The characteristic of the book value is that its measurement basis is based on history cost, which has a certain degree of verifiability and objectivity, and some important factors are not included in them, such as exchange rate devaluation and inflation. Sometimes, the intangible assets such as intellectual capital are also ignored, and the company's future earnings and value are not fully considered.

Market value. The market value is mainly to use the company's assets as commodities in the market to conduct open competition, so that the company's value is confirmed under a balanced supply and demand relationship, which is generally referred to the market value of corporate securities, stocks and bonds. The value of the company is directly reflected in the securities, and this market is understood to be completely effective under the “market effective theory”, so the price of the stock will be reflected in the open information. In terms of measurement, there are too many influencing factors on securities prices, especially on stock prices, which are related to the internal factors of the company and always influenced by the external market conditions. Therefore, there are usually large fluctuations in company stocks, which are often caused by irrational factors. To a certain extent, the value of the company's securities market is difficult to guarantee that it can accurately reflect the value of real companies.

Fair value. This value theory comes from Article 16 of the International Accounting Standards, which is defined as asset value in a positive product transaction under the conditions of complete voluntarism between the parties, and the market value is completely information-free asset value in the international assessment criteria. The characteristics of fair value in the form of measurement are related to the company's current business situation, of which disadvantage is that it has a strong subjective feature, and it is easy to produce non-reliability in value after the measurement is affected. When the market conditions are not positive, there is a certain degree of difficulty in the fair measurement of company assets and liabilities. There are a large number of artificial estimation factors, and strong subjective awareness can make great influence on the reliability of accounting information.

Intrinsic value. The concept of intrinsic value is intended to reflect the company's profitability in the future, which is not real company asset, and the market value here is not real material value. The market value that Buffett et.al. obtains is a direct reflection of the company's intrinsic value in a long-term investment, which is annually over the level of investment return. The most direct way is that the person who invests will obtain the corresponding investment return, which is characterized by the fact that in comparison with the book value, the intrinsic value of the company is biased towards subjectivity in terms of measurement.

Liquidation value. If a company cannot operate normally, its value will be the liquidation value. The liquidation value is the representative of the cessation of business. Besides, company will sell all company's assets to subtract all liabilities when the liquidation is conducted, and therefore the liquidation value is also equal to the value of a kind of cash conversion. If a company does not have a strong future cash flow expectation, its demise will be more valuable than survival, which makes the company's intrinsic value equivalent to the liquidation value.

2. Shareholding Structure and Company Value

This section can be divided into four parts:

Firstly, the influence of ownership concentration on company value, and there is no unanimous conclusion in this regard. Some scholars believe that the concentration of ancient money is directly proportional to corporate performance: Du M’s [4] study reveals that the relationship between Tobin's Q value and equity concentration is proportional; Banalieva E R et.al. [5] demonstrates that the major shareholders have a positive effect on the corporate governance mechanism. However, there are also views that equity concentration has a negative impact on corporate performance, which is proved by the research of Li S et.al. [6]. Most scholars believe that there is a non-linear relationship between equity concentration and company value.

Secondly, the relationship between equity balance and corporate performance. Some scholars believe that there is most beneficial influences between both sides, which mainly depends on two factors: the supervision and management of corporate diversification by major shareholders, and mutual supervisory relationships formed by multiple major shareholders, which can exert weakening effect on private equity for large shareholders and reduce unnecessary benefits.

Thirdly, the relationship between the nature of equity and corporate performance. A number of studies have shown that there is no absolute relationship between both sides. However, it is worth mentioning that the proportion of national stocks will not have an important impact on the company's value. There is no big difference between the company's value and the state's shareholding. Besides, the influence of legal person shares is little, while the tradable shares are generally considered to have an adverse effect on the value of the company. In general, almost all companies have private shareholders, and the impact of private shares on the company's value is positive in the governance of the company.

Fourthly, the relationship between management holdings and company value, which is critical in this section. There are a lot of academia's conclusions about the influence of managerial holdings on corporate performance, which are not unified. Boyd B K et.al. [7] concluded that managers' shareholdings have a beneficial effect on the company's operating performance, which makes an incentive effect. In this study, the effective measure of company performance is to calculate Tobin's Q value and total assets return rate, and it is found that there is a significant positive relationship between the proportion of equity ownership and company performance. The following section will provide a specific empirical study.

3. An Empirical Study on Corporate Equity Structure and Value

The market is equipped with a lot of non-effective factors, and there are three main indicators that can be used to measure corporate value: market, financial performance and additional economic value.

Financial Performance Indicators. The domestic proxy variables used to represent the company's value are Return on Assets (ROA), Return on Equity (ROE), Earnings per Share (EPS), and Corporate Responsibility Officers Association (CROA).

Market Value Indicator. In the West, the Tobin Q is usually used as the company's value measurement index, which is referred to as TQ with formula:

$$TQ = \frac{SMV + NTS \cdot NAPS + TL}{TA} \tag{1}$$

Where SMV is stock market value, NTS is non-tradable shares, NAPS is net assets per share, TL is Total liabilities, and TA is total assets of the company

Additional Economic Value Indicator. The indicator of additional economic value (EVA) is superior in terms of persuasiveness indicators compared to the traditional method of calculating economic value-added profits (deducts all input costs, and does not deduct opportunity costs), which is supplemented by an opportunity cost as a reference for deducting remaining value.

Variable Definition. The company's value is interpreted as a variable definition. In order to allow the company's value to be more comprehensive and to clarify the relationship between corporate performance and governance as well as shareholding structure, this article will use two types of indicators to carry out a detailed study of the relationship between company value and equity: the one is Tobin Q, and the other is the accounting performance indicator. These indicator categories are all within the category of accounting profit indicators, containing a variety of factors such as fixed asset profit rate NPMFA, Return on Invested Capital (ROIC) and profit on pounds (OPM), which are shown in Table 1:

Equity structure and corporate performance model design. Based on the aforementioned design thinking, the Spss16 software is used to conduct modeling, and the stepwise regression method as well as the least squares method are used to conduct the further analysis. The company value model is established as follows:

$$Company\ Value = \beta_0 + \beta_1 top1 + \beta_2 DSE + \beta_3 psos + \beta_4 LN(DSE) + \beta_5 pps + \beta_6 ID + \beta_7 pslps$$
$$+ \beta_8 CEO + \beta_9 pflps + \beta_{10} CMN + \beta_{11} pos + \beta_{12} Committee + \beta_{13} SIZE + \beta_{14} MSO + \beta_{15} BR$$
$$+ \beta_{16} SP + \beta_{17} HR + \beta_{18} State + \beta_{19} SM + \beta_{20} SL + \beta_{21} DC + \beta_{22} FC + \beta_{23} \Pr ivate + \beta_{24} NBC$$
$$+ \beta_{25} LN(Director3) + \beta_{26} LN(Executives3) + \beta_{27} LN(DSE3) + \beta_{28} LVE + \beta_{29} SIZE + \varepsilon \quad (2)$$

The formula includes all the corporate value indicators, such as Tobin Q, return on assets, return on net assets, profit margin on cost and so on. ε is random value, and $\beta_1, \beta_2, \cdots, \beta_{29}$ are constant coefficients.

Tab.1 The Relationship Between Corporate Value and Equity

	Number Samples	Minium Value	Maximum Value	Average Value	Deviation
Tobin Q	608	0.8151	10.2441	1.6487	0.9473
NPMTA	660	-0.5704	0.3897	0.0640	0.0586
DNGROE	351	-45.31	43.52	9.3357	7.0241
ROE	655	-0.9168	0.7906	0.1030	0.0957
OPM	658	-1.3327	0.6397	0.1165	0.1352
NPMS	660	-1.2369	0.6101	0.1079	0.1246
ROA	658	-0.4829	0.4927	0.0871	0.0621
NPMCA	658	-1.4477	0.6352	0.1053	0.1328
NPMFA	658	-1.7461	10.6047	0.5363	1.0122
RIC	658	-0.3743	2.2273	0.1918	0.2094
LRCE	658	-1.6791	1.0862	0.1640	0.1327
CM	658	-0.5291	2.0447	0.1749	0.2208
ROC	658	0.0941	1.3692	0.7161	0.1709
RFE	658	-0.0759	0.4060	0.0160	0.0332
LEV	660	0.0210	1.0744	0.3953	0.1781
CEO	660	0	1	0.28	0.451
Bt	652	1	18	8.98	1.707
NBC	650	1	9	3.66	1.215
DSE	660	202800	3.E7	2.20E6	2258794.271
CMN	512	0	4	3.61	0.943
Committee	512	0	1	0.6	0.565
top1	660	8.12	92.35	37.6867	14.9466
State	660	0	1	0.05	0.208
SM	660	0	1	0.04	0.191
SL	660	0	1	0.22	0.413
DC	660	0	1	0.39	0.488
FC	660	0	1	0.04	0.198
Private	660	0	1	0.27	0.443
ID	650	0.1429	0.6667	0.3612	0.0479
pos	660	0.0000	1.0000	0.3807	0.1985
psos	660	0	1	0.13	0.227
pslps	660	0.0000	0.9582	0.2186	0.2200
BR	660	0.0000	0.9245	0.1764	0.2141
SP	660	0.0000	0.3150	0.0086	0.0275
HR	660	0.0000	0.9250	0.0880	0.1443
lln（DSE）	660	12.2200	17.1995	14.3328	0.6998
ln（Director3）	654	9.9712	16.4470	13.3560	0.7968
ln（Executives3）	660	11.2050	16.5705	13.4272	0.7267
ln	660	19.1682	25.3606	20.6636	0.7742

4. Empirical Conclusions of Equity Structure and Tobin Q value

Table 1 explains Tobin's regression coefficients expressed in the company's value variable. By substituting different Tobin coefficients, the company's value variables results can be analyzed. In this study, the coefficients of the final shareholding ratio, board size, sensible top three remuneration, top three executive remunerations, Republican asset-liability ratio, executive compensation, and total amount of directors' supervision are substituted into in the structural regression system, to obtain the specific results shown in Table 2:

Tab.2 Calculation Results of Company Value Variable

Torbin Q	Model 1	Model 2	Model 3
First Shareholding	-0.006* (-1.990)	-0.007* (-2.263)	-0.007*** (-2.304)
Board Size	-0.089*** (-3.390)	-0.091** (-3.493)	-0.088*** (-3.402)
Total Remuneration		.192*** (3.385)	
Directors' Remunerations	0.168*** (3.274)		
Senior Executives' Remunerations			0.175*** (3.202)
Shares in Circulation	1.112*** (4.615)	1.102** (4.645)	1.084*** (4.570)
Assets Liabilities	-1.353*** (-5.679)	-1.369*** (-5.811)	-1.307*** (-5.517)
Constant Term	0.516 (.679)	0.057 (0.066)	0.427 (.538)
Adjust R2	0.165	0.168	0.166
P Value	0.000	0.000	0.000
F Value	19.319	19.994	19.707

Based on the Table.2, it can reach the following conclusion:

There is a negative relationship between the first shareholding ratio and the company value represented by the Tobin Q indicator, which illustrates that for some small and medium enterprise boards, regardless of the nature of major shareholders, they usually appoint their own agents to engage in the company's operations directly, to fight for the interests of senior, which will be harmful for the interests of the company.

The stronger controlling ability that shareholder has, the more likely that the "tunneling activity" will occur: the encroachment on the interests of small and medium-sized shareholders will cause a loss in the value of the company and reduce the value of the company.

The Tobin coefficient of the tradable shares is proportional to that of the company's value, which shows that if the ratio of tradable shares is properly raised, the confidence of investors in their shareholding will maintain to raise the company value.

The negative correlation between the asset-liability ratio and the company value Tobin coefficient index indicates that the listed SME companies are usually faced up with a series of problems including that the income and expenditure of financial leverage is unstable, and the revenue is less than the cost of financial crisis, which are caused by many reasons such as poor material guarantees and corporate credit capabilities as well as high business risks.

For such enterprises being in rapid development, the lack of funds and high corporate debt ratio are very unfavorable, which will make enterprises lost many investment opportunities.

The relationship between the scale of the board of directors and the company's value is also negatively correlated, the reason for which is that the increasing number of board directors will bring internal consumption caused by the need for coordinating directors' relationship, which is far more than the revenue for company generated by increasing the number of directors. Besides, the coordination of directors' relationship is usually involved in CEO, which also causes adverse effects and reduces the value of company.

The total remuneration of executives and directors is significantly positively related to the company's value in the Tobin Q system, and it can be clearly concluded that for SMEs, raising remuneration for senior executive, members of director board and entire management team is an effective countermeasure to increase their satisfaction and make them more active in the company. As a result, the company's value will be greatly improved.

With regard to other shares of the company such as domestic and foreign corporations, state-owned, private and part-time general managers, the proportion of independent directors, and the number of established professional committees, these factors are excluded from the final regression results, which illustrates that there is no preference issue related to the nature of the shareholders for the relationship between the ownership structure and the company value, and there is also no issue related to market preference for the content of executive ownership.

5. Conclusion

The author's research is based on the company's shareholding structure, to discuss the relationship between the company's equity and the company's value in detail. Based on the constructed model, the research results and conclusions are obtained. Although the research on the conclusion is relatively successful, there are still many deficiencies in this study.

For example, there are some deviations in the accuracy of research caused by the short time to market of some companies, the limited number of listed companies in China, and the inadequacy of reference data. Although these adverse factors are bot obvious in in the research conclusion, these issues must be explicitly considered. Based on the clear illustration of the relationship between the ownership structure and the company's value of the listed company, the obtained micro theory can certainly bring a clear orientation of development for many enterprises, which can obtain relevant reference for the future strategy formulation. It is believed that with the increase in the number of listed companies in China and the extension of listing time, the deficiencies in the above research samples can be overcame, and more outstanding results with practical guidance can be obtained in more accurate samples.

References

[1] Song J, Wang R, Cavusgil S T. State ownership and market orientation in China's public firms: An agency theory perspective[J]. International Business Review, 2015, 24(4): 690-699.

[2] Mullins W, Schoar A. How do CEOs see their roles? Management philosophies and styles in family and non-family firms[J]. Journal of Financial Economics, 2016, 119(1): 24-43.

[3] Dixon R, Guariglia A, Vijayakumaran R. Managerial ownership, corporate governance and firms' exporting decisions: evidence from Chinese listed companies[J]. The European Journal of Finance, 2015: 1-39.

[4] Du M, Boateng A. State ownership, institutional effects and value creation in cross-border mergers & acquisitions by Chinese firms[J]. International Business Review, 2015, 24(3): 430-442.

[5] Banalieva E R, Eddleston K A, Zellweger T M. When do family firms have an advantage in transitioning economies? Toward a dynamic institution - based view[J]. Strategic Management Journal, 2015, 36(9): 1358-1377.

[6] Li S, Song X, Wu H. Political connection, ownership structure, and corporate philanthropy in China: A strategic-political perspective[J]. Journal of Business Ethics, 2015, 129(2): 399-411.

[7] Boyd B K, Solarino A M. Ownership of corporations: A review, synthesis, and research agenda[J]. Journal of Management, 2016, 42(5): 1282-1314.