International Scholars Journals

Global Journal of Business Management ISSN 6731-4538 Vol. 13 (8), pp. 001-014, August, 2019. Available online at www.internationalscholarsjournals.org © International Scholars Journals

Full Length Research Paper

Ownership concentration, ownership control and enterprise performance: Based on the perspective of enterprise life cycle

Yu Cao

Business School, Central South University, 932 Southern Lushan Road, 410083 Changsha, P. R. China.
E-mail: xiaoyu198549@126.com. Tel: +8613017380816.

Accepted 10 June, 2019

This study examines the relationship between ownership structure and enterprise performance from the perspective of enterprise life cycle, by adding the variables of the enterprise life cycle stages into the model, to explain the inconsistence with the previous study results on this issue. Using a unique 2002 - 2007 panel data of the listed Chinese companies, this study finds that ownership concentration has a significant positive impact on enterprise performance both at the growth stage and decline stage, but not prominent at the mature stage. Ownership control has a significant negative impact which is gradually weakening on enterprise performance at the growth stage, and it has a significant positive impact on enterprise performance at the mature stage, but not prominent at the decline stage. There are no prominent curve relations between ownership concentration, ownership control and enterprise performance.

Key words: Ownership structure, ownership concentration, ownership control, enterprise life cycle, enterprise performance, empirical study, China.

INTRODUCTION

As ownership structure first decides the distribution of corporate control, then the properties of principal agent relationship, so the ownership structure is the basis of corporate governance structure. And the corporate governance efficiency is finally embodied in the enterprise performance. Because of this, the relationship between ownership structure and enterprise performance becomes the most concerned and unflagging research subject in the corporate government. So to study the relationship between ownership structure and enterprise performance from the perspective of empirical study has the significant guidance for the corporate governance reform. A large number of theories and empirical studies have explored and approved the close relation between ownership structure and enterprise performance. But from the existing research results on this issue, the studies about the relationship between ownership concentrations, ownership control and enterprise performance have not achieved the consistency, and even some are poles apart.

There are three different research conclusions on the relationship between ownership concentration and enterprise performance. Some thinks there exists a positive correlation between ownership concentration and enterprise performance (Durnev and Kim, 2005; Shleifer and Vishny, 1997; Xie ,2006; Xu , 2006); some others think there are no correlation even a negative impact (Holderness and Sheehan,1998; Micco et al. 2007; Sun and Tong, 2003; Wang, 2005; Wei et al., 2005; Yuan et al., 2005), still others think there exits curve relations (Du and Liu, 2002; McConnell and Servaes, 1990; Wu, 2002). As for ownership control, there are also three different conclusions: Some academic studies have documented that the relationship between ownership control and enterprise performance is positive (Gomes and Novaes, 2001; Lehman, 2000; Maury and Pajuste, 2005; Volpin, 2002), others assume there is no relationship, even a negative one (Kong and Chen, 2005; Xu et al. 2006; Zhu

and Wang, 2004).

Since the opening of the Shanghai Stock Exchange (SHSE) and the Shenzhen Stock Exchange (SZSE) in 1990 and 1991, respectively, China's stock market has expanded rapidly (Wang, 2005). Currently, China's Industrial structure is faced with important adjustments. So as Wang (2005) said, the listed companies in China inevitable have special feature. As the outstanding representatives of Chinese enterprises, most of the listed companies are the leading enterprises industrially or regionally, and play an important role in the industrial restructuring. Which one should China's listed companies choose a centralized ownership structure or a decentralized one? Could the present ownership control improve the corporate governance? Whether the ownership control has a substantial impact on enterprise performance or not?

From a new perspective of enterprise life cycle, this paper re-examines the relationship between ownership concentration, ownership control and enterprise performance, by combining the theories of the enterprise life cycle and the ownership structure, to demonstrate the reason of the inconsistence among the previous study results on this issue, and supply decision-making references for the enterprise sustainable development and the corporate governance reform in different life cycle stages. This article uses the classification of industry by growth rate in industry economics for reference to define the life cycle stage of listed companies, and then empirically study on the relationship by using the 2002 - 2007 panel data of the listed companies in China. Finally, the results were given and they are compared empirically with previous researches.

This paper is structured as follows; Section 2 briefly reviews the literature dealing with the enterprise life cycle and ownership structure. Section 3 formulation of hypotheses, Section 4 describes the data and method while Section 5 contains the results on the association between ownership structure and enterprise performance in different stages of enterprise life cycle and Section 6 provides the conclusions.

RELATED LITERATURE

A review of enterprise life cycle

Corporate life cycle theory suggests that enterprise is similar to organism, and also has the process from birth to death, from prosperity to decline. It is Haire (1959) who first proposed the concept of the corporate life cycle theory. In mid 50s, he assumes that we can view the enterprise in the perspective of "life cycle", which is used in biology, and the development process also obeys the biology growth curve. Gardner (1965), following Haire (1959), further points out that enterprises, as well as human being and other living things, also had a life cycle. A large number of scholars followed them also did some research about enterprise life cycle. During 1970s and 1980s, it achieved prosperity and came to the new climax in the late of 1990s. The main contents of theoretical studies on this issue are the enterprise life cycle stages division and the differences of enterprises characteristics in each stage of the life cycle. Miller and Friesen (1984), by empirical study, research the different characters in the four aspects of the corporate strategy, the organizational structure, the environment and the decision- making styles during the enterprise growth process. Adizes (1997) classifies the characteristics of the enterprises in the real world by using the relationship between flexibility and controllability, and on this basis, he divided the enterprise development process into two stages: the growth stage and the aging stage. And he further proposed that the development process of the enterprise can be divided into ten stages model: gestation stage, infancy stage, toddler stage, adolescence stage, prime stage, stable stage, aristocratic stage, early bureaucracy stage, bureaucracy stage and the death stage. Chen (1995), according to the enterprise scale, divides the enterprise growth process into the incubation period, survival period, high-speed developing period, maturity, recession and the metamorphosis period of six stages, and described the characteristics of all stages of the enterprise, as well as discussed the forms and methods of the enterprise transformation in detail. Li (2000), on the basis of comparing the enterprise life cycle models, respectively proposed by Adizes (1997), Chen (1995), analyzes the advantages and disadvantages of the current model, and then according to the enterprise sales, divided the enterprise life cycle into new-born, growth, mature and decline stages.

Ownership concentration and enterprise performance

The research about the relationship between ownership concentration and enterprise performance has made important progress both theoretically and empirically. There are two opposing hypotheses formed in theory, that is, hypothesis of monitoring company managers and hypothesis of external minority shareholders' invasion. Monitoring hypothesis, which begins with "Separation of Ownership and Control" proposed by Berle and Means (1932), holds that a serious interest conflict exists between managers and shareholders, and so the principal-agent problem occurs. In their view, in the case of separation of ownership and control, the dispersed ownership of the major shareholders made both their monitoring motivation and ability to managers dropping, therefore shareholders may have to bear the risks of the "moral hazard" and "adverse selection" of the managers. But in the ownership concentration structure, the major

shareholders have the motivation and the ability to monitor and control the managers, and could bind the managers by internal monitoring and external takeover to lower agency conflict between managers and shareholders, and then generate positive impact on enterprise performance (Jensen and Meckling, 1976; Shleifer and Vishny, 1986). But the invasion hypothesis regards that the interests of major shareholders and outside minority shareholders are often inconsistent, and in the case of lacking the threat of external control, major shareholders might be of interest to acquire personal interests at the expense of other shareholders'. By doing this, on the one hand, agency costs affect the improvement of enterprise performance, on the other hand, excessive ownership concentration, allowing the major shareholder intervening the company managers too much, curbs their enthusiasm and creative ability, and also results in lowering stock liquidity, which is not conducive to external governance mechanisms, as well as the improvement of enterprise performance (Demesetz and Lehn, 1985; La Porta et al., 1999).

The academic scholars have conducted extensive research in empirical aspects. The research results of Shleifer and Vishny (1997) show that the existence of major shareholders is in favor of the increase of company value; Similarly, Thomsen and Pedersen (2000), research on the 435 largest sample companies in 12 European countries, and find that there exists a positive correlation between ownership concentration and shareholders' wealth, on the premise of controlling some difference variables, such as industry, capital structure and national effect; Durnev and Kim (2005) also find that the higher the ownership concentration, the higher the positive incentives generated by controlling the public interest for the controlling shareholders, and then the controlling shareholders are more likely to maintain the company's effective control of managers, so the major shareholders, who share a high degree of concentration, mainly has an positive incentive effects on enterprise performance. But Holderness and Sheehan (1988) believe there is no correlation between the company's ownership structure and enterprise performance by doing a comparison about the performance of listed companies, these with an absolute controlling shareholders (the largest shareholder holding more than 50%) and those with relative dispersed ownership (the largest shareholder holding less than 20%). McConnell and Servaes (1990) through analyzing the relationship between Tobin Q value and ownership structure of more than 1000 listed companies in 1976 and 1986, find that there were curve relations between the listed company value and its ownership structure.

With the rise of the shareholding system, as well as the establishment and development of Stock Exchange in China, many scholars begin to research the relationship between the ownership structure and Chinese enterprise performance from the theoretical and empirical aspects, and also accumulate a certain amount of experience. The studies of Xu and Chen (2003) show that non-state-controlled Company is with a higher value and greater profitability than the state-controlled company. Xu (2006) find that there is a significant positive linear relationship between the ownership concentration and operating performance, and such relations exist in the controlling shareholders with different character. And Xie (2006) assumes that the more concentrated ownership, the stronger the motivation and capacity of the large shareholders to participate in the management. In terms of China's current market environment and legal system, a higher degree of concentration of holdings is an effective corporate governance structure. But Yuan et al. (2005) use the annual report data of listed companies in China as basis, to study the relationship between ownership concentration and the value of company and reached the result that there is no clear relationship between the ownership concentration and the value of company. And Wu (2002) through the empirical data analysis of listed companies from 1997 - 2000, finds that the ownership concentration and enterprise performance were significant inverted U-related; the largest shareholder's shareholding proportion and enterprise performance are positively related; Similarly, Du and Liu (2002) also indicate that between ownership concentration and enterprise performance there was a significant inverted U- type. Sun and Tong (2003) from the point of capital stock properties find that the state share has a negative effect on the enterprise performance, and the legal person share has a positive effect on the enterprise performance. Wei et al. (2005) also get the similar results that the State shares and legal person shares have a significant negative correlation with the Tobin Q value, and became significant nonlinear, and U-relations, but foreign capital share has a positive correlation with the value of Tobin Q. However, the research results of Bai et al. (2005) point out that there is a U-type relationship between the largest shareholder's shareholding proportion and corporate value (Tobin Q).

Ownership control and enterprise performance

How to bind the major shareholders' action effectively in the companies which are controlled by the major shareholders, scholars believe that through the internal diversion of interest of major shareholders, mutual supervision could be achieved, thereby protecting the interests of all shareholders. Gomes and Novaes (2001) proved using theoretical model that mutual bound and supervision among a number of major shareholders could effectively restrict invasion of controlling Shareholders, and then effectively protect the interests of small and medium-sized shareholders. Lehman (2000), Volpin (2002), Maury and Pajuste (2005) using the data of listed companies in different countries confirm that the existence of ownership control is in favor of restricting

invasion behavior, thereby enhancing the value of listed companies.

As for the ownership control in China, many researchers showed that ownership control played a important role in supervising and controlling the controlling Shareholders, which is useful for improving the value of enterprise (Song et al., 2004; Wang and Song, 2006); and the study results of Zhang and Zeng (2008) show that ownership control could restrict the invasion behavior of the majority shareholders, reducing the interests of major shareholders, and thereby protecting the interests of minority shareholders and promoting fair. But Zhu and Wang (2004) believe the ownership control cannot improve China's private listed companies' governance efficiency, and the ownership control was not more efficient than "only one big share". And Xu et al. (2006)also indicates that ownership control did not play a positive role, even the extent of ownership control have a negative impact on enterprise performance; Kong and Chen (2005) also proved that the stronger the power of ownership control, the worse the enterprise performance.

To sum up, the research about the relationship between ownership control and enterprise performance of the existing listed companies failed to reach a consistent conclusion. This study believe that why previous studies have shown the diversity of results was mainly because there was no consideration of the impact of the life cycle of enterprises. Because the various stages of the enterprise life cycle have different internal and external environment, as well as different characteristics in various stages. Previous studies are inconsistent in their choice of samples, different samples in different stages. The proportion of number of enterprises in each stage of is also different, which will inevitably shape the results of different studies. At the same time, the previous studies use Tobin's Q value in the many study, but currently the effectiveness of China's stock market has a wide gap with and the West mature markets, and the market value of listed companies cannot be regarded as the present value of future cash flows unbiased estimation (Xu, 2006), similarly, taking the high share exchange rate, volatility, as well as the issue of accounting manipulation into account, Tobin Q should not be chosen as a corporate performance indicator for China's listed companies. Meanwhile, as for the samples and estimation methods, most studies tend to focus on one-year cross-sectional data, or data years simply collected together and did not use a more advanced model of the panel data estimation. This article is intended to use the up-to-date panel data, as well as the less susceptible to accounting manipulation of accounting indicators to measure enterprise performance, and from a new perspective - the enterprise life cycle to empirically research on the relationship between ownership concentration ,ownership control and enterprise performance, in order to explain the inconsistency with the previous study results on this issue by combining the theory of enterprise life cycle and ownership structure, and provide decision-making reference for the choice of ownership structure in the development process of the enterprise.

HYPOTHESES

Everything has its life cycle, and enterprise is not an exception. As the viewpoint of the Corporate Life Cycle Theory, enterprise is similar to organism, and also has the process from birth to death, from prosperity to decline (Adizes, 1997). The interior environment of an enterprise is changing accordantly with its stage transformation. Two enterprises in different stages will show different characters though they share the same ownership or management system (Hu et al., 2006; Li, 2007). In order to extend the enterprise life cycle, achieve sustainable development, enterprise growth elements must adapt to the change of the life cycle stages (Green et al., 2008; Hardstone, 2004; Kim and Reinschmidt, 2006). Ownership structure, as the basis of enterprise governmence, inevitably shows different characters with the development of enterprise. In this article, the study pays attention on the ownership concentration and ownership control.

In the start-up stage, the enterprise scale is small, the property of manpower and other resources are relatively deficient. Enterprises obtain the initial market niche mainly through advances in technology, innovation or entrepreneurial spirit. The provided products and services have not been recognized by consumers, even with the simple internal organizational structure, imperfect management system, and substandard management. However, in this stage enterprise has greater flexibility and stronger learning and innovating ability. Therefore, in this phase, the characters competitiveness of enterprises shows is the lack of enterprise resources, it is a process to achieve resource through ability and complete the process of growth.

When the enterprise enters the growth stage, the products and services are gradually recognized by consumers. With the rising of market's demand, the product sales rapidly expand, scale economic effect gradually manifests, and external market opportunities increases. The enterprise is in a strong rise and expansion period, facing the tensions of a variety of resources, but at the same time, the competition among enterprises will gradually heat up, at last resulting in an intense collision with the outside environment. Under the role of "the effectiveness of learning", the entrepreneur will usually stay as an operator, thereby enhancing the ownership concentration and the ratio of the controlling shareholder's stake, which will generate a strong incentive. Especially in the early stages of enterprise growth, the concentrated ownership structure will help

improve decision- making efficiency and the enterprises flexibility, to cope with the high-growth demand and the pressure brought by the changes. At this time, the interests of operators and the interests of minority share-holders tend to be consistent, while a higher ownership control will affect the enthusiasm of entrepreneurs. In the late growth stage, the ownership structure has the decentralization trending; the expansion continuing in the area of a single product has reached the limit. Companies begin to explore the implementation of diversification strategy to achieve the rapid expansion of enterprise scale, and strengthen companies' resource integration capacity, and then the enterprise enters the innovation period from the growth stage to the mature stage. Diversified shareholders are in favor of corporate financing and, supervising and guiding the process of business diversification. So the following hypotheses are provided:

H_1: Generally, in the growth stage, the ownership concentration and enterprise performance are positively correlated;

H_2: In the growth stage, the ownership control has a negative impact on the enterprise performance, but the effect is gradually weakening.

When the enterprise enters the mature stage, its all aspects develop perfectly, with stable sales revenue, adequate cash flow, a wealth of personnel, financial, and material resources; and the adaptability and standardi-zation achieve a balance, financing channels get the diversification; shareholders become diversified. The key to improve the governance is to improve the supervisory of ownership structure, avoid the opportunistic behavior of managers and low efficiency of internal resources and so on. Diversification of ownership structure not only effectively ensures the source of enterprises funds, but also provides an opportunity to "vote with their feet" for these small and medium-sized shareholders. In short, the ownership structure, with a state of absolute dispersion and relative concentration, as well as a certain degree of control, is adapted to maintain the development of a mature enterprise. So the following hypotheses are provided:

H_3: Generally, in the mature stage, the ownership concentration and enterprise performance are not significantly correlated;

H_4: In the mature stage, the ownership control has a positive impact on the enterprise performance.

When the enterprise is in the recession stage, its organization is rigid, vitality decreases, and the dynamic mechanism weakens. Usually there will be a drastic drop in sales or a regular deceleration in market growth, or a decline in market share and profit margins. And the financial situation begins to deteriorate, the liabilities increase and so on. In this stage, the right strategy is to harvest profit and divert investment towards a new point, but in order to adapt to the strategy; the enterprise must spin-off the loss-making business, and cultivates new growth points in a planned way. Thereby, it has to strengthen supervision and guidance and encourage managers to seek new investment opportunities actively, and even reduce short-term behavior. If it is successful, the enterprise will have the new growth points and its stock will rebound. Under certain external circumstances, concentration plays a very important role in monitoring, but the ownership dispersion is not effective for monitoring managers, and even leads to "hollowing out" companies, sometime resulting in the death of enterprises. Under the threat of stock prices dropping and the death of enterprise, the conflict between the minority external shareholders and the major shareholders is not serious, and major shareholders do not conflict with each other for personal interests. They are closely related to the overall enterprise interests, and in order to ensure the effective investment, the minority shareholders have sufficient incentives to collect information and carry out effective management, so the ownership concentration is in favor of rebounding the enterprise performance, and the ownership control has no real impact on performance. So the following hypotheses are provided:

H_5: Generally, in the recession stage, the ownership concentration and enterprise performance are positively correlated;

H_6: In the recession stage, the ownership control has no impact on the enterprise performance.

METHODOLOGY

This article uses the classification of industry by growth rate in industry economics for reference to define the life cycle stage of listed companies, and then on the base of measuring ownership concentration, ownership control and enterprise performance, and even through the related analysis and regression analysis to owner-ship concentration, ownership control and enterprise performance, explores their relationship in the different life cycle stages.

Sample and data collection

This study covers a sample of all listed companies in Shanghai and Shenzhen Stock Exchange in China over 2002 - 2007 years. In accordance with research purposes, as well as to ensure the validity of data, the original samples according to the following cri-teria were screened: (1) Selecting continuous operation companies for the sample from listed companies, so that the samples studied can maintain the necessary continuity; (2) Excluding financial listed companies from samples; (3) Removing samples of data missing, incomplete, or not continuing-operation in the entire study period.
(4) Removing samples of the ST, PT companies; (5) excluding the samples of companies with changes in main business because of merger and reorganization or large assets-replacement; (6) re-moving samples without obvious characteristics of the main industry of the company. (7) Removing samples with abnormal values of indicators because the reliability and consistency of the conclusions may be greatly affected if including abnormal samples. The final study samples included 374 listed companies after screening.

The sample data is mainly from the Chinese wind information system. The data analysis software of Excel, eviews 6.0 and SPSS 13.0 are used for data process in this paper.

The division method of enterprises life cycle stages

Drawing lessons from the industry classification of growth rate in industrial economics, the study first divided the life cycle of listed companies into three stages: growth, mature and decline (in accordance with the current status of the stock market, the company in the start -up stage cannot be listed on the main board, so there is no listed company (Zhao and Sun, 2005)). The core of this method is: comparison of growth rates in two adjacent periods with the industrial growth rate in corresponding period. If the growth rates of enterprise in the two periods are higher than the industry average growth rate, the enterprise is in growth stage. If the previous growth rate of enterprise is close to industry average growth rate, while in the latter period the growth rate of enterprise is much higher than industry average growth rate, the enterprise is in growth stage. If the previous growth rate of enterprise is higher than industry average growth rate, while in the latter period the growth rate of enterprise is gradually lower than industry average growth rate, the enterprise is in mature stage. If the growth rates of two adjacent periods are below the industry average growth rate, then the enterprise is in decline stage. However, as Miller and Friesen (1984) said, there are no specific conclusions on the length of "one period" in the division of enterprise life cycle stages. Enterprises are facing a complex external environment, so it is not reasonable to choose the length of "one period" too long or too short. When the choice of "one period" length is too short, the division of life cycle will be subject to interference of external environment; when the choice is too long, enterprise may span two stages of the life cycle. Taking into account the listing and delisting criteria of Chinese listed companies and the phenomenon of "rich only three years", the study chose the "one period" for 3 years.

Because of the restriction of data and difference in statistical definition at different stages, the study has to reduce the requirements. It referred to the research methods of Zhao and Sun (2005), in which enterprise growth rate is measured by the growth rate of sales revenue and the industry growth rate is measured by average sales growth rate of the listed companies in one industry. In the study, the period into two stages from 2002 - 2004 and from 2005 - 2007 were divided. Among the 374 listed companies there are 141 in the growth stage, 110 in the mature stage and 123 in the decline stage.

Variable selection and definition

Detailed definitions of variables used in the regressions are shown in Table 1.

Enterprise performance

Most existing researches use the return on assets (ROA) and the value of Tobin's Q to measure enterprise performance. But because the stock price of China's listed companies is far deviated from its value, Q value can not reflect the enterprise performance truly, at the same time, the replacement value of the assets o is difficult to estimate (Wu, 2002) . However, ROA can be manipulated easily, but the central business return on assets (CROA) cannot be. In the light of such considerations, this paper will use the CROA as enterprise performance.

Ownership concentration

There are three measurements of ownership concentration, CR index, H index and the Z index. These indices can pop out their differences on condition that each major shareholder has the same percentage of stakes more or less. In effective sample of companies, the largest shareholders have 42.55% while the top ten have 58.66%. Using this, it can show the ownership concentration sufficiently, and avoid the use of H index or Z index.

Ownership control

Because the larger percentage of external shareholders is the premise for ownership control, this paper selected the top ten listed companies as objects, that is, the ownership control can be calculated by the ratio of the sum of share holding ration from the second to the tenth majority shareholders to the first one. Essentially it measures the relative power of other major shareholders to the largest shareholder. A study based upon this idea and measure has a potential to advance our understanding of the principal-principal problem in emerging market firms.

Control variable

Enterprise performance is not only impacted by ownership structure, but also by asset size. Under the same conditions, the size of assets will also affect enterprise performance, and measure the asset size by the total assets of the company. Different enterprises have the different balance ability; the size of financial leverage will lead to great differences in performance. In order to more accurately measure the relationship between ownership structure and enterprise performance, the paper select the asset-liability ratio as a control variable. In addition to their enterprises, enterprise performance is also impacted by industry and the macroeconomic situation, so the study add the industry average performance level and macroeconomic development condition to the control variables.

Empirical mode

The panel data model covers the listed companies, which listed before the year of 2002 and have the complete data between the years of 2002 - 2007. Ultimately, the study got 374 listed companies and a total of 2244 sample points during the six years. In this paper, by using the panel data, the information from the two aspects of cross -section and time-series could be considered. At the same time, the study can use some estimated ways to overcome the heteroscedasticty and serial autocorrelation, which easily appear in the two types of data, and thus, the estimated results are more effective. The study uses the following models to study the relationship between ownership concentrations, ownership control and enterprise performance in different stages of life cycle:

$$CROA_{it} = \alpha_0 + \beta_1 A1_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 NPR_{it} + \beta_5 ICROA_{it} + \beta_6 PGDP_{it} + \mu_i + \eta_t + \xi_{it} \quad (1)$$

$$CROA_{it} = \alpha_0 + \beta_1 A10_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 NPR_{it} + \beta_5 ICROA_{it} + \beta_6 PGDP_{it} + \mu_i + \eta_t + \xi_{it} \quad (2)$$

$$CROA_{it} = \alpha_0 + \beta_1 A1_{it} + \beta_2 A1_{it}^2 + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 NPR_{it} + \beta_6 ICROA_{it} + \beta_7 PGDP_{it} + \mu_i + \eta_t + \xi_{it} \quad (3)$$

$$CROA_{it} = \alpha_0 + \beta_1 A10_{it} + \beta_2 A10_{it}^2 + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 NPR_{it} + \beta_6 ICROA_{it} + \beta_7 PGDP_{it} + \mu_i + \eta_t + \xi_{it} \quad (4)$$

$$CROA_{it} = \alpha_0 + \beta_1 Z_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 NPR_{it} + \beta_5 ICROA_{it} + \beta_6 PGDP_{it} + \mu_i + \eta_t + \xi_{it} \quad (5)$$

$$CROA_{it} = \alpha_0 + \beta_1 Z_{it} + \beta_2 Z_{it}^2 + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 NPR_{it} + \beta_6 ICROA_{it} + \beta_7 PGDP_{it} + \mu_i + \eta_t + \xi_{it} \quad (6)$$

$$CROA_{it} = \alpha_0 + \beta_1 Z_{it} + \beta_2 Z_{it}^2 + \beta_3 Z_{it}^3 + \beta SIZE_{it} + \beta_3 LEV_{it} + \beta_6 NPR_{it} + \beta_7 ICROA_{it} + \beta_8 PGDP_{it} + \mu_i + \eta_t + \xi_{it} \quad (7)$$

α_0 Is intercept β_j (j =1 2 3 4 5)is regression coefficient of mode, μ_i is the individual effect of the i enterprise. η_t, representing the fixed effect of the t period; ξ is random variable, representing other variables which influence the enterprise performance. i =1, 2… N representing the enterprise i; t =1, 2… $CROA_{it}$, representing the observations of the t time series; representing the CROA of enterprise i in the t year. In order to control the impact of other factors, the model has also joined the control variables of SIZE, LEV, NPR, ICROA and PGDP. The definition of these variables can be seen in Table 1.

The model (1) and (2) is to check linear relationship between the ownership concentration and enterprise performance; the model (3) and (4) is to check conic relationship between the ownership concentration and enterprise performance; the model (5), (6) and (7) is to check the linear and high curve relationship between the ownership control and enterprise performance.

RESULTS AND ANALYSIS

Descriptive statistical analysis

Table 2 gives the descriptive statistics of ownership concentration, ownership control and enterprise performance in different stages of life cycle. It can be seen that there exists difference at different stages. Enterprise performance will become smaller with the development of enterprise from growth to decline stage; from the mean or median ratio of the largest shareholder and the top ten shareholders, ownership concentration in the growth stage is higher than in the mature and decline stage; but from the median, ownership control is 0.42 in the mature stage, and higher than the growth stage of 0.24 and the decline stage of 0.33, which is consistent with the theoretical analysis. At the same time, the largest shareholders in all stages has a higher percentage, three-phase average is 44.63, 41.12 and 41.91%, res-pectively, while the top ten shareholders is 59.71, 58.67 and 57.60%. From this, it can be concluded that China's listed companies reflected as the largest shareholder's shareholding proportion which is much higher than the external shareholder. This means that in general, the ownership control of China's listed companies appears to be relatively weak. This can be seen from the Z value t at different stages of enterprise life cycle.

In order to better describe the conditions of China's listed companies, the paper calculated the mean of the largest shareholder at different stages of the life cycle, and gave condition of the share holding ratio of the largest shareholder, which listed between 2002 and 2007 as shown in Figure 1. As can be seen, although, with the reform of share structure, A1 index showed a steady downward trend, basically the largest shareholder had the absolute advantage. At the same time, with the development of the enterprise from growth to decline stage, the ownership concentration changed from rising to declining, and reached the highest level in the growth stage.

Next, the paper studied the specific circumstance of ownership concentration and ownership control at different stages of the life cycle more detailed, and compared them with each other and six years' data was used. The results of F test between the ownership concentration and ownership control at the different stages of the life cycle are shown in Table 3. From the perspective of ownership concentration, there is a significant difference between the growing enterprises and the ones of maturity and decline. However, as for the ownership control, there is a significant difference between the maturity enterprises and the ones in growth and decline stage.

In order to initially determine the relationship between the ownership concentration, ownership control and enterprise performance at different stages of enterprise life cycle, the study have given the analysis of their relationship on the base of enterprise life cycle stages division, shown in Table 4. What is used is the Pearson correlation coefficient, and numbers in parentheses reflect significant level of the related variables (P-value). So for both A1 and A10 index, under the condition of the significant level less than 1%, there is positive correlation relationship between ownership concentration and the enterprise performance, which is consistent with the hypotheses in H_1 and H_5. But in the mature stage, the correlation coefficient between the ownership concentration and enterprise performance is not significant, and this also shows that mature companies with high ownership concentration are not necessarily effective to the improvement of enterprise performance, which is consistent with the hypothesis 3. From the point of Z value, in general, the correlation coefficient between the ownership concentration and enterprise performance is not significant, and this is consistent with the research result of Zhu and Wang (2004) and Xu et al. (2006). This is related to the high ownership concentration of China's listed companies, and because of the low proportion of external shareholders, there is no effective ownership control.

Regression results and analysis

Before the regression, it should first be determine whether there is a collinearity problem between the variables. Multi- collinearity in the multiple regression analysis is very common, particularly in relation to the model of economic variables, and the direct conse-quences of multi-collinearity are the standard error of the estimated parameters getting larger, the confidence interval

Table 1. Definition of variables.

Variable	Name	Symbol	Definition
Independent variable	Yield of main business	CROA	Operating profit /total asset
Explaining variable	The proportion of the first shareholder	A1	A1=holding number of the first shareholder / total share capital
	The proportion of the top ten shareholder	A10	A10= holding number of the top ten shareholder / total share capital
	Ownership control	Z	Z=the sum of the holding number from second to ninth / holding number of the first shareholder
Control variable	Asset size	SIZE	Natural logarithm of the total asset
	Growth ability	NPR	Growth in net profit
	Financial leverage	LEV	LEV=total liabilities /total asset
	Macroeconomic	PGDP	The natural logarithm of PGDP in this year
	CROA industry average	ICROA	The industry average of all enterprises CROA
Dummy variable	enterprise life cycle stage	LIFE	Life cycle stage of the enterprise

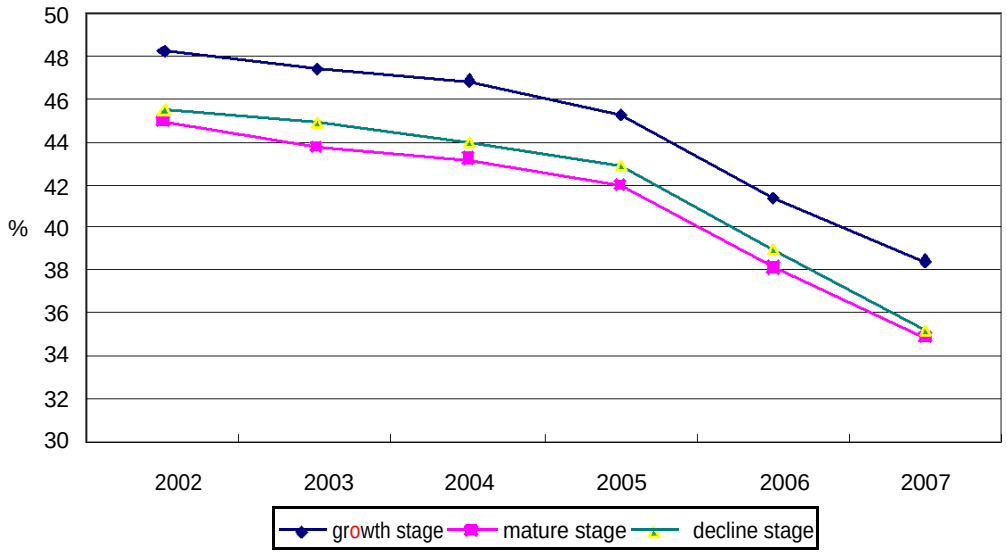

Figure 1. The condition of the shared holding radio of the largest shareholder.

confidence interval becoming wider and estimated stability reducing, and the correct estimated value of coefficient is hardly accessible. In the Eviews, the correlation coefficients and VIF method to diagnose multi-collinearity can be used. In this paper, the first method to diagnose multi-collinearity is used, and the results are shown as follows. From Table 5, the correlation between each model in the above variables is weak, and there is no significant multi-collinearity.

Then according to the pre-setting measurement model, firstly, the panel data to estimate the linear relationship between ownership concentration and enterprise performance, is used in accordance with the econometric model (1) and (2) ,and the estimated results was shown in Table 6.

From Table 5, the F statistics show the regression model, which is under the 1% significant level, is significant, and the combined effect of two models on the performance of listed companies is significant; after adjusting, the minimum value of R^2 is 55%, which shows the ownership structure variables and control variables could explain more than 55% of the variation of the enterprise performance, regression equation has the effective fitting. From Table 4, it can be seen also that it

Table 2. Sample descriptive statistics of ownership concentration, ownership control and enterprise performance at different stages of enterprise life cycle.

Stage		CROA	A1 (%)	A10 (%)	Z
Growth stage	Mean	6.55	44.63	59.71	0.50
	Median	5.64	45.41	61.10	0.27
	Maximum	38.46	84.69	96.07	3.28
	Minimum	-27.45	8.95	13.48	-0.22
	Standard deviation	6.06	16.94	13.43	0.58
Mature stage	Mean	5.25	41.12	58.67	0.61
	Median	4.69	40.00	60.46	0.42
	Maximum	35.90	73.11	89.25	3.00
	Minimum	Minimum	8.70	14.74	-0.19
	Standard deviation	5.43	16.01	13.19	0.62
Decline stage	Mean	4.14	41.91	57.60	0.52
	Median	3.79	39.37	60.07	0.33
	Maximum	20.31	81.32	89.97	2.91
	Minimum	-17.14	10.21	20.59	-0.31
	Standard deviation	4.67	16.27	14.51	0.55

Table 3. F-test result between the ownership concentration and ownership control at different stages.

	Growth stage	Mature stage	Decline stage
Growth stage	—	10.832***	0.298
Mature stage	16.719***	—	7.656***
Decline stage	10.500***	0.848	—

Note*:* The upper diagonal shows the compared F-test results of the Z value of the enterprise at different stages of the life cycle, while the lower diagonal shows the compared F-test results of the A1 value of the enterprise at different stages of the life cycle.

Table 4. The analysis of relationship between the ownership concentration, ownership control and enterprise performance.

Variable	Growth stage	Mature stage	Decline stage
A1	0.091*** (<0.01)	0.050 (>0.10)	0.236*** (<0.01)
A10	0.157*** (<0.01)	0.013 (>0.10)	0.301*** (<0.01)
Z	0.018 (>0.10)	-0.043 (>0.10)	-0.064 (>0.10)

does not have the serious multi-collinearity problem among the explanatory variable. This article is mainly concentrated on the relationship between ownership concentration, ownership control and enterprise performance, and interested in how the ownership concentration and ownership control impact the enterprise performance, so in the following, it will be analyzed mainly from a single regression coefficient.

In Table 6, from the view of the significant regression coefficient of A1, in the growth and decline stage, A1 has a positive correlation with enterprise performance in the significant level of 5%, supporting the hypotheses H_1 and H_5. But in the mature stage, regression coefficient of A1 was not significant, which means in this stage ownership concentration is not necessarily conducive to the improvement of enterprise performance, supporting our hypothesis H_3. Similarly, from the view of the regression coefficient of A10, in the mature stage, A10 did not significantly affect the enterprise performance, which supports the hypothesis H_3; but in the decline stage, A10 has a positive correlation with enterprise performance in the significant level of 1%, that is, in the decline stage,

Table 5. Correlation coefficient among the explanatory variable.

Variable	LEV	SIZE	NPR	ICROA
SIZE	0.33	-	-	-
NPR	-0.06	0.02	-	-
ICROA	-0.11	0.08	0.03	-
PGDP	0.09	0.17	0.02	-0.13

Table 6. Linear regression results between ownership concentration and enterprise performance.

	Growth stage	Mature stage	Decline stage		Growth stage	Mature stage
Variable	**mode(1)**	**mode(2)**	**mode(1)**	**Variable**	**mode(1)**	**mode(2)**
CONS	-72.683***	-63.499***	25.926*	CONS	-72.683***	-63.499***
	(-7.718)	(-7.203)	(1.714)		(-7.718)	(-7.203)
A1	6.625**		0.144	A1	6.625**	
	(2.533)		(0.043)		(2.533)	
A10		1.666		A10		1.666
		(0.714)				(0.714)
SIZE	2.701**	2.634**	1.149	SIZE	2.701**	2.634**
	(2.133)	(2.045)	(0.579)		(2.133)	(2.045)
LEV	-10.891***	-10.810***	-5.459**	LEV	-10.891***	-10.810***
	(-6.040)	(-5.964)	(-2.400)		(-6.040)	(-5.964)
NPR	0.002***	0.002***	0.002***	NPR	0.002***	0.002***
	(5.151)	(8.639)	(6.107)		(5.151)	(8.639)
ICROA	0.815***	0.807***	0.993***	ICROA	0.815***	0.807***
	(5.151)	(5.082)	(4.962)		(5.151)	(5.082)
PGDP	12.266***	10.701***	-7.946***	PGDP	12.266***	10.701***
	(6.579)	(5.793)	(-3.820)		(6.579)	(5.793)
Adj R^2	0.683	0.680	0.550	0.551	0.649	0.653
F-TEST	13.462***	13.309***	7.985***	8.035***	11.647***	11.857***
OBS	846	846	660	660	738	738

the ratio of the top ten shareholders has a positive role in promoting its enterprise performance, supporting the hypothesis H_5. However, in the growth stage, the coefficient of A1 is positive and significant; the coefficient of A10 is positive but not significant, which is relevant with the ownership mode of “only one big share”; and consistent with the theoretical analysis in the growth stage.

From the above results, the financial leverage has a significant negative correlation with the enterprise performance at all stages of the life cycle; Enterprise size has a significant positive correlation with the enterprise performance in the growth and decline stage, but not significant in the mature stage; market factors, industry factors and the economic situation all have an impact on enterprise performance. As the control variable is not the focus of this discussion, this article shall not repeat.

In the previous studies, many scholars believe that there is the U-shaped or inverted U-shaped relationship between ownership concentration and enterprise performance. In this paper, in order to test whether there is the quadratic curve between ownership concentration and enterprise performance, the panel data to estimate is used, according to the econometric model (3) and (4), and the results are shown in Table 7.

From the significant regression coefficient in Table 7, the regression coefficient of $A1^2$, $A10^2$ is not a significant correlation at all in the life cycle, showing that ownership

Table 7. Curve regression estimation results between ownership concentration and enterprise performance.

	Growth stage		Mature stage		Decline stage	
Variable	**Mode(3)**	**Mode(4)**	**Mode(3)**	**Mode(4)**	**Mode(3)**	**Mode(4)**
CONS	-74.175***	-60.010***	26.29*	16.626	-35.206**	-37.517**
	(-7.836)	(-6.549)	(1.733)	(1.119)	(-2.147)	(-2.365)
A1	17.740**		-2.827		-0.873	
	(2.199)		(-0.299)		(-0.117)	
$A1^2$	-12.078		3.539		7.452	
	(-1.456)		(0.336)		(0.921)	
A10		-11.748		16.605		-1.478
		(-1.177)		(1.511)		(-0.178)
$A10^2$		11.765		-12.108		8.918
		(1.382)		(-1.210)		(1.155)
SIZE	2.680**	2.759**	1.181	1.010	5.501***	4.960***
	(2.117)	(2.138)	(0.593)	(0.508)	(2.846)	(2.589)
LEV	-10.958***	-10.863***	-5.484**	-5.579**	-10.607***	-10.279***
	(-6.080)	(-5.995)	(-2.408)	(-2.455)	(-5.232)	(-5.118)
NPR	0.002***	0.002***	0.002***	0.002***	0.001***	0.001***
	(8.727)	(8.583)	(6.025)	(6.162)	(8.563)	(8.660)
ICROA	0.809***	0.813***	0.993***	1.027***	0.864***	0.884***
	(5.119)	(5.123)	(4.956)	(5.156)	(6.463)	(6.774)
PGDP	12.159***	10.447***	-7.973***	-6.732***	-3.039**	-1.644
	(6.522)	(5.631)	(-3.828)	(-3.295)	(-2.193)	(-1.174)
Adj R^2	0.683	0.681	0.549	0.551	0.649	0.654
F-TEST	13.406***	13.249***	7.904***	7.985***	11.561***	11.78***
OBS	846	846	660	660	738	738

concentration and a negative correlation in the lower region, and U-relations in the overall performance. Though the inverted U-relationship shows there is an optimal ownership concentration, the study does not agree with this view, and ownership structure is affected by many factors. Under the different influencing factors, the same ownership structure will have different impacts on the enterprise performance, and with the operation along the path of life-cycle, it is bound to have different internal and external environment at different stages and ownership structure should show the diversity state.

The authors studied the impact of ownership concentration on the enterprise performance above. And in order to overcome the expropriation on minority shareholders by the largest one, the paper will study the impact of ownership concentration on the enterprise performance to test whether the current ownership control can be achieved, and through the internal interests of major shareholders to get the mutual supervision, thereby protecting the interests of all shareholders.

The measurement model (5), (6) and (7) were used to estimate the linear relationship and the curve relationship between ownership control and enterprise performance, and the results is shown in Table 8.

From Table 8, it can be seen that the F statistics show the regression model which is significant under the 1% significant level and the combined effect of two mode on the performance of listed companies is significant; after adjusting, the minimum value of R^2 is 55%, which shows ownership structure variables and relative control variables could explain more than 55% of the variation of

Table 8. Curve regression estimation results between ownership control and enterprise performance.

	Growth stage			Mature stage			Decline stage		
Variable	**mode(5)**	**mode(6)**	**mode(7)**	**mode(5)**	**Mode(6)**	**mode(7)**	**mode(5)**	**mode(6)**	**mode(7)**
CONS	-67.086*** (-7.960)	-67.200*** (-7.974)	-64.531*** (-7.546)	27.467* (1.962)	27.872** (1.988)	27.698** (1.969)	-21.833 (-1.408)	-21.736 (-1.401)	-20.507 (-1.321)
Z	-2.013*** (-3.544)	-0.845 (-0.724)	1.8667 (0.964)	1.007* (1.733)	1.798 (1.243)	2.218 (0.828)	0.700 (1.222)	1.279 (1.047)	3.423* (1.784)
Z^2		-0.480 (-0.724)	-3.354** (-1.982)		-0.324 (-0.597)	-0.750 (-0.319)		-0.314 (-0.536)	-3.279 (-1.540)
Z^3			0.686* (1.753)			0.109 (0.186)			0.951 (1.449)
SIZE	3.539*** (2.768)	3.666*** (2.857)	3.416*** (2.650)	1.098 (0.554)	1.015 (0.511)	1.038 (0.521)	4.950*** (2.600)	4.938*** (2.592)	4.678** (2.447)
LEV	-11.325*** (-6.291)	-11.469*** (-6.357)	-11.253*** (-6.233)	-5.411** (-2.388)	-5.267** (-2.310)	-5.259** (-2.304)	-10.083*** (-5.014)	-10.057*** (-4.997)	-9.727*** (-4.807)
NPR	0.002*** (8.870)	0.002*** (8.929)	0.002*** (8.944)	0.002*** (6.099)	0.002*** (6.089)	0.002*** (6.086)	0.001*** (6.085)	0.001*** (8.650)	0.001*** (8.578)
ICROA	0.807*** (5.130)	0.805*** (5.116)	0.803*** (5.112)	0.972*** (4.904)	0.959*** (4.807)	0.957*** (4.790)	0.792*** (6.085)	0.786*** (6.018)	0.803*** (6.129)
PGDP	10.071*** (6.076)	9.761*** (5.813)	9.583*** (5.705)	-8.302*** (-4.601)	-8.274*** (-4.582)	-8.298*** (-4.580)	-4.767*** (-4.354)	-4.787*** (-4367)	-4.620*** (-4.196)
Adj R2	0.686	0.686	0.687	0.552	0.551	0.550	0.647	0.647	0.648
F-TEST	13.621***	13.542***	13.512	8.055***	7.980***	7.897***	11.571***	11.470***	11.418***
OBS	846	846	846	660	660	660	738	738	738

the enterprise performance, and Regression equation being effective fitting. But from table 4, it is find out that it does not have the serious multi-collinearity problem among the explanatory variable. The study interest is how the ownership control impact the enterprise performance, so in the following, it will mainly analyze from a single regression coefficient.

First, looking at the regression results of model (5). From the view of the significant regression coefficient of ownership control Z, it shows there is a negative correlation between the ownership control and enterprise performance in the significant level of 1% in Table 7,

meaning the ownership control has a negative impact on enterprise performance in the growth stage, which well supports hypothesis 2; but there is a positive correlation between the ownership control and enterprise performance in the significant level of 10% in the mature stage, which shows as the shareholders diversify, some degree of ownership control could enhance the supervisory role of ownership structure and avoid the opportunistic behavior of managers and the low efficiency of internal resources, adapting to maintain the development of mature enterprises, and supporting Hypothesis 4. And there is no significant correlation between the ownership control and enterprise performance in the decline stage, which supports Hypothesis 6.

Then looking at the curves relationship between ownership control and enterprise performance, the quadratic relationship between ownership structure and enterprise performance is not significant. But on the cubic curve fitting, it only has a weak correlation between the ownership control and enterprise performance under the 10% significant level in the mature stage, and in other stages, it is not significant. In the growth stage, the Z value of cubic curves for the stagnation point is 0.307 and 2.953, but the ownership average of China's listed companies is 0.5, lying between 0.307 and 2.953, so the negative impact on the development of enterprise is gradually weakened at this stage, which well supports the hypothesis H_2.

From this, it can be seen that all the control variables have a significant impact on enterprise performance in various stages of the life cycle, which is consistent with the regression results of models (1) and (2).

Conclusions

As ownership structure first decides the distribution of corporate control, then deciding the properties of agent relations between owners and managers, ownership structure is the basis of corporate governance structure; but the corporate governance efficiency is finally embodied in the enterprise performance. So to study the relationship between ownership structure and enterprise performance from the perspective of empirical study has an important significant for corporate governance reform. This article uses the classification of industry by growth rate in industry economics for reference to define the life cycle stage of listed companies, then using the 2002 - 2007 panel data of the listed companies, empirically study on the relationship between ownership concentrations, ownership control and enterprise performance in different stages of the life cycle. The research conclusions are as follows:

(1) In the growth stage, the largest shareholder's shareholding proportion has a positive correlation with the enterprise performance in the significant level of 5%, and the proportion of the top ten shareholders is positive but not significant; similarly, the ownership control is negative to enterprise performance. The ownership model in growth stage is effective to the improvement of enterprise performance, which is not as expected that ownership model must be an obstacle for good corporate governance. The decentralization ownership control is not conducive to improve the enterprise performance, and the ownership control has a negative impact on enterprise performance.

(2) In the mature stage, neither the largest shareholder's shareholding proportion nor the holding rate of the top ten shareholders has a significant impact on enterprise performance, which shows ownership concentration does not significantly affect the enterprise performance. But in this stage, ownership control has a positive correlation with the enterprise performance in the significant level of 10%. With the diversified shareholders, some degree of ownership control structure could enhance the supervisory role of ownership structure and avoid the opportunistic behavior of managers and the low efficiency of internal resources, adapting to maintain the development of mature enterprise. However, the proportion of the largest shareholders of China's listed companies is still very high, thus, lowering the ownership concentration, actively promoting full circulation of stock and accelerating the share-trading reform have been the key to improve their corporate governance structure in a long term.

(3) In the decline stage, the largest shareholder's shareholding proportion has a positive correlation with the enterprise performance in the significant level of 5%, and the proportion of the top ten shareholders has a positive correlation with the enterprise performance in the significant level of 1%, and the ownership control is not significant. This means the ownership concentration can effectively supervise and guide the company's managers, encouraging managers to actively seek new investment opportunities, and reducing the manager's short-term behavior, which is conducive to the successful enterprise transformation, creating new growth points and improving enterprise performance.

(4) Empirical studies also show that there is no significant U-shaped or inverted U-shaped relationship between the ownership concentration and enterprise performance. In the past, researchers reached the diversification conclusions, and even the opposite conclusions, the reason of which may be not taking the enterprise life cycle stages into account. At the same time, there is no quadratic or cubic curve relationship between the ownership control and enterprise performance, and the regression results shows that there is only a significant positive role in the significant level of 10%. This is not the same with the research results of projects' group researching on Shanghai Stock Exchange in Tongji University in China. In other words, on the whole, largest shareholder's shareholding proportion in China's listed

companies at present are very high, making the other major shareholders are unable to supervise and restrict them effectively.

Of course, there are some limitations in this paper. Because of data limitations, the study measured enterprise life cycle with the relative growth rate of the target firm compared to its industry peers. As growth rate is not the only characteristics which is different in each life cycle stage, the measure used in this study may not actually measure different stages of a firm's life cycle. Also, from the results of this paper, there is an exploration research: whether larger shareholders may try to cheat the minority shareholders when the business has no prospects, rather than when the business has a future. This will be a future study.

ACKNOWLEDGEMENTS

This paper was supported by the National Natural Science Foundation of China (No. 71001108), the Youth Project of the Humanities and Social Sciences fund of the Chinese Education Ministry (No. 09YJC790262) and the Social Science Fund of Hunan Province (No. 09YBA162).

REFERENCES

Adizes I (1997). Enterprise Life Cycle. Beijing: Chinese Social Sciences Publishing House.
Bai C, Liu Q, Lu Z, Song M, Zhang J (2005). An empirical study on Chinese listed firms' corporate governance. Econ. Res. J. 51: 81-91.
Berle A, Means G (1932). The modern corporation and private property. New York: Macmillom.
Chen J (1995). Discuss about the relationship between enterprise life cycle and decayed. China Ind. Eco. 12, 5-13.
Demesetz H, Lehn K (1985). The structure of corporate ownership: cause and consequences. J. Polit. Econ. 93: 1155-1177.
Du Y, Liu L (2002). Ownership structure, governance efficiency: an empirical study of China's listed companies. Manage. World. 18: 125-134.
Durnev A, Kim EH (2005). To steal or not to steal: firm attributes, legal environment, and valuation. J. Fin. 60: 1461-1493.
Gardner JW (1965). How to prevent organizational dry rot. Harper's Magazine.
Gomes A, Novaes W (2001). Sharing of control as a corporate governance mechanism. Los Angeles: Penn CARESS Working Papers from UCLA Department of Economics.
Green SD, Larsen GD, Kao CC (2008). Competitive strategy revisited: contested concepts and dynamic capabilities. Construction Manage. Econ. 26: 63-78.
Haire M (1959). Biological models and empirical histories in the growth of organizations. In: Haire, M. (ed), Model Organization Theory. New York: John Wiley.
Hardstone GAP (2004). Capabilities, structures and strategies re-examined: incumbent firms and the emergence of complex product systems (CoPS) in mature industries. Technol. Anal. Strat. Manage., 16: 173-196.
Holderness C, Sheehan D (1988). The role of majority shareholders in publicly held corporations. J. Fin. Econ., 20: 317-346.
Hu M, Li Y, Luo S (2006). The dynamic competitiveness model of enterprise life cycle matching with entrepreneurs management cycle. Contemporary Fin. Econ., 19: 76-79.
Jensen M, Meckling W (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. J. Fin. Econ. 3: 305-360.
Kim HJ, Reinschmidt KF (2006). A dynamic competition model for construction contractors. Construction Manage. Econ. 24: 955-965
Kong X, Chen W (2005). What kind of ownership structure should Chinese listed companies choose? Shenzhen Stock Exchange Research Report.
La Porta R, Lopezde-Silanes F, Shleifer A (1999). Corporate ownership around the world. J. Fin. 54: 471-517.
Lehman EJ, Weigand L (2000). Does the governed corporation perform better? Eur. Fin. Rev. 4: 157-195.
Li G (2007). New perspective upon enterprise competitiveness: competition among enterprises in the product and element markets. China Ind. Econ. 24: 61-67.
Li Y (2000). Modified model and thoughts about enterprise life cycle. South China. J. Econ. 18: 47- 50.
Maury B, Pajuste A (2005). Multiple large share holders and firm value. J. Bank. Fin. 29: 1813-1834.
McConnell J, Servaes H (1990). Additional evidence on equity ownership and corporate value. J. Fin. Econ. 27: 595-612.
Micco A, Panizza U, Yañez M (2007). Bank ownership and performance. Does politics matter? J. Bank. Fin. 31: 219-241,
Miller D, Friesen P (1984). A longitudinal study of the corporate life cycle. Manage. Sci. 30: 1161-1183.
Shleifer A, Vishny R (1997). A survey of corporate governance. J. Fin. 11: 753 -754.
Shleifer A, Vishny R (1986). Large shareholders and corporate control. J. Pol. Econ. 94: 461-488
Song M, Zhang J, Li C (2004). A trap in the ownership structure for listed companies. Nankai Bus. Rev. 7: 9-23, 56.
Sun Q, Tong WHS (2003). China share issue privatization: the extent of its success. J. Fin. Econ. 70: 183-222.
Thomsen S, Pedersen T (2000). Ownership structure and economic performance in the largest European companies. Strat. Manage. J. 21: 47-61.
Volpin PF (2002). Governance with poor investor protection: evidence from top executive turnover. J. Fin. Econ. 64: 61-90.
Wang C (2005). Ownership and operating performance of Chinese IPOs. J. Bank. Fin. 29: 1835-1856.
Wang Q, Song C (2006). The survey about theory of the optimal shareholder structure design and power balance with shareholder structure. Account. Res. 27: 83-88.
Wu, S. (2002). Ownership structure and firm performance: an empirical research on Chinese public companies. China Ind. Econ. 19: 80-87.
Xie J (2006). Largest shareholders, concentrated ownership and corporate performance. Econ. Rev., 27: 70-75.
Xu L, Xin Y, Chen G (2006). Ownership concentration, outside blockholders, and operating performance: evidence from China's listed companies. Econ. Res. J., 41: 90-100.
Xu X, Chen X (2003). Analysis on the largest shareholders' impact on corporate governance and performance. Econ. Res. J., 38: 64-74.
Yuan D, Guo C, Liu D (2004). Relationship between equity structure and firm value of listed companies. Securities Association of China awarded paper in scientific research papers report.
Zhang G, Zeng Y (2008). Can check-and-balance ownership structure improve corporate governance? An empirical study based on the perspective of fairness and efficiency. Syst. Eng., 26: 71-79.
Zhao P, Sun A (2005). Capital structure and industry life cycle: an empirical study based on the listed companies in China. Manage. Eng., 19: 42-46.
Zhu H, Wang H (2004). Can check-and-balance ownership structure improve corporate governance? Manage. World, 20: 114-123.