Research on Improvement of GEM Listed Companies' Performance

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Abstract - This paper makes an empirical analysis on the two important factors -- ownership concentration and sustainable growth rate --that influence company performance based on the samples of 2010-2011 GEM (Growth Enterprise Market) listed companies. The results show that, in terms of the GEM, there is positive correlation relationship between the company performance and ownership concentration, that is, the more concentrated ownership the better performance. The conclusion verifies the hypothesis of "Regulatory Theory" that centralized big shareholders can effectively supervise and control manager and reduce the agency problem. Company growth represents the company's future performance. From the strategic point of view, sustainable growth should be the goal of firms. The empirical results confirm that the sustainable growth rate is positively related to the performance. The GEM companies should pay attention to the enterprise's long-term development under the premise of controlling the size.

Index items - GEM Ownership Concentration Sustainable Growth

I . Introduction

Different with the main board listed companies, the GEM (growth enterprise market) listed companies have the features such as a smaller scale, not stable management, potential growth and higher risk. On April 20 2012 "the Shenzhen stock exchange GEM stock listing rules" are formally issued, and has set up a formal implementation, on May 1. After implementing the rules the risk of investment in the growth enterprise market will be increased, the shareholders pay more attention to the risk and earnings of the company. This article analyzes the GEM listed company earnings with high growth, arranges the systems on the company performance improvement using the method of empirical research.

II . Assumptions

A . Ownership concentration and corporate performance

There are a lot of articles is about the research on corporate governance and performance. For the ownership concentration and performance, results of the study can be roughly divided into two categories: the linear relationship (including positive correlation and negative correlation results) and nonlinear relationships (including u-shaped relationship and inverted u-shaped relationship). Two theories supporting the relationship: regulatory theory and expropriation theory. GEM listed companies have the characteristics of equity structure including lower proportion of the first largest shareholder, natural person and family as the actual controller and lower separating degree between equity and control. Low degree of separation of ownership and control means that the shareholders of enterprise can control and supervise the managers very well. So we propose the first hypothesis:

H1: there is a significant positive correlation between the ownership concentration and corporate performance in GEM listed companies.

B . Growth and performance

Development ability of the enterprise mainly is embodied in the following financial ratios: sales growth rate, asset growth rate, growth rate of equity and profit growth rate. Profit growth rate or asset growth rate is mostly used as alternative variables in relative literatures. Wu Shi Nong (1999) put forward theoretically, the real meaning of the growth of the listed company is that ROE is greater than the average cost of capital and net profit growth. The five key factors that affect growth are asset turnover rate, sales gross profit margin, debt ratio, main business revenue growth rate and overhead cost rate. If they don't depend on external financing but on their accumulation of earnings growth and shareholders' equity growth only comes from retained profits, the rate of shareholders' equity growth at this time is called the sustainable growth rate. The computational formula is: sustainable growth rate = the net profit margin on beginning sales * beginning asset turnover rate * beginning equity multiplier * retained profit rate. Sustainable growth rate integrates comprehensive development abilities of sales, operating, capital structure, dividend policy and others. So we choose ROE as the key indicator and sustainable growth rate as company growth variable to evaluate the company's performance and analyze the relationship between them. So we put forward the second hypothesis:

H2: there is a significantly positive correlation between sustainable growth rate and company performance in GEM listed companies.

III . Research Design

A . Samples Selection

We select 2010-2011 public data of Shenzhen GEM listed company and make out as follows: 1)data lacking the main variables; 2) unreasonable data which the sum of first N big shareholder holding is more than 100%. We get 469 research samples including 184 samples in 2010 and 285 samples in 2011 from CSMAR database. Computational analysis is used by spss16.0 software.

B . Definition and Measurement of Variables

1) Dependent Variables - the company's performance: there are many variables measuring company performance which generally can be divided into two categories: category 1 is based on the book value such as the total return on assets (ROA) or return on equity (ROE), category 2 is based on such as Tobin Q value. Effectiveness of capital market in China is weak and GEM listed companies have a short time, the market pricing ability has not yet been fully formed, so the regression results will not been strong persuasive if adopting market value of Tobin Q as alternative performance variables. So we use ROE as the main alternative variable of corporate performance. ROE= Net profit/average equity.

2) Independent Variable - equity concentration and the sustainable growth rate. The scholars have come to consensus that they use the former N big shareholders holding ratio to measure the degree of equity concentration. So we select the former 1, 3, 5 major shareholders holdings ratio as the independent variables to join in models. Considering the high correlation between the three variables, we establish three multivariate regression models to test respectively. Another important variable is the company's growth. GEM listed companies have a short time and high risk, so investors pay more attention to the company's growth especially sustainable growth. Most growth index is measured for a variety of growth such as revenue growth and asset growth, etc. This paper selects the sustainable growth rate as a substituting variable.

CR1 (No.1 shareholder's holdings ratio): No.1 shareholder' holdings/sum of total shares

CR3 (Sum of the former three shareholders' holdings ratio): Sum of former three shareholders' holdings/sum of total shares

CR5 (Sum of former five shareholders' holdings ratio): Sum of former five shareholders' holdings/sum of total shares

GROWTH (Sustainable growth): Net profit margin ×asset turnover rate ×retained profit rate ×ending asset/beginning equity

3) Control Variables - company size and capital structure. There have a large number of literatures showing that there is highly correlation between the company performance and firm size and capital structure.

SIZE (Company's size): Natural logarithm of the assets

CS (Capital structure): Sum of total Liability/sum of total asset

C . models erection

This article mainly researches the relationship between performance and ownership concentration and sustainable growth. Using the experience of related literature we set up multiple regression models as follows:

$$ROE = \beta_0 + \beta_1 CR1 + \beta_2 GROWTH + \beta_3 SIZE + \beta_4 CS + \varepsilon$$

$$ROE = \alpha_0 + \alpha_1 CR3 + \alpha_2 GROWTH + \alpha_3 SIZE + \alpha_4 CS + \varepsilon$$

$$ROE = \delta_0 + \delta_1 CR5 + \delta_2 GROWTH + \delta_3 SIZE + \delta_4 CS + \varepsilon$$

IV . Empirical Analysis

A . Descriptive Statistical Analysis

There are total 469 samples from 2010 to 2011. GEM listed company's net assets return rate was 12.16% on average and the median was 10.64%. That is to say, the profitability is not good. The maximum value of ROE reaches to 66.59% and the minimum value is only 0.16% which means the performance gap between companies is very large. So we research how to improve the GEM listed company performance from the perspective of corporate governance. From the point of growth, average sustainable growth rate is 21.54%, the minimum is -31.65% and the maximum is 108.90%. The GEM listed companies' risk is bigger and growth is higher. There should be a positive relationship between company performance and growth. From the point of view of ownership concentration, the proportion of the first largest shareholder is 34.68% of average and the maximum is 85.5%. The top 3 big shareholders largest shareholding ratio is 98%. The maximum of top 5 shareholders ownership has reached to 100%. That is to say, GEM listed companies ownership concentration is higher. There must be a close link between firm performances and concentration. Next step, we will make the regression analysis.

Table 1

	ROE	GROWTH	CR1	CR3	CR5
Effective number of samples	469	469	469	469	469
mean	12.1626	21.5410	34.6847	55.8208	63.8100
median	10.6371	17.5956	32.7300	56.5500	64.6500
minimum	0.1564	-31.6503	8.7700	15.8600	20.6500
maximum	66.5949	108.9003	85.5000	98.0000	100.0000
SD	8.1890	19.0086	13.6645	13.4668	12.7295

B . Regression Analysis Results

We can draw the conclusion that the models are designed well because they all pass the F test. D - W values are close to 2 and there are no autocorrelation problems between different variables. In model 1 the standardized regression coefficient of CR1 is 0.053 which is significant at 10% confidence level. In model 2 the standardized regression coefficient of CR3 is 0.128 and that of CR5 is 0.199 in model 3, they are both significant at 1% level. It means that equity concentration and ROE are positively and highly relevant. With the increasing of shareholdings the correlation coefficient is also bigger. The more ownership is concentrated the better is corporate performance. The first hypothesis of regulatory theory is verified. In GEM listed companies high proportion of large shareholders holding can effectively restrain the existence of the manager's moral hazard and adverse selection. At the same time three models' regression results show that the sustainable

growth rate is related with and company performance suggesting that if we can improve the company's growth, the performance will also be improved. The second premise is verified. The sustainable growth rate as the substitution variable of growth is confirmed by experience. Control variables are significant at the 1% level, the asset-liability ratio and company performance is related suggesting that debt levels must be conducive to performance improvement. Company size is negatively related to the performance. For high-growth enterprises, the bigger size is not benefit to accumulate more performance.

Table 2 Regression Coefficient

	Model 1	Model 2	Model 3
R^2/adjusted R^2	0.587/0.584	0.599/0.596	0.617/0.614
D-W	1.391	1.396	1.426
P value(F)	0.000	0.000	0.000
CR1	0.053^{*}(0.086)		
CR3		0.128^{***}(0.000)	
CR5			0.199^{***}(0.000)
GROWTH	0.539^{***}(0.000)	0.521^{***}(0.000)	0.501^{***}(0.000)
CS	0.349^{***}(0.000)	0.334^{***}(0.000)	0.315^{***}(0.000)
SIZE	-0.332^{***}(0.000)	-0.310^{***}(0.000)	-0.284^{***}(0.000)

*、**、*** respectively means coefficient is significant at 10%,5%,15 level. The p values of the t test are shown in brackets.

V. Conclusion

In this paper we empirically analyze two important factors which influence the company performance based on the samples of GEM listed companies from 2010 to 2011. The results show that in terms of the GEM there is positive correlation between corporate performance and ownership concentration. The more concentrated the ownership the better the performance of listed companies. This conclusion verifies "regulatory theory hypothesis. Growth represents the company's future performance. From strategic perspective sustainable growth should be the enterprise goal. The size of GEM listed company should be controlled and long-term development should be paid more attention.

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