The Research of Ownership Structure and the Quality of Accounting Information in GEM Listed Companies

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Abstract. The quality of accounting information is the hot topic nowadays. The accounting information disclosure is a system of corporate governance; ownership structure is the foundation of corporate governance, so ownership structure can give an impact on the quality of accounting information through corporate governance. This paper selects GEM listed companies’ data from 2012 to 2014 and researches the relationship between ownership structure and quality of accounting information from three aspects: ownership properties, ownership concentration and balanced concentrated ownership structure. The results show that the proportion of corporate ownership and the proportion of managerial ownership have positive correlations with the accounting information quality; the state-owned stake, ownership concentration and balanced concentrated ownership structure have not significant relationship with accounting information quality.

Introduction

Research Background and Significance

As one of the global top 500 enterprises, Enron providing energy in America, because of disclosure of false accounting information of making a $500 million profit, instantly collapsed. Then in the world, Worldcom, Merck KGaA and Lanzhou Sanmao Industrial Co., Ltd. in China and so on, these companies disclosed the false accounting information and were punished, which causes the society to have the anxiety of the quality of accounting information and discontent with the CPA and all stakeholders have a great doubt on the authenticity of accounting information, and all of those influence the development of stock market.

In China Second-board Market listed on Shenzhen Stock Exchange on October 30, 2009. Second-board Market is an important complement to Main Board and plays an important role in capital market. It is designed for those which can’t be listed on Main Board like entrepreneurial enterprises, high-tech enterprises, but those small and medium-sized enterprises need financing activities. GEM listed companies are mostly family-owned business model before listing; they have the main feature, "only one big share "; ownership is often linked to management. After listing, the new equity comes into the company, which will make ownership and management separate. The conflicts of interest gradually arise between company owners and managers as well as major and minority shareholders. Meanwhile, relatively loose listing requirements and imperfect supervisory system make accounting information
disclosure more false and lead the political stakeholders to make wrong decision, which hinders the development of growth enterprises market.

Many factors influence the accounting information quality. Accordingly, the paper wants to choose equity structure as the perspective and to analyze the correlation between it and the quality of accounting information in GEM listed companies, which aims to improve quality of accounting information at the aspect of equity structure, gives the stakeholders useful information to do right decision, and promotes the GEM listed companies’ and Second-board market’s development.

**Literature Review**

Domestic and foreign scholar studied the relationship between the equity structure and the quality of the accounting information and they mainly concentrate in the equity property, balanced concentrated ownership structure and ownership concentration and so on.

Ownership property is generally divided into national ownership, corporate ownership and management shareholders. For the state-owned stake, because of the country’s particularity, there are some different opinions. Domestic, Cai Ping [1] thinks that state-owned stake has the heavy political color, which will affect the quality of accounting information. She thought that state-owned stake and accounting information quality are negatively related. But Du Ting’s research [2] in 2015 found the rate of state-owned shares have a positive correlation with the quality of accounting information. For corporate ownership, Edward B. Douthett [3] found that there is significant positive correlation between equity structure and earnings quality. For managerial ownership, Chi Yueran [4] said: managerial ownership had significant negative impact on the quality of accounting information. But Yeo, Ho and Chen [5] think that there is not simple linear relationship between the quality of accounting information and the rate of managerial ownership.

For ownership concentration and the balanced concentrated ownership structure, abroad, Shleifer & Vishny and Agarwal said, that major shareholders can make checks and balances on management, limit the action of management, and improve the quality of accounting information disclosure. Demsetz and La Porta and others hold the opinion that the high ownership concentration can lead to the "hoodwink" from the major shareholders, which will harm the company's long-term development and reduce the quality of accounting information. The Wang Maolin and Lin Huiting’s empirical study [6] shows that ownership concentration has a significant negative correlation with the relationship between accounting information and ownership structure, but the balanced concentrated ownership structure had a positive impact on the relationship. Zeng Jianxin [7] made an empirical study on GEM listed companies and found that ownership concentration had no significant relationship with the quality of the accounting information in 2014.

In conclusion, the domestic and foreign research literature mainly studied the main-abroad market and there are a little paper to study the GEM listed companies’ ownership structure and the quality of the accounting information, so this paper chooses the data of GEM listed companies to do an empirical study about ownership structure and the quality of accounting information.
Theoretical Analysis and Research Hypothesis

The State-Owned Stake and the Quality of Accounting Information

At first, the Gem listed companies have few state-owned shares. Now the country pays more attention to the tertiary industry, high-tech industries and entrepreneurship, so the state-owned shares increase in the GEM listed companies. The part of the state-owned share’s owners are more focused on quality and service life of enterprise and better monitor the management, which has positive impact on the quality of accounting information. Therefore, this paper makes the following assumptions:

Hypothesis 1: with limiting other conditions, State-owned shares have a positive correlation with the quality of accounting information.

Corporate Ownership and the Quality of Accounting Information

Li Lili [8] thinks institutional shareholders compared with other shareholders: the big shareholders can control the managers and the minority shareholders can be "free ride", but institutional shareholders can’t do them. They are more concerned with the companies’ actual profit. In order to achieve their own profit, they are more likely to monitor the quality of accounting information and more willing to understand the company's true earnings and earnings information, which can reduce the action of earnings manipulation and have significant positive impact on improving the quality of accounting information. So the hypothesis presented in this paper:

Hypothesis 2: with limiting other conditions, corporate ownership has a positive correlation with the quality of accounting information.

Managerial Ownership and the Quality of Accounting Information

Warfield [9] thought that management's stake has a positive correlation with earnings quality. He thought lower proportion of managerial ownership will lead the shareholders to give the management more contract limit, which will make the management’s motivation that reducing contract limit increase through manipulating accounting information increase and also affect the quality of accounting information; while higher proportion of managerial ownership will make agent cost reduce to reduce the possibilities that management manipulates earnings. We can know that the proportion of GEM listed companies’ managerial ownership is much higher than the SEM board’s or Main-board market’s. And most of the managers are the family members, from which we can know that the shareholders and the management’s goals are consistent. They hope to promote the corporate profits through reducing the principal-agent cost. So I make the following assumption:

Hypothesis 3: with limiting other conditions, the proportion of Managerial ownership has a positive correlation with the quality of the accounting information.

2.4 Ownership Concentration, balanced concentrated ownership structure and the quality of accounting information

McConnell and Servaes think that when ownership concentration is low in the company, as the concentration increases, the quality of accounting information increases. When the ownership concentration is high, as the concentration increases, the accounting information quality will reduce. When the company’s checks and balances are high, the big shareholders’
powers can be in checks and balances. Even if the big shareholders have the motivation of manipulation, this action will be prevented because of high execution cost. Balanced concentrated ownership structure reflects that the behavior of big shareholders is being controlled. When the checks and balances is stronger, the probability of manipulating the accounting information will reduce.

The ownership concentration is high in GEM listed companies in our country, because of reducing the financing cost, the risk of litigation and the conflicts between the controlling shareholder and the non-controlling shareholder, the large shareholders tend to manipulate the accounting information disclosure and spread the public information which is helpful for themselves, which will increase the agency cost and reduce the quality of accounting information. So I give the hypothesis:

Hypothesis 4: with limiting other conditions, ownership concentration has a negative correlation with the quality of accounting information.

Hypothesis 5: with limiting other conditions, the balanced concentrated ownership structure has a positive correlation with the quality of accounting information.

Study Design

Sample and the Sources of the Data

The paper selected the companies in Shenzhen Stock Exchange from 2012 to 2014 as the sample, then excluded the companies whose data are not complete. Finally I got 928 valid observations from the 506 sample companies. All the data come from Straight flush and the financial terminal of Choice.

The Selection and Measurement of the Variable

The Explained Variable

Most empirical studies about the quality of accounting information (AQ) use the level of earning management to replace the quality of accounting information. The management control earnings management by two ways: accrual earnings management and real earnings management. The former chooses the non-normal accruals-operating surplus to manipulate earnings, and the latter manipulates earnings by controlled operations, production costs and discretionary expenses. With the environment and the strengthening of accounting information improving, real earnings management is recognized by more and more managers. So this article chooses the level of real earnings management which can reflect the quality of accounting information to do the empirical study. The model is following:

The abnormal level of cash flows from operating activities, $DA_{2i,t}$:

$$\frac{CFO_{i,t}}{Assets_{i,t-1}} = k_1 \times 1/Assets_{i,t-1} + k_2 \frac{Sales_{i,t}}{Assets_{i,t-1}} + k_3 \frac{\Delta Sales_{i,t}}{Assets_{i,t-1}} + \varepsilon_{1i,t}$$

(1)

Among equation 1, $CFO_{i,t}$ is the net flows from operating activities in the company in t year; $Assets_{i,t-1}$ is the total assets of the end of t-1 year in the i company; $Sales_{i,t}$ is the i company’s revenue sales in t year; $\Delta Sales_{i,t}$ is annual sales increase in i company in t year; $\varepsilon_{1i,t}$ is $DA_{2i,t}$.

① level of abnormal production costs, $DA_{3i,t}$:

$$\frac{COGS_{i,t}}{Assets_{i,t-1}} = k_1 \times 1/Assets_{i,t-1} + k_2 \frac{Sales_{i,t}}{Assets_{i,t-1}} + \varepsilon_{2i,t}$$

(2)
Among equation 2, 3, 4, COGS\(_{i,t}\) is the product cost of sales in company \(i\) in year \(t\); \(INV_{it}\) is the inventory increase in company \(i\) in year \(t\); \(Prod_{it}\) is the production costs in company \(i\) in year \(t\) which is equal to the amount of cost of sales and the increase in inventory; \(Sales_{i,t-1}\) is the annual sales increase in company \(i\) in year \(t-1\); \(\varepsilon_{2i,t}\) is DA\(_{3i,t}\).

Among equation 5, DiscExp\(_{i,t}\) is summation of selling expenses and administrative expenses in company \(i\) in year \(t\); \(\varepsilon_{3i,t}\) is DA\(_{4i,t}\);

\[\text{DiscExp}_{i,t} = k_1/\text{Assets}_{i,t-1} + k_2\Delta \text{Sales}_{i,t}/\text{Assets}_{i,t-1} + \varepsilon_{3i,t}\]  

Explanatory Variables and Control Variables

The explained variable in this paper has: the percentage of the state-owned shareholding (STA): The proportion of state-owned equity to total equity; the percentage of corporate ownership (LP): The proportion of public corporate equity to total equity; the percentage of managerial ownership (MAN): The proportion of managerial ownership to total share; the degree of ownership concentration (CR5): the proportion of the top five big shareholders, and the bigger number replaces the more concentrated ownership; balanced concentrated ownership structure (RES): ratio of the proportional of the end four shareholders to the proportional of the biggest shareholders, and the bigger number replaces the higher balanced concentrated ownership structure. Meanwhile, referring to the domestic and foreign studies about the quality of accounting information, I select the company size (SIZE) which is measured by the natural logarithm of the total assets of the company, the asset-liabilities ratio (LEV) which is measured by the year-end book value of total liabilities divided by total assets measured, year and industry as control variables.

Results and Analysis

Descriptive Statistics Analysis

Based on the data of the above variables, the following descriptive statistical analysis:
Table 1. Descriptive statistics analysis.

<table>
<thead>
<tr>
<th></th>
<th>Minimum value</th>
<th>Maximum value</th>
<th>Average</th>
<th>Standard deviation</th>
<th>The median</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQ</td>
<td>0.0001</td>
<td>2.2383</td>
<td>0.0887</td>
<td>0.1372</td>
<td>0.5030</td>
<td>928</td>
</tr>
<tr>
<td>STA</td>
<td>0.0000</td>
<td>0.8000</td>
<td>0.0049</td>
<td>0.05104</td>
<td>0.0000</td>
<td>928</td>
</tr>
<tr>
<td>LP</td>
<td>0.0037</td>
<td>1.6442</td>
<td>0.1630</td>
<td>0.1920</td>
<td>0.8800</td>
<td>928</td>
</tr>
<tr>
<td>MAN</td>
<td>0.0000</td>
<td>0.7500</td>
<td>0.1162</td>
<td>0.1593</td>
<td>0.0260</td>
<td>928</td>
</tr>
<tr>
<td>CR5</td>
<td>0.1711</td>
<td>1.0000</td>
<td>0.6052</td>
<td>0.1429</td>
<td>0.6128</td>
<td>928</td>
</tr>
<tr>
<td>RES</td>
<td>0.2723</td>
<td>41.7756</td>
<td>1.9728</td>
<td>2.3417</td>
<td>1.2739</td>
<td>928</td>
</tr>
<tr>
<td>SIZE</td>
<td>18.3261</td>
<td>23.9555</td>
<td>20.6589</td>
<td>0.7701</td>
<td>20.6523</td>
<td>928</td>
</tr>
<tr>
<td>LEV</td>
<td>1.1034</td>
<td>88.6428</td>
<td>27.7452</td>
<td>16.3469</td>
<td>25.6959</td>
<td>928</td>
</tr>
</tbody>
</table>

For equity property, the state-owned stakes occupied the minimum proportion, 0; the maximum proportion is 80%, but the average proportion is only 0.49%, and the median is 0. A few GEM listed companies have the state-owned stakes, and most listed companies have no state-owned stake; the minimum proportion of the corporate ownership is almost 0 and the maximum proportion is 164.42%, and the averages proportion is 16.3%. The minimum proportion of the managerial ownership is 0, and the maximum proportion is 75%, and the average proportion is 11.62%, and the data suggests that the equity properties are quite different in the GEM listed company. For the ownership concentration, the minimum proportion is 17.11% and the maximum proportion is 1 and the average proportion is 60.52%, which indicates that equity is more concentrated in most GEM listed companies, and the balanced concentrated ownership structure is weak.

Correlation Analysis

Analysis of correlation between the variable data in the following table:

Table 2. Correlation analysis.

<table>
<thead>
<tr>
<th></th>
<th>AQ</th>
<th>STA</th>
<th>LP</th>
<th>MAN</th>
<th>CR5</th>
<th>RES</th>
<th>SIZE</th>
<th>LEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>928</td>
<td>928</td>
<td>928</td>
<td>928</td>
<td>928</td>
<td>928</td>
<td>928</td>
<td>928</td>
</tr>
<tr>
<td>AQ</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STA</td>
<td>-0.017</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LP</td>
<td>-0.007</td>
<td>-0.030</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAN</td>
<td>-0.054</td>
<td>-0.052</td>
<td>-0.133</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR5</td>
<td>0.018</td>
<td>0.150</td>
<td>0.147</td>
<td>-0.189</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RES</td>
<td>-0.022</td>
<td>0.004</td>
<td>0.019</td>
<td>-0.029</td>
<td>0.057</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.068</td>
<td>-0.037</td>
<td>0.209</td>
<td>0.063</td>
<td>-0.157</td>
<td>0.017</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>0.094</td>
<td>0.003</td>
<td>0.108</td>
<td>0.025</td>
<td>0.041</td>
<td>0.196</td>
<td>1.000</td>
<td></td>
</tr>
</tbody>
</table>

*P<0.1, ** p<0.05, *** p<0.01

Table 2 shows: earning management has negatively correlation with corporate ownership (β=-0.107,P=0.002<0.05), and has a significant negative correlation with managerial ownership (β=-0.054,P=0.082<0.1). Earning management degree and the quality of the accounting information is reverse relationship, so the quality of accounting information has a significant positive correlation with the proportion of corporate ownership, the proportion of managerial ownership, which supports hypothesis 2 and hypothesis 3. The proportion of state-owned
stake ($\beta=-0.017, P>0.1$) and the balanced concentrated ownership structure ($\beta=-0.022, P>0.1$) have not significantly negative correlations with earnings management. In other words, they have not significantly positive correlations with the quality of accounting information; ownership concentration ($\beta=0.018, P>0.1$), so ownership concentration has not significantly negative relationship with the quality of accounting information, and hypothesis 1, hypothesis 4 and hypothesis 5 is not true.

**Regression Analysis**

Regression analysis on the data of the variables in the following table:

<table>
<thead>
<tr>
<th>Beta Coefficient</th>
<th>STA</th>
<th>LP</th>
<th>MAN</th>
<th>CR5</th>
<th>RES</th>
<th>SIZE</th>
<th>LEV</th>
<th>YEAR</th>
<th>IND</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.029</td>
<td>-0.122**</td>
<td>-0.067*</td>
<td>0.022</td>
<td>-0.021</td>
<td>-0.021</td>
<td>0.182</td>
<td>Controlled</td>
<td>Controll ed</td>
</tr>
</tbody>
</table>

*P<0.1, ** p<0.05, *** p<0.01

From table 3 can see that the regression coefficients of proportion of the corporate ownership is -0.122, which indicates the proportion of corporate ownership has a negative correlation with earnings management and p<0.01 which illustrates this conclusion is significant, in other words, the proportion of corporate ownership has a significantly positive correlation with the quality of accounting information, which is consistent with hypothesis 2.

The regression coefficients of proportion of managerial ownership is -0.067, which indicates the proportion of managerial ownership has a negative correlation with earning management and p<0.1, which illustrates this conclusion is significant, in other words, the proportion of managerial ownership has a significantly positive correlation with the quality of accounting information, which is consistent with hypothesis 3.

The regression coefficients of proportion of state-owned stake is -0.029, shows that the proportion of state-owned shares and earnings management are related negatively, but P>0.1, which shows that the relationship between them is not significant, and hypothesis 1 has not been verified. The reason may be that most GEM listed companies are small and medium enterprises, and only a few companies are state-owned or have state-owned legal shareholders.

The regression coefficients of proportion of ownership concentration is 0.022, which shows that ownership concentration has a positive correlation with earnings management, but the correlation is not significant (P>0.1). The conclusion is same for the balanced concentrated ownership structure. So hypothesis 4 and hypothesis 5 are not verified. The reasons mainly are that the relationship between the top five shareholders in GEM listed companies is very complex, which is not enough to measure ownership concentration and balanced concentrated ownership structure.
Conclusion and Enlightenment

Research Conclusions

Through the research, obtain the following conclusion: in the GEM listed companies, limiting other conditions, the proportion of corporate ownership and the proportion of managerial ownership have positive correlations with the quality of accounting information; all the state-owned stake, ownership concentration and balanced concentrated ownership structure have not significant relationship with the quality of accounting information.

Research Inspiration

According to the theoretical and empirical research of ownership structure and the quality of accounting information, the paper gives the following recommendations:

(1) Optimizing the structure of corporate governance. For improving the quality of accounting information, the control and supervision of external accounting system and policies is not enough. Starting from the enterprise, tracing problem is the key. It is imperative to optimize the ownership structure. Gem listed companies need to recognize that institutional shareholders play a positive role in improving the quality of accounting information and increasing corporate ownership properly can make good oversight and control actions on the management's decision. Combining with the ownership structure’s particularity in GEM listed companies, the companies can give the senior managers the proper equity incentive to reduce agency costs and maximize enterprise value.

(2) Strengthening the principles guide of accounting standards. Accounting standards is primarily rules, but rules are always prone to have vulnerabilities. When this incomplete accounting standards guide the specific economic issues, the company may manipulate earnings management to influence the quality of accounting information. Therefore, improvements in accounting standards and especially, rules-driven accounting standards change to principles-driven accounting standards, which can prevent the manipulation of real earnings management in a certain degree.

References


