

Research on the Impact of Executive Shareholding Ratio on Profitability of GEM Listed Companies

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Abstract: The GEM is an integral part of China's multi-level asset market, which is characterized by high growth, high innovation, small scale, and high risk. In addition, senior executives may affect the company's operation and management activities, and may seek private interests and damage the company's interests. Therefore, shareholding by senior executives has become a common incentive method for companies, but corporate governance issues such as principal-agent issues and senior executives' moral hazard have followed. Therefore, at present, domestic and foreign scholars have taken executive stock ownership as a core topic of company research. Based on the above background, analyze the impact of executive stock ownership on profitability of GEM listed companies, and draw a conclusion.

1 INTRODUCTION

China's basic economic system is a socialist market economic system with public ownership as the mainstay, multiple ownership systems developing together, distribution according to work as the mainstay, and multiple distribution modes coexisting. In this context, the company occupies an important position in the market, and there are many problems in the company, in the process of company development, the need to continuously improve the company's operating efficiency, the need to maximize the value of the company's shareholders, some scholars in the study of the company found the problem of principality, executives as the company's agents, in the company has an indispensable position, is the company's operation and investment decision executor, but they may seek private interests and hinder the company's long-term development of behavior. As a result, equity incentives came into being and became a common means to prevent such phenomena. Senior management's shareholding and shareholders' interests converge, and whether the company can achieve rapid development has also become a concern of executives.



Figure1: Number of GEM listed companies.

The number of listed companies in China's GEM market has exceeded 1,000 so far, and it has tended to mature. As of August 2022, the total market capitalization reached 12 trillion yuan. GEM market for entrepreneurial companies, small and medium-sized companies and high-tech companies that do not meet the listing conditions of the main board to provide financing and development channels, has an important complementary role to the main board market, but also plays a key role in the entire securities and even asset market, and GEM listed companies have the characteristics of general executive shareholding and relatively concentrated equity, in this context, the company pays more attention to whether the proportion of executive shareholding has an impact on the

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company's profitability and how to affect it. Therefore, this article takes GEM listed companies as the background to explore the impact of executive shareholding on the company's profitability.

As the GEM market becomes more and more mature, how to effectively manage the company according to its own characteristics, give full play to its advantages as a supplement to the main board market, let the investees who need to invest stand firm, on the basis of the main board, increase the company's financing methods, solve the capital problems of small and medium-sized companies, and increase investment opportunities, is a problem that the market needs to pay attention to now, which is conducive to the comprehensive development of China's economic market. At present, few scholars have studied the relationship between executive shareholding ratio and profitability in detail, and few have used GEM listed companies as a sample to explore. It is of certain practical significance to explore the relationship between corporate profitability and executive shareholding ratio: first, to clarify the impact of executive shareholding ratio of GEM listed companies on profitability, and second, the research conclusion provides certain references for GEM listed companies that plan to implement equity incentives.

2 RESEARCH HYPOTHESIS AND DESIGN

2.1 Research Hypothesis

Based on the principal-agent theory, two-factor theory and stakeholder theory, the company has information asymmetry, different responsibilities of owners and operators, resulting in agency conflicts, according to the research results of many domestic and foreign scholars on the issue of principal-agent, giving executives a certain number of company shares can effectively alleviate the agency conflict problem of owners and operators, so that the interests of executives and shareholders are unified and converge, Xu Cheng (2020) research believes that if the senior executives in the company hold shares, Then to a certain extent, the interests of shareholders can be safeguarded and the company's governance can be improved, so executive shareholding is conducive to improving the company's profitability. Wu Gaobo and Du Yanping (2021) studied Shanghai and Shenzhen A-share companies from 2014 to 2018 and concluded that

executive shareholding is positively correlated with the cost of equity capital, and certain equity incentives can weaken the cost of capital effect of accrued earnings management. Giving executives a certain amount of company equity represents the affirmation of their past work and operation, which can allow them to maximize their self-worth, maximize work efficiency, and promote the development of the company. As an effective incentive mechanism, executive shareholding meets people's most basic needs and promotes the growth of the company, thereby affecting the ability to operate. Similarly, after holding shares in the company, executives have a certain shareholder role, give priority to themselves when making corporate investment decisions, and prefer higher-income business methods and strategies, and at this time, the interests of executives and other stakeholders converge, which will increase the return related to investors' investment assets, increase the value of the company, and enhance the company's competitiveness and development ability.

As the decision-makers of the company's investment and operation, executives will work more actively for the company's profits in order to increase the market value of the shares held, use all the company's existing resources for profit, and work harder to improve the ability of investors to generate income from the funds invested in the company. Tian Guoshuang and Qi Yingnan (2018) analyzed 245 companies from 2012 to 2016, and believe that the increase in the proportion of executive shareholding will increase the company's economic efficiency. Wei Wenjun and Shi Huaqian (2017) analyzed A-share companies and believe that executive shareholding positively affects financial performance. Wang Xiaoning and Zhou Meiling (2016) study empirical data in the real estate industry to demonstrate the positive correlation between executive shareholding and company performance. Li et al. (2007) studies that from 1992 to 2000, listed companies proposed that executive shareholding helped to improve corporate performance, and that companies with a high proportion of shares had about 2% higher operating capacity and profitability than companies with a low proportion of shares. Wang Xiufen and Xu Xiaopeng (2017) analyzed A-share enterprises from 2011 to 2015 and demonstrated that executive shareholding can improve operational profitability. Most scholars believe that executive shareholding can effectively make executives pay more attention to the company's performance, effectively improve the company's performance, and the company's executives holding a certain number of company

shares can protect the interests of shareholders to a certain extent, suppress the problem of principalship, and improve corporate governance. As the operator of the company, the executive has a good understanding of the company's asset information, and the company gives a part of the shares to the executive, which will allow the executive to make better use of the existing information to make decisions to maximize the value of the company, maximize the efficiency of asset operation, and improve the overall profitability of the company using all assets. Similarly, senior executives' shareholding can enable them to obtain the rights of shareholders, participate in major decisions of the company, have a strong sense of belonging to the company, pay more attention to the interests of the company, make various business decisions that will be closer to the requirements of the company's interests, make behaviors that use power for personal gain to harm the interests of the company, and the risk appetite of company executives for investment, projects, etc. will converge with the company's shareholders, and the use of the company's assets will be more effective. Therefore, the hypothesis is proposed:

H1: There is a positive correlation between executive shareholding and profitability.

2.2 Research Design

2.2.1 Sample Selection

The data in this paper comes from the Guotai An database, which is sorted out by Excel and tested by Stata to test the model. Taking the five-year data of GEM listed companies from 2017 to 2021 as the research sample, in order to draw a more accurate conclusion, ST, *ST listed companies and financial

industry companies are excluded from the sample selection, and the company should continue to operate in the five years from 2017 to 2021 and have been listed in 2017, and the data is complete and complete to ensure the consistency of the sample. In the end, a total of 2810 sample data from 562 sample companies were obtained after screening.

2.2.2 Variable Selection

■ Interpreted variable: profitability

Referring to the research of Liang Yuanni (2020), Chen Yaomeng (2021) and others, the return on equity reflects the company's net profit income, which can enable managers and investors to decide whether to expand the scale of operation or investment, and capital profitability is the ability of the company owner to benefit from investing capital management; Return on total assets can reflect the company's ability to use and manage total assets, and asset profitability is the company's ability to return on operating assets; Operating profit margin reflects the company's operating efficiency, operating profitability is the company's financial operation ability, so the return on net assets, return on total assets, operating profit margin as the indicator to measure profitability.

■ Explanatory variable: Shareholding ratio of senior executives

The shareholding ratio of senior executives is an important indicator to measure the degree of senior management's shareholding. The shares held by the executives in this article are the company's current shares, and if one person wears multiple positions, the number of shares is not double-counted.

The relevant variables and definitions involved in this article are shown in Table 1.

Table 1: Variable definitions and descriptions.

Var	Symbol	definition
Interpreted variable	Return on equity	ROE Net profit/net assets*100%
	Return on total assets	RTA (Total profit+interest expense)/Total average assets*100%
	Operating profit margin	OPM Operating profit/revenue*100%
Explanatory variable	Shareholding ratio of senior executives	ESR Total shares held by senior executives/total shares of the company*100%

	company size	SIZE	Natural logarithm of total assets at the end of the year
control variable	Shareholding ratio of the largest shareholder	FIRST	Number of shares held by the largest shareholder/total number of shares*100%
	leverage	LEV	Total liabilities at the end of the year/total assets at the end of the year *100%

2.2.3 Model

To verify that the hypothesis is correct, the following multiple linear regression model is established:

$$ROE \setminus RTA \setminus OPM = \alpha + \beta ESR + \gamma_1 SIZE + \gamma_2 FIRST + \gamma_3 LEV + \varepsilon$$

Among them, the meaning of each variable is shown in Table 1, α is the constant term, β , γ_1 , γ_2 , γ_3 are the model regression coefficients, ε are the model random error terms.

3 EMPIRICAL RESULTS AND ANALYSIS

3.1 Descriptive Statistical Analysis

In order to obtain a preliminary understanding of the executive shareholding ratio, profitability and control variables of the sample companies, descriptive statistics were used for analysis. The specific results are shown in Table 2:

Table 2: Descriptive statistical analysis.

Var	N	Max	Min	Mean	Std
ROE	2810	0.311	-0.613	0.096	0.501
RTA	2810	0.361	-0.609	0.080	0.509
OPM	2810	0.459	-9.032	0.055	5.332
ESR	2810	0.648	0	0.276	0.011
SIZE	2810	24.54	19.29	21.39	0.794
		4	0	1	
FIRST	2810	0.624	0.056	0.249	0.008
LEV	2810	1.037	0.021	0.302	0.166

The average return on net assets is 0.096, and the profitability of net assets is strong; The difference between the maximum value and the minimum value of the return on total assets is large, with the average value of 0.080. The level of input and output is strong, and the assets are well used; The minimum value of operating profit margin is -9.032, and the average value is 0.055, indicating that some sample

companies have excessive losses, but the overall development potential is fair and the profitability is strong.

The shareholding ratio of senior executives reached 64.8% at the highest level. The value of some sample companies was 0, with an average of 27.6%, indicating that the index value of the whole market was high, indicating that the equity incentive of GEM listed companies was widely implemented and successfully implemented.

As can be seen from Table 2, the difference in the size of the company is small; the average shareholding ratio of the largest shareholder is 24.9%, and the equity is relatively concentrated; Under normal circumstances, the asset-liability ratio of companies with a good asset structure should not exceed 50%, as can be seen from Table 2, the maximum is 1.016 higher than the minimum, and the gap in financial risks is large, but the average value is 30.2%, indicating that the overall risk is at a reasonable level.

3.2 Regression Analysis

Table 3: Regression analysis results.

Var	ROE	RTA	OPM
ESR	0.180** (2.480)	0.185** (2.500)	0.196** (3.914)
SIZE	0.227** (2.746)	0.239** (2.492)	0.163** (5.592)
FIRST	-0.322** (-3.340)	-0.338** (-3.440)	-0.246** (-2.573)
LEV	0.156** (2.326)	0.208** (2.726)	0.215** (3.821)
R ²	0.097	0.101	0.044
Adjust R ²	0.087	0.091	0.033
F	9.850**	10.250**	4.170*
N	2810	2810	2810

Note: ** indicates a significant correlation at the 0.01 level (bilateral) and * indicates a significant correlation at the 0.05 level (bilateral).

Adjust R² is a comprehensive measure of how well a regression model fits. Table 3 shows that the model

fit is average, but it is significant at 1% and 5% levels F and the model is usable.

The executive shareholding ratio and return on net assets coefficient is 0.180, the growth of this indicator will pull up the return on net assets, that is, the proportion of executive shareholding positively affects the profitability of capital, and the executive shareholding ratio and total return on assets coefficient is 0.185, indicating that the growth of executive shareholding ratio will increase the return on total assets, that is, the proportion of executive shareholding positively affects asset profitability, and the executive shareholding ratio and operating profit margin coefficient are 0.196, indicating that the growth of executive shareholding ratio will increase the operating profit margin, that is, the proportion of executive shareholding positively affects operating profitability, assuming that H1 is verified.

The results show that the shareholding ratio of senior executives of GEM listed companies is positively correlated with capital, assets and operating profitability. After the executives hold the company's shares, they have a certain shareholder role, take into account their own benefits when making company operation decisions, will adopt higher returns, relatively stable investment strategies and business methods, the company's value will rise, similarly, their own interests will gradually be consistent with the interests of the company and investors, and the risk appetite of company executives for investment and projects will also converge with the company's shareholders, which will increase the return on investors' investment assets and increase the return on investment. It can also effectively improve the ability of investors to generate income on the funds invested in the company, thereby improving the profitability of assets. On the other hand, the company grants executives a certain amount of equity, which is to affirm their past work performance, and mobilize their work enthusiasm, it also strengthen their growth needs, and maximize work efficiency, so that it can enable them to prove their excellent management ability through the company's operating efficiency, and at the same time realize self-worth, and promote the growth and development of the company, so that the company's operating profit margin can be improved and profitability enhanced.

4 RESEARCH CONCLUSIONS AND RECOMMENDATIONS

This paper uses 2810 sets of data from 562 listed companies in China's GEM market from 2017 to 2021 as research samples, first reviews and summarizes relevant domestic and foreign research results and theories, and then analyzes each variable, on this basis, uses multiple regression models to carry out empirical analysis of the three research hypotheses proposed, and concludes: (1) capital profitability will increase with the increase of executive shareholding; (2) asset profitability will increase with the increase of executive shareholding; (3) Operating profitability will increase with the increase of executive shareholding.

Based on the previous analysis and conclusions, the following recommendations are made:

- Reasonably formulate an equity incentive system

The shareholders of the company will strengthen the supervision of senior executives or give equity so that senior executives do not make business decisions that harm the interests of the company, and the interests of senior executives are consistent, and the equity incentive system can make the interests of the two converge and solve the problem of agency conflict, so executive shareholding has become a common incentive method for many companies. According to the research of this paper, executive shareholding has been a very common phenomenon in the GEM board, and positively affects the profitability of the company, so it is necessary to reasonably formulate the executive incentive system, conduct regular assessment of the executive behavior and management level, and establish a long-term incentive and short-term incentive combined executive salary and remuneration system, when the long-term remuneration directly obtained by the executive and the benefits obtained through encroachment on the company's interests tend to be at the same time, the constraint of moral hazard can play a role again, and the behavior of operators harming the interests of the company can be effectively avoided. It ensures a high degree of unity of interests between managers and shareholders.

- Rationalization of the equity distribution of the company

GEM listed companies are special in nature, many are family businesses, and the operator is also the chairman of the board, the person who holds the largest share of the company, and the direct decision-maker of the company. The company's

equity is too concentrated and easy to listen to the decision-making of the person with the highest shares, does not absorb the opinions of other shareholders, resulting in losses to the company, and the largest shareholding ratio is too high is not conducive to mutual restraint and balance between shareholders, and is not conducive to the improvement of the company's profitability. Therefore, for GEM listed companies, scientific methods should be adopted to correctly guide the largest shareholder to transfer part of its equity to other shareholders, or the company should absorb more investors, reduce the shareholding ratio, and rationalize the equity distribution, so as to promote the company to solve problems efficiently, it also make economic decisions more effective, and improve the company's profitability. At the same time, the company should establish a structure of mutual restraint among shareholders, maintain a moderate level of shareholding of the largest shareholder of the company, and further optimize the ownership structure.

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