Research on Benefits of Executive Shareholding in Development of Companies

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Abstract. As main participants of the market economy, enterprises play an important role in the market. How to accelerate the development of the company and promote the company's performance are important problems that plague the company's top management. From the viewpoint of executive shareholding, this document investigates the effect of executive shareholding on the company's development benefits, hoping to put forward reasonable suggestions for the company's reasonable development. This essay takes the listed business in China in 2018 as an example, selects 3639 listed companies, and obtains the following conclusions through empirical analysis and research. (1) There is a positive correlation between executives' shareholding and the company's development efficiency. The higher the executive's shareholding ratio, the better the company's development; the less executives' shareholding, the worse the company's development efficiency. (2) In addition to the shareholding ratio of senior executives, the company's total assets, book-to-market ratio and other factors also have a significant impact on the company's development. Finally, based on the empirical analysis and research results of this paper, corresponding suggestions are given in this paper, which are expected to have a positive reference for the development of whole country's listed companies.

Keywords: Executives' shareholding Company benefit · Financial analysis

1 Introduction

1.1 Research Background

As a major player in the market economy, companies play a vital role in the market. And the joint-stock company, as an important organizational form of the company, has developed rapidly in China with its advantages of convenient financing. The separation of ownership and management rights of joint-stock companies not only promotes more scientific and efficient company management, but also brings the problem of "principal-agent", which will seriously damage the rights of company owners. In order to solve the principal-agent problem, the company's shareholders have paid a high agency cost, which has a very negative influence on the company's development. Important academic issues.

Corporate executives are responsible for important affairs, and master the important information of the joint-stock company. Executives mainly include the company's managers, financial leaders and other members. Corporate executives are the core task of corporate development and operation. Shareholders choose executives so that executives can better accomplish the goals set by shareholders and promote the growth of shareholders' interests. Senior executives have the decision-making power over the company's strategic decision-making, and are responsible for deciding major issues in the company's development and accomplishing the company's important strategic goals. Whether the decision-making behavior of executives is rational or scientific is directly related to the company's future business development and has an important impact on shareholders' rights and interests. However, under the condition of serious information asymmetry between executives and shareholders, in the face of the temptation of high interests, executives tend to focus only on personal interests and do behaviors that harm the interests of shareholders and the company. Besides, executives have ability to promote the execution of unreasonable decisions that are in their own interests, which brings a heavy burden to the development of the company. In order to protect their own interests, in addition to adopting an extremely cautious attitude when selecting executives, shareholders will adopt various measures to restrict and supervise executives. By requiring executives to hold shares, they tie the interests of executives with the interests of shareholders. As the increasingly complex management of modern companies and the increasingly decentralized shares, shareholders may lack the corresponding ability and means to understand the daily operation of the company, thus they may unable to effectively supervise the joint-stock company. Hence, equity incentives have become the best choice for many companies. Besides, it is beneficial to form a community of interests of executives and shareholders. Thereby reducing the "principal-agent" problem and promoting the better development of the company.

Enterprises let executives hold company shares, which makes executives make decisions based on the consideration of maximizing their own interests, thus reducing the motivation of executives to infringe on the interests of shareholders. At the same time, many listed companies are huge, and holding shares by executives can bring more material benefits to executives through equity incentives, which is conducive to attracting high-quality talents and promoting more scientific and efficient company management. Lessen "Principal-agent" costs, and promote the development of the company.

1.2 Development History of Equity Incentive

The history of equity incentives has a long history in the world. It is generally believed in the international community that the first country in the world to implement equity incentives is the United States. In 1952, the American Corporation took the lead in launching the equity incentive plan, which opened the curtain on the development of equity incentives. In the 1970s, the management equity incentive plan began to rise and develop rapidly in the United States, which greatly reduced the governance cost of American companies and reduced the losses caused by the "principal-agent" problem to the company's development. In the early 1990s, in order to reduce company costs, China began to introduce the equity incentive system. In 2002, the guiding opinions were officially released, and equity incentives were officially introduced at the policy

level in China. " After 2011, the differentiation and personalization of equity incentive schemes began to emerge. More and more listed companies have used equity incentives as an effective means to improve their corporate governance structure and fully mobilize the motivation of senior managers and personnel having core technical.

The senior management team of an enterprise is the core competitiveness of an enterprise and holds great power, who are facing the temptation of huge profits. If corporate shareholders cannot provide corporate executives with good material conditions, it is difficult to ensure that corporate executives make decisions that safeguard shareholders' interests when faced with conflicts of interest with shareholders. At present, there are large number of listed companies in our country, and the competition between different companies in various industries is fierce. Whether and how to implement equity incentives directly affects the development and destiny of listed companies, and it is an issue that shareholders of listed companies should attach great importance to.

Promoting the development of the company is the motivation for the company to implement equity interests, but its actual effect remains to be verified. At the same time, the legal provisions were issued relatively late, and there are not many academic studies on this aspect. Based on this, this paper selects 3,639 listed companies in China, explores the relationship between executive shareholding ratio and company performance, and clarifies the significance of equity incentives for company expansion.

Based on the academic achievements in related fields, this paper has some innovations in the analysis of data models and the causes of equity incentives. Therefore, this paper has both academic and practical significance. It can provide corresponding guidance for the government supervision department to issue relevant policies and the development of the enterprise's equity incentive system, and propose constructive methods.

This essay is divided by six parts: Introduction, Literature Review, Data and Analysis Methods, Analysis of Empirical Results, Research Conclusions and Recommendations.

2 Literature Review

Equity incentive has always been an attractive issue in academic circles. Most scholars agree that equity incentives can improve the performance of listed companies. According to the effect of interest convergence, equity incentives for executives can coordinate the interests of executives and shareholders. Besides, they can also supervise and control the behavior of executives, reducing the occurrence of "principal-agent" problems and promoting the improvement of corporate performance. The research of Jensen and Meckling shows that corporate executives' shareholding helps to alleviate the principal-agent problem, reduce principal-agent costs, and thus improve the value of the enterprise [1]; Lam research shows that There are many motivations for equity incentives [2]. Through empirical research, it is concluded that equity incentives for executives can help reduce agency costs and improve corporate performance. Elsila and Kallunki believe that the stock incentives for management can significantly improve corporate performance, and corporate performance improves with the degree of equity incentives implemented for management [3]. At the same time, it is pointed out that equity incentives are the best way to reduce agency costs. Liu and Wang pointed out through empirical research that there is a significant positive correlation between the shareholding ratio of managers

and corporate financial performance, and the management shareholding system of listed companies has a significant positive effect on improving corporate performance [4]; Song and Pu studied the management's shareholding system of listed companies in China under the background of asymmetric information. The conclusion shows that management's shareholding is helpful to promote the development of enterprises, and the selection of the scope of equity incentive objects should be paid attention to [5]; Zhou and Chen, through the research on the motivation of enterprises to implement incentive policies, believe that improving the operating performance of enterprises is one of the important motivations for equity incentives [6].

Some scholars have put forward different views from those mentioned above. Stultz proposed the trench effect in 1988, that is, when the management shareholding ratio increases, the management will pursue the maximization of personal interests by exploiting external investors, which will reduce the value of the company [7]. The company's executives can build a trench and a defense mechanism to prevent other companies from acquiring their own company, thereby preventing themselves from being replaced by the acquirer's newly appointed management, which may threaten their own interests. This reduces the binding force of corporate mergers on management, thereby reducing external constraints, increasing agency costs, and affecting the development of the company. The empirical results of Hanson and Song show that the greater the equity incentive for executives, the stronger the executives' control and influence will be, thus providing shortcuts for executives to pursue personal interests [8], G hosh and Sir mans found a negative correlation between the degree of equity incentives implemented by executives and the development of enterprises when researching trust and investment companies [9]. Yu found a significant negative correlation between the two when conducting an empirical study on the equity incentives of state-owned enterprises [10]. Cao and Yang studied the listed companies in China in 2008 and believed that the shareholding ratio of executives in China was relatively low, and there was a negative correlation between executive equity incentives and corporate performance [11].

In conclusion, scholars in western country have made lots of research on the equity incentive system, but scholars lack research on listed companies in China's stock market, and have not reached a consistent conclusion. At the same time, there are few existing literatures on the stock market in China, and the selected historical data is relatively old, which has limited guiding significance for the equity incentive system of today's listed businesses in China, and requires updated data to update the original research.

3   Data and Analysis Methods

3.1   Data Selection

This paper studies the development benefits of executives' shareholdings on the company, and selects data sample on December 31, 2018, covering 3,639 listed companies, using EViews9 and R.

3.2   Variable Definition

3.2.1   Explained Variables——Company Development Benefit

EPS (earnings per share).

Earnings per share is the net profit of the company that ordinary shareholders can enjoy or need to bear for each share they held. The company's net loss and earnings per share are often used to measure the company's development efficiency and operating results, as well as to evaluate the company's profitability and predict the company's growth potential.

3.2.2   Explanatory Variables—Shareholding Ratio of Executives

This paper chooses executive shareholding ratio (SE) as the explanatory variable for the study. SE is defined as total number of shares held by executives / total number of shares in the company.

3.2.3   Control Variables

By referring to relevant literature, this paper selects the asset-liability ratio, weighted average return on equity, total assets, fixed asset ratio, total asset net profit ratio, and book-to-market ratio as control variables.

Asset Liability Ratio (ALR). The size of the company has a certain impact on the company's development efficiency. A company with small assets has a weaker ability to resist risks and a higher risk, which has a negative impact on the company's development. Companies with large assets have a strong ability to resist risks and lower investment risks, which have a positive impact on the company's development benefits.

Weighted Average Return on Equity (ROE). ROE is defined by dividing net income by shareholders' equity.

Assets (PRO). Company assets refer to the book value of the company, which is the difference between all the company's assets and all the company's liabilities reflected on the company's balance sheet, that is, the company's net assets

Fixed Assets Ratio (FAR). The lower the fixed asset ratio, the stronger the company's operational capability and the better the company's development efficiency. FAR is defined as Fixed Assets Ratio = Fixed Assets/Total Assets.

Net Profit Margin on Total Assets (ROA). ROA is defined as Profit rate on total assets = total profit / average total assets.

Book to Market Ratio (BM). BM is defined as Shareholders' Equity / Company Market Value.

4   Analysis of Empirical Results

This paper firstly conducts descriptive statistics and correlation analysis on the data, and then lists the regression results.

4.1   Descriptive Statistics

In order to observe the overall characteristics of the sample data, descriptive statistics are carried out on the whole sample data. Figure 1 shows that the average value of earnings per share, total return on assets, and weighted return on equity, which measure the company's development efficiency, within the sample interval are 0.328, 0.0058, 2.8, and the medians are 0.27, 0.0344, and 6.93, respectively, all within a reasonable range. Among them, the standard deviation of the weighted return on equity is greater than the return on total assets and each stock returns, which means that the weighted return on equity is more volatile. In the shareholding ratio of senior executives, the average shareholding ratio of senior executives is 0.111, which means that on December 31, 2018, the shareholding ratio of senior executives in listed businesses in China was about 11%. The minimum in executive shareholding ratio is 0, telling that some company executives do not hold shares, and the maximum value is 0.822, indicating that some listed companies' senior managers have not only management rights, but also ownership. Among the control variables, the average value of the asset - liability ratio is 0.4533, which means that the average leverage level of listed companies in the sample interval is 45.33%; the average value of the book-to-market ratio is 0.74, which means the equity is about 74% of the company's market value, and the average fixed asset ratio FAR is 0.193, which means the fixed asset is about 19.3% of the total asset.

4.2   Correlation Analysis

In order to better observe the overall characteristics of the sample data, here is a correlation coefficient analysis on the entire data. Figure 2 is the correlation coefficient of all sample data. Through the graph, there is a strong correlation when it comes to earnings per share, return on total assets, and weighted return on equity, and the explanatory variables SE and E PS are positively correlated, which preliminarily shows that the higher the executive shareholding ratio, the better the development efficiency of the company.

4.3   Regression Results

At the 0.05 level, the F statistic is 3 13, and the parameters of the F test have high significance, the t -test of each parameter is significant, and the P value is less than 0.05. It is reasonable to think that the explanatory variable has a significant influence on the explained variable (Table 1, 2, 3, 4, 5 and 6).

From Table 3, here is the following formula:

$$EPS = 0.258SE + 0.454ALR + 0.007ROE + 5.98 \times 10^{-14}PRO - 0.107FAR \atop +2.47ROA - 0.344BM + u_i \tag{1}$$

There is a positive relationship between executive shareholding ratio (BM) and company development efficiency (EPS).

Table 1. Variables describing statistical results

	Mean	Median	Maximum	Minimum
EPS	0.32866	0.27	28.02	-9.57
ALR	0.453379	0.423728	28.5477	0.009779
ROE	2.804627	6.93	964.67	-885.25
PRO	67000000000	4150000000	27700000000000	17008562
FAR	0.193516	0.161664	0.920813	0.000036
ROA	0.005825	0.03449	0.378931	-29.6088
BM	0.741464	0.75653	1.462513	0.013296
SE	0.111099	0.002415	0.822681	0

Table 2. Results of correlation analysis of variables

	EPS	ALR	ROE	PRO	FAR	BM	SE
EPS	1.00	-0.21	0.49	0.06	-0.02	-0.01	0.08
ALR	-0.21	1.00	-0.28	0.12	-0.008	0.24	-0.24
ROE	0.49	-0.28	1.00	0.01	0.01	0.06	0.05
PRO	0.06	0.12	0.01	1.00	-0.06	0.08	-0.04
FAR	-0.02	-0.008	0.01	-0.06	1.00	0.11	-0.10
BM	-0.01	0.24	0.06	0.08	0.11	1.00	-0.14
SE	0.08	-0.24	0.05	-0.04	-0.10	-0.14	1.00

Table 3. Results of variable regression

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	0.315068	0.050253	6.269614	0.0000
ALR	0.454159	0.065853	6.896596	0.0000
ROE	0.006720	0.000375	17.93234	0.0000
PRO	5.98E-14	1.50E-14	3.993277	0.0001
FAR	-0.106900	0.083464	-1.280785	0.2004
ROA	2.472717	0.094008	26.30322	0.0000
BM	-0.343752	0.057505	-5.977789	0.0000
SE	0.258193	0.076079	3.393765	0.0007

Adjusted R-squared	0.380880
F-statistic	313.5191
Prob (F-statistic)	0.000000
R-squared	0.382098

Table 4. Results of multicollinearity test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.002525	15.27031	NA
ALR	0.004337	6.636165	1.542304
ROE	1.40E-07	1.434417	1.427880
PRO	2.25E-28	1.035796	1.029562
FAR	0.006966	2.605955	1.031833
ROA	0.008838	1.770603	1.758166
BM	0.003307	12.15631	1.140927
SE	0.005788	1.515960	1.083729

Table 5. Results of robustness check

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	0.360936	0.059337	6.082781	0.0000
ALR	0.614788	0.073184	8.400612	0.0000
ROE	0.004522	0.000292	15.47671	0.0000
PRO	5.83E-14	1.84E-14	3.164788	0.0016
FAR	-0.265272	0.111568	-2.377672	0.0175
ROA	0.921574	0.075997	12.12649	0.0000
BM	-0.407727	0.071585	-5.695705	0.0000
SE	0.119874	0.100640	1.191115	0.2337

R-squared	0.129755
Adjusted R-squared	0.128026
F-statistic	75.06195
Prob (F-statistic)	0.000000

4.4 Multicollinearity Test:

This paper uses the variance expansion factor method to test the multicollinearity of the data.

Variance expansion factor calculation formula:

$$VIF = 1/(1 - R_i^2) \tag{2}$$

where R_i^2 is the coefficient of determination of the explanatory variable for the assisted linear regression of other explanatory variables X_i

Generally speaking, if VIF $\geq$ 10, it can be considered that there is serious multicollinearity. It can be seen from Fig. 4 that the centered VIF is far less than 10, so there is no multicollinearity.

Table 6. Results of heterogeneous analysis

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	0.222951	0.073531	3.032077	0.0025
ALR	0.441798	0.105270	4.196806	0.0000
ROE	0.014550	0.000993	14.65709	0.0000
PRO	7.35E-12	3.44E-12	2.136619	0.0330
FAR	-0.104954	0.157368	-0.666938	0.5050
ROA	2.099792	0.180532	11.63116	0.0000
BM	-0.411832	0.096862	-4.251718	0.0000
SE	0.241395	0.095505	2.527560	0.0117

R-squared	0.741657
Adjusted R-squared	0.739169
F-statistic	298.1547
Prob(F-statistic)	0.000000

4.5 Endogenous Test

From Fig. 4, the D W value is 1.95, so there is no endogeneity issue.

4.6 Robustness Check

Select the data of listed companies on December 31, 2019 to measure the development benefits of listed companies.

The condition that the significance level is 0.05, the F statistic is 7 5, the parameters of the F test have high joint significance, the t test of each parameter has high significance, and the P value is less than 0.05, so the explanatory variable has a significant effect on the explained variable. Impact, so it is reasonable to assume that the results are robust.

4.7 Heterogeneous Analysis

The second board is quite different from other types of stock and is suitable for heterogeneity analysis.

Only GEM stocks listed on the Shenzhen Stock Exchange are selected for analysis.

The F statistic is 2 98. Under the condition of significance level of 0.05, all data passed T test and P test, and the original data were still robust.

5 Conclusions

The results of empirical analysis show that the proportion of executives' shareholdings is positively correlated with the company's development efficiency, which indicates that executives' shareholding can effectively solve the "principal-agent" problem. The better the benefits of development. Through executive equity incentives, the interests of executives and shareholders are tied together, and at the same time, material interests are used to promote executives to manage the company more scientifically and rationally, thereby improving the company's development efficiency.

6   Recommendations

The company's senior management is very important to the company's future develop-ment benefits, but from the empirical analysis that there are still some companies that do not give senior executives certain equity, and the interests of executives are not closely related to the interests of shareholders. It is easy for executives to violate shareholders' rights and interests, thereby increasing the cost of running the company. In view of this, Chinese listed companies should promote executives to hold shares by learning from foreign companies, so as to combine the executives with the company and reduce the cost of principal-agent problems. Companies should also control the distribution ratio to prevent executives from owning too much equity which strengthen executives' control over the company. The resulting trench effect will also hinder the improvement of the company's development efficiency.

Regarding the relevant government supervision departments, there are some imper-fections in relevant laws and regulations in China. The government should improve the relevant legal system through empirical research and Field survey and form a complete external supervision system to promote market resources reasonable configuration. At the same time, as to the imperfect system of Chinese capital market system, the Chinese government needs to strengthen law enforcement, regulate the phenomenon of Chinese capital market, and improve the efficiency of capital market supervision and manage-ment, which promote the operation of the market and the stable development of the company.

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