

An Empirical Study of Executive Compensation of State - owned Listed Companies on Corporate Financial Performance

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Abstract. Based on principal-agent theory, this paper studies the effect of executive compensation on state - owned listed companies' financial performance. The theory of principal-agent makes the information asymmetry between shareholders and management. The managers are responsible for the operation and management of the company and clearer about the future development prospects. The shareholders are difficult to grasp the company's real financial situation, and managers may be to maximize their own interests in a variety of ways to damage the interests of shareholders, so this paper set up a reasonable executive compensation incentive system, which is conducive to the reduction of the interests of shareholders and the company's future damage by studying the management of corporate financial performance impact. In this paper, 80 state-owned listed companies in Shanghai and Shenzhen in 2015 were selected as research samples, and the correlation analysis was used to confirm whether there was significant correlation between the executive compensation and financial performance of state-owned listed companies ,the linear regression analysis is constructed model Y which reflect the relationship of executive compensation and financial performance, which is used to verify the impact of executive compensation on corporate financial performance.

Introduction

Executive compensation has been considered to be the key to solve the principal-agent conflict. If the executive incentive compensation system is designed properly, it can effectively reduce the cost of agency and the conflict between shareholders and management and enhance the company's market value ^[1]. Western academic research on executive compensation and corporate performance is earlier, the theoretical system has matured ^[2]. China's research on executive compensation and corporate performance is relatively late, the theoretical system is imperfect, many scholars have not yet reached a consensus on the research results, so the executive compensation and financial performance of listed companies is still a hot topic. The type of company selected in this paper is a state-controlled listed company. When the company is the actual control of the government, the government control of the company often appears super strong administrative control and ultra-weak property rights control, so state-controlled enterprises tend to assume some policy burden. The Government may be too many executives intervene through the administrative objectives of the public, executives pursue executive positions to meet their own consumption interests, and not bear too much risk management and cannot receive the excessive incentives because of outstanding performance. The state-owned holding company will more inclined to the traditional incentives and lower pay levels, so the company executives do not have much enthusiasm to improve the company's operating results. Therefore, it is a complicated problem how to establish a diversified executive compensation structure, which combines the executive compensation with the complex financial performance, under the condition of the unstable economy and the complex relationship between government and enterprises.

Research Design

Index Selection. In this paper, the cross-sectional data of 80 listed companies in Shanghai and Shenzhen in 2013-2015 were selected as study samples. These sample selection criteria: elimination of extreme values, that is, poor performance, the audit opinion for the reservations, negative opinions, refused to express their views on the listed companies; remove the incomplete or incomplete data listed companies [3]. In this paper, ROE is used to represent the financial performance of enterprises. The explanatory variables are independent variable including executive pay (PAY).The control variables include Leverage, Size of Company, Executive Shareholding (MSR).

Table 1 Indicator System

Types	Symbol	Variable	Calculation Formula
Dependent variable	ROE	Financial performance	Return on Equity = Net Profit after Tax / Net Assets * 100%
Independent variable	PAY	Executive Pay	natural logarithm of the total remuneration of the top three senior managers
Control variables	Leverage	Asset-liability ratio	Asset-liability ratio = total assets / total liabilities
	Size	Company Size	The natural logarithm of total assets at the end of the period
	MSR	Executive Shareholding	Total number of shares held by senior management / total share capital of the Company

Research Hypothesis and Model Design. As the existence of principal-agent, it can make the shareholders and executives of the company's information on the situation of asymmetry. The executives may abuse their authority for their own interests and damage to the interests of shareholders and don't maximize the value of the enterprise to make optimal decisions^[4]. In order to reduce this situation, the company's shareholders and executives signed a "pay-performance" contract, the executive's annual monetary reward and the company's operating performance linked to the company executives to maximize their own interests to work hard to improve the company. The performance of state-owned listed companies is positively related to the company's financial performance; For this hypothesis, building model 1:

$$Y = \alpha_0 + \alpha_1 * PAY + \alpha_2 * Leverage + \alpha_3 * Size + \alpha_4 * MSR \dots\dots\dots(1)$$

Empirical Research

Descriptive Statistical Analysis. According to the financial statements in 80 state-owned listed companies for 2015, it performs descriptive analysis. As shown in Table 2:

Table 2 Sample Descriptive Analysis

Index	N	Minimum value	Maximum value	Mean		Standard
				Statistics	Standard error	
ROE	80	-1.24	0.45	0.0538	0.01963	0.17557
PAY	80	11.98	15.73	14.1629	0.07496	0.67044
Leverage	80	0.1	0.96	0.4994	0.0219	0.19585
SIZE	80	19.52	24.95	22.2516	0.14926	1.33505
MSR	80	0.11	0.75	0.3273	0.01718	0.15368

In terms of financial performance, the mean ROE of state-controlled listed companies is 0.0538 and the standard deviation is 0.17557. In executive compensation, the average of PAY indicators is 14.1629 and the standard deviation is 0.67044. In terms of solvency, The average debt ratio of Leverage is 0.4994 and the standard deviation of Leverage is 0.19585. In terms of the holding mode, it uses the executive shareholding, which mean is 0.3272, and standard deviation of 0.15368. From the above descriptive analysis can be seen, the state- executives shareholding ratio is too low, and the relative concentration of equity is in the hands of a small number of major shareholders. Executives make management decisions subject to national policy limit. At present, many executives holding shares of the company is only a benefit for executives, because the shareholding of executives and their annual salary is very low, and cannot play the role of equity incentive ^[5].

Correlation Analysis. In this paper, partial correlation analysis is used to analyze the sample data of state-owned listed companies to verify whether there is correlation between the selected indicators. If there is significant correlation between the dependent variable and the independent variables, this indicator can be introduced into the constructed model. As can be seen from Table 3, the correlation coefficient between ROE and PAY is 0.44, which is greater than 0 on the basis of asset-liability ratio, shareholding ratio of executives and firm size as control variables, indicating that there is a positive linear correlation between the two variables. The significance level is 0, and the significance level set in this paper is 0.05. The companion probability p value is less than 0.05, which indicates that there is significant correlation between ROE and PAY. It confirms the assumption that the executive compensation of state-owned listed companies has a significant positive correlation with the financial performance of enterprises.

Table 3 Partial Correlation Analysis of State - owned Stock

Control variables	Index		ROE	PAY
Leverage & SIZE & MSR	ROE	Correlation	1	0.44
		Significant (Bilateral)	.	0
		df	0	75
	PAY	Correlation	0.44	1
		Significant (Bilateral)	0	.
		df	75	0

Multiple Linear Regression Analysis. In this paper, we use multivariate linear regression analysis to verify the effect of executive compensation on financial performance. It can be seen from Table 4 that the DW is 1.932 approximately 2, which shows that the residuals and the explanatory variables are independent of each other, and the regression equation can fully explain the variation rule of the explanatory variables. It can be seen from Table 5 that the F statistic value is 6.622 and the companion probability p value is 0, which is less than the given significance level

0.05, indicating that there is significant difference between the regression coefficient and 0, that is ROE and PAY regression relationship is significant. The Regression equation can be expressed by linear model and the regression equation of the variance fitting effect is very good. According to Table 6 to establish regression equation model 1:

$$Y = -1.298 + 0.133 * PAY - 0.108 * Leverage - 0.024 * SIZE + 0.176 * MSR \dots\dots\dots(2)$$

The equal indicates if the executive pay is higher, the asset-liability ratio will be lower. If the size of the company is smaller, the proportion of executives will be higher and the financial performance of enterprises is better.

Table 4 Model Summary

Model	R	R2	Adjusted R2	Standard error	Durbin-Watson
1	.511a	0.261	0.222	0.1549	1.932

Table 5 ANOVA

Model		sum of square	df	Mean square	F	Sig.
1	Return	0.636	4	0.159	6.622	.000b
	Residual	1.8	75	0.024		
	Total	2.435	79			

Table 6 Multiple Linear Regression Coefficient

Model		B	Standard error	Standard rial version	t	Sig.
1	(Constant)	-1.298	0.397	0	-3.268	0.002
	PAY	0.133	0.031	0.506	4.248	0
	Leverage	-0.108	0.099	-0.121	-1.093	0.278
	SIZE	-0.024	0.017	-0.181	-1.429	0.157
	MSR	0.176	0.118	0.154	1.494	0.139

Conclusion

In this paper, the financial performance of enterprises is measured by return on net assets. Based on the cross-sectional data of 80 listed companies in Shanghai and Shenzhen stock markets in 2015, descriptive statistics and correlation analysis are used to test whether the selected indicators are suitable. The multiple linear regression analysis is used to establish the relevant financial performance model. According to the above empirical analysis, we can draw the following conclusions: (1) At present, the state-owned listed companies in our country have basically realized the incentive mechanism linked to the executive pay and financial performance, and found that the executive pay has a positive correlation with the financial performance; (2) the share of executives in China is generally too low, which have impact on the interests of managers and the owner of the convergence effect. At present, state-owned listed companies in the equity incentive for executives

is not comprehensive enough, and many executives only have symbolic stocks. The shares of incentives did not play an effective incentive for executives. On the basis of the basic salary of different positions, it establish and corporate performance-related incentive compensation. It is full use of incentive pay incentives to mobilize the initiative of senior management, and coupled with corporate executives holding the approach to the implementation of comprehensive incentives ^[6]. At the same time, there are limitations in the selection of research samples and research methods and so on, mainly in the following shortcomings: (1) The paper only select the accounting indicators of the rate of return on net assets in order to measure the financial performance of enterprises. Too few dependent variables may lead to the research results is not comprehensive enough, the future can be combined with market indicators to analyze the financial performance of enterprises, such as the return on net assets, return on total assets and Tobin Q value combination of financial performance;(2) The relationship between executive compensation and firm performance is significantly affected by firm size and the proportion of state-owned shares. To study the relationship between executive compensation and corporate performance, the paper consider the financial performance of the two variables of firm size and state-owned shares (3) Restrictions on sample data. In this paper, the sample is only selected for three consecutive years of empirical data, the scope of the limited collection of information. In addition, the existence of the problem of financial accounting information distortion only through the financial statements may not be able to understand a company's real governance situation, research conclusions can be further testing. Therefore, from the government, enterprise and market three levels point of view, improving the shareholders, the market and the remuneration committee three-pronged internal control mechanism and external supervision mechanism, and gradually expand the corporate social performance standards for executive compensation incentive scope. Finally it can enhance the social performance of state-owned enterprises ^[10].

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