Research on the Influence of Executive Compensation Incentive on Corporate Financial Performance under the Multiple Regulation of Corporate Governance

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Abstract. There are different opinions on the relationship between executive compensation incentive and corporate financial performance, and this paper explores the relationship between them from the perspective of corporate governance using unbalanced panel data of 1,816 manufacturing listed companies in Shanghai and Shenzhen A-shares in China from 2015-2019 as a sample, using a hierarchical regression approach. The results show that executive compensation incentive has a positive impact on corporate financial performance. The independence of the board of directors in corporate governance negatively regulates the relationship between executive compensation incentive and corporate financial performance. The size of the board of directors and executive equity in corporate governance positively regulate the relationship between executive compensation incentive and corporate financial performance. The combination of the three in corporate governance negatively regulates the relationship between executive compensation incentive and corporate financial performance. Finally, from the perspective of corporate governance, this paper puts forward policy suggestions to the relevant management departments of enterprises, and provides practical guidance for them to improve their financial performance.

Keywords-executive compensation incentive; company financial performance; corporate governance

1. Introduction

Principal-agent theory advocates the distinction between ownership and operation of company management, which leads to conflicts of interest between external investors and internal operators of the company. Due to the existence of information asymmetry, it is difficult for the principal to supervise the agent scientifically and effectively. Therefore, in order to solve the agency problem of management, principals often sign compensation contracts with agents and use them to restrain the behavior of management. The main ways of incentivizing executives in modern enterprises are compensation incentives, equity incentives and promotion incentives [1]. Among them, executive compensation incentive is an important way to retain talent resources and is also the main incentive, which is important for listed companies to obtain and maintain core competitive advantage. The top listed companies in China in terms of total compensation, such as Vanke, CIMC, Pan Ocean Holdings, have all formulated relevant compensation

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incentive policies to motivate their executives. In the face of compensation incentives, the top echelon theory believes that the psychological structural factors such as perceived ability, cognitive ability and values of the executive team play a decisive role in the strategic decision-making process as well as organizational performance [2], so the issue of the relationship between executive compensation incentives and company financial performance is both a key concern of modern enterprises and a hot spot of research at home and abroad.

The current views on the relationship between executive compensation incentives and company financial performance can be divided into two categories: one view is that the relationship between the two is not significant or weakly correlated, such as foreign scholar Craig Carlson [3] found that due to the existence of the principal-agent problem, executive compensation incentives and company financial performance into a weak positive correlation; in domestic scholar Wei Gang's research[4], the results show that there is no significant positive correlation between executive compensation incentives and firm's financial performance. Another view, represented by foreign scholar Jensen [5] and domestic scholar Zhang Bolxing [6], argues that executive compensation incentives are significantly and positively correlated with firm financial performance. The reason for this divergence of opinion may be that when exploring the relationship between executive compensation incentives and firm financial performance, different moderating variables are considered or the influence of moderating variables on the relationship is not considered, for example, Ben-Tian Hu [7] considered the moderating effect of equity concentration; Xiaoling Yan [8] studied the influence of executive compensation, firm size, and equity concentration on firm financial performance, respectively, but did not consider the effect of moderating role. Reviewing the existing studies at home and abroad found that the current attention to the moderating role of corporate governance is not high, especially the moderating role of board independence, board size, and executive equity, and few studies consider multiple moderating effects at the same time. The questions that arise are: whether executive compensation incentives can improve corporate financial performance; under what circumstances can executive compensation incentives drive corporate financial performance; and how can companies rely on corporate governance to improve corporate financial performance. Answering these questions has important theoretical value and practical significance for promoting high corporate performance and solving effective corporate governance.

Based on the above analysis, this paper, based on the modern enterprise related theories and oriented by corporate governance, integrates executive compensation incentives, corporate governance and corporate financial performance in a unified analytical framework, adopts the unbalanced panel data of 1816 manufacturing listed companies in Shanghai and Shenzhen A-shares in China from 2015-2019, empirically analyzes the impact of executive compensation incentives on corporate financial performance, and explores the impact of corporate governance in terms of board independence, board size, executive equity, and the moderating role of the combination of these three.

2. RESEARCH HYPOTHESIS

2.1 Executive compensation incentives and corporate financial performance

According to principal-agent theory, a modern corporate system that separates ownership and operation of a company leads to principal-agent costs, and linking executive compensation incentives to the financial performance of a company is a way to maximize the reduction of principal-agent costs. The study of Dicheng Zhang [9] shows that executive compensation incentives can not only improve the financial performance of the company, but also have a significant effect on reducing principal-agent costs. At the empirical level, the findings of foreign scholar Kevin [10] show that executive compensation incentives positively affect the financial performance of firms. Therefore, based on the above analysis, this paper proposes the following hypotheses.

H1: Executive compensation incentives positively affect the financial performance of the firm.

2.2 The regulating role of corporate governance

This paper adopts a narrow concept of corporate governance to study the moderating role of the internal governance structure of the firm. The internal corporate governance structure includes the board structure and the equity structure, and the board structure includes board independence and board size. Therefore, this paper examines the regulatory role of corporate governance in four aspects: board independence, board size, executive equity, and the combination of the three.

The board of directors and its subordinate compensation committee are the core mechanism for companies to establish executive compensation incentive policies. Protecting shareholders' interests and monitoring executive behavior are important responsibilities of the board of directors, but since the board of directors is mainly composed of company insiders, in practice, only external independent directors can play a real monitoring role. In this regard, Conyon [11] found that executive compensation incentives have a greater impact on the financial performance of the firm for companies with a higher proportion of outside independent directors. Synthesizing the above analysis, this paper investigates the moderating effect of board independence on the relationship between executive compensation incentives and firm financial performance by using board independence as a moderating variable.

The size of the board of directors has an important impact on the scientificity and applicability of executive compensation incentives, and also affects the board's ability to monitor them. In this regard, the results of a study by Huang Yeh-Te [12] show that board size positively affects firm financial performance. Therefore, this paper uses board size as a moderating variable to investigate the moderating effect of board size on the relationship between executive compensation incentives and firm financial performance.

Due to the existence of principal-agent costs, generally firms grant executives a certain amount of equity to enable them to distribute the residual value of the firm and promote the alignment of management's interests with those of shareholders. In this regard, studies by scholars such as Qiu Xi [13] have shown that executive equity positively affects firm financial performance. Therefore, this paper uses executive equity as a moderating variable to investigate the moderating effect of executive equity on the relationship between executive compensation incentives and firm financial performance.

Based on the above analysis, this paper proposes the following hypotheses.

H2a: Board independence positively moderates the relationship between executive compensation incentives and firm's financial performance.

H2b: Board size positively moderates the relationship between executive compensation incentives and firm financial performance.

H2c: Executive equity positively moderates the relationship between executive compensation incentives and firm's financial performance.

H2d: Corporate governance positively moderates the relationship between executive compensation incentives and firm financial performance.

3. RESEARCH DESIGN

3.1 Sample and data selection

In this paper, 6908 data from 1816 manufacturing listed companies in Shanghai and Shenzhen A-shares from 2015-2019 were selected as a sample to study the relationship between executive compensation incentives and company financial performance. All raw data in this paper were obtained from the Guotaian database, and the processing of relevant data was mainly done through SPSS 25.0 software.

3.2 Variable measurement

Dependent variable: firm's financial performance. This paper draws on the measure of Yan, Yuliang [14], and uses the return on total assets, i.e., the ratio of net income to total assets at the end of the period, as a proxy variable for the firm's financial performance.

Independent variable: executive compensation incentives. Regarding the proxy variable of executive compensation incentive, different scholars have adopted different measures, for example, Xuemeng Guo [15] used the natural logarithm of the average of the top three executive compensation of listed companies to measure executive compensation incentive. This paper draws on the study of Ya-Xian Chang [16] and uses the sum of the top three executive compensation of the company to take the logarithm as the proxy variable of executive compensation incentive.

Moderating variables: This paper refers to the study of Gang Wen [17] and uses the ratio of the number of independent directors to the total number of board of directors as a proxy variable for board independence and the total number of board of directors as a proxy variable for board size. Also, drawing on the study of Qi Tingting [18], the ratio of the number of executive shareholdings to the total number of shares is used as a proxy variable for executive equity.

Control variables: In this paper, other factors affecting the financial performance of the firm are set as control variables, including firm size, gearing ratio, equity concentration, and firm growth.

3.3 Model Setting

In this paper, a hierarchical regression approach is used for model setting, as follows.

Using the firm's financial performance as the dependent variable and the control variables as the independent variables, the basic model was developed.

$$ROE_i=\beta_0+\sum_{i=1}^{n}\beta_i CON_i+\varepsilon_i \tag{1}$$

Adding executive compensation incentives to the basic model creates an independent model of.

$$ROE_i=\beta_0+\beta_1 LN\_CEP_i+\sum_{i=1}^{n}\beta_i CON_i+\varepsilon_i \tag{2}$$

On the basis of the independent model, an interaction term is added to create a weighting model.

Weighted Variable Model 1.

$$ROE_i=\beta_0+\beta_1 LN\_CEP_i+\beta_2 LN\_CEP_i\times IDR_i+\sum_{i=1}^{n}\beta_i CON_i+\varepsilon_i \tag{3}$$

Weighted Variable Model 2.

$$ROE_i=\beta_0+\beta_1 LN\_CEP_i+\beta_3 LN\_CEP_i\times BS_i+\sum_{i=1}^{n}\beta_i CON_i+\varepsilon_i \tag{4}$$

Weighted Variable Model 3.

$$ROE_i=\beta_0+\beta_1 LN\_CEP_i+\beta_4 LN\_CEP_i\times ESR_i+\sum_{i=1}^{n}\beta_i CON_i+\varepsilon_i \tag{5}$$

Weighted Variable Model 4.

$$ROE_i=\beta_0+\beta_1 LN\_CEP_i+\beta_5 LN\_CEP_i\times IDR_i\times BS_i\times ESR_i+\sum_{i=1}^{n}\beta_i CON_i+\varepsilon_i \tag{6}$$

Among them, corporate financial performance, executive compensation incentives, board independence, board size, and executive equity of listed company i in 2015-2019 are denoted by ROA_i, LN_CEP_i, IDR_i, BS_i, and ESR_i, respectively, and the set of control variables as well as the random error term are denoted by CON_i and ε_i, respectively.

4. EMPIRICAL ANALYSIS

Multiple regression analysis of the model was performed using SPSS 25.0, and Table 1 shows the results of the hypothesized relationship test.

As can be seen from Table 1, in the independent model, executive compensation incentives are significantly and positively related to firm financial performance (β=0.158, $p<0.01$), and hypothesis H1 is tested. To further investigate the moderating effects of board independence, board size, executive equity, and the combination of these three, hypotheses H2a-H2d are tested by adding interaction terms in turn to the independent model to establish the weighted variables models 1-4. As can be seen from Table 1, since the R2 of the weighted variation models 1-4 is greater than or equal to the R2 of the basic and independent models, it indicates that the fit and explanatory power of the weighted variation models 1-4 are improved compared with the basic and independent models. In the power-variance model 1, board independence negatively moderates the relationship between executive compensation incentives and firm financial performance (β=-0.020, $p<0.1$), and hypothesis H2a is not tested, indicating that hypothesis H2a is not valid. In the power-variance model 2, board size positively moderates the relationship between executive compensation incentives and firm financial performance (β=0.024, $p<0.05$), and hypothesis H2b is tested. In the power-variance model 3, executive equity positively moderates the relationship between executive compensation incentives and firm financial performance (β=0.067, $p<0.01$), and hypothesis H2c is tested. In the power-variance model 4, corporate governance negatively moderates the relationship between executive compensation incentives and firm financial performance (β=-0.033, $P<0.01$) and hypothesis H2d is not tested, indicating that hypothesis H2d is not valid. When the moderating effects of board independence, board size, and executive equity are considered separately, it is known that the moderating effect of executive equity is the largest, the moderating effect of board size is the second largest, and the moderating effect of board independence is the smallest because the absolute value of the standardized coefficient of executive equity is the largest.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

This paper systematically explores the mechanism of the role of executive compensation incentives and firm financial performance and finds the moderating role of corporate governance based on the theories such as principal-agent theory and incentive theory. This paper proposes relevant research hypotheses by constructing a conceptual model of executive compensation incentives and corporate financial performance, and applies stratified regressions to test the research hypotheses based on unbalanced panel data of 1816 manufacturing listed companies. Through the empirical analysis, the following conclusions are drawn.

Executive compensation incentives positively affect the financial performance of firms. Executive compensation incentive, as one of the three types of incentives implemented by companies for executives, is an important reason to increase the return on company assets and increase shareholders' assets in the long run. By increasing the monetary compensation of executives, companies implement executive compensation incentives to satisfy their own interests and ensure that their organizational behavior is consistent with the shareholders' goal of maximizing the value of the company, effectively reducing agency costs, which plays a positive role in improving the company's financial performance and seeking better market positioning for the company. Through executive compensation incentives, on the one hand, it is conducive to strengthening talent management and preventing brain drain, which is a forward-looking way to stabilize people's confidence; on the other hand, after receiving higher salaries, executives will overcome the imbalance or the mentality of not caring, so as to work more actively and promote the organization to carry out various business activities more efficiently and effectively.

The independence of the board of directors in corporate governance negatively regulates the relationship between executive compensation incentives and the financial performance of the company. The structural characteristics of the board of directors of China's listed companies and the specificity of corporate governance will affect executive compensation and the financial performance of the company. The higher the independence of the board of directors, the more scientific and effective its decision-making will be, and the stronger the supervision of executives, which can effectively limit the rent-seeking behavior of management, restrain the possible irregularities in the enterprise, effectively promote the process of anti-corruption compliance governance, and thus improve the company's financial performance. However, due to the late start of China's modern enterprise system, the proportion of external independent directors in Chinese companies is generally low compared to foreign countries, and there are problems such as conflicts between independent directors and corporate supervisors, and unreasonable incentive and restraint mechanisms for board members. Therefore, theoretically speaking, the system of outside independent directors in China is not perfect enough to give full play to the positive effects of the system of outside independent directors and needs to be strengthened in the process of implementation.

The size of the board of directors in corporate governance positively regulates the relationship between executive compensation incentives and corporate financial performance. The size of the board of directors and its compensation committee, as the core governance mechanism for executive compensation incentive policy formulation within the company, will affect the scientificity and applicability of the executive compensation incentive policy. Companies with large boards of directors bring together the wisdom of more members, think more comprehensively about the issues, and make more scientific executive compensation incentive policies, and because they analyze the uniqueness of the company from multiple perspectives, their incentive policies are more suitable for the actual situation of the company and have stronger applicability, which can play a positive role in regulating the relationship between executive compensation incentives and the company's financial performance.

Executive equity in corporate governance positively regulates the relationship between executive compensation incentives and company financial performance. By increasing executive equity, it can enhance the sense of ownership of executives and facilitate the convergence of personal interests of executives with the overall interests of the company. When executives' shares increase, executives pay more attention to the company's performance, and then implement compensation incentives for executives, which will greatly enhance the motivation of executives to work and improve the company's operation, while executives personally gain higher income in the process. And, since the regulating effect of executive equity is stronger than the independence of the board of directors and the size of the board of directors, it is necessary to give full play to the positive effect of executive equity in positively regulating the relationship between executive compensation incentives and the company's financial performance, so as to contribute to the improvement of the company's financial performance.

The combination of board independence, board size, and executive equity in corporate governance negatively affects the relationship between executive compensation incentives and corporate financial performance. The combination of board size and executive equity alone as moderating variables positively moderates the relationship between executive compensation incentives and firm financial performance, indicating that board independence plays an important role and that all three aspects of corporate governance must be developed in a coordinated manner, and any imperfection in any one of them will affect corporate governance. The imperfection of any one aspect will affect the overall regulation effect of corporate governance. Therefore, it is necessary to accelerate the improvement of China's independent director system, so that the theoretical advantages of board independence can be brought into play in practice and the comprehensive development of all aspects of corporate governance can be realized.

5.2 Practice inspiration

Through the above study, the following recommendations are made.

Enterprises should give full play to the theoretical advantage that executive compensation incentive positively affects the company's financial performance, and use executive compensation incentive rationally to improve the company's financial performance while satisfying the personal interests of executives.

Enterprises should rationally choose the independent director system that suits their own development characteristics and continuously improve the independent director system, such as introducing high-quality independent directors and improving the enthusiasm of independent directors through reasonable director incentive and restraint mechanisms. The construction of the independent director system should not only stay at the level of supervision, but also contribute to the improvement of the internal governance system and the financial performance of the company.

Enterprises should give full play to the theoretical advantages of board size, actively regulate the relationship between executive compensation incentives and the company's financial performance, and appropriately expand the size of the board to improve the scientific and applicability of executive compensation incentive policies, and strive to achieve the goal of maximizing corporate value. However, the size of the board of directors should not be too large. Too large a board of directors may create a situation where the policy making process is overly focused and the policy implementation process is neglected. Too large a board of directors is bound to be accompanied by the complexity of the decision-making process, which may cause problems such as slow flow of internal information and poor communication during the period, all of which will affect the intermediary role of the board of directors' size.

Companies should give full play to the theoretical advantage of executive equity positively regulating the relationship between executive compensation incentives and company financial performance, cultivate the sense of ownership of executives by appropriately increasing their shares, and promote the convergence of their personal interests with the overall interests of the company, thus achieving the purpose of maximizing company value through the implementation of executive compensation incentives.

TABLE I. RESULTS OF HYPOTHESIS RELATIONSHIP TEST

Variables		Corporate Financial Performance					
		Basic Model	Independent Models	Weighted Variable Model 1	Weighted Variable Model 2	Weighted Variable Model 3	Weighted Variable Model 4
Control variables	Enterprise size	0.215^{***}	0.132^{***}	0.131^{***}	0.125^{***}	0.155^{***}	0.136^{***}
	Gearing ratio	-0.427^{***}	-0.408^{***}	-0.408^{***}	-0.408^{***}	-0.407^{***}	-0.407^{***}
	Shareholding Concentration	0.138^{***}	0.144^{***}	0.146^{***}	0.145^{***}	0.138^{***}	0.142^{***}
	Business Growth	0.058^{***}	0.059^{***}	0.059^{***}	0.059^{***}	0.057^{***}	0.058^{***}
Independent variable	Executive Compensation Incentives		0.158^{***}	0.158^{***}	0.158^{***}	0.155^{***}	0.157^{***}
	Interaction items						
	Executive Compensation Incentives x Board Independen			-0.020^{*}			

	ce						
	Executive Compensation Incentive x Board Size				0.024^{**}		
	Executive Compensation Incentive x Executive Equity					0.067^{***}	
	Executive Compensation Incentive x Board Independence x Board Size x Executive Equity						-0.033^{***}
	R^2	0.157	0.176	0.177	0.177	0.180	0.178
	Adjusted R^2	0.157	0.176	0.176	0.176	0.180	0.177
	F-statistic	321.971	295.839	247.204	247.407	253.249	248.252

Note: Significant levels P*<0.1, P**<0.05, P***<0.01, all coefficients are standardized

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