

CITY UNIVERSITY OF HONG KONG
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**The Effects of Stock Option Distribution
Disparity in Chinese Private Listed Companies**
**中國民營上市公司股票期權
激勵分配差距研究**

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中文摘要

股票期權激勵（以下簡稱為股權激勵）是一種用於緩解股東與管理者代理問題的重要途徑。自上世紀 90 年代初期引入我國以來，隨著制度環境的不斷完善和資本市場的不斷發展，越來越多我國上市公司公告並實施股權激勵計畫。與貨幣薪酬類似，股權激勵中不同激勵物件獲得的激勵股份也是存在差異的，並且貨幣薪酬差距與股權激勵份額差距並非完全匹配。那麼，我國民營上市公司在決定不同激勵物件之間股權激勵份額差距時會考慮哪些因素？不同的股權激勵份額差距所產生的激勵效應是否也存在差異？這些問題的回答對於在實踐中優化股權激勵計畫具有深遠的意義。

傳統薪酬研究發現，薪酬差距的激勵效應有兩種理論支持。在錦標賽理論中，公司將員工的職位晉升視為一種連續的錦標賽，通過拉大不同職位之間的薪酬差距，刺激員工提高工作努力程度；行為理論則從社會學和心理學出發，強調了過大的薪酬差距可能導致員工產生“不公平感”和“被剝削感”的負面情緒，削弱他們的工作積極性，最終帶來公司生產率和價值的減損。雖然這兩種理論為如何理解薪酬差距提供了不同的視角和結論，遺憾的是，這類研究僅局限於貨幣薪酬差距，而並未涉及股票期權激勵差距。

本文試圖以 2011-2016 年期間實施股票期權激勵、並且激勵對象中包括高管的我國民營上市公司為研究樣本，利用錦標賽理論和行為理論，分析和檢驗在股權激勵活動中高管股權激勵分配差距的激勵效應。具體來說，本文的主要研究問題包括兩個方面。首先，本文從團隊協作需求的角度的角度，檢驗高管股票期權激勵分配差距的影響因素。參考現有研究文獻，本文分別從多元化程度、企業風險、高管團隊規模和技術複雜性四個維度度量高管團隊協作需求。研究發現，隨著公司多元化程度、公司風險和高管團隊規模的不斷提高，高管股票期權激勵份額集中度隨之降低。這一結果表明，當內部團隊協作需求較高時，公司為了避免因為激勵份額差距導致激勵物件產生“不公平”、“被剝削”的負面感受，更加傾向在高管團隊中平均地分配激勵總份額，縮小

高管股票期權激勵分配差距，支持了行為理論的預期假設。

其次，本文從當期和未來期間公司會計業績和市場價值的角度，檢驗高管股票期權激勵分配差距的績效效應，以分析何種高管股票期權激勵分配差距最有利於公司績效的提高。研究發現，隨著高管股票期權激勵分配差距的提高，公司當期和未來一期的市場價值與會計業績均顯著提高。這一結果在使用了解釋變量滯後一期以及工具變量法控制內生性問題後依然顯著成立。進一步的，本文還發現：外部高管平均股票期權激勵強度越高的公司，其高管股票期權激勵份額集中度越高，當期與未來期間的會計業績越好；所在行業競爭度越高的公司，其高管股票期權激勵份額集中度越高，當期與未來期間的市場價值越好。

總的來看，本文發現，在影響因素方面，我國民營上市公司在分配高管股票期權激勵份額時會考慮團隊內部協作需求，支持行為理論的預期；而在激勵效應方面，較高的高管股票期權激勵份額更有利於公司績效的改善，支持了錦標賽理論的預期。

本文的主要研究貢獻有三點。首先，本文從高管股權激勵分配差距的角度，分別從影響因素和經濟後果兩種視角，探討了錦標賽理論和行為理論在我國民營公司股票期權激勵制度中的適用性。這是對現有薪酬激勵研究，尤其是錦標賽理論和行為理論的研究，是一種重要且有益的補充和拓展。其次，本文嘗試從高管股票期權激勵分配差距的視角，進一步剖析我國民營上市公司的股票期權激勵制度，從而豐富現有關於股票期權激勵的研究成果，為學者們深入理解股票期權激勵制度提供全新的、更全面的角度。最後，本文的研究發現有助於在實踐中幫助我國民營上市公司優化其高管激勵體系，最終促使我國資本市場能夠持續健康發展。

Abstract

Executive stock option is an important method to alleviate the agency problem between shareholders and managers. Since the introduction of employee stock option in China in the early 1990s, more and more listed companies have announced and implemented stock option plans in along with continuous improvement of institutional environment and capital market. Similar to monetary compensation, the optional compensation incentive across managers could be variant, and the gap of monetary compensation and the gap of optional compensation are different. Then, what factors will listed companies consider when deciding the stock option disparity among managerial team? Does the incentive effect of different stock option disparity also differ? The answers to these questions have critical meaning for the effectiveness of option incentive plan in practice.

Traditional salary research found that there are two theoretical supportings for the incentive effect of the pay gap. In the tournament theory, the company regards the promotion of employees as a continuous tournament, and stimulates employees to improve their work effort by widening the wage gap between different positions. Behavioral theory, based on sociology and psychology, emphasizes that excessive salary gaps may lead to negative feelings of “unfairness” and “exploitation”, weaken employees’ work enthusiasm, and ultimately reduce the productivity and value of the company. Although these two theories provide different perspectives to understand the pay gap, unfortunately, such research is limited to the pecuniary compensation gap, and does not involve the stock optional compensation gap.

Using the listed non-SOE companies in China that have implemented executive stock option plans during the period of 2011-2016, as a research sample, this paper attempts to analyze and test the executive stock option compensation gap in firm performance based on the tournament theory and behavior theory. Specifically,

there are two main research questions in this paper. First, this paper examines the influencing factors of the option distribution gap of executives from the perspective of team cooperation. Referring to the existing research literature, this paper measures executive team collaboration needs from four dimensions: diversification, enterprise risk, executive team size and technical complexity. The study finds that as the company diversification, corporate risk and executive team size continue to increase, the concentration of executive equity incentive share is reduced. This result shows that when the internal team cooperation is more important, the company is more likely to distribute incentives evenly among the senior management team in order to avoid the negative feelings of “unfair” and “exploitation” caused by the pay gap, which is consistent with behavioral theory.

Secondly, from the perspective of the company accounting performance and market value in the current and future period, this paper examines the performance effect of the executives' pay gap of stock option, and analyzes which gap is most beneficial to the company. The study finds that with the increase in the distribution gap of executive stock option, the current and future market value as well as accounting performance have significantly increased. This result is still significant after controlling for the endogeneity problem. Furthermore, the paper also finds two moderating effects. The higher the external stock option incentive intensity, the stronger the positive relationship between the concentration of the executive stock option shares and accounting performance. The higher the industrial competition, the stronger the positive relationship between the concentration of the executive stock option incentive shares and market value in the current and future periods.

In general, this paper consists of two main findings. First, in terms of influencing factors, Chinese non-SOE listed companies will consider the internal cooperation of the team when they allocate the option share of the executives, which supports the expectation of behavior theory. In terms of incentive effect, the higher executive stock option pay gap is more favorable to the improvement of company

performance and supports the tournament theory.

There are three contributions in this paper. Firstly, this paper discusses the applicability of tournament theory and behavior theory in the equity incentive system of listed private companies in China from the perspective of influencing factors and economic consequences. This is a significant and beneficial supplement and expansion to the existing research on salary incentive, especially the tournament theory and behavior theory. Secondly, this paper further analyzes the optional compensation system of non-SOE listed companies in China from the perspective of the distribution gap of executive stock option, thus enriching the existing research, providing scholars with a new and more comprehensive understanding of the executive stock option plan. Finally, the research findings of this paper may help non-SOE listed companies optimize their managerial compensation system in practice, and ultimately promote the sustainable and healthy development of China's capital market.

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