

# MANIPULATION EFFECTS OF MANAGERIAL DISCRETION ON EXECUTIVE-EMPLOYEE PAY GAP: A COMPARATIVE STUDY BETWEEN THE SENIOR CEOS AND THE FRESH CEOS

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## Abstract

The relationship between managerial discretion and executive-employee pay gap (EEPG) has received widespread attention both in the theoretical research and business practices of the corporate governance all over the world. However, the working motives' differences of managerial discretion between the fresh CEOs and the senior CEOs in determining EEPG and many other business issues have been theoretically ignored to a large degree. Therefore, it is of great meanings to investigate the link between managerial discretion and EEPG by taking such motives' differences into account in this study. Using the data set taken from the Chinese listed companies, the study empirically analyzes and confirms the following results: First, the manipulation effects of each dimension of managerial discretion on EEPG have distinctive intensity or strength because of different motives of the CEOs; Second, both the senior CEOs and the fresh CEOs have the motives and capabilities to manipulate EEPG positively, but they have very different motives; Third, the fresh CEOs, out of the greater firm-serving motives, are less intending to enlarge EEPG than the senior CEOs, who have the greater self-serving motives; Fourth, the fresh CEOs would like to link firm performance more closely with EEPG, while the senior CEOs would like to link firm size more closely with EEPG. Theoretical and practical implications of the study are discussed in the end.

**Keywords:** Comparative Study; Managerial Discretion; Executive-Employee Pay Gap (EEPG); Listed Companies; Shaanxi Province; China

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## 1 Introduction

The rapid development of the executive-employee pay disparities in China has received a great deal of attention because of the growing inequality of the compensation systems within the Chinese enterprises, which has occurred over the past two decades with the quick development of Chinese economy. Against this practical background, a series of remuneration control policies have been announced and implemented in China by the Ministry of Finance, the Ministry of Human Resources and Social Security, and the other Chinese government departments. However, the effects of such policies are very poor, or at least, far from being satisfactory (Conyon, Martin J., &He, Lerong, 2012; Philip Molyneux, Linh H.Nguyen,&Xiaoxiang Zhang, 2014; Yubo Lia et al., 2013).[1-3] At present, nothing seems to get the Chinese enterprises' and even the Chinese economy's dander up like a threat to the pay and perks of the top executives (HONG KONG, 2008; H. L. Zou et al., 2015; Zhu, Y., Tian, G. Gang., &Ma, S., 2009).[4-6]

In the micro level, executive-employee pay gap (EEPG) has always been a major challenge in improving the workers' salaries, job satisfaction, and perceived fairness, since the executives of the large corporations are compensated at the cost of paying the workers better salaries and improving their working conditions, and subsequently, their standards of living through the opportunities for both professional and social mobility. The

larger the EEPG is, the less it will be available for the investments in rewarding the workers sufficiently for their contributions to the companies' performance, growth and the achievements of the strategic goals. For example, *Sreedhari (2011)* [7] has looked for the correlations between EEPG and how employees are treated. The key finding is that the larger the disparity between the executive pay and that of the typical employees is, the more likely the employees are to be mistreated. The basic logic behind such a finding is that the larger the pay gap is, the more likely the executives are to be arrogant and dictatorial. *Donovan A. McFarlane (2015)* [8] has examined the gap in the CEOs' and the workers' compensation by exploring the vital data of 10 corporations as uncovered in a study by *NerdWallet.com* about the differences between the average hourly compensation of the CEOs and the average hourly pay of the workers. He has indicated that excessive EEPG is a major organizational challenge that would affect the perceptions of fairness by the stakeholders, especially the employees whose great contributions to organizational performance and success are not adequately rewarded, instead, being owed to the executives as the concerned companies increase the revenues and profits through the sweat and toil of the ordinary employees.

In the macro level, too large EEPG can lead to various harmful results. Beyond the negative effects to the companies caused by the damaging behavior of the employees and the CEOs derived from the distorted risk-taking incentives built into the current enterprises' compensation practices, there are multiple associated forms of social harms that will naturally arise. First, if the executive compensation is too excessive and thus EEPG is much wider, then the unnecessary portion of that compensation of the top executives takes away returns, wages, or benefits that could, or should, go to the others such as the employees, the debtors and the shareholders. Second, given the intense symbolism of the perceived excess in executive compensation and the perceived disparities in rewards, it can strongly damage the social fabric by generating the widely diffused distrust, resentment, and anger among different social groups. Third, too large EEPG can ultimately create a 'poisoning' effect that could jeopardize the continuation of the political-economic structure where our system exists.

Therefore, it is an urgent thing to enhance the policy effectiveness in controlling or optimizing EEPG in China by enriching the theoretical research within the background of the Chinese companies. Although there is a large body of literature about the causes of the rising EEPG in the workplace from various theoretical perspectives, the forming mechanism of the excess EEPG is seemingly still a 'black box' (*Cynthia E. Devers et al., 2007*) [9]. Among the various theoretical perspectives being applied in investigating this issue, the managerial discretion theory has gradually taken the dominant role and has become more and more widely-used in this topic. Managerial discretion theory has actually improved the research effectiveness of the forming mechanism of EEPG in many aspects. Though good progresses have been made in explaining the relationship between managerial discretion and EEPG, there is still a great limitation for the past literature. Specifically, almost no researcher has focused on the distinct differences in the working mechanisms of managerial discretion between the fresh CEOs and the senior CEOs, and thus there has very limited reports on the relationship between managerial discretion and EEPG for the fresh CEOs. In the light of the seminal work written by *Andrew D. Henderson, Danny Miller and Donald C. Hambrick (2006)* [10], we argue that, both actually and logically, there should be some distinct differences in the working mechanisms or radical motives of managerial discretion between the two groups, i.e. the fresh CEOs and the senior CEOs.

The differences should exist logically and do exist practically due to the two following aspects of reasons. Objectively, the fresh CEOs are always under the spotlights. The stakeholders of the enterprises, including the board, the shareholders, the debtors and the public and so on, have sufficient motives to focus on the performing effectiveness of managerial discretion of the fresh CEOs. Under these conditions, all kinds of formal communication and supervising mechanisms, which mainly include the information disclosure mechanism, the decision-making consultation mechanism, the financial expenditure control mechanism and the formal reporting mechanism, etc., will be executed more strictly. Therefore, the fresh CEOs would encounter much greater monitoring intensity and outrage cost from the stakeholders, and thus their potential behavior latitude and power application scope are obviously different with that of senior CEOs (*Milan D. Larson et al., 2012*) [11]. Subjectively, due to the specialized development processes of the society, the culture and the economy in China, compared with the elder senior CEOs, the younger fresh CEOs usually have higher professional accomplishments, higher engagements, stronger professional ambitions and less historical interests disputes with the concerned companies. Therefore, the fresh CEOs have stronger subjective willingness to maximize the value of the companies to realize their long-term life value as the professional managers instead of just extracting power rents to realize their short-term interests at the cost of firm interests. In other words, the fresh CEOs have very distinct behavior patterns and power intentions with those of the senior CEOs (*Abu M. Jalal, & Alexandros P. Prezas, 2012*) [12]. The basic starting point of the fresh CEOs in decision-making is mostly firm-serving (i.e.

firm-beneficial or firm-friendly) instead of self-serving. Therefore, to investigate the manipulation effects of the fresh CEOs' discretion on EEPG and compare such effects with those of the senior CEOs is not only of practical meanings, but also helpful to fill the research gap in this field and further enrich the existing theoretical contributions to a good degree.

Based on the discussion above, this study tries to move this research trend further by investigating the effects of managerial discretion of the fresh CEOs on EEPG with the evidences from the listed companies of China. Such a research topic which takes the fresh CEOs as the subjects to be investigated is extremely critical in the practices in China because of the following facts. Facing with the ever increasing change of the business environment, the Chinese enterprises have recognized that the persistent competitive edge increasingly depends on whether they own the dedicated, experienced and capable CEOs. In the global practice, more and more enterprises have tried, or are trying, or will try, to change their CEOs in order to get higher firm performance or just to get out of recession[1]. Especially it is true in China. For example, according to the statistical data of the CSMAR (*China Stock Market & Accounting Research Database*), about 15% of the listed companies have changed their CEOs since the year of 2010; and in some specialized industries and regions of China, this ratio exceeds 25%. However, in theory, the research literature in the field of the corporate governance has only focused on how to arrange managerial discretion and executive compensation reasonably under the normal circumstances, while ignoring the popular conditions of CEO change. Therefore, each stakeholder in the post-CEO change period has no clear theoretical guidances on how to reallocate managerial discretion and to reset executive compensation (especially EEPG) for the fresh CEOs. Such a theoretical research gap has led to a large number of failures in the issues of CEO change in China. Therefore, this study tries to compare such manipulation effects of managerial discretion on EEPG between the fresh CEOs and the senior CEOs with the purpose of proving the firm-serving motives of the fresh CEOs under the background of China.

The contributions of this study are of important original value in the following three points. First, it is the first study to focus on the differences of the motives in manipulating EEPG by performing managerial discretion between the fresh CEOs and the senior CEOs. It is a good initiative to let the world know the status quo and the latest progresses of the corporate governance quality of China which is known rather little by the outside, and to further find out the differences of the forming mechanisms of EEPG among different regions across the world. Second, it is the first study that really considers the multi-dimensional nature of managerial discretion in the same study. The past literature mainly focuses on either the industry-level managerial discretion or the firm- and individual-level managerial discretion (which actually equals to the concept of managerial power), while this study decomposes the concept of managerial discretion into several different dimensions from a more comprehensive perspective, and further discusses the specialized effects of each dimension of managerial discretion on EEPG respectively in details. Since each dimension has very different effects on EEPG logically and practically, such a method can indicate and describe the forming mechanism of EEPG in China more clearly. Third, the study enriches the measurement methods of EEPG by designing five alternative measures, which can lead to more reliable conclusions than some other related studies in this field.

The next parts of the study are arranged as follows. Part II makes a literature review on the relationship between managerial discretion and EEPG, and proposes the research hypotheses; Part III provides a quasi-empirical analysis on the relationship between managerial discretion and EEPG by adopting the data set derived from the listed companies of Shaanxi Province in China, which is not only helpful for us to understand the specialized influencing mechanism of each dimension of managerial discretion on EEPG, but helpful to test the validity of the measure of managerial discretion and the correctness of the choices of the control variables in this study; Part IV compares the effects of managerial discretion on EEPG between the fresh CEOs and the senior CEOs by adopting the refined measures of managerial discretion and the redesigned control variables based on the study in part III; Part V is the conclusions.

## **2 Literature review and hypotheses**

### **2.1 Research on the antecedents of EEPG from different perspectives**

Several interrelated theories have been applied in exploring the forming mechanisms of EEPG, for example, the marginal productivity theory, the tournament theory, the social comparison theory, the agency theory, the optimal contracting approach, and the most popular one, i.e., the managerial discretion approach.

The marginal productivity theory held by many neoclassical market-based economic theorists suggests that the pay is determined by the marginal productivity of the last employee hired (*Peter Sloane, Paul Latreille, & Nigel O'Leary, 2013*)[3]. As such, under the optimum conditions, the wage cost paid to the employees equates to the benefits they bring to the firms. Consistent with this theoretical expectation, in recent decades, a degree of structural changes seem to have appeared in China's economies, whereby the skilled work has been lost out to the overseas competitors, and thus leaving a greater proportion of unskilled employees. What is more, the data does seem to suggest that the pay of the skilled non-management employees has been keeping in pace with the increases in productivity. Also, at the other end of the scale, there appears to be less evidences to confirm that the productive skills of the management staff have improved anywhere near the significant degree that their pay has increased. As such, it seems that the resulting drop in the marginal productivity could potentially explain why EEPG has been growing rapidly in China. In fact, the marginal productivity theory is not a good basis for setting up the compensation standards, with the exception of the sales people, whose performance can easily be measured based on the sales results (*Henderson, & Fredrickson, 2001*)[14].

The tournament theory, proposed by *Lazear and Rosen (1979)* [15], argues that the employers set the compensation policies based on the ordinal rank rather than the absolute performance. As ranking is much simpler than measuring the marginal outputs, so the monitoring costs are much lower. *Henderson and Fredrickson (2001)* [14] have also argued that the supervision of teamwork is difficult and costly, so a large pay gap in a team would motivate the contestants and prevents the possible shirking. They have posited that the results achieved under such a contest mechanism will allow the optimal allocation of the social resources within a firm and enhance the firm performance. There are some obvious characteristics of the tournament theory. First, the competition result is dependent on the performance of the contestants. Second, only the winner gets the bonus, and the bonus becomes the pay gap between the winner and the loser. Third, there is a positive relationship between the number of the participants and the prize of the tournament. When it comes to the issue of EEPG, i.e. taking the whole firm as a team, the top executives are the winners, while the employees are the losers, and the participants number are rather large. Therefore the EEPG will certainly be very large. Besides, the tournaments also demand increasingly absurd pay packages as the workers get higher up. At the lowest level, a promotion may not need to carry much of a compensation increase, because it opens up the possibility of future promotions. Nearer the end of the career, for example, the top executives, only a fat check is likely to spur them on.

The social comparison theory, proposed by *Leon Festinger* in the 1950s[16], on the other hand, asserts that compensation adjustment should be fair, regardless of the hierarchy levels, so that the managers at the lower levels or the front-line employees will not feel they are underpaid too much. According to the work of *Harris (2009)* [17], the major problem with executive compensation lies in the perception that the current compensation practices are problematic both from the standpoints of distributive justice and fairness. This is especially the case when a comparison is made of the CEO compensation versus the compensation of the average workers across many corporations and industries. A large pay gap may have a negative impact on the individual behavior and firm performance.

The agency theory, proposed by *Jensen and Meckling* in 1976[18], which has always been the dominant approach in the study of executive compensation (and EEPG), believes in a pay-performance rewarding system. The employers are willing to pay more when the executives perform better, which would result in the superior firm performance, and thus resolve the conflict of the interests between the top executives and the so-called owners (*Brenes, Madrigal, & Requena, 2011*)[19]. Expanding on this, the lack of control of the rapid increase in executive compensation and EEPG can be viewed as an agency problem between the shareholders and the executives, because the public companies have the ever-increasingly dispersed ownership that cannot be expected to effectively bargain at arm's length with the top executives. As a result, the executives exercise extensive influences over their own compensation and employees' compensation, which finally leads to the uncontrolled EEPG in practice. Any discussion of executive compensation must proceed against the background of the fundamental agency problem which can afflict the executive decision-making. There are two prevailing and popular perspectives on how the executive compensation and the agency problems may be linked and explained: the 'optimal contracting approach' and the 'managerial discretion approach.'

The optimal contracting approach, which is held mostly by the financial economists (*Gomez-Mejia, & Wiseman, 1997; Core, & Larcker, 2002*)[20,21], views the pay arrangements of the top executives and the employees as a partial remedy to the agency problem just mentioned above. The employers are always attempting to use the well-designed compensation packages to cost-effectively incentivize the top executives. Under this model, the

optimal compensation contracts could result either from the effective bargaining between the board and the executives, or from the market constraints that induce these parties to adopt such contracts even in the absence of reasonable bargaining. A large problem arises when we see the favoritism in the board-CEO relationship. The directors will generally wish to be reappointed to the board, since which, besides an attractive salary, can also provide high prestige and valuable business and social connections (L. A. Bebchuk, & J. M. Fried, 2005)[22]. The CEOs play an integral role in choosing the boards, which provides most directors with an incentive to favor the CEO. Therefore, it is a fact that the optimal contracting approach can not effectively explain so many distortions in executive compensation and EEPG settings, especially in China.

The managerial discretion approach, which can be termed as 'managerial power approach' in a more narrow perspective, usually views executive compensation not only as a critical instrument for dealing with the agency problem, but also as a potential part of the agency problem itself. Because the executives seem to have substantial discretion over their own and employees' compensation, as the discretion increases, so does their ability to extract greater rents from the benefits originally belonging to shareholders and the employees. A major component of the managerial discretion approach is the 'outrage' cost. This constraint is based on how much outrage a proposed EEPG is expected to cause with the shareholders, the employees and the relevant outsiders. The more outrage that is expected, the less likely the directors will be to approve the distorted arrangements in order to avoid the embarrassments or reputation harms. There are some evidences that suggest the EEPG arrangements are indeed influenced by the outsiders' and the employees' perception. This 'outrage' pillar of the managerial discretion approach enforces the top executives to try to obscure or camouflage their extraction behavior of the extra rents to avoid the previously discussed 'outrage'. It helps to explain many otherwise unexplainable issues in the EEPG practices, especially in China.

## **2.2 Research progress on the forming mechanisms of EEPG based on managerial discretion approach**

As the two earlier studies discussing the forming mechanisms of EEPG from the perspective of managerial discretion theory, Alexander GÜMBEL (2006) [23] and Lu Rui (2007)[24] respectively have taken the American context and the Chinese context as the research background, and explored the static reasons of EEPG. Both of them have confirmed that the relative power or discretion over the board and the employees of the CEOs is positively related to EEPG.

In China, shortly after Lu Rui (2007), Fang Junxiong (2011) [25] has taken the general public companies in China as the research sample and empirically found that the enlargement of EEPG is dynamically derived from the asymmetry change of executives' compensation and employees' compensation relative to firm performance, which is caused by the application of managerial discretion. Dai Bin and Peng Cheng (2012) [26] have taken the Chinese state-owned public companies as the sample and empirically confirmed the valuable applicability of managerial discretion theory in explaining the forming processes of EEPG in the state-owned companies in China.

In American, shortly after Alexander GÜMBEL (2006) [23], Shin Taekjin (2008) has analyzed the pay disparities between the executive managers and the rank-and-file workers at the large United States corporations[27]. Using a sample of the 254 largest U.S. corporations over the period of 1992-2005, the analysis suggests that the CEOs' power and functional backgrounds do affect the pay disparities between the top-five executive managers and the average workers within the concerned companies. Firms managed by the CEOs with the longer tenure (and thus a higher managerial discretion), would pay the top executives more, pay the front-line workers less, and have greater pay disparities compared to the companies with the shorter-tenured CEOs. Olubunmi F. et al. (2013) [28] have further taken the American public enterprises as the data source, and empirically confirmed the applicability of managerial discretion theory in explaining the forming processes of EEPG in American.

## **2.3 Hypotheses on the effects managerial discretion on EEPG**

The past literature has ignored the differences of each dimension of managerial discretion. Managerial discretion is a complicated, comprehensive and dynamic concept with multiple dimensions (Li You-gen, 2002)[29]. Each dimension has its own characteristics and thus has different effects on the formation of EEPG. The ignorance of previous literature on this point leaves much room for our study to move this topic forward in depth.

Managerial discretion can be derived from several aspects, i.e., the industry features, the legitimate positions, the operating resources and the share ownership, etc. Managerial discretion derived from the industry features (MDIF) equals to the original meaning of ‘managerial discretion’ in the work of *Finkelstein, S. and Boyd, B.K.(1998)*[30], which means the action latitude of the CEOs delegated by the industry features no matter who the CEOs are or which firm they are belonging to. Managerial discretion derived from the legitimate positions (MDLP) refers to formal authority legally contracted onto or attached to the CEO position in a hierarchical organization (*Margaret A. Abernethy, &Emidia Vagnoni, 2004*)[31]. Managerial discretion derived from operating resources (MDOR) refers to the discretionary behavior latitude delegated by the available resources for the CEOs, especially the fluid assets in the charge of the CEO (*Li You-gen, 2002*)[29]. Managerial discretion derived from the share ownership (MDSO) comes from the senses of being the owner of the firm and the consequent senses of trust from both the shareholders and the board on the concerned CEOs (*Zhang Changzheng, & Li Yang, 2012*)[32].

As for the effect of MDIF on EEPG, we argue it is a positive one. Enterprises with higher MDIF means that they run in an industry of dynamic, dangerous and competitive features, which would not only give the CEOs more discretion in business issues, but also demand higher expenditure of time and energy from the CEOs and simultaneously require the CEOs to be more knowledgeable and capable in running their enterprises. The extra efforts and expenditures of the CEOs can be relatively easily observed and recognized by the employers, while those of the common employees usually would be ignored by the CEOs and the employers. It is because that, on one side, the employers usually pay most of their attention on the CEOs and the other top executives while ignoring the employees; on the other side, the employees have much lower bargaining power relative to the CEOs. Besides, The CEOs can also exert power by exploiting the so-called resource dependence (*Pfeffer, &Salancik, 1978*)[33]. The CEOs might have the unique access to the resources that are valued by the firms, such as the connections to the customers, the regulatory agencies, or the innovative technologies, etc. Therefore, with the increase of MDIF, the executive compensation will increase faster than that of the employees’ compensation, and thus EEPG will be enlarged. Consequently, we get H1 described as follows.

*H1: MDIF has a positive effect on EEPG.*

As for the effect of MDLP on EEPG, we propose it’s a positive one. The organizational theorists have long recognized the importance of MDLP in organizations. CEOs with higher MDLP can also exert significant power over the rank-and-file employees. As the leader at the top of the hierarchy, CEOs can draw on their formal authority to make the managerial decisions and control the bargaining power of the employees. In principle, the CEOs with higher MDLP have a direct and unilateral power over the employment of workers. Also, in larger and more complex organizations, the CEOs can easily gather the systematic information about the employees’ behaviors and the corporate operations, and they can control how much information that they would like to share with the employees, too. Through such a discretion dimension, the CEOs with higher MDLP have a considerable impact on the compensation level for the rank-and-file workers. No matter for the purpose of satisfying the CEOs’ self-serving or the reason of underestimating the employees’ contributions while overestimating their own contributions, the CEOs with higher MDLP will enlarge EEPG. Thus we get H2 as follows.

*H2: MDLP has a positive effect on EEPG.*

As for the effect of MDOR on EEPG, we predict it is a positive one. The higher MDOR the CEOs hold, the greater discretion for them to attract higher extra rents from the resource operation will be. Even the CEOs with higher MDOR attract less rents from per unit resources than the peers with lower MDOR, however, as the total quantity of the operating resources of the former is much larger, the CEOs will get an obvious increase in compensation, while leaving a small change of the employees’ compensation. Consequently, EEPG would be enlarged so naturally that can’t be perceived to be very unacceptable by employees. Besides, CEO can become powerful through informational resource advantage. A greater familiarity with the company’s business, internal information of organization, and technical expertise in operations can provide CEOs with significant power over decision-making processes, including compensation determination. Thus we get H3 as follows.

*H3: MDOR has a positive effect on EEPG.*

As for the relationship between MDSO and EEPG, we predict that MDSO has no significant effects on EEPG. The ownership can provide the CEOs more discretion in decision-making, since each stakeholder believes the good motives of such the CEOs to a better degree. In the view of stakeholder, as the owners, the CEOs will try their best to maximize the interests of their own firm, since their interests are closely linked with shareholders. Therefore, the CEOs with higher MDSO seemingly have to obey the expectations of the stakeholders, among which employees are included, both subjectively willing to and objectively forced to. Since they do not know

exactly how EEPG affects firm performance, they have no motive to enlarge EEPG too much by using their MDSO. Besides, since the CEOs with higher MDSO have received a certain long-term rewards, i.e. share rewards, while employees have received much less, they will restrain EEPG in cash compensation in case of producing too much higher outrage costs, especially from the employees. Thus we get H4 as follows.

*H4: MDSO has no significant effect on EEPG.*

#### **2.4 Hypotheses on the comparison on effects of managerial discretion on EEPG between the fresh CEOs and the senior CEOs**

Just as what has been discussed in former studys, we expect the fresh CEOs have very different motives in the working of managerial discretion with that of the senior CEOs. The fresh CEOs wish to improve firm performance with stronger motives than the senior CEOs for the following reasons. First, the fresh CEOs have more intense desires for long-term career success as professional managers than the desires for short-term higher compensation, since such a choice is reasonable for the fresh CEOs who have greater potential growth latitude than their senior peers. Second, the fresh CEOs face greater pressure for improving firm performance than the senior CEOs. Generally, the fresh CEOs are expected to improve firm performance significantly by the board and the shareholders, especially under the condition that the former CEOs are changed due to the poor performance. If the fresh CEOs cannot meet the threshold requirements on firm performance by the board and shareholders, they will face very higher risk of losing their positions than the senior CEOs, who actually successfully entrench themselves and thus generally are not afraid of being fired. Third, the fresh CEOs face greater outrage cost than the senior CEOs. Since the board and the shareholders, and even the public, have no deep feeling links with the fresh CEOs, nor they have familiarity with the fresh CEOs, nor they have trust on the fresh CEOs' capabilities or good intentions of running the companies, they will keep vigilant to the application of the fresh CEOs' discretion. Once they find out the fresh CEOs' any dishonesty behavior or any act neglecting of duty, the fresh CEOs would be punished much heavier than the senior CEOs. Therefore, we expect that both the fresh CEOs and the senior CEOs will manipulate EEPG. However, the two groups have different motives in doing this. The fresh CEOs will try their most to affect the setting of EEPG from the perspective of finding ways to improve firm performance, while their senior peers will maximize their effort in paying themselves as high as possible.

Let's discuss the manipulation effect of the fresh CEOs' discretion on EEPG. The existing literature has provided two contradictory perspectives on the performance consequences of EEPG. One is tournament theory, and the other is organizational justice theory. Tournament theory argues that EEPG will motivate employees to work hard in order to get promotion and higher compensation, and top executives will be stimulated to do their best in order to reward such a high compensation. In this perspective, EEPG is closely related to competition, which can motivate all staff, including top executives, to compete with each other by working hard cooperating more and finally improve firm performance. In contrast to predictions based on tournament theory, organizational justice theory suggests a large EEPG is likely to negatively affect employee morale, create envy, damage feeling link between workers and executive, and thus lower employee productivity and firm performance. Employees expect their rewards to match the level of their individual contribution. Employees usually evaluate fairness by comparing the equity between their contributions and associated outcomes with that of the top executives. Too excessive dissimilar ratios, i.e. too higher EEPG, would necessarily lead to perceptions of inequity, and employees would react by reducing their productivity or demanding wage increases, or withdrawing their effort, or even destructing the others' effort, and finally resulting in poor firm profitability. Or else, employees may choose to resign. The higher turnover is likely to be much heavier, especially for firms in industries with a high marginal product of skilled staff because of the greater training investment in employees. In sum, organizational justice theory suggests that too large EEPG is likely to be negatively related to performance.

In order to improve firm performance, the fresh CEOs will have to comprehensively consider the potential positive and negative effects of EEPG on firm performance. According to traditional tournament theory, the fresh CEOs have the motives to enhance EEPG, while in the light of organizational justice theory, the fresh CEOs have the motives to restrain the exceeding growth of EEPG. Each fresh CEO has different judges in the balancing point of EEPG in which the marginal positive effect of EEPG on firm performance equals to the marginal negative effect of EEPG on firm performance. Whatever, the fresh CEOs will take the potential negative effect of EEPG into account when they set EEPG, or at least, trying to set EEPG. For the senior CEOs, it is very different for their motives in setting EEPG. They will make full use of their discretion to maximize their own compensation level by enlarging EEPG as large as possible. Their excuse to the board and

shareholders is naturally claimed to stimulate the internal competition among executives and employees and further to improve firm performance by enlarging EEPG, which is seemingly rather reasonable. However, they will set EEPG at least exceeding the optimal balancing point of EEPG in their very own opinions and at most less than the deadline level that will thoroughly irritate the common employees. Therefore, this logic demonstrates that, compared with the fresh CEOs, the senior CEOs would favor much larger EEPG. Other conditions being the same, especially given the same level of managerial discretion, EEPG in companies with the senior CEOs will have higher EEPG than that in companies with the fresh CEOs.

Based on the discussion above, we can propose the following hypothesis.

*H5: The positive relationship between managerial discretion and EEPG for the fresh CEOs is lower than that for the senior CEOs.*

If H5 holds, it seems that the motives of managerial discretion for the fresh CEOs are different with that of the senior CEOs can be concluded. However, we can not conclude that the firm-serving motives of the fresh CEOs' discretion are greater than that of the senior CEOs' discretion. As we know, according to the tournament theory, pay differential between CEOs and regular employees may not negatively affect the bottom line, stifling neither employee productivity nor firm performance. Instead, the EEPG appears to motivate employees to work harder, especially at companies in which promotions are performance-based. Therefore, the senior CEOs may plausibly argue that they believe that EEPG is positively related to firm performance. In order to make it clear, we provide two hypotheses as follows.

If CEOs set EEPG out of the firm-serving motives, they should link EEPG more closely to firm performance. According to this logic, the fresh CEOs would keep a relatively higher positive relationship between EEPG and firm performance than the senior CEOs. If it is true, the firm-serving component of the fresh CEOs' motives in setting EEPG is higher than those of the senior CEOs.

*H6: The positive relationship between EEPG and firm performance for the fresh CEOs is higher than that for the senior CEOs.*

If CEOs set EEPG out of self-interest motives, they should try their most to link EEPG more closely to firm size. The growth of firm size is highly under the control of CEOs, and thus CEOs do have a certain advantage in linking EEPG more closely to firm size (Ortega, Jaime, 2003)[34]. Compared with the improvement of firm performance, CEOs have much higher capability in the issues of enlarging firm size. Therefore, if EEPG is dependent on firm size instead of firm performance, the running of managerial discretion can easily bring higher benefit to CEOs. Besides, employees in larger companies would have a relatively higher deadline for unacceptable EEPG than that in smaller companies. According to this logic, the senior CEOs would keep a relatively higher positive relationship between EEPG and firm size than the fresh CEOs. If it is true, the self-interest component of the senior CEOs' motives in setting EEPG is higher than that of the fresh CEOs.

*H7: The positive relationship between EEPG and firm size for the senior CEOs is higher than that for the fresh CEOs.*

### **3 Quasi-Empirical analysis on effect of Managerial discretion on EEPG**

We will use a relatively smaller sample selected from Shaanxi Province of China to test the effect of managerial discretion on EEPG. During this test process, the control variables selection and the validity of the measure of managerial discretion are both under strict review. In the next section, this study will use a larger sample selected from all over the China, select more appropriate control variables and adopt the revised measure method of managerial discretion, which is based on the quasi-empirical analysis in this section, to test the core hypotheses in this study.

#### **3.1 Sample**

Taking all the Shaanxi-located listed enterprises of A-share Market respectively in Shenzhen and Shanghai Stock Exchange over the period of 2001-2014 in China as the subjects to be investigated, the study designs the final research sample according to the following criteria. First, firm-years that have not published all the complete data in their annual reports of the given year which are required in this study should be removed from the sample. Especially the data of managerial discretion, employees' compensation and executive compensation should be completely disclosed. Second, firms with CEO change or large-scale executives change should be removed from the sample in order to assure the measurement accuracy of managerial discretion, since it is critical to the research reliability and validity. Third, firms whose executive compensation level is lower than



that of employees' should be removed from the sample. In this study, we respectively remove 2% firms with the top highest assets and 2% firms with the lowest assets in the initially-selected sample.

According to the above three conditions, an unbalanced panel sample consisting of 292 firm-year observations is finally designed. In this study, most of the data are selected from the Financial Research Database of CSMAR and RESSET, which are the most popular research database of China, and part of the data are selected from the annual reports of the listed firms and public network information, which can supplement the shortage of data missing and data error in the commercial research database mentioned above. In order to assure data accuracy to a better degree, the data of 5% sample firms sourced from the database are randomly selected to compare with the corresponding data sourced from the annual reports by hand. And the comparison results do confirm the validity and reliability of the final sample data. Data processing software is SPSS17.0.

### **3.2 Measure**

**Measure of managerial discretion.** Since one of the great originalities of this study is to investigate the influence of each decomposed dimension of managerial discretion on EEPG, then the author has to measure each dimension accurately. Drawing on the views in the literature on managerial discretion or/and managerial power (sometimes being treated as an alternative concept of managerial discretion) (Bebchuk L. A., 2002; Zhang Changzheng, & Li Huaizu, 2008; Schneider P. J., 2013; Grinstein Y., & Hribar P., 2004; Finkelstein S., 1992; Lu Rui, 2007)[35-39,10], we design a comprehensive measure system consisting of four dimensions. Specifically, the four dimensions of managerial discretion are designed respectively to be measured by three closely interrelated single indicators.

First, managerial discretion derived from industry features (MDIF) is jointly measured by three indicators: market growth, if the standardized growth coefficient of sales based on 2010-2014 of the firm's industry exceeds the average coefficient of all the industries in the sample, market growth is 1, otherwise, market growth is 0; demand instability, if the volatility of the sales growth rate from 2010 through 2014 of the firm's industry exceeds the average level of all the industries in the sample, demand instability is 1, otherwise, demand instability is 0; capital intensity, if the ratio of the total fixed assets to the number of employees of the firm's industry over the period 2010-2014 is above the average level of all the industries in the sample, capital intensity is 0, otherwise, capital intensity is 1 (capital intensity is expected to load positively on MDIF, therefore, we code capital intensity reversely). The three indicators were used in S. Finkelstein and B. K. Boyd (1998) [30] and proved to be of good validity in measuring managerial discretion in industry level. Therefore, we use the average value of the three indicators as the measure of MDIF.

Second, managerial discretion derived from legitimate positions (MDLP) is jointly measured by three indicators: CEO duality, if CEO takes the position of vice Chairman, then CEO duality is 0.75, if CEO just takes the position of a director, then CEO duality is 0.5, otherwise, CEO duality is 0; CEO leadership means the ratio of top executives ranked below CEO to the total number of top executives. If the real value of CEO leadership of a company is higher than the average value of CEO leadership of all the companies in the sample, then finally CEO leadership is coded as 1, otherwise, CEO leadership is coded as 0; and CEO titles represent the number of titles (except for the title of CEO) endowed to CEO inside the firm. If the real number of such titles is higher than the average value of the companies in the sample, then CEO titles are coded as 1, otherwise CEO titles are codes as 0. Since the above three indicators have been proved to be of good effectiveness in covariantly representing MDLP both logically and empirically, the value of MDLP is the average value of three indicators.

Third, managerial discretion derived from operating resources (MDOR) is measured jointly by three highly correlated financial indicators: liquidity ratio, working capital ratio, and the ratio of non-fixed assets to sales. If liquidity ratio of a company is higher than the average value of liquidity ratio of all the companies in the sample, then liquidity ratio is coded as 1, otherwise, liquidity ratio is codes as 0. In a similar vein, working capital ratio and the ratio of non-fixed assets to sales are respectively coded as 1 or 0. Since the three indicators provide CEO with discretionary latitude in running firm business from very similar but distinguishing perspectives, the value of MDOR is the average of the three indicators.

Fourth, managerial discretion derived from share ownership (MDSO) is measured jointly by three highly correlated indicators: CEO share status, if CEO holds share ownership, CEO share status is 1, otherwise, CEO share status is 0; CEO share growth, if CEO holds more share than last year, CEO share growth is 1, otherwise, CEO share growth is 0; CEO share slice, if CEO share is less than other executives, CEO share slice is 0, if CEO share is the same to other executives (including the condition of zero share for all executives), CEO share slice is

0.5, while if CEO share is more than any other executives, CEO share slice is 1. The value of MDSO is the average of the three indicators.

**Measure of EEPG.** The most popular two measure methods of EEPG are both adopted in this study, respectively the absolute pay gap between executives and employees (**AEEPG**) and the relative pay gap between executives and employees (**REEPG**). AEEPG is the difference between executives' average cash compensation and employees' average cash compensation, while REEPG is the ratio of executives' average cash compensation to employees' average cash compensation. Besides, we design another two alternative measures of EEPG, respectively **ECTEC** and **ECTPR**. The former represents the ratio of top executives' cash compensation to total employees' cash compensation. The author argues that it is just through the way of enlarging ECTEC by performing managerial discretion, CEOs can realize the objective of improving EEPG. Therefore, ECTEC is both the cause and the indicator of EEPG. The latter represents the ratio of employees' total compensation to net profit. The author argues that decreasing the share that employees can get from the net profits by applying managerial discretion is a critical path for CEOs to enlarge EEPG. Therefore, ECTPR is both the cause and the good reverse indicator of EEPG. Each indicator measures EEPG independently. Besides, the mean of the four standardized value of AEEPG, REEPG, ECTEC and '1-ECTPR', coded as **CEEPGI**, refers to the comprehensive index of EEPG. The empirical results based on multiple measure methods can deepen our understanding of the relationship between managerial discretion and EEPG.

**Measure of control variables.** Control variables include: LNEMN, the logarithm of employees number, which is expected to be positively related with EEPG; LNASSE, the logarithm of total assets, which is expected to be positively related with EEPG; KNIN, if the business running is technology or knowledge intensive, KNIN is 1, otherwise, KNIN is 0. KNIN is expected to be negatively related with EEPG; PTIME, the number of years since the IPO, which is expected to be negatively related with EEPG; FEMNU, the number of female executives in top management teams, which is expected to be negatively related to EEPG; ROA, return on assets, which is expected to be positively related to EEPG; TMTS, the size of the top management team, which is expected to be positively related with EEPG.

### 3.3 Descriptive statistics results of research variables

By applying SPSS17.0, the descriptive statistics analysis of the research variables is executed, and the results are shown in Tab.1. In case of the appearance of spurious regression in analysis, the study has also implemented the Skeness Kurtosis analysis and Histogram Figure analysis of the main research variables, and thus trying to assure the normality of the research variables. The results show that we have chosen the suitable data for the following linear regression analysis.

**Table 1.** Descriptive results of research variables

	N	Minimum	Maximum	Mean	Standard deviation
MDOR	292	.00	1.00	.3950	.16046
MDLP	292	.00	1.00	.4097	.20712
MDSO	292	.00	1.00	.2959	.26962
MDIF	292	.00	1.00	.4852	.34649
AEEPG	292	16124.76	337559.57	107712.205	45313.553
ECTEC	292	.0014	2.2823	.115852	.277571
ECTPR	292	.00004	.21310	.0137614	.021479
LNEMN	292	4.74	11.05	7.5675	1.07415
LNASSE	292	19.34	25.22	21.2590	1.07212
KNIN	292	0	1	.42	.495
PTIME	292	1	14	11.59	3.821
FEMNU	292	.000	7.000	2.45548	1.749247
ROA	292	.240	30.610	5.63639	3.919653
TMTS	292	6	29	15.11	4.359
Valid N(listwise)	292				

### 3.4 Correlation analysis of sample data

By adopting the method of Pearson correlation analysis with SPSS17.0, the correlations among all the research variables with 2-tailed significance are shown in Tab.2. In Tab 2, there is a significant correlation between the

main research variables, and it's noteworthy to point out that correlation between managerial discretion and EEPG is particularly significant, and the direction and intensity of the correlation coefficient seem largely to match the research expectation of this study. All the correlation are below than 0.5, and it seemingly means that we choose the appropriate variables which are worth further examination and analysis, thus there will not be a serious multicollinearity problem in the regression analysis.

It is interesting to point out that the relations between FEMNU, the number of female executives in top management teams, and two indicators of EEPG, respectively, ECTEC, the ratio of top executives' cash compensation to total employees' cash compensation, and ECTPR, the ratio of employees' total compensation to net profit, are significantly not consistent with our expectations. For example, the correlation coefficient between FEMNU and ECTEC is .137, which is significant at the the 0.05 level (2-tailed). The fact shows that more women involvement in the top executive teams would link with higher ratio of top executives' cash compensation to total employees' cash compensation, which means women intend to enlarge the compensation gap between executives and employees. For another example, the correlation coefficient between FEMNU and ECTPR is .141, which is significant at the the 0.05 level (2-tailed). The fact indicates that more women involvement in the top executive teams would link with lower ratio of employees' total compensation to net profit, which means women executives intend to give less profit slice to employees with development of firm performance. This two coefficients both indicate that, contrary to the traditional impression and expectation on the role of women executives in setting EEPG, they practically show obvious favor to larger EEPG, instead of smaller EEPG. That is to say, women executives in fact are more 'Masculine' than their male peers. To deliberate the possible reasons of this fact, the author guesses that women executives are selected according to the 'Masculine' standards, and if they are of the 'Masculine' features, they have more chances to be the top executives, otherwise, they will not be promoted. Therefore, women executives have become, being forced or voluntarily, more 'Masculine' than they before, even more 'Masculine' than the real males.

**Table 2.** Pearson Correlations of research variables

	MDOR	MDLP	MDSO	MDIF	REEPG	ECTEC	AEEPG	ECTPR	LNEMN	LNASSE	KNIN	PTIME	FEMNU	ROA	TMTS
MDOR	1														
MDLP	.012	1													
MDSO	.264**	.279**	1												
MDIF	.122*	.014	.116*	1											
REEPG	.056	.188**	.025	.290**	1										
ECTEC	.130*	.112	.060	.104	.315**	1									
AEEPG	.005	.102	.018	.017	.271**	.138*	1								
ECTPR	.084	-.076	-.022	-.135*	-.217**	-.192**	-.083	1							
LNEMN	-.174**	-.091	-.301**	-.027	.021	-.136*	.260**	.175**	1						
LNASSE	.066	-.033	-.191**	-.133*	-.124*	-.015	.383**	.022	.652**	1					
KNIN	.127*	-.065	.132*	.564**	.107	.019	.092	-.006	-.127*	.010	1				
PTIME	-.307**	-.193**	-.217**	.212**	.177**	-.083	-.218**	.095	.182**	-.192**	-.104	1			
FEMNU	-.356**	-.118*	.011	.143*	.103	.137*	.087	-.141*	-.069	-.135*	-.073	.106	1		
ROA	.036	.070	.009	-.089	.105	.113	.093	-.437**	-.196**	-.074	-.110	-.154**	.053	1	
TMTS	-.116*	.094	-.030	-.059	-.082	-.028	.190**	.183**	.237**	.174**	-.037	-.082	.102	-.017	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Besides, correlation coefficients exceeding 0.100 are significant at the 0.1 level (2-tailed)

Listwise N: 292.

### 3.5 Empirical Model

In order to test the above hypotheses we have mentioned, in this part, we respectively take AEEPG, REEPG, ECTEC, ECTPR, CEEPGT as dependent variable to construct five regression models.

$$AEEPG = \alpha + \beta_1 MDOR + \beta_2 MDLP + \beta_3 MDSO + \beta_4 MDIF + \beta_5 LNEMN + \beta_6 LNASSE + \beta_7 KNIN + \beta_8 PTIME + \beta_9 FEMNU + \beta_{10} ROA + \beta_{11} TMTS + \varepsilon_i \quad (1)$$

$$REEPG = \alpha + \beta_1 MDOR + \beta_2 MDLP + \beta_3 MDSO + \beta_4 MDIF + \beta_5 LNEMN + \beta_6 LNASSE + \beta_7 KNIN + \beta_8 PTIME + \beta_9 FEMNU + \beta_{10} ROA + \beta_{11} TMTS + \varepsilon_i \quad (2)$$

$$ECTEC = \alpha + \beta_1 MDOR + \beta_2 MDLP + \beta_3 MDSO + \beta_4 MDIF + \beta_5 LNEMN + \beta_6 LNASSE + \beta_7 KNIN + \beta_8 PTIME + \beta_9 FEMNU + \beta_{10} ROA + \beta_{11} TMTS + \varepsilon_i \quad (3)$$

$$ECTPR = \alpha + \beta_1 MDOR + \beta_2 MDLP + \beta_3 MDSO + \beta_4 MDIF + \beta_5 LNEMN + \beta_6 LNASSE + \beta_7 KNIN + \beta_8 PTIME + \beta_9 FEMNU + \beta_{10} ROA + \beta_{11} TMTS + \varepsilon_i \quad (4)$$

$$CEEPGI = \alpha + \beta_1 MDOR + \beta_2 MDLP + \beta_3 MDSO + \beta_4 MDIF + \beta_5 LNEMN + \beta_6 LNASSE + \beta_7 KNIN + \beta_8 PTIME + \beta_9 FEMNU + \beta_{10} ROA + \beta_{11} TMTS + \varepsilon_i \quad (5)$$

### 3.6 Empirical results

Table 3. Regression results<sup>a</sup>

	Model 1	Model 2	Model3	Model4	Model5
(Constant)	5.616*** <sup>b</sup> (5.276)	9.275 (.846)	-.567 (-1.420)	.066** (2.406)	-1.700** (-2.252)
LNEMN	.150* (1.845)	.200** (2.389)	-.167* (-1.895)	.183** (2.350)	.173** (1.984)
LNASSE	.276*** (3.547)	-.161** (-2.016)	.127 (1.506)	-.194*** (-2.605)	.022 (.267)
KNIN	.116* (1.658)	.061 (.847)	-.094 (-1.244)	.086 (1.287)	.080 (1.064)
PTIME	-.153** (-2.391)	.138** (2.097)	-.017 (-.242)	.072 (1.175)	.019 (.277)
FEMNU	.161*** (2.739)	.117* (1.940)	.198*** (3.116)	-.089 (-1.572)	.184*** (2.905)
ROA	.118** (2.176)	.151*** (2.699)	.066 (1.127)	-.407*** (-7.811)	-.034 (-.578)
TMTS	.076 (1.374)	-.100* (-1.766)	-.014 (-.241)	.190*** (3.582)	.071 (1.201)
MDOR	.016 (.251)	.084 (1.314)	.205*** (3.058)	.113* (1.895)	.198*** (2.962)
MDLP	.107* (1.873)	.254*** (4.313)	.126** (2.045)	-.049 (-.901)	.207*** (3.373)
MDSO	-.005 (-.084)	-.047 (-.760)	-.071 (-1.100)	.020 (.350)	-.049 (-.758)
MDIF	.018 (.253)	.214*** (2.941)	.181** (2.365)	-.220*** (-3.254)	.091 (1.197)
F	8.018	6.180	3.170	11.010	3.533
R Square	.240	.195	.111	.302	.122
Adj-R Square	.210	.164	.076	0.275	.087
N	292	292	292	292	292

a. Different measures of EEPG as dependent variables.

b. Constant is the original coefficient, while the others are standardized coefficient

According to regression results, in the model 1, MDLP has a positive effect on AEEPG, what the H2 holds. And the other variables have no notable correlation with AEEPG. In the model 2, the dependent variable is REEPG. The results show that MDLP and MDIF are high positively correlated with REEPG, while there is no obvious

correlation between MDOR, MDSO and REEPG. In the model 3, the dependent variable is ECTEC. We can find that MDOR, MDLP and MDIF have a marked positive correlation with ECTEC, while the correlation coefficient of MDSO is negative. In the model 4, the dependent variable is ECTPR. One point to bear in mind: ECTPR is a negative measure index. To be specific, among the four variables, only MDIF has a evident negative correlation with ECTPR, and thus it promotes the enlarge of EEPG significantly. In the model 5, the independent variable is CEEPGI. We can see that MDOR and MDLP have a significant positive correlation with CEEPGI, yet the other two variables have no notable relationship with CEEPGI.

In addition, all the five indicators can only represent EEPG in certain extent, but can not fully cover. So, if the results of the five models are completely consistent, we can say that the result is obvious, otherwise, we should use more accurate data processing method to test the hypothesis.

### **3.7 Discussion on the quasi-empirical test results**

In recent years, the phenomenon of executives'high salary' has been increasingly questioned. And with the steady improvement of corporate governance mechanism, the government departments have issued a serious of remuneration control policies, and especially it is true in China. At the same time, the research on the managerial discretion and executive-employee pay gap (EEPG) has drawn widespread attention in the academic circles. However, the past literature only studied the cause of the rising EEPG, and the forming mechanism of excess EEPG is seemingly still a 'black box'. As for the measure of managerial discretion, they mainly focused on either industry-level or firm-level index, while ignoring the multiple dimensions. Based on the review of theory and literature, this study takes the listed companies of Shaanxi Province as the sample, and decomposes the concept of managerial discretion into four different dimensions, respectively managerial discretion derived from industry features (MDIF), managerial discretion derived from legitimate positions (MDLP), managerial discretion derived from operating resources (MDOR), managerial discretion derived from share ownership (MDSO). And then further discuss the effect of each dimension on the formation of EEPG respectively. In addition, the study designs three alternative measures of EEPG. This study uses the methods of normal test and regression analysis to test hypothesis. And the multiple linear regression results do confirm that: MDIF, MDLP and MDOR all have positive effects on EEPG, while MDSO has no significant effect on EEPG. The greatest contribution of this study is to find that effects of different dimensions of managerial discretion on EEPG have distinct intensities, because of different motives. Following that, we will discuss these above empirical results.

In terms of MDIF, there are three models clearly support for the research assumption. Therefore, we can draw a conclusion that MDIF has a significant positive correlation with EEPG. Firms with higher MDIF demand CEO to devote much more strength and time to corporate business. And thus the easily observed effort, much stronger bargaining power and unique access to resources, the above all make executive compensation increase faster than employee's, consequently, the EEPG will be enlarged.

As for MDLP, four models results do confirm the hypotheses. Though the intensity of the last one is not significant, the direction is right. So there is no doubt that MDLP have a notable effect on EEPG. The higher MDLP gives CEO much more power to control the amount of shared information and supervision of the employees. As a result, CEOs with higher MDLP will enlarge EEPG for the purpose of pursuing their own interests.

When it comes to MDSO, there is no correlation between MDSO and EEPG. Overall, though, four correlation coefficients are negative. So, we can say that for Shanxi Province, the MDSO may not enlarge the EEPG, while narrowing the gap in sense of statistic. In Shaanxi Province, the executive shareholding phenomenon is not so common that may not enlarge the EEPG. And on the other side, when the CEO becomes shareholder, his mind will change, and others expectations will also change. Therefore, it forces CEO to change his behavior to make himself in line with the expectations. As shareholder, CEO must bear the corresponding responsibility and concern about the interests of stakeholders including employees, so they won't let the pay gap too large. There is an expectation and a moral restraint. On the other side, CEO with higher MDSO has received share rewards as long-term income, while the employees have received less, so the workers care much for the pay gap. In a word, CEO with higher MDSO would not enlarge EEPG, on the contrary, maybe they would narrow the gap for the interest of employees.

In terms of MDOR, the result is contradictory. Two models show no significant relationship, two models do confirm the hypothesis, while one model is the opposite result. Therefore, it's a conflicting conclusion, and the conclusion and assumption are not consistent.

In all, MDIF and MDLP have significant positive correlation with EEPG. Though the correlation coefficient of MDSO is negative, the MDSO has no obvious tendency to the EEPG. As for the MDOR, the conclusion is not unified, so we need more samples and statistical method to explore the relationship between MDOR and EEPG.

#### **4 Empirical Comparison of the effects of managerial discretion on EEPG between the fresh CEOs and the senior CEOs**

Empirical analysis in part 3 has two functions in our research scheme design. First, of course, part 3 tests H1, H2, H3 and H4 rather perfectly. It concludes that managerial discretion does have positive effects on EEPG and each dimension of managerial discretion has somewhat different effect on EEPG. Second, the empirical study in part 3 provides a test for the measure of managerial discretion, EEPG and other control variables. The results will provide good suggestions for empirical method choices in the following test on differences in the effects of managerial discretion on EEPG between the fresh CEOs and the senior CEOs. According to part 3, the measure of managerial discretion should be adjusted to a certain degree, and also the some control variables should be removed, and some other control variables should be added. The research method design for testing H5, H6 and H7, which are the core hypotheses in this study, is described in detail as follows.

##### **4.1 Sample**

Based on the perspective of comparative study, we attempt to complete the sample design process by three closely linked steps. Step 1: Taking manufacturing listed enterprises of A-share Market in Shenzhen and Shanghai Stock Exchange over 2004-2013 of China as the subjects to be investigated, we select companies according to the following criteria as the sampling framework: ① Companies that were not punished publicly in each year over 2004-2013; ② Companies that were not even marked as ST, PT, SST in each year over 2004-2013; ③ Companies that had no data singularities in each year over 2004-2013, for example, the companies that the executive compensation level was lower than that of employees should be removed; ④ Companies that published all the complete data in their annual reports of the given year which are required in this study. Especially the data of managerial discretion and executive compensation should be complete. ⑤ Non-financial or non-banker companies. Second, we design the sample with the fresh CEOs (S-FC) according to the following principles: the present CEO of the company is fresh CEO who gets the CEO position of this company for the first time and his CEO tenure has not exceeded 3 years (and he has not completed the first CEO tenure). Third, according to the method of paired-sampling, we select the paired sample with senior CEO (S-SC) referring to both the size similarity and business similarity of each company in S-FC. At this point, senior CEO means a CEO who has taken the CEO position of the respondent company at least more than 6 years. Results of Paired Samples Statistics show that firm size of companies in S-SC and S-FC has not significant different statistically.

Most of the data are selected from the network named 'www.cninfo.com.cn' by hand. In order to assure data accuracy, some sample data are randomly selected and compared with the corresponding data sourced from the Financial Research Database of CSMAR and RESSET. And the comparison results do confirm the validity of the final sample data. Based on the real distribution of each variable, we respectively rank the whole sample according to firm size, firm performance and executive compensation level from low to high. Top highest 2% and top lowest 2% companies in firm size, firm performance and executive compensation level are respectively removed from the sample for each rank in order to make sure the reasonable normal distribution of the research data. After such a process, a valid research sample consisting of 1390 companies (S-WS) is designed, in which the numbers of companies with the fresh CEOs (S-FC) and companies with the senior CEOs (S-SC) are both 695. S-SC and S-FC are paired samples based on firm size and business similarity. The statistical tool is SPSS17.0. The descriptive statistical results are shown in Tab.6.

##### **4.2 Measure**

**Measure of managerial discretion.** According to part 3, the measure of managerial discretion should be revised by removing the dimension of MDIF, since the other three dimensions can be perfectly rotated by factor analysis, while MDIF can not be abstracted into a single dimension. The results are shown in Tab.4 and Tab.5. In order to assure the validity and reliability of the empirical analysis, we narrow the concept of managerial

discretion into three dimensions in the following analysis, respectively MDLP, MDOR and MDSO. The level of managerial discretion (MD) is the average of the three dimensions.

**Measure of EEPG.** According to part 3, the five measures of EEPG, respectively AEEPG, REEPG, ECTEC, ECTPR and CEEPGI almost have very similar validity in empirical analysis. For simplicity, since AEEPG and REEPG are the two most popular measure methods of EEPG, the next part will use AEEPG as the measure of EEPG when we make regression analysis, while take REEPG as the alternative measure of EEPG that will used in robustness test.

**Measure of control variables.** According to part 3, due to the issue of multicollinearity between LNEMN and LNASSE, LNEMN has to be removed. Due to weak effect on EEPG, KNIN is replaced with the ratio of the number of R&D staff to employee number (RRD), PTIME is replaced with the number of years since the establishment of the firm (FIRMAGE), TMTS and FEMNU is removed. Due to wider range of samples in locations, industries and corporate governance features, we add industry type (INDUSTRY), firm location (EAST), the ownership attributes (STATE), ownership concentration degree (FSHARE), the independent directors ratio (IDR), the size of the board of supervisors (SUPERVN). As for INDUSTRY, if the company belongs to manufacturing industry, INDUSTRY is 1, otherwise INDUSTRY is 0; As for EAST, if the firm geographical location is eastern China, then EAST is 1, otherwise, EAST is 0; As for STATER, the ratio of state-owned share to the total share; As for FSHARE, it means the ratio of the first large shareholders; As for IDR, it is determined by the ratio of the number of independent directors to the board size, As for SUPERVN, the number of the board of supervisors, independent supervisors are also included, if any.

**Table 4.** Total Variance Explained of managerial discretion

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.652	40.581	40.581	3.652	40.581	40.581	2.585	28.722	28.722
2	1.964	21.821	62.402	1.964	21.821	62.402	2.432	27.019	55.741
3	1.719	19.099	81.501	1.719	19.099	81.501	2.318	25.760	81.501
4	.594	6.596	88.097						
5	.438	4.866	92.963						
6	.422	4.692	97.655						
7	.149	1.650	99.305						
8	.062	.694	99.999						
9	7.5E-5	.001	100.000						

Extraction Method: Principal Component Analysis.

**Table 5.** Rotated Component Matrix<sup>a</sup>

Component	Factor		
	1	2	3
MDLP1			.966
MDLP 2			.827
MDLP 3			.796
MDSO 1	.943		
MDSO 2	.942		
MDSO 3	.825		
MDOR 1		.773	
MDOR 2		.912	
MDOR 3		.941	

Extraction Method: Principal Component Analysis.

### 4.3 Descriptive statistics results of research variables

By applying SPSS17.0, the descriptive statistics of the research variables is executed, and the results are shown in Tab.6. In case of the appearance of spurious regression in analysis, the study has also done the Skeness Kurtosis Analysis and Histogram Figure of the main variables. The results show that we have chosen the suitable data for linear regression analysis.

**Table 6.** Descriptive results of research variables

Variables	N	Mean	Maximum	Minimum	Standard deviation	Median
AEEPG	1390	3.296671E5	2.6963E6	4970.9100	2.958792E5	2.446684E5
MD	1390	0.519750	0.9120	0.0680	0.1817909	0.52
INDUSTRY	1390	.85	1	0	.360	1.00
EAST	1390	.76	1	0	.428	1.00
STATER	1390	9.050003	88.4615	.0000	17.916041	.00000
FSHARE	1390	.366102	.9235	.0521	.1547294	.354005
IDR	1390	35.892770	66.6700	7.6900	9.6642032	33.33000
SUPPERVN	1390	4.13	18	1	2.119	4.00
LNASSE	1390	21.11	25.40	18.99	.97	21.06
RRD	1390	.210455	1.0034	.0085	.1700990	.152698
FAGE	1390	15.89	57	4	5.862	15.00
ROA	1390	3.891871	49.2700	-39.9300	6.8176341	2.05000

### 4.4 Correlation analysis

By adopting the method of Pearson correlation analysis with SPSS17.0, the correlations among all the research variables with 2-tailed significance are shown in Tab.7. In Tab 7, there is a significant correlation between the main variables and it's noteworthy that correlation between managerial discretion and EEPG is also significant at the level of .01 (.164,  $P > .01$ ), and the direction and intensity of the correlation coefficient largely match the research expectation. ROA is positively related to EEPG (.114,  $P > .01$ ), which confirms to the prediction of tournament on the performance consequences of EEPG. There is a significantly positive relationship between EAST and EEPG, which means that in eastern China, due to the differences of the economic level and management ideas between firms in eastern China and companies in other area, there is a relative higher EEPG on the average.

All the correlation are below than 0.5, and it means that we choose the appropriate variables which are worth further examination and analysis, thus there will not be a multicollinearity problem in the regression analysis.

**Table 7.** Variables descriptive statistics and correlation

Variables	INDUSTRY	FAGE	EAST	LNASSE	STATER	FSHARE	IDR	SUPPERVN	RRD	ROA	EEPG	MD
INDUSTRY	1											
FAGE	.015	1	.									
EAST	.022	-0.013	1									
LNASSE	.030	.166**	-.056*	1								
STATER	-.099**	.156**	-.142**	.137**	1							
FSHARE	.056*	-0.03	.085**	0.024	.143**	1						
IDR	.001	-.118**	.072**	-.136**	-.151**	-0.019	1					
SUPPERVN	-.004	.137**	-.139**	.275**	.232**	-0.031	-.163**	1				
RRD	-.401**	-.140**	0.023	-.173**	-.056*	-.130**	0.041	-.091**	1			
ROA	.013	-.095**	-0.008	-.101**	-.099**	.163**	0.028	-.136**	0.038	1		
EEPG	-.060*	-0.039	.236**	.341**	-.103**	-.065*	0.045	-0.025	0.051	.114**	1	
MD	.005	-.231**	.223**	-.175**	-.214**	-0.049	.129**	-.260**	.271**	.231**	.164**	1

Note: N=1390; \*, \*\* respectively the significance level of .05 and .01(Two-tailed)



#### 4.5 Empirical Model

In order to test H5 to H7, in this part, we design two empirical regression models. Model 6 is a univariate linear regression model without considering any control variable, while model seven is a multiple regression model considering the relevant variables appropriately.

$$AEEPG_{it} = \alpha + \beta_1 MD_{it} + \varepsilon_{it} \tag{6}$$

$$AEEPG_{it} = \alpha + \gamma_1 INDUSTRY_{it} + \gamma_2 FAGE_{it} + \gamma_3 EAST_{it} + \gamma_4 STATER_{it} + \gamma_5 LNASSE_{it} + \gamma_6 ROA_{it} + \gamma_7 FSHARE_{it} + \gamma_8 IDR_{it} + \gamma_9 SUPERVIS_{it} + \gamma_{10} RRD_{it} + \gamma_{11} MD_{it} + \varepsilon_{it} \tag{7}$$

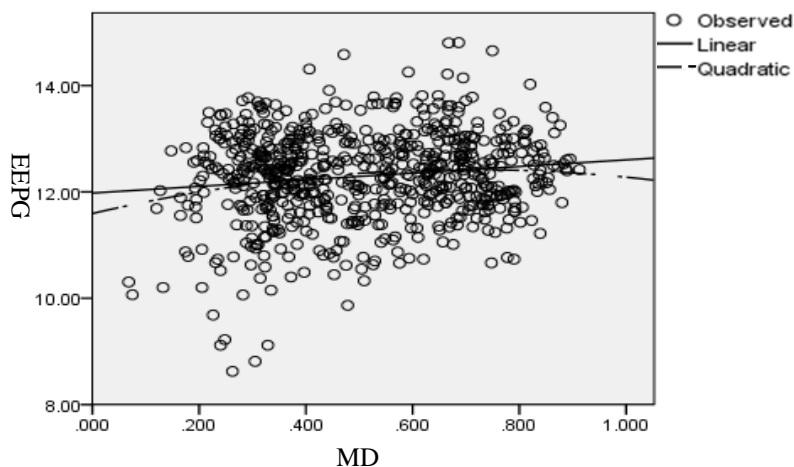
Data of S-SC and S-FC will be input into model 6 and model 7, and the regression results will be compared with each other. If in S-FC and S-SC, the two coefficients of MD, i.e.  $\beta_1$  and  $\gamma_{11}$ , are both positive, and further  $\beta_1$  and  $\gamma_{11}$  in S-FC are smaller than that in S-SC, then H5 holds. If the regression coefficient of ROA on AEEPG ( $\gamma_6$ ) in S-FC is positive and higher than that in S-SC, then H6 holds. If the regression coefficient of LNASSE on AEEPG ( $\gamma_5$ ) in S-FC is positive and lower than that in S-SC, then H7 holds.

#### 4.6 Empirical test results of H5

First, we respectively take S-FC, S-SC and S-WC and as the research sample, take AEEPG as the predictor, take MD as the independent variable, and use model 6 to make data simulation. Results are shown in Tab.8. Fig.1, Fig.2 and Fig.3 respectively shows the curve fitting results of S-FC, S-SC and S-WC.

According to the Tab.8, the non-standardized regression coefficient of MD on AEEPG for the fresh CEOs is 0.624 (P>.01), while the non-standardized regression coefficient of MD for the senior CEOs is 0.949 (P>.01). The regression model is fitted well by the three samples, since the F value and significance level meet the basic requirements. Regression results in the S-FC and the S-SC show that managerial discretion can positively influence EEPG, which may be explained that the CEOs, no matter fresh or senior, all have the motives to intervene the arrangement of EEPG by applying their discretion. However, according to the comparison between the same coefficient in S-FC and S-SC, it can be concluded that the manipulation effect of the fresh CEOs' discretion on EEPG ( $\beta_1=0.624$ ) is lower than the manipulation effect of the senior CEOs' discretion on EEPG ( $\beta_1=0.949$ ). Therefore, H5 holds when we do not consider any control variable.

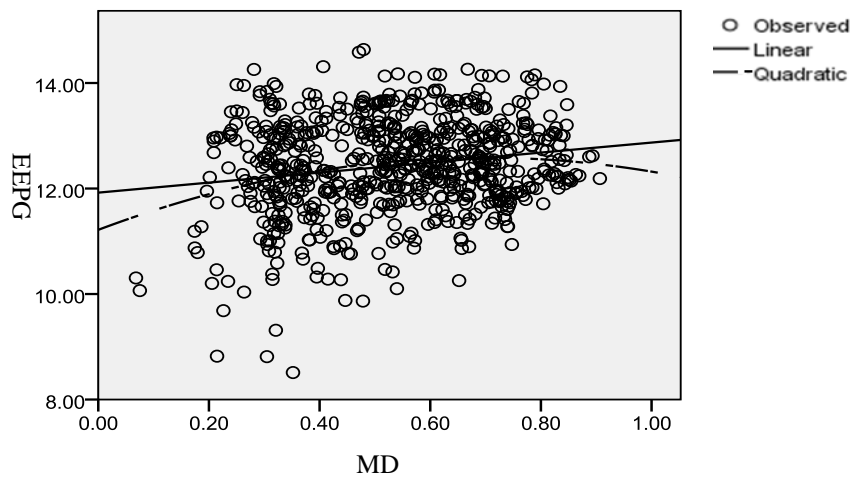
Figure 1. The relationship between MD and GAP in the S-FC



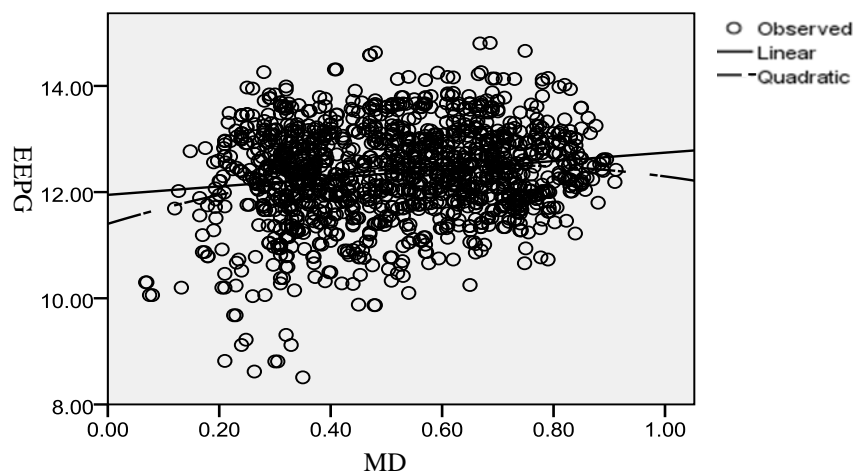
**Table 8.** Univariate regression results on effect of managerial discretion on EEPG

Y	X	Sample	Model	R Square	F	Sig.	Constant	b1	b2	N
GAP	MDI	(N-Sample)	Linear	.019	13.683	.000	11.979	.624		695
			Quadratic	.024	8.407	.000	11.593	2.344	-1.661	
	MDI	(S-Sample)	Linear	.033	24.303	.000	11.922	.949		695
			Quadratic	.042	15.802	.000	11.217	3.944	-2.840	
	MDI	(W-Sample)	Linear	.027	38.289	.000	11.948	.795		1390
			Quadratic	.034	24.356	.000	11.402	3.176	-2.284	

**Figure.2.** The relationship between MD and EEPG in the S-SC



**Figure 3.** The relationship between MD and EEPG in the S-WC



Second, the study takes FAGE, LNASSE, ROA, FSHARE, IDR, SUPERVN, RRD, STATER and EAST as the control variables, select EEPG as the dependent variable, choose MD as the main independent variable, and then use model 7 to make regression analysis by adopting S-FC, S-SC and S-WC respectively. Results are shown in Tab.9.

According to Tab.9, under the condition of controlling the effects of other variables, there is still positive relationship between managerial discretion and EEPG for the three samples, and the significance level are all greater than 0.1. To compare the regression coefficient of managerial discretion on AEEPG, it can be found that

the standardized regression coefficient in S-FC ( $\gamma_{11} = 0.296$ ,  $T=1.705$ ) is much lower than such a coefficient in S-SC ( $\gamma_{11} = 0.683$ ,  $T=3.442$ ). It can be concluded that, under the condition of considering control variables, the effects of managerial discretion on EEPG are still significant both for the fresh CEOs and the senior CEOs. However, compared to the condition of not considering control variables, such effects are weakened to a certain degree. Data analysis results show that the positive effect of managerial discretion on EEPG for the fresh CEOs is lower than that for the senior CEOs when we consider the effects of control variables. Therefore, H5 holds.

**Table 9.** Multiple regression results on the effects of managerial discretion on EEPG: The fresh CEOs VS the senior CEOs

Sample Variables	S-WC		S-NC		S-FC	
<i>MD</i>	0.575***	(4.421)	0.296*	(1.705)	0.683***	(3.442)
<i>INDUSTRY</i>	-0.154**	(-2.434)	-0.116	(-1.225)	-0.207**	(-2.428)
<i>FAGE</i>	-0.007**	(-2.007)	-0.009	(-1.589)	-0.005	(-0.98)
<i>EAST</i>	0.483***	(9.642)	0.421***	(6.331)	0.54***	(7.034)
<i>STATER</i>	-0.004***	(-3.137)	-0.003**	(-2.122)	-0.002	(-1.13)
<i>LNASSE</i>	0.369***	(16.032)	0.343***	(10.358)	0.432***	(13.656)
<i>ROA</i>	0.018***	(5.668)	0.021***	(5.005)	0.012**	(2.437)
<i>FSHARE</i>	-0.487***	(-3.466)	-0.497**	(-2.591)	-0.609***	(-3.003)
<i>IDR</i>	0.006**	(2.528)	0.002	(0.753)	0.006*	(1.749)
<i>SUPPERVN</i>	0.016**	(2.17)	-0.046**	(-2.58)	0.001	(0.052)
<i>RRD</i>	0.193	(1.373)	0.283	(1.395)	0.034	(0.173)
F	43.292		17.819		25.911	
R <sup>2</sup>	.257		.223		.294	
Adjusted R <sup>2</sup>	.251		.210		.283	
Valid N	1390		695		695	

a. Different measures of EEPG as dependent variables.

#### 4.7 Empirical test results of H6

By taking ROA as the main independent variable, EEPG as the dependent variable and ten control variables, i.e. MD, INDUSTRY, and FAGE etc., as other explaining variables, we make the regression analysis with model 7 by adopting the S-SC and the S-FC as the research samples. Results are shown in Tab.9.

According to Tab.9, firm performance is significantly and positively related to EEPG both in S-SC and S-FC. The coefficient of ROA on AEEPG in S-FC ( $\gamma_6 = 0.021$ ,  $P=0.000$ ) is much higher than the coefficient of ROA on AEEPG ( $\gamma_6 = 0.012$ ,  $P<0.05$ ). For the fresh CEOs, the manipulation behavior on EEPG is the means, while improving firm performance is the end. The fresh CEOs intend to link firm performance with EEPG more closely than the senior CEOs. If a larger EEPG can bring higher firm performance, the fresh CEOs would enlarge EEPG to that degree. While for the senior CEOs, they wish to get the highest compensation level by enlarging EEPG to an exceeding degree without considering firm performance too much. Such a result shows that, when the fresh CEOs manipulate EEPG by running their managerial discretion, their basic or main motives are firm-serving. The fresh CEOs want to improve firm performance by enlarging or reducing EEPG. Therefore, H6 holds.

We will further discuss the manipulation effect of managerial discretion on EEPG for the senior CEOs. Empirical results show that the senior CEOs set EEPG without considering too much firm performance. Such a fact proves that due to the seniority of the senior CEOs, they have formed their 'entrenchment' and turned the whole company into their own 'Empire', and they face weaker monitoring intensity and less risk of being fired or even punished. The senior CEOs have no need to consider too much firm performance when they set EEPG, instead, what they consider is how to enlarge EEPG to a deadline level at which employees cannot accept the EEPG and thus firm running would be hampered by employee dissatisfaction. Such an EEPG level does exceed the optimal level of EEPG, in which point the marginal cost for a unit increase of EEPG equals to the marginal benefit for a unit increase of EEPG. The senior CEOs manipulate EEPG out of greater self-interest motives than firm-serving motivation.

#### **4.8 Empirical test results of H7**

By taking LNASSE as the main independent variable, EEPG as the dependent variable and ten control variables, i.e. MD, ROA, INDUSTRY, and FAGE etc., as other explaining variables, we make the regression analysis with model 7 by adopting S-SC and S-FC as the research sample. Results are shown in Tab.9.

According to Tab.9, firm performance is significantly and positively related to EEPG both in S-SC and S-FC. The coefficient of LNASSE on AEEPG in S-FC ( $\gamma_5=0.343$ ,  $P=0.000$ ) is much lower than the coefficient of LNASSE on AEEPG ( $\gamma_5=0.432$ ,  $P=0.000$ ). The senior CEOs intend to link firm size with EEPG more closely than the fresh CEOs. If larger firm size can lead to larger EEPG, the senior CEOs would enlarge EEPG as large as possible. Out of self-interest motives of running managerial discretion, the senior CEOs will get much higher compensation level due to larger EEPG than the fresh CEOs Therefore, H6 holds.

We will further discuss the relationship among managerial discretion, firm size and EEPG. From the perspective of psychological status, it can be found that, due to the more entrenched position and much richer experience of the senior CEOs than the fresh CEOs, and considering the former hard work and past good performance, the senior CEOs face a steady firm running mechanism and expectable development prospect. At this time, the senior CEOs have stronger subjective motives and objective latitude/permission to do something for getting private interest. The senior CEOs prefer to improve the compensation gap among executives and EEPG for improving their own interest by enlarging firm size for two reasons. First, larger EEPG in large firms is acceptable for each stakeholder, including the shareholders, the employees, the public and the board, etc. Second, it is rather controllable for the senior CEOs to enlarge firm size, since the senior CEOs have enough capability and latitude to make and implement strategic decisions in developing firm size rather than firm performance. To improve firm performance, it needs capability, effort and luck, while to improve firm size, it only needs effort. Therefore, the senior CEOs would link EEPG closely to firm size out of their self-interest motives.

#### **4.9 Discussion**

With the continuous improvement of corporate governance and the growing pace of compensation system reform in China, research on managerial discretion, EEPG, firm performance and the relationship among the three issues has gradually become the focus of management and economic scholars. Existing literature has discussed the differences in manipulation effects of managerial discretion on EEPG between companies of different countries, different regions, different ownership structure and different life cycle in detail. A large number of contributions have been made. However, the comparative differences in motives of managerial discretion between the fresh CEOs and the senior CEOs are ignored to a large degree.

In order to clarify the deep-seated reason of CEO change, investigate how to exactly describe and analyze the production mechanism of the fresh CEOs' firm-serving motives, and further copy such a mechanism into the whole CEO tenure, we carry out this study by investigating the manipulation effect of the fresh CEOs' discretion on EEPG. If we can enhance the firm-serving motives of the fresh CEOs till they leave the CEO position, the success rate of CEO change would be increased greatly, firm performance would be improved stably and the long-term competitive edge of companies would be established. In practice, due to the more and more fierce external competition, the upgrading of knowledge, technology, products and business models gets more and more frequent, the survival and development of companies propose higher demands on CEOs. For CEOs, no matter senior or fresh, they must consider how to control EEPG within a reasonable range, and what is more important is, the non-monetary incentive for executives and employees must be paid more attention, since 'reasonable' EEPG is just a hygiene factor instead of a motivation factor which cannot resolve the issue of employees motivation.

First, our results show that no matter what the seniority of CEOs is, managerial discretion and EEPG are positively correlated. Both the fresh CEOs and the senior CEOs have the motives and capability to manipulate EEPG according to their favor by running managerial discretion. However, we expect that such manipulating effects for the fresh CEOs and the senior CEOs are motivated by very different drives. Therefore, we propose H5, H6 and H7 to prove such a prediction. According our empirical analysis in part 4 has proved H5, H6 and H7.

Second, the fact that H5 holds show that the fresh CEOs favor relatively smaller EEPG than the senior CEOs due to their greater firm-serving motives. We explain this result from the differences in working motivation of managerial discretion between the fresh CEOs and the senior CEOs. Since tournament theory argues that larger EEPG would be of help to improve firm performance by stimulating competition, the fresh CEOs would like to increase EEPG at the beginning, however, organizational justice theory argues that too large EEPG would be of damage to firm performance by producing the sense of unfairness and dissatisfaction, the fresh CEOs would like to constrain the too rapid growth at the end. Consequently, out of the motivation of firm-serving, the fresh CEOs would favor a moderate EEPG instead of a too small EEPG or a too large EEPG. On the contrary, the senior CEOs, out of self-interest motives, would like to take the tournament view on EEPG as the excuse to enlarge EEPG without too much consideration on the views of organizational justice theory. For the senior CEOs, they in fact do not believe the view of tournament theory on EEPG, but they want to make others believe that they believe such a view.

Third, the fact that H6 holds indicates that the fresh CEOs are willing to and/or force to link EEPG to firm performance more closely than the senior CEOs would. The fresh CEOs will set EEPG according to the balancing level at which the marginal benefit of EEPG equals to the marginal cost of EEPG, while the senior CEOs will set EEPG according to the bottom line for unfairness of employees, at which the marginal cost exceeds the marginal benefit greatly. The different links between EEPG and firm performance for the fresh CEOs and the senior CEOs further indicate the different motives structure of the two groups. For the fresh CEOs, firm-serving motives are greater than self-interest motives, while for the senior CEOs, the opposite is the case.

Fourth, the fact that H7 holds indicates that the senior CEOs are more willing to and/or forced to link EEPG to firm size closely than the fresh CEOs. Compared with improving firm performance, firm size is much easier to be enlarged by CEOs. Many strategic decisions, for example buying or merging firms, hiring staff, investment enhancement or price cutting, etc., may not necessarily lead to firm performance improvement, but they would necessarily enlarge firm size. Since intuitively larger firms need CEOs of higher capability and higher effort degree, larger EEPG is more acceptable for all the stakeholders, especially the employees. To link firm size closely with EEPG can not lead to firm performance improvement effectively, but can improve EEPG and thus CEOs' compensation level effectively. Therefore, the senior CEOs, out of greater self-interest motives, would like to set EEPG according to firm size, while the fresh CEOs, out of greater firm-serving motives, would not like to link firm size with EEPG too much, since such a behavior cannot bring better firm performance.

## **5 Conclusions**

The relationship between managerial discretion and EEPG has brought widespread attention in the practice of corporate governance. It is well-known that managerial discretion can manipulate EEPG, which is varying by intent and intensity. However, the differences between the fresh CEOs and the senior CEOs in determining EEPG and other business issues have been ignored to a large degree. In one side, EEPG is ever-increasingly growing without any effective countermeasures, which has brought great negative effects on social development and firm competitive edge. From an ethical perspective, employees mainly earn their living from their wages, while CEOs mainly earn their achievements from their compensation. Therefore, too large EEPG actually represents the distortion of the social value system. On the other hand, facing more and more CEO changes, how to assure the success of the fresh CEOs is an important issue. Therefore, it is of great meanings to investigate the link between managerial discretion and EEPG by taking the motivation differences of the fresh CEOs and the senior CEOs into account.

The contributions of this study are listed as follows: (1) The manipulation effects of different dimensions of managerial discretion on EEPG have distinct intensities, because of different motives; (2) Both the senior CEOs and the fresh CEOs have the motives and capability to manipulate EEPG positively, but they have very different motives; (3) The fresh CEOs, out of greater firm-serving motives, have a smaller motives to enlarge EEPG than the senior CEOs, who have greater self-interest motives than firm-serving motives; (4) The fresh CEOs would like to link firm performance closely with EEPG, while the senior CEOs would like to link firm size closely with EEPG.

The paper moves the studies on managerial discretion and EEPG forward. The empirical results provide guidance for improving corporate governance, optimizing the allocation of managerial discretion and designing of executive compensation package after the event of CEO change. According to the findings of this study, the

fresh CEOs and the senior CEOs should be treated by the shareholders and the board differently in managerial discretion arrangements and executive compensation package designs, since they are very different in the motives when they perform managerial discretion. Future studies should adopt larger samples and more complex methods to describe the different manipulation effects of managerial discretion on EEPG for the senior CEOs and the fresh CEOs in more detail; further test the firm-serving motives of the fresh CEOs; and finally discuss the fresh-keeping mechanisms of the firm-serving motives in the whole CEO tenure. Besides, the comparative study on the motives of managerial discretion for the fresh CEOs between companies in western countries and China should be paid great attention.

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