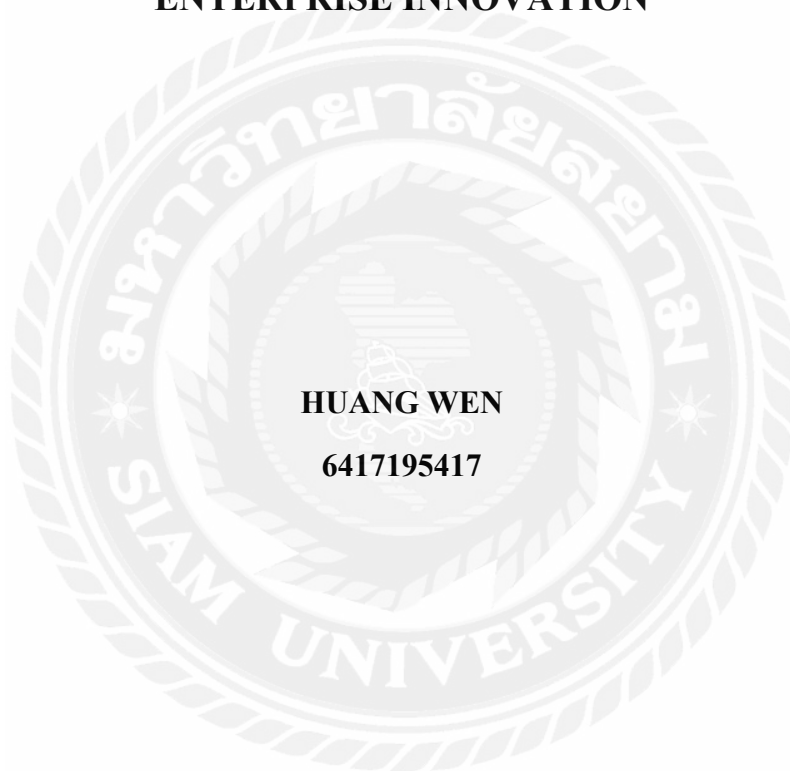




**IMPACT OF REMUNERATION FAIRNESS ON STATE-OWNED
ENTERPRISE INNOVATION**



**HUANG WEN
6417195417**

**AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE MASTER'S DEGREE OF BUSINESS
ADMINISTRATION GRADUATE SCHOOL OF BUSINESS
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ENTERPRISE INNOVATION**

HUANG WEN

This Independent Study has been Approved as a Partial Fulfillment of the Requirement
of International Master of Business Administration in International
Business Management

Advisor:
(Dr. Zhang Li)

Date: 13 / 9 / 2023

.....
(Associate Professor Dr. Jomphong Mongkhonvanit)
Dean, Graduate School of Business Administration

Date: 27 / 9 / 2023

Siam University, Bangkok, Thailand

Title: Impact of Remuneration Fairness on State Owned Enterprise Innovation
By: Huang Wen
Degree: Master of Business Administration
Major: International Business Management

Advisor:


(Dr. Zhang Li)

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ABSTRACT

Remuneration policy, as an important part of corporate governance, has an important impact on the innovation performance of enterprises. However, existing research has not reached a consensus conclusion on how remuneration policy affects enterprise innovation. Therefore, the objectives of this research are: 1) To examine there is a positive effect between external remuneration gap for senior executives and enterprise innovation. 2) To examine there is a positive effect between external remuneration gap for employees and enterprise innovation. 3) To examine that internal remuneration gap between executive and employee has a positive effect for enterprise innovation. 4) To examine that there is a positive effect between remuneration distribution and enterprise innovation.

This research focused on the Chinese studies of the impact of remuneration fairness on state owned enterprise innovation. To estimate the impact of remuneration fairness on enterprise innovation, this research based on statistical and econometric theoretical methods firstly structured the remuneration explanation, such as executive remuneration model and employee remuneration model, to estimate the gap of executives and employees; Further, the regression model were built to analyze the impact of remuneration fairness on enterprise innovation. The results of this research are: 1) The external remuneration gap for executives is positively related to enterprise innovation. 2) The external remuneration gap for employees is positively related to enterprise innovation. 3)The internal remuneration gap between executive and employee is positively related to enterprise innovation. 4) The rationality of remuneration distribution has a positive effect for enterprise innovation.

Keywords: remuneration fairness, remuneration gap, enterprise innovation

DECLARATION

I, Huang Wen, hereby certify that the work embodied in this independent study entitled “Impact of Remuneration Fairness on State-owned Enterprise Innovation” is result of original research and has not been submitted for a higher degree to any other university or institution.

Huang Wen
.....
(HUANG WEN)
Jun. 1, 2023



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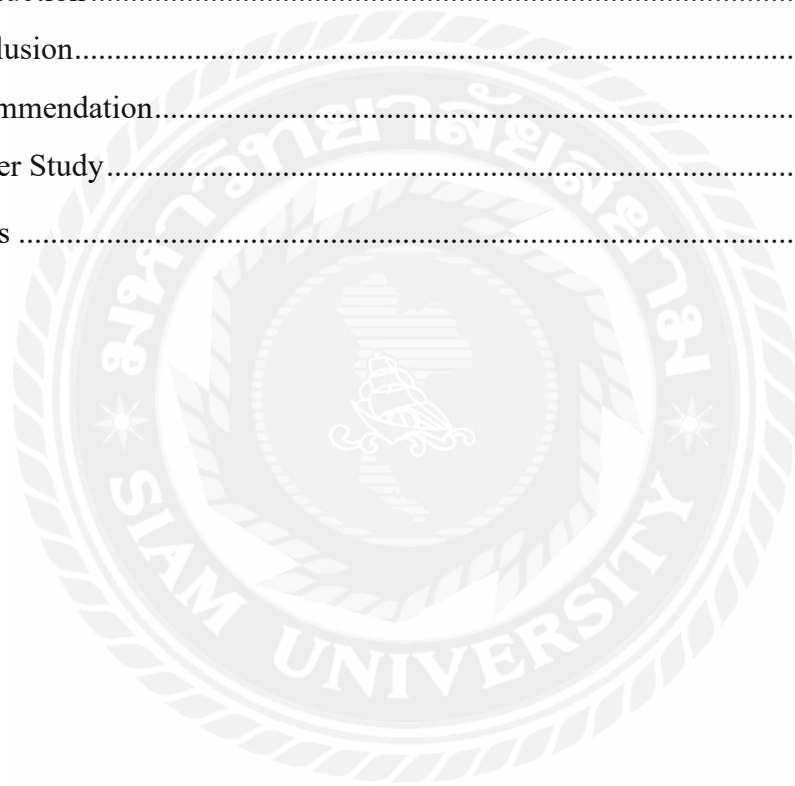


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Chapter 1 Introduction

1.1 Background of the Study

The level of scientific and technological innovation has become the core indicator to measure national competitiveness. The development history of each country has proved the importance of innovation to national progress. China has steadily promoted the "innovation-driven development strategy" since the end of 2012. Xu et al. (2017) claimed that the innovative strategies implemented progressively in recent years, and China has made outstanding achievements in the field of strategic innovation, with the R&D investment and patents ranked second in total around the world.

Enterprises, as innovation subjects at the micro level, are the foundation of macro-innovation subjects. The process of enterprise innovation is the integration of internal and external resources, and corporate governance is the deployment of resources in the mutual restraint of the interests of all parties. It is of great significance to study the influence mechanism of enterprise innovation. Especially, remuneration policy, as an important part of corporate governance, has an important impact on the innovation performance on enterprises (Bobillo et al., 2018).

However, existing researchers have not reached a consensus conclusion on remuneration policy affects enterprise innovation. There are two opposing explanations for the economic consequences of the remuneration gap, tournament theory and equity theory. These studies may ignore the link between the causes of remuneration gaps and their economic consequences. If remuneration gaps are due to economic factors such as job performance and labor market characteristics, they are seen as a fair reflection of individual talent, skills and effort, and thus have a tournament incentive effect on employees. The Confucian concept of fairness is deeply rooted and the socialist market economy is highly concerned with distributive justice. It is important to study the innovative incentive role of corporate remuneration from an equity perspective.

1.2 Research Problems

Remuneration policy, as an important corporate governance mechanism, is a necessary means to encourage employees to work hard, which affects enterprise innovation.

As we all know, Lenovo Group is the representative of scientific and technological innovation enterprises in China. However, after the "one-day tour" event in 2021 applying for listing on the Science and Technology Innovation Board, there is a lot of public opinion about Lenovo. The most controversial point is the strong contrast between the high remuneration of Lenovo Group executives and the lack of scientific

and technological innovation strength. In 2020, the remuneration of executives in Lenovo was more than RMB 1.18 billion, of which Yang Yuanqing, CEO of Lenovo, was up to RMB 170 million. However, the proportion of R&D investment was only 3% by 2020, which is far from the average level of the Science and Technology Innovation Board. Huawei, also a famous technology company in China, launched the "gifted youth" project to attract top talents with top challenges and top salaries. Meanwhile, Huawei provides platforms and resources to support talented young people to tackle world-class issues, and provides more than five times the standard remuneration, with the maximum annual remuneration of RMB 2.01 million. Those behaviors greatly boost the output of innovation. Take the number of invention patents granted in 2020 as an example, Huawei ranks first in China with 6393 patents. The high remuneration of Lenovo and Huawei is thought-provoking. What kind of remuneration policy can better stimulate enterprise innovation?

From the perspective of ordinary employees, they will feel that Lenovo executives are incompatible to receive high salaries, but Huawei geniuses are deserved to receive high salaries. The essence of the above phenomena is to discuss the remuneration fairness. With the process of increasing the social income gap, the increase of enterprise remuneration gap is particularly obvious (Chen et al., 2021). In particular, the excessive growth of executive remuneration is an important reason for the increase of social income gap (Saez, 2003). This research focuses on what kind of remuneration gap will make people feel unfair and what is the impact of remuneration fairness on enterprise innovation. However, the study on the consequences of the remuneration gap did not reach a consensus conclusion. There are two different theoretical supporters in the academic regarding this issue, namely tournament theory and equity theory. Tournament theory was proposed by Lazear and Rosen in 1981. It is a theory of incentive mechanism in the principal-agent relationship which is based on the comparison of individual relative performance. Researchers supporting tournament theory (Lazear & Rosen, 1979) believe that remuneration gap can promote enterprise innovation. (Shen & Zhang, 2018) found that the large remuneration gap between management and employees is a necessary condition to promote enterprise innovation. Equity theory was proposed by Adams in 1963. Equity theory indicates that individuals estimate the ratio of what has been contributed (i.e., inputs) to what has been received (i.e., outcomes) for both themselves and a chosen referent other. Researchers supporting equity theory (Adams, 1963) believe that the remuneration gap will cause individual unfair psychological perception, reduce their work enthusiasm, and then hinder enterprise innovation. (Custódio et al., 2019) found that the remuneration gap between senior executives and employees hinders enterprise innovation.

In a word, when discussing impact of remuneration gap on enterprise innovation, the above researchers ignored a more essential problem, namely the rationality of the remuneration gap. Therefore, the first place to study the impact of remuneration gap on enterprise innovation is to distinguish between reasonable remuneration gap and unreasonable remuneration gap. Traditional culture has profoundly affected people's sense of fairness, and the socialist market economy system has also put forward requirements for common prosperity. This research calculates the unreasonable part of the remuneration gap by building a remuneration model, and studies the impact of remuneration fairness on enterprise innovation.

1.3 Objective of the Study

This research discusses whether and how remuneration fairness will affect state-owned enterprise innovation from internal and external perspectives. This research redefines the remuneration fairness in enterprises, and discuss whether and how remuneration fairness will affect innovation based on the characteristics of innovation activities. The research objectives of this research mainly include the following four aspects:

1. To discuss that how does the remuneration gap among executives in different companies affects innovation in state-owned enterprises.
2. To discuss that how does the remuneration gap among employees in different companies affects innovation in state-owned enterprises.
3. To discuss that how does the remuneration gap between executive and employee in same companies affects innovation in state-owned enterprises.
4. To discuss that how does the rationality of remuneration distribution within the company affects innovation in state-owned enterprises.

1.4 Research Significance

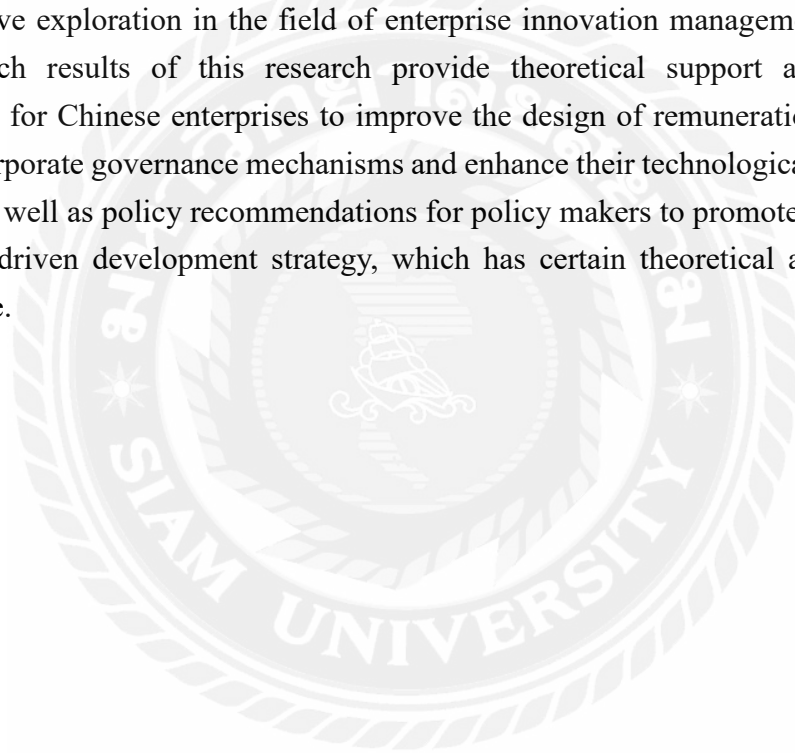
From a theoretical point of view, this research has made contributions to relevant research on the innovation activities of state-owned enterprises. At present, researches on the influencing factors of innovation include macro, meso and micro aspects. Although it is a research hotspot to discuss the impact of corporate governance mechanism on innovation, there are different opinions. Based on previous literatures, this paper explores the role of incentive mechanism in innovation from the perspective of remuneration fairness. Meanwhile, it also injects new ideas and motivation for further related research of innovation and decision-making in this field.

From a practical point of view, this research has a certain practical significance for the design of corporate remuneration policy at the micro level and the formulation of national policies at the macro level. Nowadays, China is vigorously promoting the "innovation-driven development strategy". How to attract and retain high-quality talents and stimulate their innovation motivation to the maximum extent has become an

urgent task. In this case, this research explores the impact of remuneration fairness on enterprise innovation, provides suggestions for state-owned enterprises on how to balance the relationship between external remuneration fairness and internal remuneration fairness, internal remuneration distribution equity and internal remuneration process equity. Meanwhile, it also has an extremely important practical guidance role in encouraging executives and employees to actively participate in innovation activities.

1.5 Scope of the Research

In the context of innovation-driven development strategy and the concept of common prosperity in China, this research studies the issue of improving the innovation level of enterprises from the perspective of remuneration fairness, in an attempt to make an innovative exploration in the field of enterprise innovation management research. The research results of this research provide theoretical support and concrete suggestions for Chinese enterprises to improve the design of remuneration contracts, improve corporate governance mechanisms and enhance their technological innovation strength, as well as policy recommendations for policy makers to promote the national innovation-driven development strategy, which has certain theoretical and practical significance.



Chapter 2 Literature Review

2.1 Introduction

First of all, by reviewing the existing literatures on innovation influencing factors, this chapter summarizes the incentive effect of remuneration contracts on innovation. In addition, by comparing monetary remuneration with comprehensive remuneration, and static remuneration with dynamic remuneration, this chapter suggests that more attention should be paid to the perception of remuneration fairness and remuneration stickiness. Finally, by reviewing relevant research on the impact of remuneration fairness on enterprise innovation, this chapter summarizes the areas that may be overlooked in existing research and proposes possible improvement methods, providing a basis and ideas for the theoretical analysis in the next chapter.

2.2 Literature Reviews

2.2.1 Research on the influencing factors of enterprise innovation

According to existing research results, the factors that affect enterprise innovation can be divided into three levels: macro, meso, and micro. At the macro level, there are mostly policy related factors, such as The Belt and Road (Huang, 2016), tax policy (Chen, 2021), innovation incentive policies (Xia, 2020) and so on. At the mesoscopic level, there are mostly regional and industry related factors, such as news coverage (Dai, 2015), official promotion (Bhattacharya, 2017). At the micro level, that is, the internal factors of the enterprise, most studies have explored the impact of innovation from this perspective, such as knowledge management (Duan, 2021), Financing Decision (Acharya, 2017).

The research on the influencing factors of enterprise innovation is mostly limited to the traditional economic framework. As the core of modern enterprise system, corporate governance mechanism plays a role in promoting and protecting technological innovation (Knight, 1997). In terms of incentive mechanisms, current research mainly focuses on executive motivation. The most common incentive method is remuneration incentive. Some scholars have directly studied the innovative incentive effect of monetary remuneration for senior executives, and found that monetary remuneration can improve management's investment in innovative activities (Cheng, 2004). In terms of equity incentive, many studies have recognized its positive impact on innovation, believing that equity incentive can achieve profit sharing and risk sharing between shareholders and managers, thereby alleviating agency problems and improving management's motivation for innovation (Hadlock, 2010).

Remuneration incentive is the most common incentive method. The relationship between remuneration and innovation is a hot issue in corporate governance research,

and it is also a controversial issue. There are many factors that affect enterprise innovation, and this article focuses on remuneration factors, hoping to further explore what kind of remuneration design is conducive to innovation.

2.2.2 Research on remuneration fairness

The remuneration gap can be used to measure the horizontal difference in income between people working in the same job, the vertical difference in income between people working in different jobs, or the overall difference in income among all members of an organization.

The academic community has not yet formed a unified research conclusion on the causes of the internal remuneration gap. There are two representative views. One is that the internal remuneration gap is the result of an optimal contract, and the client establishes a remuneration contract with the optimal remuneration gap to reduce agency costs (Lee et al., 2008). From the angle of entering into a contract, the remuneration gap stems from the bargaining power of remuneration recipients, and the differences in bargaining power of different roles determine their remuneration differences (Faleye et al., 2013). Another view is that the remuneration gap within an enterprise is itself a reflection of agency issues and an incentive imbalance caused by excessive control by management (Bebchuk et al., 2002).

Remuneration gap is an important content of remuneration fairness research. The smaller the unreasonable remuneration gap, the higher the remuneration fairness, and the more conducive to enterprise innovation. In state-owned enterprises, remuneration fairness refers to the psychological perception and subjective judgment of employees on whether the enterprise's remuneration management is fair or not after comparing various aspects of their labor benefits with expectations. Enterprise employees' perception of remuneration fairness has a strong incentive effect.

2.2.3 Research on the impact of remuneration fairness on enterprise innovation

Research on remuneration management has increasingly focused on the impact of perceived remuneration fairness (Montani et al., 2017; Crawford et al., 2021). In existing research, there are fewer studies that directly focus on remuneration fairness, and more often, they focus on the remuneration gap between two groups. There are also many literatures regarding the remuneration gap in enterprises as a hidden incentive for job promotion, namely, tournament incentive (Haß et al., 2017). On the whole, there is less literature on the impact of remuneration gaps on innovation. Here, a unified review of the impact of remuneration gaps, tournament incentives, or remuneration fairness on enterprise innovation is provided.

(1) Research on supporting tournament theory

In the research on the impact of internal remuneration gaps on innovation, there are some research conclusions that support the tournament theory. Kini and Williams (2012) found that the remuneration gap between executives within a company can

enhance innovation output. Shen and Zhang (2018) found that tournament incentives within the executive team promote the efficiency of enterprise innovation. Zhong et al. (2022) found that the vertical remuneration gap between senior management teams is positively correlated with enterprise innovation output.

(2) Research on supporting equity theory

Other studies support the equity theory. Sheikh (2012) found that CEO remuneration below the median of peer remuneration can hinder enterprise innovation. Chen et al. (2017) found that remuneration fairness has a strong incentive effect on enterprise employees. It is believed that executives will actively engage in innovation activities only when their remuneration is no lower than those of external companies.

Although there are some researches on enterprise innovation by considering remuneration management, organizational justice and so on, it is still open to discussion.

1. Some existing researches on enterprise innovation generally focus on remuneration of executives rather than remuneration of employees.

In the existing researches, enterprise innovation is usually attributed to the correct leadership of the executives, but often neglects the contribution of employees. Although compared with executives, ordinary employees play a smaller role in strategic decision-making and are difficult to directly participate in innovation decision-making process, they have made a major contribution to the implementation of the strategy (Huang et al., 2019). The current researches on the relationship between remuneration policy and enterprise innovation generally pay attention to the remuneration gap of executives (Litina et al., 2021), and the impact on employee remuneration is relatively ignored. Therefore, this research will explore the relationship between remuneration fairness and enterprise innovation from the perspective of executives and employees.

2. Some existing researches often lack consideration of the source of remuneration or remuneration gap.

In the research of remuneration management, it is often completely different for enterprise innovation whether it is static remuneration or dynamic remuneration, single remuneration or comprehensive remuneration, or various forms of remuneration gap (Biggerstaff et al., 2019). Without considering various determinants of enterprise remuneration, it is difficult for researchers to distinguish remuneration fairness from the remuneration gap when verifying tournament theory or equity theory (Trevor et al., 2012).

In order to analysis the remuneration gap, it is necessary to distinguish between reasonable and unreasonable remuneration gaps (Kong et al., 2021). The remuneration gap that leads to the psychological unfairness of executives or employees is more likely to be a remuneration gap that cannot be explained by economic factors. This remuneration gap is often seen as the result of enterprise governance loopholes (Francis et al., 2019). Therefore, we can make a certain distinction between the concepts of

remuneration gap, tournament incentive and remuneration fairness. Based on the tournament theory, the incentive effect of reasonable remuneration gap is studied (Kong et al., 2022). Based on the equity theory, the negative impact of unreasonable remuneration gap is studied, and the research object is remuneration fairness.

In a word, this research discusses the impact of remuneration fairness on enterprise innovation, using an unreasonable remuneration gap to represent remuneration fairness in the reverse direction. The smaller the unreasonable remuneration gap, the higher the remuneration fairness, and the more conducive to enterprise innovation; However, a reasonable remuneration gap, regardless of its size, belongs to the category of remuneration fairness. The larger the reasonable remuneration gap, the greater the championship incentive, and the more conducive to innovation, which determines the basic relationship between remuneration distribution fairness and innovation.

2.3 Theoretical Basis

This research studies the impact of remuneration fairness on enterprise innovation. Essentially, the theoretical basis for this research discusses the incentive problem in enterprises, which may include the philosophy and psychology of human nature. In order to analyze the economic consequences of the remuneration gap, some theoretical methods are mainly exploited in this research.

2.3.1 Tournament theory

Tournament theory was proposed by Lazear and Rosen in 1981. It is a theory of incentive mechanism in the principal-agent relationship which is based on the comparison of individual relative performance. Tournament theory was originally used to study the incentive effect of internal competition and internal remuneration gap (Huang et al., 2019; Yin, 2017). After that, Coles et al. (2018) extended the application scope of the tournament theory to the outside of the enterprise, and believed that the incentive of the industry tournament could effectively improve corporate performance. Ma et al. (2019) found that CEO remuneration gap within a region can improve corporate performance.

2.3.2 Equity theory

Equity theory was proposed by Adams in 1963. Equity theory indicates that individuals estimate the ratio of what has been contributed (i.e., inputs) to what has been received (i.e., outcomes) for both themselves and a chosen referent other. Many studies have found that individuals do not always pursue the maximization of their own interests, and there are many prosocial behaviors which can improve corporate performance (Cardador, 2015; Stallen & Sanfey, 2013). Chen et al. (2017) found that remuneration fairness has a strong incentive effect on enterprise employees.

2.4 Conceptual Framework

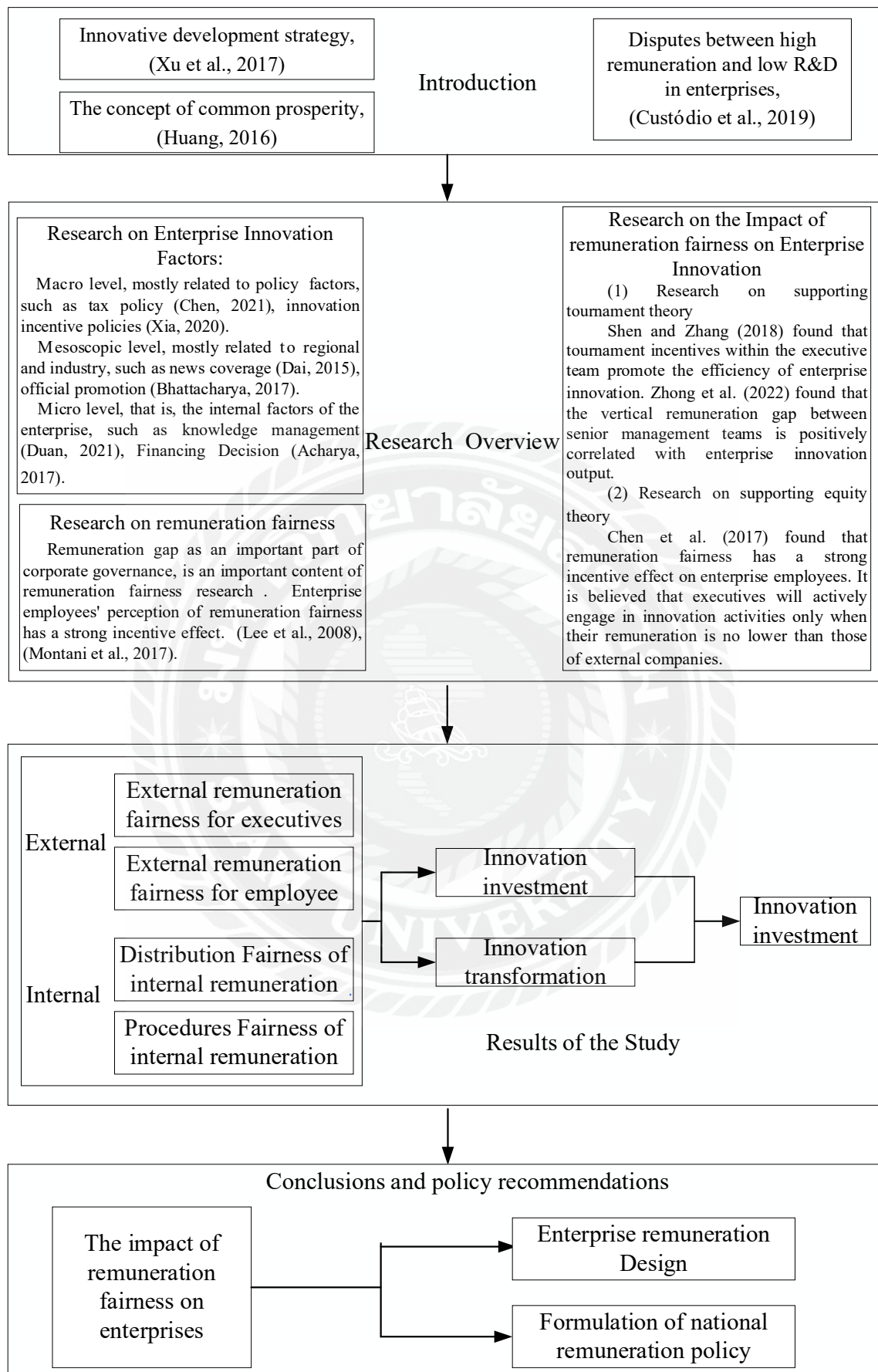
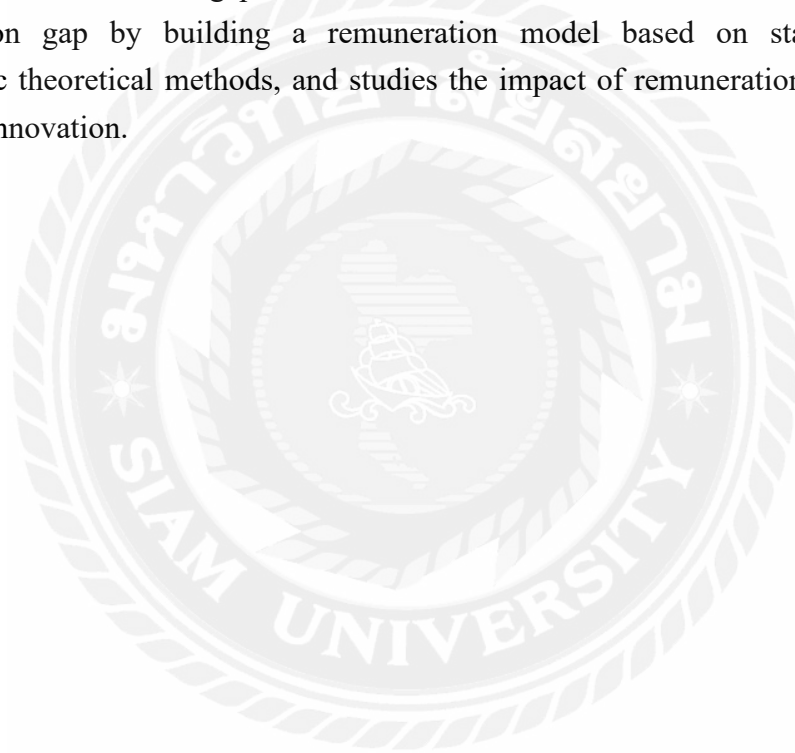


Fig 2.1 Research Framework

On one hand, researchers supporting tournament theory believe that remuneration gap can promote enterprise innovation. (Shen & Zhang, 2018) found that the large remuneration gap between management and employees is a necessary condition to promote enterprise innovation. On the other hand, researchers supporting equity theory believe that the remuneration gap will reduce employees work enthusiasm, and then hinder enterprise innovation. (Custódio et al., 2019) found that the remuneration gap between senior executives and employees hinders enterprise innovation.

However, when discussing impact of remuneration gap on enterprise innovation, the above researchers ignored a more essential problem, namely the rationality of the remuneration gap. Therefore, the first place to study the impact of remuneration gap on enterprise innovation is to distinguish between reasonable remuneration gap and unreasonable remuneration gap. This research calculates the unreasonable part of the remuneration gap by building a remuneration model based on statistical and econometric theoretical methods, and studies the impact of remuneration fairness on enterprise innovation.



Chapter 3 Research Methodology

3.1 Introduction

This research adopts quantitative research methods. As described in above, this research studies the impact of remuneration fairness on state-owned enterprise innovation. However, researchers supporting tournament theory believe that remuneration gap can promote enterprise innovation while researchers supporting equity theory believe that the remuneration gap will reduce employees work enthusiasm, and then hinder enterprise innovation. In fact, it is important to distinguish between reasonable remuneration gap and unreasonable remuneration gap when discussing impact of remuneration gap on enterprise innovation. Therefore, this research calculates the unreasonable part of the remuneration gap by building a remuneration model based on statistical and econometric theoretical methods, and studies the impact of remuneration fairness on enterprise innovation.

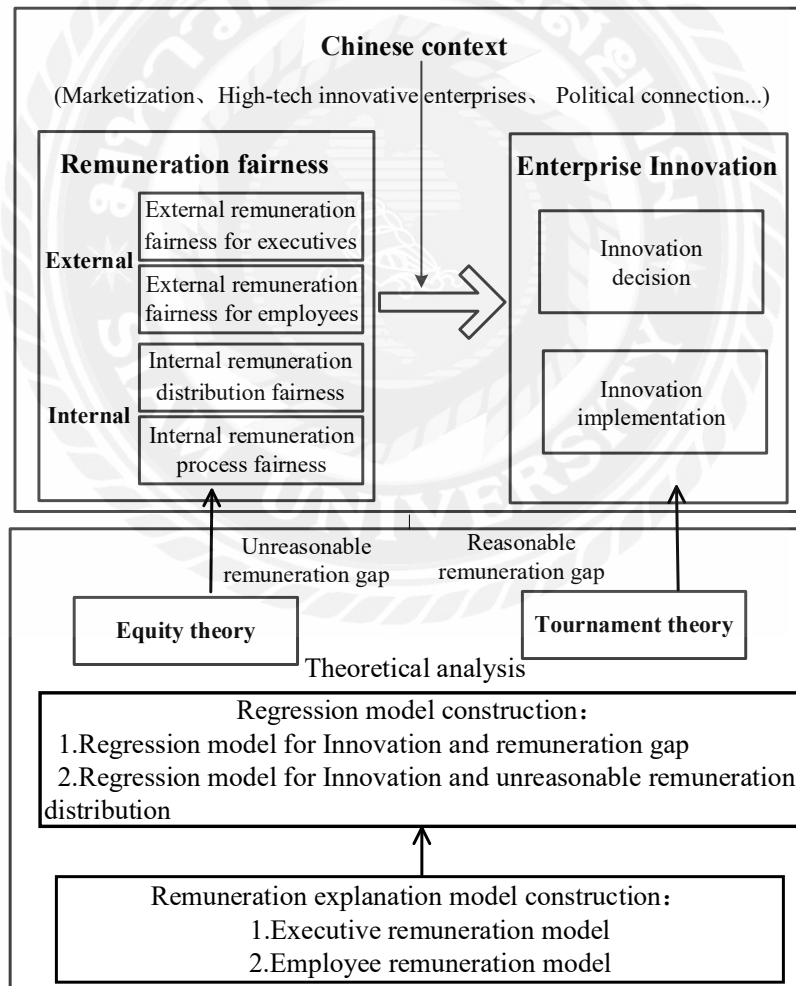


Figure 3.1 Model used as a guideline for this chapter

3.2 Research Design

In order to estimate the impact of remuneration fairness on enterprise innovation, as is shown in Fig. 3.1, this research based on statistical and econometric theoretical methods firstly structures the remuneration explanation, such as executive remuneration model as is shown in formula 3.1 and employee remuneration model as is shown in formula 3.2, to estimate the gap of executives and employees; Further, the regression model, as is shown in formula 3.3, are built to analyze the impact of remuneration fairness on enterprise innovation. Specially, according to the related research supporting tournament theory and equity theory, remuneration fairness can be divided into following four aspects: external remuneration fairness for executives, external remuneration fairness for employees, internal remuneration distribution fairness, and internal remuneration process fairness respectively. Therefore, our hypothesis analyzes the impact of remuneration fairness on enterprise innovation from the above four aspects.

3.2 Hypotheses

From the above analysis, remuneration fairness of executives and employees is the key factor in enterprise innovation activities. This research discusses enterprise innovation activities from four aspects: external remuneration fairness of executives, external remuneration fairness of employees, internal remuneration distribution fairness, and internal remuneration process fairness. Meanwhile, our hypotheses are as follows:

H1: The remuneration gap among executives in different companies is positively related to enterprise innovation.

Remuneration fairness of executives is a key factor affecting their work attitude, which will have a greater impact on business decisions (Lee et al., 2019). The perception of fairness by executives directly affects the level of effort and risk tendency. In particular, the perception of external remuneration fairness comes from the remuneration comparison with other enterprise executives (Zeng et al., 2022). If the remuneration of executives is lower than the external reference point, the psychological perception of unfair remuneration will reduce their work enthusiasm, leading to executives' negative behaviors such as slacking off and avoiding risks (Mas, 2006). Therefore, we assume that external remuneration fairness of executives is positively related to enterprise innovation.

H2: The remuneration gap among employees in different companies is positively related to enterprise innovation.

In terms of remuneration, perception of fairness by employees often comes from the comparison with others. Unreasonable external remuneration gap will make employees feel unfair. When employees feel that the remuneration is unfair, they will have negative emotions, which will lead to negative work attitudes and negative behaviors. Remuneration fair can make employees feel recognized and respected by the

organization, thus establishing a sense of belonging to the enterprise. Employees are willing to work hard for the long-term development of the enterprise, and improving their innovation enthusiasm. Therefore, we assume that external remuneration fairness of employees is positively related to enterprise innovation.

H3: The remuneration gap between executive and employee in same companies is positively related to enterprise innovation.

In brief, unreasonable remuneration gap will not only weaken innovation motivation of employees, but also destroy teamwork between employees (Crawford et al., 2021). In the context of China, people generally attach great importance to remuneration fairness, and the internal remuneration distribution fairness measured by the internal remuneration gap will have an impact on innovation motivation of employees. Therefore, we assume that internal remuneration distribution fairness is positively related to enterprise innovation.

H4: The rationality of remuneration distribution within the company is positively related to enterprise innovation.

Through the theoretical analysis in the above chapter, we believe that the tournament theory and fairness theory are both reasonable, and the remuneration gap has both positive and negative effects on psychology of employees. On one hand, the gap of remuneration stickiness within state-owned enterprises is precisely caused by unfair remuneration distribution procedure. If there is such a relationship atmosphere within the enterprise, employees often succumb to authority and lack the courage to innovate (Kong et al., 2020).

3.3 Remuneration explanation model

To verify the proposed hypotheses, remuneration explanation model and regression model are exploited to construct the above factors. Meanwhile, a sample of A-share listed companies in China from 2010-2019 is used to show the results. As the impact of COVID-19 on state-owned enterprises in 2020 is relatively complex, it is not suitable to directly compare with the financial data of other years, so the sample observation time is up to 2019. In order to avoid the interference of extreme outliers, this research uses Winsorize processing for observations with continuous variables smaller than 1% quantile and larger than 99% quantile.

From the analysis of remuneration fairness in Chapter 2, it can be made clear that the judgment of employees on their own remuneration fairness lies in the result of comparing them with those with higher salaries, that is, the remuneration gap with similar positions in other state-owned enterprises. In the compensation gap, it is necessary to distinguish between the parts that can be explained by economic factors and the parts that cannot be explained by economic factors. Starting from this idea, it is first necessary to establish a compensation interpretation model.

3.3.1 Executive remuneration model:

According to the viewpoints of optimal contract theory and management power theory (Banker et al., 2016), the main influencing factors of executive remuneration include company performance, company characteristics, company management mechanism, executive personal characteristics, and industry characteristics. Especially, company performance can be measured by return on equity (ROE); company characteristics can be expressed by enterprise size (Size), establishment age (EAge), leverage ratio (Lev) and Nature of property right (such as State-Owned Enterprise, SOE); company management mechanism can be measured by share concentration (Shr1), dual role of the board chairman (Dual), management stock-holding (MShld), the ratio of independent directors (InDir), board of directors size (Dir); executive personal characteristics can be expressed by age of executives (CEOAge), educational background of executives (CEOEdu), overseas background of executives (CEOOvs), tenure of office (CEOTenure); industry characteristics can be distinguished by industry code. Therefore, executive remuneration (CEOPay) can be defined as:

$$CEOPay_{i,t} = a_0 + a_1ROE_{i,t} + a_2Size_{i,t} + a_3EAge_{i,t} + a_4Lev_{i,t} + a_5SOE_{i,t} + a_6Shr1_{i,t} + a_7Dual_{i,t} + a_8MShld_{i,t} + a_9InDir_{i,t} + a_{10}Dir_{i,t} + a_{11}CEOAge_{i,t} + a_{12}CEOEdu_{i,t} + a_{13}CEOOvs_{i,t} + a_{14}CEOTenure_{i,t} + \varepsilon \quad (3.1)$$

The meaning and calculation method of each variable are shown in Table 3.1.

Table 3.1 The meaning and description of each variable for executive remuneration model

Variable name	Meaning of variable	Variable Description
CEOPay	executive annual remuneration	The natural logarithm of executive annual remuneration
ROE	Return on equity	the percentage of net profit and average net assets
Size	Enterprise size	The natural logarithm of the total assets of the enterprise
EAge	Establishment age	Natural logarithm of the enterprise's establishment years
Lev	Leverage ratio	Ratio of total liabilities to total assets at the end of the period
SOE	State owned enterprise or not	If the enterprise is state-owned, take 1; otherwise, take 0
Shr1	Share concentration	Proportion of shares held by the largest shareholder in total share capital

Dual	dual role of the board chairman	duality of chairman and general manager is 1, otherwise, 0
MShld	Management stock-holding	Proportion of shareholding of senior executives in total share capital of the Company
InDir	the ratio of independent directors	Proportion of the number of independent directors in the number of directors
Dir	Board of directors size	Natural logarithm of the number of directors
CEOAge	Age of executives	Natural logarithm of CEO's age this year
CEOEdu	educational background of executives	CEO education: 1 is technical secondary school, 2 is junior college, 3 is undergraduate, 4 is master degree and 5 is doctoral degree
CEOOvs	overseas background of executives	CEO education: 1 is technical secondary school, 2 is junior college, 3 is undergraduate, 4 is master's degree and 5 is doctoral degree
CEOTenure	tenure of office	With overseas study or work experience, 1; otherwise, 0
Industry code	Industry code	1 is belongs to this industry, otherwise, 0

The descriptive statistical results of variables related to the executive remuneration model are shown in Table 3.2, including the mean value, minimum value, maximum value, etc. According to the annual observation values of the sample state-owned enterprises, the annual remuneration of CEOs of each enterprise varies greatly, with a median of 535000 yuan, with a maximum of nearly 5 million yuan; The CEO's age span is large, with an average of 49 years old, the smallest being 24 years old, and the largest being 75 years old; The average CEO tenure is approximately 28 months, with a maximum of 159 months; The median educational background of CEOs is 4, which means they generally have a graduate degree or above.

Table 3.2 Descriptive statistics of executive remuneration model

Variable name	Observed value	Mean value	Minimum value	Maximum value
CEOpay	18282	13.29	11.56	15.42
ROE	18282	0.08	-0.51	0.35

Size	18282	22.02	19.86	26.07
EAge	18282	2.71	1.39	3.43
Lev	18282	0.40	0.05	0.87
SOE	18282	0.32	0	1
Shr1	18282	0.35	0.09	0,75
Dual	18282	0.32	0	1
MShld	18282	0.16	0	0.7
InDir	18282	0.37	0.33	0.57
Dir	18282	2.13	1.61	2.71
CEOAge	18282	3.88	3.22	4.39
CEOEdu	18282	3.48	1	5
CEOOvs	18282	0.05	0	1
CEOTenure	18282	1.31	0	2.67

3.3.2 Employee remuneration model:

Employee remuneration model: Compared with executive remuneration, there are few literatures on influencing factors of employee remuneration. From the average remuneration of ordinary employees in the enterprise, the main influencing factors of employee remuneration include industry factor, company factor, department factor and personal factor (Ethan, 2020). Especially, similar to executive remuneration, the company factor can be measured by return on equity (ROE); company characteristics can be expressed by enterprise size (Size), establishment age (EAge), leverage ratio (Lev) and Nature of property right (such as State-Owned Enterprise, SOE); department factor can be measured by proportion of production personnel (EmpP), proportion of market personnel (EmpM), proportion of technical personnel (EmpT), proportion of financial personnel (EmpF), personal factor can be expressed by educational background, such as Percentage of employees with bachelor's degree (EmpEduB) and percentage of employees with postgraduate degree (EmpEduG); industry characteristics can be distinguished by industry code. Therefore, employee remuneration (Epay) can be defined as:

$$E\text{Pay}_{i,t} = a_0 + a_1\text{ROE}_{i,t} + a_2\text{Size}_{i,t} + a_3\text{EAge}_{i,t} + a_4\text{Lev}_{i,t} + a_5\text{SOE}_{i,t} + a_6\text{EmpP}_{i,t} + a_7\text{EmpM}_{i,t} + a_8\text{EmpT}_{i,t} + a_9\text{EmpF}_{i,t} + a_{10}\text{EmpEduB}_{i,t} + a_{11}\text{EmpEduG}_{i,t} + \varepsilon \quad (3.2)$$

The meaning and calculation method of each variable are shown in Table 3.3.

Table 3.3 The meaning and description of each variable for employee remuneration model

Variable name	Meaning of variable	Variable Description
Epay	employee annual remuneration	The natural logarithm of employee annual remuneration

ROE	Return on equity	the percentage of net profit and average net assets
Size	Enterprise size	The natural logarithm of the total assets of the enterprise
EAge	Establishment age	Natural logarithm of the enterprise's establishment years
Lev	Leverage ratio	Ratio of total liabilities to total assets at the end of the period
SOE	State owned enterprise or not	If the enterprise is state-owned, take 1; otherwise, take 0
EmpP	proportion of production personnel	proportion of production personnel
EmpM	proportion of market personnel	proportion of market personnel
EmpT	proportion of technical personnel	proportion of technical personnel
EmpF	proportion of financial personnel	proportion of financial personnel
EmpEduB	Percentage of employees with bachelor's degree	Percentage of employees with bachelor's degree
EmpEduG	percentage of employees with postgraduate degree	percentage of employees with postgraduate degree
Industry code	Industry code	1 is belongs to this industry, otherwise, 0

The descriptive statistical results of variables related to the employee remuneration model are shown in Table 3.4, including the mean value, minimum value, maximum value, etc. From the sample observations processed by Winsorize, the median annual average remuneration of employees in state-owned enterprises is about 100000 yuan, with a maximum of 590000 yuan; The average proportion of employees with a bachelor's degree is 21%, and the average proportion of employees with a graduate degree or above is 3%; Overall, the proportion of production and procurement personnel in an enterprise is the highest, with an average of 45%, and the average of technical and R&D personnel is about 20%.

Table 3.4 Descriptive statistics of employee remuneration model

Variable name	Observed value	Mean value	Minimum value	Maximum value
---------------	----------------	------------	---------------	---------------

Epay	18282	11.52	10.36	13.03
ROE	18282	0.08	-0.51	0.35
Size	18282	22.02	19.86	26.07
EAge	18282	2.71	1.39	3.43
Lev	18282	0.40	0.05	0.87
SOE	18282	0.32	0	1
EmpP	18282	0.45	0	0.88
EmpM	18282	0.11	0	0.65
EmpT	18282	0.2	0	0.83
EmpF	18282	0.02	0	0.13
EmpEduB	18282	0.21	0	0.75
EmpEduG	18282	0.03	0	0.3

3.4 Regression model and variable definition

3.4.1 Regression model for Innovation and remuneration gap.

Based on the above analysis, in order to further verify the relationship between remuneration fairness and enterprise innovation, this paper constructs the following basic regression model based on the work (Reeb & Zhao, 2022):

$$Innovation_{i,t} = a_0 + a_j Paygap_{i,t}^j + a_k \sum Controls_{i,t}^k + \varepsilon_{i,t} \quad (3.3)$$

$Innovation_{i,t}$ is the explained variable which represents innovation output of enterprise i in year t . In order to reflect a higher level of innovation output, we choose the number of invention patent applications as a substitute indicator of innovation output.

$Paygap_{i,t}^j$ is the explaining variable which indicates the reasonable remuneration gap, which can be included as remuneration gap between executives and employees in internal enterprises, remuneration gap between executives of different state-owned enterprises and remuneration gap between employees of different state-owned enterprises. In particular, the reasonable compensation gap between executives and employees is measured by the ratio of the exp function value of the fitting value of the executive compensation model to the exp function value of the fitting value of the employee compensation model

Taking the remuneration gap between executives and employees in internal enterprises as an example, based on the work Kini and Williams (2012), the $Paygap_{i,t}^{ceo-e}$ can be expressed by

$$Paygap_{i,t}^{ceo-e} = \ln(CEOPay_{i,t} - EPay_{i,t}) \quad (3.4)$$

$Controls_{i,t}^k$ is the control variable which denotes other influencing factors. According to the work Reeb and Zhao (2021), $Controls_{i,t}^k$ can be expressed as Innovation input, basic information of enterprises, corporate governance and industries.

Innovation input is measured by the level of resources invested in innovation activities, and the alternative indicator is the proportion of R&D spend (RDSPd) And R&D personnel (RDPsn); Basic information of state-owned enterprises be expressed by enterprise size (Size), leverage ratio (Lev), return on equity (ROE), developmental potential (Growth) and so on; company management can be measured by share concentration (Shr1), dual role of the board chairman (Dual), the ratio of independent directors (InDir), and board of directors size (Dir). The definitions of variables involved in the model are shown in Table 3.5.

Table 3.5 The meaning and description of each variable for reasonable remuneration gap and enterprise innovation

Variable name	Meaning of variable	Variable Description
$Innovation_{i,t}$	Innovation output	The natural logarithm of number of patents
$Paygap_{i,t}^{ceo-e}$	The reasonable remuneration gap between executives and employees	The natural logarithm of remuneration gap between executives and employees
ROE	Return on equity	the percentage of net profit and average net assets
Size	Enterprise size	The natural logarithm of the total assets of the enterprise
EAge	Establishment age	Natural logarithm of the enterprise's establishment years
Lev	Leverage ratio	Ratio of total liabilities to total assets at the end of the period
SOE	State owned enterprise or not	If the enterprise is state-owned, take 1; otherwise, take 0

The median annual application for invention patents by sample enterprises is 3.6 After processing, we obtained unbalanced panel data for 3081 listed companies for 10 years, with a total of 18093 observations. The descriptive statistical results are shown in the table 3.6.

Table 3.6 Descriptive statistics of reasonable remuneration gap

Variable name	Observed value	Mean value	Minimum value	Maximum value
$Innovation_{i,t}$	18093	1.79	0	5.91
$Paygap_{i,t}^{ceo-e}$	18093	6.07	3.09	10.70
ROE	18093	0.08	-0.51	0.35

Size	18093	22.02	19.86	26.07
EAge	18093	2.71	1.39	3.43
Lev	18093	0.40	0.05	0.87
SOE	18093	0.32	0	1

3.4.2 Regression model for Innovation and unreasonable remuneration distribution.

We can calculate the model fitting value of employee and executive remuneration through variable regression coefficient according Eq(3.1) and Eq(3.2). Therefore, we can define the unreasonable remuneration distribution as the difference between true value and fitted value, namely residual error. The larger the residual is, the more unfair the distribution process is. To observe the impact of unreasonable remuneration gap on innovation, this paper constructs the following basic regression model.

$$Innovation_{i,t} = a_0 + a_j unpay_{i,t}^j + a_k \sum Controls_{i,t}^k + \varepsilon_{i,t} \quad (3.5)$$

$unpay_{i,t}^j$ is the unreasonable remuneration gap. The unreasonable compensation gap between executives and employees is calculated by subtracting the actual compensation gap between executives and employees from the internal reasonable compensation gap. The compensation gap between executives and employees is measured by the average salary of CEO and non-executive employees. The definitions of variables involved in the model are shown in Table 3.7.

Table 3.7 The meaning and description of each variable for unreasonable remuneration gap and enterprise innovation

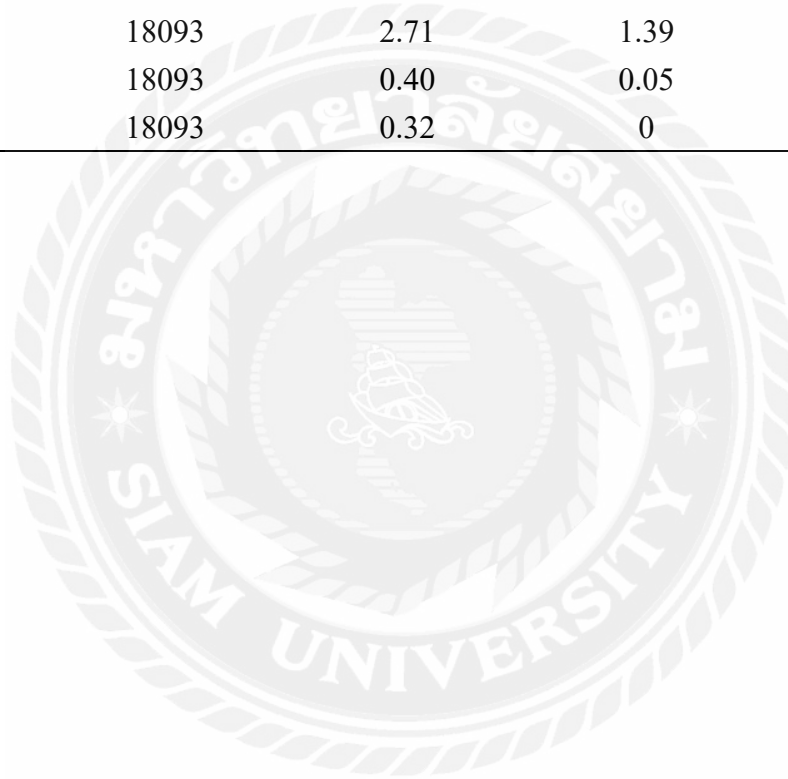
Variable name	Meaning of variable	Variable Description
$Innovation_{i,t}$	Innovation output	The natural logarithm of number of patents
$unpay_{i,t}^j$	The unreasonable remuneration gap between executives and employees	The natural logarithm of unremuneration gap between executives and employees
ROE	Return on equity	the percentage of net profit and average net assets
Size	Enterprise size	The natural logarithm of the total assets of the enterprise
EAge	Establishment age	Natural logarithm of the enterprise's establishment years
Lev	Leverage ratio	Ratio of total liabilities to total assets at the end of the period

SOE State owned enterprise If the enterprise is state-owned, take
or not 1; otherwise, take 0

The descriptive statistical results are shown in the table 3.8.

Table 3.8 Descriptive statistics of unreasonable remuneration gap

Variable name	Observed value	Mean value	Minimum value	Maximum value
<i>Innovation_{i,t}</i>	18093	1.79	0	5.91
<i>unpay_{i,t}^j</i>	18093	1.38	-5.07	18.00
ROE	18093	0.08	-0.51	0.35
Size	18093	22.02	19.86	26.07
EAge	18093	2.71	1.39	3.43
Lev	18093	0.40	0.05	0.87
SOE	18093	0.32	0	1



Chapter 4 Results of the Study

4.1 Introduction

To verify the proposed hypotheses, remuneration explanation model and regression model are exploited to construct the above factors. Meanwhile, a sample of A-share listed companies in China from 2010-2019 is used to show the results. After processing, we obtained the 10-year unbalanced panel data of 3081 listed companies, with a total of 18068 observations. Enterprise basic information and financial data are from China Stock Market & Accounting Research Database (CSMAR). Data related to patents and R&D are from Chinese Research Data Services (CNRDS).

4.2 Description of statistical variables

As is shown in Fig. 4.1, executive and employee remuneration has steadily increased between 2010 and 2019, but the remuneration gap between executive and employee is also increasing, which means that the internal remuneration gap is expanding. In addition, as is shown in Fig. 4.2, the standard deviation of executive remuneration has shown an upward trend from 2010 to 2019, while the standard deviation of average employee remuneration has grown very slowly. It means the difference in executive remuneration between state-owned enterprises has increased year by year. Meanwhile, the growth rate of employee remuneration between state-owned enterprises is relatively stable.

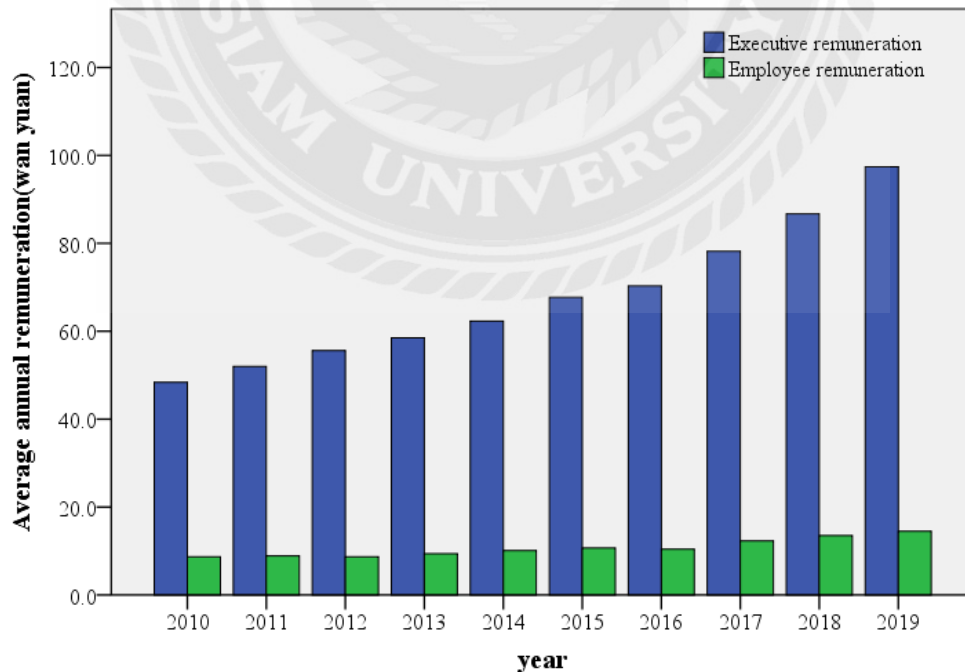


Figure 4.1 Annual remuneration of executives and employees in 2010-2019

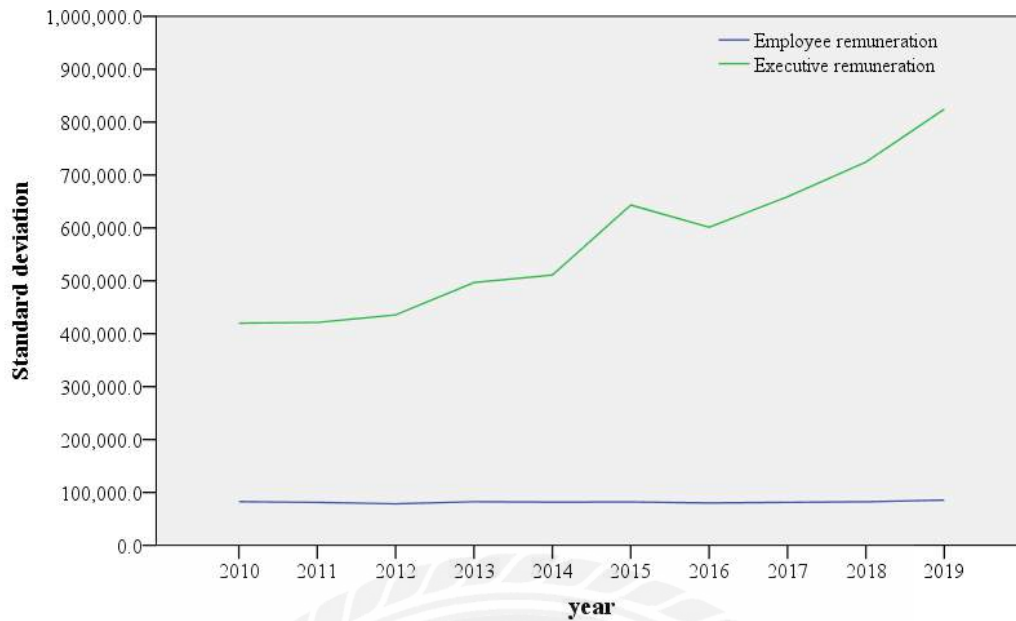


Figure 4.2 Standard deviation of executive and employee remuneration in 2010-2019

To avoid the influence of extreme values, 1% and 99% quantiles of all continuous variables are winsorized here. Table 4.1, 4.2, 4.3 reports the descriptive statistical results of innovation and remuneration gap between executives of state-owned different enterprises, remuneration gap between employees of different enterprises and remuneration gap between executives and employees in internal state-owned enterprises, respectively.

Table 4.1 The descriptive statistical results of innovation and remuneration gap between executives of different state-owned enterprises

Variable name	Observations	Mean	Standard deviation	Median	Minimum value	Maximum value
$Innovation_{i,t}$	18068	1.79	1.43	1.70	0	5.91
$Paygap_{i,j,t}^{ceo-ceo}$	18068	0.56	0.37	0.57	0	1.37

Table 4.2 The descriptive statistical results of innovation and remuneration gap between employees of different state-owned enterprises

Variable name	Observations	Mean	Standard deviation	Median	Minimum value	Maximum value
$Innovation_{i,t}$	18068	1.79	1.43	1.70	0	5.91
$Paygap_{i,j,t}^{e-e}$	18068	0.42	0.27	0.42	0	1.02

Table 4.3 The descriptive statistical results of innovation and remuneration gap between executives and employees in internal state-owned enterprises

Variable name	Observations	Mean	Standard deviation	Median	Minimum value	Maximum value
$Innovation_{i,t}$	18068	1.79	1.43	1.70	0	5.91
$Paygap_{i,t}^{ceo-e}$	18068	6.07	1.49	5.96	3.09	10.70

4.3 Regression results for reasonable remuneration gap

Since the explained variable innovation has more than 10% zero value, Tobit model is used for regression, and the regression results are shown in Table 4.4,4.5,4.6. In particular, Innovation (1) is the empirical results without control variable and Innovation (2) is the empirical results with control variable.

Table 4.4 The regression results of innovation and remuneration gap between executives of different state-owned enterprises

	Innovation (1)	Innovation (2)
$Paygap_{i,t}^{ceo-ceo}$	0.164 (3.72)	0.237 (4.70)

As is shown in Table 4.4, the larger the remuneration gap of executives is, the better the innovation performance of enterprises is. Therefore, the external fairness of executives' remuneration is positively related to the innovation output of enterprises, which verifies the hypothesis H1.

Table 4.5 The regression results of innovation and remuneration gap between employees of different state-owned enterprises

	Innovation (1)	Innovation (2)
$Paygap_{i,t}^{e-e}$	0.190 (3.69)	0.103 (1.72)

As is shown in Table 4.5, the larger the remuneration gap of employees is, the better the innovation performance of enterprises is. Therefore, the external fairness of employees' remuneration is positively related to the innovation output of enterprises, which verifies the hypothesis H2.

Table 4.6 The regression results of innovation and remuneration gap between executives and employees in internal enterprises.

	Innovation (1)	Innovation (2)
$Paygap_{i,t}^{ceo-e}$	0.072 (5.23)	0.345 (7.79)

As is shown in Table 4.6, the larger the remuneration gap of executives is, the better the innovation performance of enterprises is. Therefore, the internal fairness of executives and employees' remuneration is positively related to the innovation output of enterprises, which verifies the hypothesis H3.

4.4 Regression results for unreasonable remuneration gap

Table 4.7 and 4.8 reports the descriptive statistical and regression results of innovation and unreasonable remuneration distribution of executives and employees.

Table 4.7 The descriptive statistical of innovation and unreasonable remuneration distribution of executives and employees

Variable name	Observations	Mean	Standard deviation	Median	Minimum value	Maximum value
$Innovation_{i,t}$	18068	1.79	1.43	1.70	0	5.91
$unpay_{i,t}^{ceo}$	18068	1.24	0.81	1.26	0	3.08
$unpay_{i,t}^e$	18068	0.82	0.55	0.8	0	2.19

Table 4.8 The regression statistical of innovation and unreasonable remuneration distribution of executives and employees.

	Innovation (1)	Innovation (2)
$unpay_{i,t}^{ceo}$	-0.013 (-1.79)	-0.056 (-2.96)
$unpay_{i,t}^e$	-0.102 (-4.37)	-0.079 (-2.91)

As is shown in Table 4.8, the larger the unreasonable remuneration gap between employees and executives is, the worse the innovation performance of enterprises is. Therefore, the fairness of remuneration distribution between employees and executives is positively related to the innovation output of enterprises, which verifies the hypothesis H4.

4.5 Results

In summary, empirical research based on the above results found that:

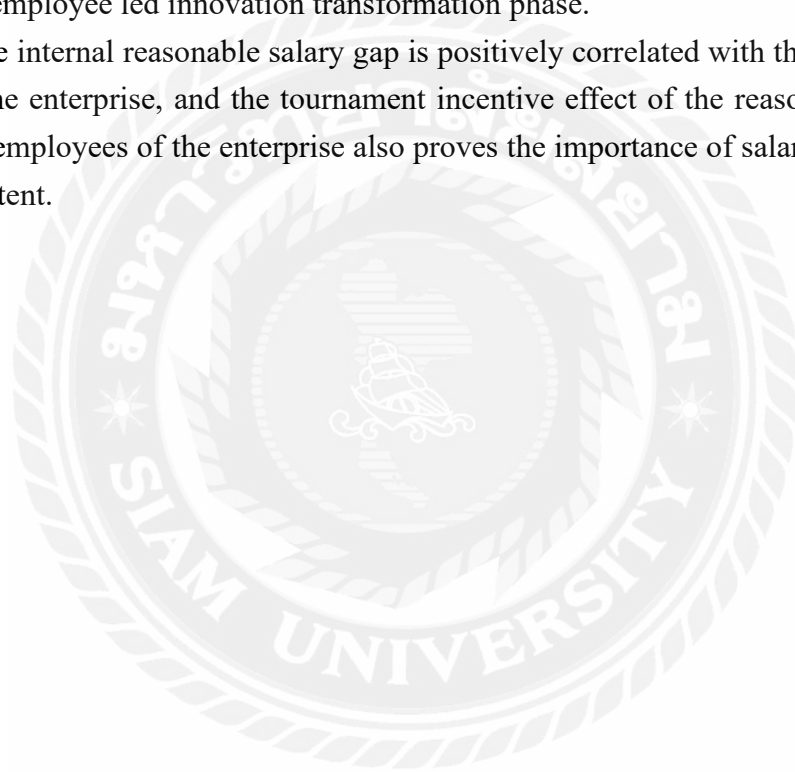
(1) The fairness of external remuneration for senior executives positively affects innovation output. Unreasonable external remuneration gaps for senior executives will hinder enterprise innovation, while reasonable external remuneration gaps will promote enterprise innovation. In this relationship, innovation investment plays a mediating role, that is, executives' perception of external remuneration fairness will affect their

innovation motivation, which is reflected in the investment in innovation activities and the enthusiasm of research and development personnel.

(2) Employee external remuneration fairness positively affects innovation output. Unreasonable employee external remuneration gaps can hinder enterprise innovation, while reasonable remuneration gaps can promote enterprise innovation. In this relationship, innovation efficiency plays a mediating role, that is, employees' perception of external remuneration fairness affects their innovation motivation, which is reflected in the utilization of resources invested in innovation.

(3) Internal unreasonable remuneration gaps are negatively correlated with enterprise innovation, demonstrating the catalytic effect of internal remuneration equity on enterprise innovation, which affects innovation output through innovation efficiency during the employee led innovation transformation phase.

(4) The internal reasonable salary gap is positively correlated with the innovation output of the enterprise, and the tournament incentive effect of the reasonable salary gap on the employees of the enterprise also proves the importance of salary fairness to a certain extent.



Chapter 5 Conclusion and Recommendation

5.1 Introduction

In this research chapter, the research relates the finding to the literature identified in the early chapters. Finally, provide the conclusion of the research and state the conclusion

5.2 Conclusion

China's economic development has shifted from giving priority to equality to giving priority to efficiency and considering fairness, and has now shifted to pay more attention to social fairness. Remuneration fairness at the enterprise level is an important component of initial distribution fairness and the implementation of the concept of common prosperity in state-owned enterprises. On the other hand, the national innovation driven development strategy and the need for enterprises to obtain sustainable competitive advantages have put forward higher requirements for the level of enterprise innovation. Is there a contradiction between enterprise remuneration equity and innovative development? This study provides an answer that reasonable design of remuneration gaps can promote enterprise innovation through remuneration equity.

This research discusses the impact of remuneration fairness on enterprise innovation, using an unreasonable remuneration gap to represent remuneration fairness in the reverse direction. The smaller the unreasonable remuneration gap, the higher the s remuneration fairness, and the more conducive to enterprise innovation; However, a reasonable remuneration gap, regardless of its size, belongs to the category of remuneration fairness. The larger the reasonable remuneration gap, the greater the championship incentive, and the more conducive to innovation, which determines the basic relationship between remuneration distribution fairness and innovation. The main research conclusions are as follows:

(1) External remuneration fairness for executives is good for enterprise innovation

Individuals have a perception of external remuneration fairness through remuneration comparisons with personnel in similar positions in other state-owned enterprises. External remuneration gaps that are unrelated to economic factors such as industry prospects, company performance, and personal abilities will lead to a sense of unfairness and trigger negative reactions. Unreasonable external remuneration gaps for executives or employees hinder innovation, while reasonable external remuneration gaps for executives or employees promote innovation. In other words, external remuneration fairness for executives and external remuneration fairness for employees

can promote enterprise innovation. Moreover, because executive's remuneration more attention to the external remuneration gap, the impact of external remuneration fairness on innovation is also more evident.

(2) External remuneration fairness for employees is good for enterprise innovation

Enterprise innovation can be divided into two stages: innovation decision-making and innovation implementation, in which executives and employees play a leading role. The perception of external remuneration equity by executives or employees can affect their innovation motivation, which is reflected in the investment in innovation activities and the enthusiasm of R&D personnel during the innovation decision-making stage. Therefore, executive remuneration equity mainly affects innovation output through innovation investment; The motivation of employees to innovate is reflected in the efficiency of transforming the innovation resources invested during the implementation stage of innovation, so employee remuneration equity mainly affects innovation output through innovation efficiency. Further research has found that the impact of external remuneration equity on enterprise innovation is more evident in private enterprises, enterprises with low equity concentration, and enterprises with high executive reputation.

(3) The fairness of internal remuneration distribution in enterprises is beneficial to innovation.

The internal remuneration fairness of an enterprise is mainly reflected in the remuneration differences between senior executives and ordinary employees. According to the fairness of the results and process of remuneration distribution, it can be divided into internal remuneration distribution fairness and internal remuneration process fairness. Internal remuneration distribution fairness promotes enterprise innovation, while internal unreasonable remuneration gaps hinder innovation, while internal reasonable remuneration gaps promote innovation. The fairness of internal remuneration distribution affects the innovation output of enterprises through employee led innovation efficiency during the innovation implementation stage. The impact of internal remuneration distribution fairness on enterprise innovation is greater in state-owned enterprises, enterprises with low equity concentration, and enterprises with high executive reputation. The remuneration limit order for senior executives in state-owned enterprises has reduced the unreasonable remuneration gap within enterprises, improved the fairness of internal remuneration distribution, and promoted enterprise innovation.

(4) The fairness of internal remuneration procedures is beneficial to innovation.

The fairness of internal remuneration procedures has an inhibitory effect on enterprise innovation. The sticky gap between executive and employee remuneration is related to employees' perception of fairness in the distribution process, which can reduce innovation efficiency; However, greater remuneration stickiness brings greater

decision-making tolerance to senior executives, encouraging them to increase innovation input. Overall, the internal remuneration stickiness gap has a promoting effect on enterprise innovation, that is, internal remuneration process fairness is not conducive to enterprise innovation. The impact of internal remuneration process fairness is more evident in state-owned enterprises or enterprises with high equity concentration.

5.3 Recommendation

This research studies the topic of enterprise innovation promotion, and demonstrates the innovation incentive role of enterprise remuneration equity. This research argues that there is a phenomenon that the unreasonable remuneration gap is too high in today's enterprises, and the psychological perception of unfair remuneration by executives or employees will hinder their innovative performance. By comparing the impact of different types of remuneration equity on innovation, we can provide specific ideas for enterprise remuneration design and innovative development. Therefore, this paper provides the following suggestions for enterprises.

(1) Pay attention to fair remuneration distribution and design reasonable remuneration gap that can stimulate innovation.

From the research conclusion, we can find that if we want to truly play the role of innovative incentive of the remuneration gap, we must pay attention to remuneration equity. The remuneration of enterprises should have external fairness, that is, the remuneration gap between senior executives or employees and other enterprises should be fair, reduce the unreasonable external remuneration gap, increase the reasonable remuneration gap moderately, and stimulate the innovation motivation of senior executives or employees. Enterprise remuneration should also have internal fairness. The remuneration gap between senior executives and employees should be a reasonable gap that can be explained by economic factors, and the unreasonable part should be reduced as far as possible. It is worth noting that this study's judgment on the rationality of remuneration gap is based on whether economic factors can be used to explain it, which is more suitable for statistical differentiation. For each specific enterprise, a scientific remuneration evaluation system should be established based on the characteristics of the industry, enterprise and individual, and various remuneration gaps should be judged as comprehensively, objectively and dynamically as possible to make the remuneration design reasonable and promote the innovative development of the enterprise.

(2) Improve corporate governance mechanism and create an internal environment conducive to innovation.

This research found that the nature of property rights, ownership concentration, corporate heterogeneity brought by executives' reputation, and politics. Informal

systems such as relevance and Confucian culture will have an impact on the innovative incentive effect of remuneration equity, which suggests that enterprises should further improve corporate governance mechanisms, give play to the supervisory role of the board of directors and shareholders, and expand the external governance role of executives' reputation and cultural atmosphere. The reasonable reform of the remuneration system and the construction of other corporate governance mechanisms complement each other. A favorable internal environment can make the remuneration fair produce a stronger innovation incentive effect. For state-owned enterprises, although the implementation of the executive remuneration restriction order has reduced the unreasonable income gap and has a certain role in promoting innovation and development, each enterprise needs to improve its governance ability and formulate the best remuneration contract according to the actual situation.

5.4 Further Study

This research studies the impact of remuneration equity on enterprise innovation, which belongs to the hot issue of the innovative incentive role of corporate governance mechanisms. However, this issue involves multiple levels and dimensions. Therefore, there are some limitations in this study, and it is also a problem that needs to be addressed in future research, mainly including:

(1) Remuneration equity. The discussion of remuneration fairness in this article only focuses on explicit monetary remuneration, ignoring other benefits or employee demands under the concept of comprehensive remuneration. If a comprehensive remuneration interpretation model can be constructed to consider the remuneration fairness of executives and employees from the perspective of comprehensive remuneration, it will inevitably lead to more comprehensive and accurate conclusions. In addition, the discussion of employee remuneration in this article is based on the average remuneration of ordinary employees, which is limited by data and ignores individual differences among employees. If we can obtain employee level remuneration and personal characteristics information through questionnaires, and establish employee personal remuneration models, it is undoubtedly an excellent supplement to this research.

(2) Enterprise innovation. This study is limited to the existing research methods for measuring enterprise innovation, using patent related indicators to calculate innovation output, which does not reflect the rich connotation of enterprise innovation and lacks attention to high-level innovation. Future research can focus on "stuck" key technological innovation, specifically studying the influencing factors of high-level innovation in various fields, and finding suitable alternative indicators to explore what incentive mechanisms can promote key technological innovation.

(3) Chinese context. As a complex systematic factor, Chinese context has a significant impact on corporate remuneration research or innovation research. However, the summary of Chinese context factors in this study is relatively shallow. The impact of situational factors with Chinese characteristics on innovation research needs to be further explored.



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