

# Research on the Impact of Performance Evaluation Cycle on the Relationship between Performance Pay Intensity and Employee Exploratory Innovation Behavior: A Conceptual Paper

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## Abstract

This paper proposes a conceptual model and states valid propositions to be tested by future researchers empirically. The model explicates the effects of performance pay intensity and performance evaluation cycle on employees' exploratory innovation behavior. Being a conceptual paper, it reviewed scholarly articles on the variables of the study in accordance with theoretical perspectives. In this paper, temporal motivation theory and cognitive evaluation theory are used to explain and support this conceptual model. This study will help companies to develop moderate performance pay intensity and performance evaluation cycles to maximize employees' exploratory innovative behaviors, which will help to improve the level of innovation across the enterprise.

**Keywords:** Exploratory Innovation, Performance Pay Intensity, Performance Evaluation Cycle, Temporal Motivation Theory.

## Introduction

Exploratory innovation is often used by leading firms to extend their competitive advantage and by latecomers to reverse the trend by making radical changes and disrupting the existing competitive landscape ( Alexander & Knippenberg, 2014). Unlike incremental innovation, which focuses on small changes or simple adjustments, exploratory innovation can lead to unconventional developments and have a significant impact on current management, theories, technologies, or markets due to significant departures from existing practices Tellis et al., (2009), it has even become an Archimedean lever to pry the industry landscape in a complex environment, but it also comes with high risks. According to some scholars Bers et

al (2014), the average cycle of exploratory innovations is usually more than 10 years, and the failure rate is as high as 90%. In the face of such a high level of uncertainty, it is challenging to motivate employees to engage in exploratory innovation engagement, which means that firms have to "persuade" employees to abandon their existing more certain and controllable solutions, and to instead spend a lot of time, energy and risk of failure to explore new and unknown solutions ( Shao et al., 2019). However, the high upfront investment and relatively low chance of success often discourage employees from doing so. The first question that arises is how can employees be motivated to abandon existing manageable programs and engage in more risky and unknown exploratory innovations?

From the conceptual connotation, performance pay is a kind of variable pay issued based on performance evaluation, which can inspire employees to complete their work tasks more actively, is an important measure to motivate employees, and is widely used by organizations for the compensation management of employees. Pay-for-performance bridges the gap between employee behavior, performance and pay, making the relationship between employee performance and rewards clear and unambiguous. Previous studies have argued that pay for performance, as the most important means of organizational motivation of employees in the context of social exchange, has a direct or indirect effect on employee behavior (Rynes & Gerhart, 2015). At present in China, the combination of performance pays, and basic pay has become the mainstream pay payment method in enterprises. However, up to now, there is a lack of complete theoretical research on the relationship between pay for performance and employees' exploratory innovative behavior, and it remains to be clarified by empirical research whether pay for performance encourages or inhibits employees' exploratory innovative behavior (Weibel et al., 2019). From the point of view of enterprise innovation practice, team is still the main carrier and driving force of scientific and technological innovation, therefore, the study of the relationship between pay for performance and exploratory innovation behavior of team members has strong theoretical and practical significance.

In response to the inconsistent conclusions drawn from previous studies on the relationship between performance pay and employee outcome variables, Rynes et al (2015) argue that employee attitudes and behavioral responses to performance pay may be moderated by certain situational factors. Under the pay-for-performance system, performance appraisal and pay-for-performance are granted on the basis of the time unit of the performance evaluation cycle; on the other hand, the completion of innovations, especially high-level innovations, usually requires sufficient time to be guaranteed. Therefore, the length of the performance evaluation cycle is directly related to the expected return on employees' investment in exploratory innovation (Liu & Wang, 2021). Accordingly, it can be predicted that the performance evaluation cycle is likely to influence the relationship between pay for performance and team members' exploratory innovation behavior.

In summary, this study mainly to investigate: the relationship between pay for performance and employees' exploratory innovative behavior, and whether the performance evaluation cycle has an impact on the relationship between pay for performance and employees' exploratory innovative behavior.

## **Literature Review**

### *Exploratory Innovation*

Christensen (1997); Chen (2002) suggest that exploratory innovation is innovation based on breakthrough technologies, and that it is a transformative innovation behavior that is not

dominated by the requirements of the mainstream consumer group for R&D and development.

Kelley (2009) states that exploratory innovation is a new technology that leads to the commercialization of a product, the key aspect of which is a breakthrough technological leap that produces a qualitative change; a new and better use of the product compared to the existing product.

Exploratory innovation is defined by Schumpeter (1934), the originator of exploratory innovation, as "long-term fluctuations in the process of technological change and creative destruction caused by new technologies and skills that create or redefine firms and existing markets", a definition that defines the fundamental characteristics of exploratory innovation. Dess & Besrd (1984); Fu & Zhang (2004) suggested that breakthrough innovations not only produce radical changes in product performance, but also tend to create huge problems for existing firms, which have a fatal impact on the market rules and industry patterns and may lead to a major reshuffle in the industry.

Zhang (2016) points out that exploratory innovation concentrates on developing new environmental opportunities, and at the same time, it will face various aspects such as technological development paths, market size, and industrial structure.

Chen (2018) believe that exploratory innovation is a model of innovation that enables a company to have a competitive advantage by breaking the production process of old technology and old products, and then discovering and researching and putting them into use.

To summarize, an exploratory innovation will radically change the technical performance of a product or the cost of production, and then develop a new product that is a quantum leap forward; most exploratory innovations are in risky or highly volatile markets, and may be in completely new markets that have not yet been explored; Additionally, the most obvious difference that can be drawn from the existence of exploratory innovation is that it is not a passive acceptance of an existing market, but rather the creation of an entirely new market for consumers to grow with (Zhang, 2016).

Based on these points, it is easy to see that the concept of exploratory innovation needs to be combined in these two areas: One is the challenge to conventional or traditional technology, including plummeting the operating costs required for production and stabilizing and optimizing the functionality of the product, which is in effect forcing enterprises that have not mastered advanced breakthrough technologies to voluntarily withdraw from the market (Chen, 2002). Worse, it is destroying an old industry by tapping a potential market for a product; the other is a breakthrough at the management level, so we give the concept of exploratory innovation: exploratory innovation is an innovative behavior that differs from the principles of past sciences and technologies and aims to create new markets and products, and to achieve an improvement in the market standard and competitive model after the optimization of the service, the product, and the technology.

### *Performance Pay Intensity*

Foreign research on performance pay can be traced back to the end of the 19th century "differential piece-rate wage system", that is, the employee's salary is measured in terms of performance, the amount of performance determines the amount of salary, which is often referred to as "more work, more pay". Later concepts such as performance pay, incentive pay, etc. emerged. According to Lawler (1990), performance pay is a compensation package in

which the organization measures an individual's results per unit of production and pays the individual in a pre-agreed manner.

Scholars such as Oliver (1995) state that performance pay is a type of pay award that links compensation to performance in terms of an employee's job performance. Through this mechanism, companies motivate their employees to pay more attention to their performance so that they can improve their work. Witter & Zulfiqur (2011) studied that performance pay is the salary or other material incentives paid by the organization for its own performance goals.

Domestic research on pay for performance started late, and the following scholars have studied pay for performance. According to Zeng (2008), performance pay (PFP) is a mode of salary payment based on the employee's performance at work, which refers to the organization's rewards to the employee when he or she completes a certain performance task of the enterprise, achieves a certain innovative value, or makes a profit within a certain period of time. Zhou (2004) argues that performance pay is the part of pay that can be flexibly varied, which is awarded on the basis of the employee's performance fulfillment.

We know from cognitive evaluation theory that external rewards have two properties: informational and controlling. Informativeness will satisfy personal competence, whereas controlling is the exact opposite of it, and it will impede self-determination. The type of attributes an external reward will exhibit depends on the perception of the reward by the person receiving it.

Scholars Zhang & Long (2013) argued that the magnitude of the intensity of pay-for-performance causes pay-for-performance to exhibit different properties. They argue that when pay for performance is too high or too low, employees will see pay for performance as a controlling message, so that employees' work commitment, creativity will be reduced. And when pay for performance is in a moderately suitable situation, employees have a high degree of self-determination and moderate pressure to perform, in which case they will see pay for performance as an informational cue, at which point their commitment and creativity will be enhanced.

After extensive reading of the literature on pay for performance as a dependent variable, we find that the outcome variables tend to focus on organizational citizenship behavior, job performance, task performance, and pay satisfaction. Therefore, this paper uses performance pay as the antecedent variable and focuses on how performance pay affects employees' exploratory innovation behavior.

### *Performance Evaluation Cycle*

The performance evaluation cycle is the time period between one performance evaluation and the next performance evaluation. Due to its ability to convey information to employees, such as how much time they have to organize workflows or how much time they have to make specific performance improvements, employees can use PAI to consider whether such self-improvement and organization can be achieved within a time frame (Tu & Soman, 2014). Specifically, employees decide on their degree of work proactivity based on the expected utility of their input, which they judge based on the dual tradeoff between the value of the rewards and the time since the appraisal (Wang & He, 2020). On the one hand, a longer performance evaluation cycle conveys organizational preference for long-term orientation and future-oriented practices, encouraging employees to focus on future returns. Thus, a long performance evaluation cycle can motivate employees' tendency toward *delayed gratification*, which is a cognitive tendency to disregard immediate but smaller benefits, and

choose delayed but larger benefits Liu & Wang (2021) that can be beneficial for motivating self-improvement, problem solving, and future-oriented behaviors (Lin et al., 2019).

Under the performance-based compensation system, performance evaluation and the distribution of performance-based compensation are based on the evaluation cycle as the time unit; On the other hand, the completion of innovative achievements, especially high-level innovation achievements, usually requires sufficient time to ensure. Therefore, the length of the performance evaluation cycle directly affects the expected return of employees' innovation investment. Based on this, it can be predicted that the performance evaluation cycle may affect the relationship between performance-based compensation and exploratory innovation behavior of team members.

## Theoretical Perspectives

### *Temporal Motivation Theory*

Temporal motivation theory views time as a determinant motivational factor. Beck & Schmidt (2013) propose that the expected utility of an action is determined by a combination of the following points:(a) The value of action-related outcomes;(b) The probability or expectation of realizing a valuable outcome;(c) Whether the outcome will occur in the near or distant future;(d) Whether the result is a gain or loss of a. In short, the expected utility of an action is the product of the expected value and worth of all gains from the action minus the expected value and worth of all losses from the action, where gains and losses occurring in the near future are more important than those occurring in the future (Tu & Soman, 2014). As can be seen from the following equation, this expected utility value is greater when the product of E and V increases or the product of  $\Gamma$  and D decreases; The smaller this expected utility value is when the product of E and V decreases or the product of  $\Gamma$  and D increases. The higher the expected utility of a behavior, the stronger its motivational tendency, which in turn affects the goal-directed presentation state (Elliot & Church, 1997).

$$Utility = \frac{EV}{\Gamma D} \quad \text{Eq. (1)}$$

In Eq. (1), E = Expected value. Indicates the probability (or expectation) of realizing a valuable outcome; V = Value. Indicates the value of the result associated with the action; D = time distance. Indicates that the result will occur in the near or distant future;  $\Gamma$  = discount rate. Often regarded as a fixed indicator.

As a performance-based weighted variable reward, pay for performance means that an employee must accomplish a specific task (performance goal) in a specific way (evaluation criteria) at a specific time (performance evaluation cycle) in order to be rewarded with a salary. The type of goal orientation that individuals will choose to achieve high performance in different performance evaluation cycles needs to be analyzed in relation to the time frame and its psychometric processes (Dang & Koedinger, 2020).

This theory states that: The individual's choice motivation is a process of comparing the gains and losses of behavior after time discounts and ultimately choosing the behavior with the highest utility (Tu & Soman, 2014). Under the performance-based compensation system, whether employees choose to utilize their existing abilities to realize benefits in the short term or to enhance their own abilities to obtain long-term development benefits will be influenced by the time span. And exploratory innovation behavior takes a long time to achieve, and the performance evaluation cycle is also time-dependent, Therefore, applying this theory to explain the moderating effect of performance evaluation cycles.

### Cognitive Evaluation Theory

Deci & Ryan (1985) proposed Cognitive Evaluation Theory (CET), also known as Self-Determination Theory. It refers to a person's perceptions and judgments of objective things and events, emphasizing the degree of self-determination of individual behavior. The theory suggests that an individual's particular activity is driven by either external or internal motivation. External motivation refers to the fact that an individual performs a certain behavior because the behavior can bring external results such as money or honor, and the action has a strong controlling character ;Internal motivation, on the other hand, refers to the fact that an individual performs a certain behavior because the behavior brings internal results such as a sense of accomplishment or satisfaction, and the action is highly informative (Suzanne et al., 2021).

According to cognitive evaluation theory, performance pay, as an external incentive, has informational and control properties. When pay incentives are interpreted by individuals as informational will facilitate innovative behavior, conversely, when pay incentives are interpreted by individuals as controlling they can undermine innovative behavior (Qiu & Su, 2020). Hence whether control attributes or information attributes predominate determines whether pay for performance promotes or inhibits innovative behavior. This theory is therefore applied to explain the relationship between pay-for-performance intensity and employees' exploratory innovative behavior.

### **Performance based Compensation and Exploratory Innovation**

Exploratory innovation can be traced back to Schumpeter (1910) talked about the idea of "creative destruction", it will create new features in the performance of the product ( process, service), so that the performance of the product has undergone a huge leap or the cost of the product has been significantly reduced, is a kind of technological disruptive innovation that can have a decisive impact on the market rules, the competitive situation of the industry and the industrial landscape. At the same time, given the finite nature of time and resources, the individual's psychometric measurement of the risk-benefit relationship is largely based on the principle of loss aversion rather than benefit maximization (Tversky & Kahneman, 1992), and thus whether an employee is oriented towards performance standards or creates autonomously beyond the task itself is not necessarily linearly related to the intensity of performance rewards, but rather to the process of rational reckoning of the relationship between the work inputs and the risks (Igalens & Rousel, 1999). Further, we can decipher the impact of performance rewards on employees' exploratory innovation based on the dual attributes of performance rewards (controlling Vs. informative) (Weibel et al., 2010) by delving into a deeper portrayal of employee psychometric processes.

Specifically, informativeness guides employees to spontaneously invest more time and effort in learning and developing skills by providing feedback on outcomes Eisenberger et al (1999), but there are risks to self-directed development; Controlling implies that employees must perform a specific task (assessment goal) in a specific way (assessment criterion) during a specific time period (assessment interval) in order to be rewarded accordingly, leading to the control of employees' autonomous motivation and inhibiting creativity Deckop et al (2004), but there is less risk of following a routine. The individual's psychometric process is the process of weighing the pros and cons of the respective informational and controlling benefit-risk relationships, and the result of the superposition of the two is the total effect of pay for performance on employees' exploratory innovative behavior (Weibel et al., 2010). According to the superposition principle of nonlinear causation proposed by Hanns et al.(2016), the

superposition of these two effects in opposite directions may lead to an (inverted) U-shaped nonlinear relationship between pay-for-performance and employees' exploratory innovation behavior. From the functional expression, the managerial implication of the (inverted) U-shaped relationship is that the independent variable regulates its own influence (Haans et al., 2016). Following the line of analysis of moderating effects, the intensity of pay-for-performance is discussed separately in the theoretical derivation in two scenarios: low ("low→medium") and high ("medium→high").

Low → Medium range. Within this interval, the value of the information that guides employees to focus on their tasks increases in tandem with the gradual increase in the intensity of pay-for-performance, while at the same time, employees are given a relatively wide latitude for free play. In the eyes of employees, it is a natural thing to highlight their unique position in the organization through their efforts to create Gerhart & Fang (2015), and using this as a point of reference, a loss-based psychological framework is formed. Specifically, an increase in intensity of effort means more opportunities for higher rewards, and a loss if those opportunities are lost because of an unwillingness to give. Based on the principle of loss aversion, individuals presenting a loss-oriented mental frame are more willing to avoid losses at the risk of paying what becomes sunk costs, and thus choose more positive cognitive inputs, oriented to the goal of self-improvement sophistication, and spontaneously explore, learn, and apply diversified skills and methods to solve problems. And the use of new methods to solve various challenges and problems encountered in the workplace is itself rich in intrinsic motivational value Merriman (2017), which helps to enhance employees' intrinsic motivation and thus promotes exploratory and innovative behavior.

Medium → High range. This range means that the proportion of risk reward is getting higher and higher, and above a certain threshold, the incentives are increased and at the same time intensify the psychological risk of the employees, who are forced to choose between "two birds in the forest" or "one bird in the hand" as they may face larger potential losses rather than rewards for focusing on creativity (Zhang et al., 2014). Based on the principle of loss aversion, the rational choice is to "take the good with the bad" - shifting from high-value creative activities with a high risk of failure to defensive activities ( Merriman & Deckop, 2007), which results in Individuals to shift from a task-fun driven, constantly self-refined mastery goal orientation ( mastery goal, getting better) to a performance goal orientation (performance goal, being good, see: Sommet & Elliot (2017) that focuses on external factors such as performance standards, compensation, and other factors, in order to steadily earn higher compensation, instead inhibiting employees' exploratory innovative behavior.

To summarize, as the intensity increases, the effect of pay for performance on employees' exploratory innovation shows a trend of "first up, then down", and the following hypothesis is proposed.

**Hypothesis 1:** There are significant effect of performance pay intensity on employees' exploratory innovation behavior.

### **The Moderating Effect of Performance Evaluation Cycle**

In response to the inconsistent conclusions drawn from previous studies on the relationship between performance pay and employee outcome variables, Rynes et al (2015) argue that employee attitudes and behavioral responses to performance pay may be moderated by certain situational factors. Under the pay-for-performance system, performance appraisals and pay-for-performance awards are based on the time unit of the performance evaluation cycle; On the other hand, the completion of innovations, especially high-level innovations,

usually requires sufficient time to ensure. Therefore, the length of the performance evaluation cycle is directly related to the expected return on employees' innovation investment. Accordingly, it can be predicted that the performance evaluation cycle period has the potential to influence the relationship between pay for performance and team members' exploratory innovation behavior (Schumpeter, 2018).

The term performance evaluation cycle refers to the time interval between 2 adjacent performance appraisals. The performance evaluation cycle tends to vary from firm to firm for different management principles and performance purposes. As mentioned earlier, while the two-sided nature of pay for performance leads to the expectation that the benefits of team members investing in high-level exploratory innovation do not increase significantly with the intensity of pay for performance, this may be different under different appraisal cycles (Li, 2018). Exploratory innovations, because of their ground-breaking and push-back nature, often require longer guaranteed periods of time. When the performance appraisal cycle is long, team members have enough time to devote to exploratory innovation actions, increasing the probability of success and the subsequent expected reward of their innovation actions, and therefore reducing their revenue risk. It can be hypothesized that the negative effect of performance pay on exploratory behavior is significantly reduced when the performance appraisal cycle is longer, and the relationship between performance pay and team members' exploratory behavior thus shows a positive correlation (Lin, 2019). Conversely, when the appraisal cycle is short, the risk of team members committing to exploratory innovations is greatly increased due to the lack of sufficient time guarantees, thus leading to an increase in their income risk. It can be hypothesized that when the performance appraisal cycle is short, the negative effect of performance pay on exploratory behavior is greatly increased, and the relationship between performance pay and employees' exploratory behavior thus shows a negative correlation.

**Hypothesis 2:** There are significant performance evaluation cycle as moderator between the relationship on performance pay intensity and employees' exploratory innovation behavior.

### Research Framework

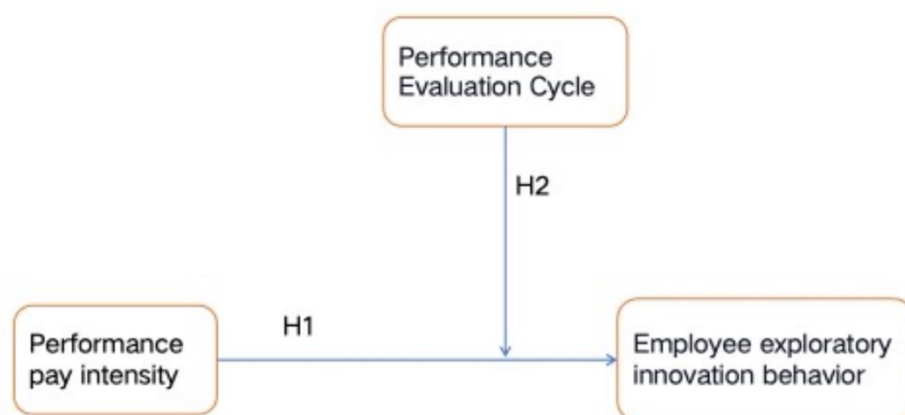


Figure 1: Conceptual Model

Figure 1 shows the conceptual model. Assumptions based on Temporal Motivation Theory and Cognitive Evaluation Theory, as well as early discussions of employees' exploratory and



innovative behaviors. This study proposes a conceptual model. In particular, Cognitive evaluation theory explains the inverted U-shaped relationship between pay-for-performance intensity and employee exploratory innovation, and temporal motivation theory explains the moderating effect of the performance appraisal cycle on the relationship between pay-for-performance intensity and employee exploratory innovation behavior.

### **Conclusion**

In this paper, we developed a model on the impact of performance pay intensity and performance evaluation cycle on employees' exploratory and innovative behavior, as shown in Figure 1. This paper concludes that with the increase of performance pay, the impact of performance compensation on employees' exploratory innovative behavior shows a trend of "first increase and then decrease"; it also verifies the moderating effect of the performance evaluation cycle on the relationship between the two, when the performance evaluation cycle is longer, the intensity of performance pay promotes the exploratory innovative behavior of the team members, and when the performance evaluation cycle is shorter, the intensity of performance pay inhibits the exploratory innovative behavior of the employees.

This paper proposes a framework supported by temporal motivation theory and cognitive evaluation theory to explore the mechanism of performance pay intensity on employees' exploratory innovative behaviors and the moderating effect of performance evaluation cycle on the relationship between the two, as well as to provide a reference for the management practice of the enterprise, which will help the enterprise to formulate the appropriate performance pay intensity and performance evaluation cycle to maximize the stimulation of employees' exploratory innovative behaviors, and will help to improve the innovation level of the whole enterprise.

### **Significance of the Study**

#### *Theoretical significance*

This contributes to enriching the research related to the intensity of performance-based pay and innovative behavior.

In past research on performance-based pay, scholars, both domestically and internationally, have primarily focused on the types and incentive characteristics of such compensation. However, there has been insufficient exploration regarding the intensity of performance-based pay. Moreover, despite decades of debate about the motivational effects of performance-based pay, a unanimous conclusion has not been reached. Some studies suggest that the more individuals perceive their performance reflected in their pay, the more satisfied they tend to be. Performance-based pay seems to be more motivating for employees who perceive themselves as benefiting from it, resulting in higher actual performance, and is considered a crucial means to enhance employee vigor (Gerhart, 2015). However, other research indicates a less optimistic relationship between the incentives of performance-based pay and actual performance. Compared to other factors influencing decisions about performance-based pay, its correlation with performance is relatively weak, diminishing cohesion and cooperative spirit among employees. Performance-based pay, as a form of monetary reward, might not serve as the primary determinant for work motivation, possibly exerting some motivating effect only on employees with relatively lower income.

However, in the aforementioned studies, references to performance-based pay generally pertain to the types of such compensation, with limited discussion on the intensity of performance-based pay. In recent years, as research has continuously expanded in breadth and depth, some scholars have begun focusing their studies on the intensity aspect of performance-based pay. Highlighted that the implementation of performance-based pay systems in organizations yielding diverse outcomes involves numerous factors, among which the intensity of performance-based pay (the proportion of an employee's pay that is tied to their performance) stands as a crucial factor. There are multiple reasons for the varied outcomes of implementing performance-based pay systems in enterprises, with the intensity of performance-based pay (the proportion of an employee's pay linked to their performance) being an indispensable factor. Current research on "performance-based pay intensity" mainly delves into its connotation, measurement, and outcome variables. However, compared to extensive studies on the content of pay incentives, research in this area is still in its early stages, with many issues yet to be resolved. The traditional perspective suggests that performance-based pay can enhance employees' sense of self-determination, elevate their enthusiasm for work, and boost a company's productivity. Yet, as research delves deeper, an increasing number of scholars are discovering that performance-based pay is a double-edged sword (Du, 2009).

The analysis of influential factors on a crucial employee behavior—innovation behavior—primarily focuses on individual aspects of employees, and varying conclusions have been drawn by scholars regarding the impact of performance-based pay intensity. Performance-based pay intensity possesses the attribute of guiding expected behavior and is presumed to induce innovative behavior through structured rewards. Some studies criticize the external reward of performance-based pay, indicating that predetermined or excessive monetary rewards may offset or shift individuals' intrinsic motivation, hindering innovative behavior (Deci & Ryan, 2004). Zhang & Long (2013), while examining the relationship between performance-based pay and innovative behavior, found no significant correlation between performance-based pay intensity and team members' exploratory innovative behavior but observed a significant positive correlation between performance-based pay intensity and team utilitarian innovative behavior. Thus, what is the actual impact of performance-based pay intensity on employees' exploratory innovation? This study further analyzes the influence of performance-based pay intensity on the exploratory innovation behavior of enterprise R&D personnel based on prior research, enriching relevant theoretical studies.

Through empirical research, identifying the moderating effect of performance evaluation periods on the relationship between performance-based pay intensity and employees' exploratory innovation behavior.

The intensity of performance-based pay serves as an economic incentive for employees. However, is stronger performance-based pay intensity always better? This paper argues that the relationship between performance-based pay intensity and employees' exploratory innovation behavior is moderated by the performance evaluation period. The performance evaluation period refers to the time interval between two consecutive performance assessments. Different companies often have varying performance evaluation periods based on distinct management principles and performance objectives. In this context, if performance-based pay has the potential to enhance employees' exploratory innovation

behavior, a shorter performance evaluation period might render performance-based pay more as pressure than motivation. Particularly, the completion of high-level innovative outcomes often requires sufficient time. Therefore, the duration of the performance evaluation period directly impacts the anticipated returns on employees' investment in exploratory innovation.

### *Practical Significance*

Over the past few decades, amidst the pursuit of high-efficiency production and rapid development, incentive systems centered on performance-based pay and evaluations have become effective management models for many enterprises. Consequently, more and more companies have adopted performance-based pay systems, escalating the intensity of performance-based pay. Companies like Ping An Insurance Company of China, driven by mechanisms of competition, incentives, and elimination, have evolved into industry giants through the implementation of performance-based pay systems. These systems involve differential salary increases and promotion schemes for employees based on their performance levels, transforming Ping An Insurance from a small-scale enterprise of only 13 employees into a domestic insurance industry powerhouse.

However, recent studies and practices have raised growing concerns about the effectiveness of increasingly intense performance-based pay. Research by Zhou Peng (2012) revealed significant dissatisfaction among Sony's research and development staff regarding the company's performance-based pay system, which subsequently impacted employee innovation. Additionally, the consecutive losses from 2007 to 2011 further validated the negative impact of rigid and simplistic salary incentive systems on the innovative thinking and work behaviors of enterprise research and development personnel. With the advent of the new economic era, inspiring the creativity and innovation behaviors of research and development staff has become a pressing issue.

Consequently, delving into the relationship between performance-based pay intensity and the exploratory innovation behavior of research and development personnel, while exploring the moderating effect of the performance evaluation period, provides crucial theoretical guidance for enterprise managers in process management, personnel selection, and leveraging the role of performance-based pay intensity in promoting employees' exploratory innovation behaviors.

Exploring the impact of the performance evaluation period on the relationship between performance-based pay intensity and employees' exploratory innovation behavior aims to provide various organizations with a basis for determining appropriate performance evaluation periods and performance-based pay intensity. In practical business scenarios, the magnitude of performance-based pay intensity influences employee performance. On one hand, excessively high performance-based pay intensity coupled with short evaluation periods may pose higher income risks for employees, thereby stifling their enthusiasm for innovation. On the other hand, overly low performance-based pay intensity might result in an equal distribution of rewards among employees, potentially affecting their work enthusiasm. Therefore, balancing the positive and negative motivational effects of performance-based pay intensity and the evaluation period is a critical consideration for compensation designers. This study, by deeply analyzing the influence of performance-based pay intensity on

employees' exploratory innovation behavior and the moderating effect of the performance evaluation period, aims to provide guidance for organizations in designing reasonable performance-based pay intensity and evaluation periods.

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