

Research on Incentive Mechanism of Enterprise Personnel's Self-Determined Salary

Lingyu Ji

College of Economics and Management, Shenyang Ligong University, Shenyang, 110159, China

Keywords: Self-Determined Salary, Compensation Function, SDT, Psychological Coefficient, Implementation Pattern.

Abstract: Salary mechanism is the core issue of enterprise distribution system, and it is also important content of enterprise economic goal realization and management decision. The salary incentive mechanism of the traditional enterprise personnel comes completely from the unified work performance evaluation system, which is a kind of incentive behaviour of the management decision-makers. The research holds that the incentive mechanism of compensation which is conducive to the economic development and management optimization of enterprises should be the common incentive behaviour of enterprise decision-makers and employees. Based on self-determination theory (SDT), this paper proposes an incentive mechanism for self-determined salary, establishes a mathematical model of this salary mechanism, and points out the quantitative characteristics of the relationship between self-determined target salary and enterprise plan target salary. According to the three psychological needs of SDT, this paper describes the autonomy, competence and relationship of enterprise personnel salary, and on this basis, puts forward the basic hypothesis of running the autonomous salary incentive mechanism.

1 INTRODUCTION

Salary incentive mechanism is the driving force to ensure the efficient operation and development of enterprise economy and management. With the application of humanized management and self-organization mode in personnel performance evaluation, many enterprises choose the salary incentive mechanism that conforms to their own characteristics, the purpose of which is to seek to maximize the work efficiency of enterprise personnel and promote the economic growth and sustainable development of enterprises.

In recent years, many scholars have explored how to establish the salary incentive mechanism of enterprise personnel by combining qualitative and quantitative methods from the aspects of economic analysis, management psychology and modern enterprise system construction, and obtained valuable research results in theory and practice (Cao Lin, 2017; Ge Zhimin, 2016; Goya, 2015).

The main starting point of the research on the salary incentive mechanism of enterprise personnel is to improve the defects existing in the salary distribution, its purpose is to restrain the unfair phenomenon and the "false report" behaviour, and

form an objective, reasonable and scientific salary distribution method. For example, the main defects of salary distribution in the degree of individual effort are not fine division of responsibilities, decoupling of responsibility from economic interests, unreasonable relationship between contribution and income and so on (Tian Yanjun, 2023).

These defects will lead to the failure to truly reflect the level of individual effort, and to improve the level of individual effort cannot really get the corresponding salary. Enterprise managers cannot get the actual performance goals of employees, and thus cannot mobilize the maximum efficiency of enterprise personnel.

Indeed, people-oriented is the management thinking of modern enterprises, the key issue is how to realize people-oriented, how to reflect the salary incentive mechanism people-oriented, so as to achieve the optimization of enterprise management, to achieve the maximum economic benefits, is the enterprise decision makers face the problem to be solved. Self-determined salary incentive mechanism can solve this problem. The basic idea of the incentive mechanism is to motivate employees to determine the achievable and acceptable target salary according to their own working ability and

salary expectation, and take it as the main parameter of salary. At the same time, the compensation amount is weighted according to the deviation between the actual result and the target salary. The application of this method has a strong incentive effect, that is, when the two factors of directional incentive and clear constraint coexist, the enterprise personnel are guided to choose the target parameter value with full effort and maximum psychological expectation. Specifically, it is to encourage employees to try their best to set a higher goal, rather than a low goal.

In fact, the self-determined salary incentive mechanism (SDSIM) comes from the self-determination theory (SDT), which was proposed by American scholars Deci and Ryan (1985). SDT discusses the motivation of individual work from the perspective of basic needs theory and cognitive evaluation theory, involving three psychological needs of individual effort, namely autonomy, competence and relationship (Ryan & Deci, 2017).

In recent years, SDT has been widely used in the fields of human behaviour analysis, business management and social psychology, especially in business management, and has also introduced three psychological elements into specific human behaviour management. However, the existing researches are only reflected in the level of concept description and meaning analysis, and there is a lack of research results using SDT to solve specific problems. For example, some researchers believe that SDT should be applied to the design of enterprise personnel compensation incentive mechanism. However, how to apply it in actual research and what effects can be achieved are not involved in the existing literature. This leads to the motivation of this study, and to the problem of enterprise personnel salary incentive, combined with the three psychological elements of DST for exploratory research.

The purpose of this paper is to apply SDT to the incentive compensation mechanism of enterprises, improve the original incentive compensation model from the perspective of reflecting the three psychological needs of enterprise personnel, and establish a new incentive compensation mechanism, namely, autonomous incentive countermeasure model. This strategy model has sufficient exploratory incentive mechanism, which can not only solve the defects in salary distribution, but also find the working potential and independent motivation of enterprise personnel, which is an effective way to optimize enterprise management. In addition, the main research method of this paper is

the combination of mathematical modelling and information analysis.

The basic composition of the research content of this paper is as follows: In section 2, based on the original enterprise personnel salary distribution model, a self-determined salary incentive strategy model is established, and its basic significance and function are analyzed. Section 3 analyzes the operation of autonomous compensation incentive mechanism according to SDT. Section 4 gives the research conclusion and the research approach of future research.

2 THE COUNTERMEASURE MODEL OF AUTONOMOUS COMPENSATION INCENTIVE

In the usual incentive countermeasures, the following salary calculation methods are adopted (He Ping, 1989):

$$B = kQ_a \quad (1)$$

Where Q is the employee performance target (workload) set by the enterprise, k is the salary ratio coefficient determined to according to the nature of the post, B is the function of Q, called the salary function, and it is the salary value (salary number) obtained by the enterprise personnel. According to the research, formula (1) as a salary distribution model is a salary incentive mechanism dominated by enterprise decision makers, and all employees in the enterprise should complete the performance objectives set by their posts according to this salary distribution model.

The biggest defect of this salary distribution model is that the performance target set fails to reflect the actual work ability of employees. Some employees in the same position may be able to complete the work without much effort, feel that they have no use, and are not satisfied with the salary. Others feel that performance targets are set too high and they are not satisfied with the salary they get for their efforts. Although enterprise decision makers believe that reasonable design of salary coefficient can play an incentive role. However, due to the information asymmetry between enterprises and employees in terms of work motivation, ability and demand, the performance goal set by decision makers is not the ideal goal to maximize the efficiency of employees.

The above analysis shows that the main reason for the defects of the existing salary incentive

mechanism is that the so-called salary incentive mechanism only determines the salary distribution through the completion of the workload, which comes from the incentive thinking and salary consciousness of the enterprise management decision-makers themselves. No matter what kind of enterprise work nature and personnel status, this simple salary calculation method can be applied.

Although the existing salary calculation method reflects the incentive function of more work and more pay in form, it is not an optimized salary incentive mechanism that conforms to the characteristics of enterprises. In fact, from the perspective of optimal management of enterprise human resources, the real incentive mechanism comes from the motivation of enterprise personnel, which has three basic elements, namely, people's self-awareness and desire, the role and status of individual employees, and the degree of adaptation to the enterprise environment and relationship.

According to the above reasons and background, one of the effective countermeasures to achieve salary management optimization in line with the characteristics of enterprise personnel's own motivation is to use SDT to build a salary incentive mechanism in line with enterprise personnel's own motivation. Based on this basic assumption, a new compensation incentive model is established as follows, as shown in formula (2).

$$B = \begin{cases} B_0 + b(Q_a - Q_p) & Q_a \geq Q_p \\ 0 & Q_a < Q_p \end{cases} \quad (2)$$

In formula (2), B_0 is the compensation value of the target set by the enterprise (the performance target that the enterprise personnel must complete), and Q_p is the self-determined performance target by the individual, which is determined according to the actual situation of the employee. Q_a is the achievement of performance objectives under the self-determined incentive mechanism, and b is the compensation coefficient of the self-determined job competency level.

If $Q_a < Q_p$, indicates that no matter the choice of independent performance objectives, employees cannot get salary; If $Q_a = Q_p$, it means that regardless of the choice of independent performance objectives, the corresponding remuneration should be obtained according to the enterprise salary distribution mode, that is to say, the enterprise personnel should be encouraged to exceed the

performance objectives according to the actual situation; If $Q_a > Q_p$, a variety of salary incentives will appear, as shown in Figure 1.

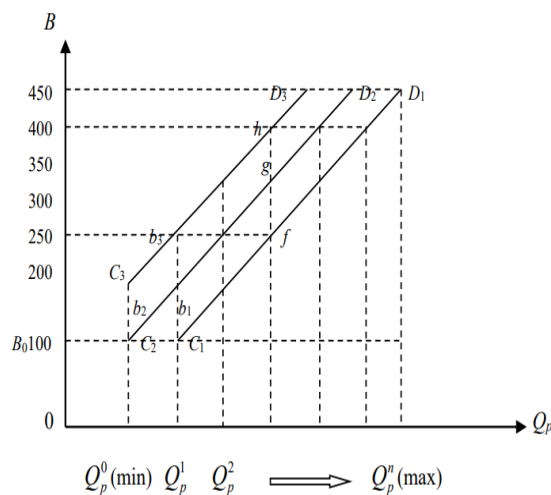


Figure 1: Status of self-determined salary incentive distribution function.

In Figure 1, horizontal axis Q_p represents self-determined performance goals from small to large, and vertical axis B represents salary distribution from low to high (values are fictitious for convenience of argument).

The three solid lines in Figure 1 (C_1D_1 , C_2D_2 and C_3D_3) represent different job competency level coefficients, namely $b = (b_1, b_2, b_3) =$ (low, medium and high), thus constituting three kinds of self-determined salary incentive functions $f(Q_p)$, $g(Q_p)$, $h(Q_p)$ (low, medium and high) for different competency levels.

As can be seen from Figure 1, different starting points of self-determined incentive performance and different coefficients of job competency level will have corresponding self-determined incentive functions. In the case of the same coefficient of self-determined job competency level, the basic model of salary incentive mechanism is as follows:

$$Q_p^0(\min) \rightarrow Q_p^1 \rightarrow Q_p^2 \rightarrow Q_p^n(\max).$$

According to the above analysis, the salary incentive mechanism reflected in Figure 1 is that, on the premise of independently determining performance objectives, the core of salary incentive lies in individuals' cognition and choice of competency level, thus constituting three kinds of salary functions.

These three pay functions have their own base points and pay coefficients, so they reflect the relationship between different work performance and pay, namely $f(Q_p)$, $g(Q_p)$, $h(Q_p)$, as shown in formula (3), (4) and (5).

$$B_{\text{Low}} = f(Q_p) = \begin{cases} B_0 + b_1(Q_a - Q_p) & Q_a \geq Q_p \\ 0 & Q_a < Q_p \end{cases} \quad (3)$$

$$B_{\text{Medium}} = f(Q_p) = \begin{cases} B_0 + b_2(Q_a - Q_p) & Q_a \geq Q_p \\ 0 & Q_a < Q_p \end{cases} \quad (4)$$

$$B_{\text{High}} = f(Q_p) = \begin{cases} B_0 + b_3(Q_a - Q_p) & Q_a \geq Q_p \\ 0 & Q_a < Q_p \end{cases} \quad (5)$$

Because of different competency levels, different correspondence between basic performance objective (B_0) and salary is determined. Although b_1 , b_2 and b_3 have the same compensation coefficient, they each represent different corresponding relationships, so the relationship between performance objective (Q_p) and compensation (B) is also different.

For example, also the most basic self-determined performance objective Q_p^0 , for different competency levels b_1 , b_2 , b_3 , the compensation is different. In addition, although $Q_p^1 < Q_p^2$, but $g(Q_p^1) > f(Q_p^2)$, $h(Q_p^1) > f(Q_p^2)$, thus indicating that in the case of higher competency level, a smaller cost can obtain a higher salary.

In fact, the essential difference between the self-determined salary incentive strategy model (formula (2)) and the general compensation function (formula (1)) is that they have different salary management concepts. The former reflects the modern management thinking of self-organization and self-adaptation, while the latter is the traditional institutional management mode.

This new salary incentive countermeasure model, based on the premise of satisfying the work cognition, desire and psychological perception of enterprise personnel, forms a kind of salary management motivation by maximizing the work potential of individuals based on the self-organization and self-adaptive operating mechanism. This motivation comes from the three core elements of DST theory, which also confirms the theoretical value and practical role of DST in the study of

enterprise salary incentive mechanism. Then, how to apply this new salary countermeasure model in enterprise salary management, the next section will give a specific analysis.

3 SELF-DETERMINED SALARY INCENTIVES AND MANAGEMENT DECISIONS

3.1 The Realization of Self-Determined Salary

Through the analysis of the incentive countermeasure model of self-determined salary, a very important issue is the relationship between the parameter selection in the model and the effect of the countermeasure. The evaluation of the incentive countermeasure of self-determined salary can be analysed from two aspects: First, whether the employees can have an objective and reasonable positioning of their personal work ability, so as to determine whether the employees have made the greatest efforts and obtained the due salary. The second is the satisfaction of enterprise personnel with salary, that is to say, whether the salary level of the enterprise and the self-determined performance target (effort) can achieve the satisfaction of employees.

Of course, enterprise management decision-makers may not fully understand the maximum working ability of employees, and employees themselves cannot fully grasp their own ability limits, which requires both enterprises and employees to make a choice that maximizes the benefits of both sides from the comprehensive perspective of enterprise status and employees' own characteristics, so that the compensation incentive mechanism will be transformed from uncertainty to limited certainty (Zhang Jianwei, 2024). In fact, the salary mechanism of employees is a game between enterprises and employees in terms of ability, emotion and psychology. The determination of such salary is in line with the economic operation and development of enterprises, and the critical salary that management decision-makers can do and employees can accept.

In other words, the significance of this kind of critical salary is that when it is lower than this value, the employee cannot accept it, and when it is higher than this value, the decision maker cannot. Therefore, this kind of salary is called self-determined incentive decision compensation.

The implementation process of incentive decision making is carried out in two ways. First of all, the decision maker should make a receipt of information, which has the following three aspects:

(1) Psychodynamic analysis of employees' different salaries. The so-called psychological motivation refers to the change of employees' psychological ability, which can reflect the behavioural characteristics of employees' work and income.

(2) The adaptive process of employees' working ability. This adaptive process is a prerequisite for employees to establish autonomy in determining work goals. This is because employees are not completely clear about their ability to complete tasks, but only understand the possibility. In other words, after the self-adaptation process, employees have certain self-adjustment ability, and the possibility of job competence increases, which gradually changes into positive judgment of their own ability, and form self-determined work goals under this condition (Li Yifan, 2024).

(3) Environmental impact degree analysis. The working system of an enterprise is an open system of information exchange with the outside world, which is greatly affected by its environment under certain conditions. It is necessary to understand the extent to which employees' working ability is affected by the interference of the external environment. This kind of impact analysis can provide incentive countermeasures for management decision makers at any time (Maurizio Pugno, 2008).

The above three kinds of information are the basic basis for autonomous incentive decision and the premise of establishing compensation function. In this paper, the employee's independent decision to choose the work goal is called the salary goal. However, in the real working environment, the relationship between the employee's work and salary is not completely linear. That is to say. In some cases employees are not interested in getting paid more for better work done (Thomas W Lin et al, 2005). Relative salary will appear here, that is, in the salary of different jobs and salaries, the satisfaction criterion is more suitable, that is, the satisfaction salary of enterprise employees, which is a salary distribution that realizes the wishes of employees and can be recognized. This satisfaction consists of three aspects: job self-satisfaction, competence fulfilment satisfaction and relationship adaptation satisfaction.

Due to these three aspects, different psychological coefficients of enterprise personnel are formed, that is, $P=(P_1, P_2, P_3)$, in which P_1 is the psychological

coefficient of job competence, P_2 is the psychological coefficient of salary need, and P_3 is the psychological coefficient of environment and relationship adaptability. In a non-ideal situation, the three psychological requirements cannot be met at the same time, so the psychological trend of enterprise employees is to have a preference among the three. If enterprise decision-makers can understand various preferences and degrees, they can build incentive mechanisms conducive to enterprise operation and development.

In addition, on the basis of the above analysis, enterprises can establish the self-determined salary function introduced in this paper, or choose different types of salary function. However, in the process of selection and analysis of salary function, psychological coefficient analysis of employees should be added, and the relationship between P, P_1, P_2, P_3 and the salary incentive should be studied. In other words, when P, P_1, P_2, P_3 is in the acceptable stable range, this kind of self-determined salary incentive mechanism is feasible.

3.2 Basic Assumptions Based on SDT

According to the psychological needs theory of SDT, "the generation of internal motivation and the internalization of external motivation need the nourishment of external environment" (Rosita Chang et al, 2008). The compensation mechanism of enterprise employees must meet the three psychological needs of employees' autonomy, competence and relationship. The need for autonomy here refers to the need for employees to independently choose the target salary based on their actual conditions and work plan objectives, without being influenced by others. For job competency needs, it means that employees are competent enough to do the essential work. The relationship needs refers to the employee's personal emotion, sense of belonging to the enterprise and the need for responsibility.

The cognitive evaluation theory of SDT also provides the thinking framework for this kind of compensation mechanism, that is, how to improve the cognition of self-determined compensation realization from the perspective of compensation construction environment (Priscila Ferreira, 2017). This is because social environmental factors have an impact on the motivation of self-determining salary, and environmental factors have two conditions: information attribute and control attribute. This information attribute refers to the intrinsic sense of competence in the perceived characteristics of

salary, which enables employees to satisfy their self-salary expectations, thus generating the motivation of employees to independently decide the target salary. Control attribute can produce a kind of control effect of salary psychological tendency, which often reduces the blindness of salary choice (Rosta Farzan et al, 2008). In addition, when employees have a sense of belonging to the enterprise and meet the needs of the relationship between personal salary and the operation and development of the enterprise, they will have a strong motivation to decide their own salary.

According to the research, if the model of self-determined salary incentive mechanism can meet the needs of enterprise economic and management development, a self-determining salary operation mechanism of enterprise employees can be built, which satisfies a basic assumption, that is, when the economic and management environment of the enterprise meets the three psychological needs of employees: autonomy, competence and relationship. In addition, when environmental factors have identifiable information attributes and control attributes, employees will participate in the incentive mechanism of self-determining salary. According to the SDT, corporate employees produce "positive outcomes in a job performance, work behavior, work attitudes, and mental health; On the contrary, employees will have certain psychological barriers, and the self-determined salary incentive mechanism will have a negative effect.

4 CONCLUSION AND FUTURE RESEARCH

Salary incentive is not only an important part of enterprise human resource management, but also a decisive factor to enhance enterprise labour productivity, promote enterprise economic growth and management efficiency. Under the traction of the modern enterprise management concept of people-oriented enterprise personnel, the single institutional salary incentive mechanism has not adapted to the operation and development of contemporary enterprise economy and management. A compensation incentive mechanism jointly decided by management decision-makers and employees can meet the development needs of contemporary enterprises.

In order to solve the defects of enterprise personnel compensation incentive mechanism, this paper establishes a compensation incentive

countermeasure model based on DST to mobilize enterprise personnel's own motivation. This countermeasure model raises a new problem for enterprise management optimization, that is, self-determined motivation mechanism.

The main theoretical contribution of this study is to put forward the concept of self-determined salary incentive mechanism from the perspective of management optimization, and its motivation mechanism is determined by three basic psychological elements, namely, enterprise personnel's autonomy and desire (autonomy), competence and relationship adaptation degree.

This paper only puts forward the countermeasures of enterprise personnel salary incentive mechanism from the perspective of theory and salary calculation model construction, and lacks the practical application analysis and data verification of the model, which is the limitation and deficiency of this study. Therefore, as an exploratory study of enterprise salary management, the countermeasure model of self-determined salary incentive mechanism can provide certain inspiration for enterprise management researchers, this is the original intention of the author's research.

In addition, the main content and approach of future research is to further refine the core view of DST into the actual study of enterprise salary management, and establish the basic principle of enterprise personnel salary incentive mechanism, as well as the basic characteristics and operation mode of self-determined motivation from the perspective of three psychological elements (three dimensions): autonomy, competence and relationship. In short, the enterprise self-determined salary incentive mechanism is a practical application of SDT, and also a new attempt of the enterprise compensation system model, which needs to be confirmed and improved in the specific practice of enterprise compensation management.

ACKNOWLEDGEMENTS

I would like to express my deep gratitude to Professor He Ping for his kind guidance during the research.

REFERENCES

- Cao Lin. (2017) Research on the construction of enterprise incentive mechanism and the salary system. *Modern Commerce Industry*. 25, pp.86-88.

- Ge Zhimin. (2016) Research on Enterprise incentive mechanism and salary system construction. *China Business Review*, 24, pp.47-48. (in Chinese)
- Goya. (2015) SC Mobile network operation and maintenance salary system construction project management. *Chengdu: University of Electronic Science and Technology of China*, pp.50-56.
- Tian Yanjun. (2023) Strategies for constructing salary incentive mechanism in enterprise human resource compensation management. *China Market*, pp.8-90.
- Deci, E.L., Ryan, R. M. (1985) *Intrinsic Motivation and Self-Determination in Human Behavior*. Plenum, New York, pp.1-23.
- Richard M. Ryan, Dard L. Deci.(2017) *Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness*. New York, Guilford Publications, pp.3-25.
- He Ping. (1989) *Application of Mathematics in Social Sciences*. Dalian University of Technology Press, pp. 26-31.
- Zhang Jianwei.(2024) The strategy of constructing salary incentive mechanism in Enterprise human resource salary management. *Market Weekly*. 37, pp.178-182.
- Li Yifan. (2024) Research on salary incentive mechanism of science and technology talents in State-owned enterprises. *Human Resources Management*, pp.134-137. (in Chinese)
- Maurizio Pugno. (2008) Economics and the self: A formalisation of self-determination theory. *The Journal of Socio-Economics*, pp.1328–1346.
- Thomas W Lin et al. (2005) Target Costing and Incentive Compensation. *Cost Management*, 19, pp.29-42.
- Rosita Chang et al. (2008) Executive Incentive Compensation and Economic Prosperity. *SSRN Electronic Journal*, pp.1-14.
- Priscila Ferreira. (2017) The Effect of Competition on Executive Compensation and Incentives. *Journal of Human Resources*, pp.1-58.
- Rosta Farzan et al. (2008) Results from Deploying a Participation Incentive Mechanism within the Enterprise. *ACM*, Florence, Italy, pp.1-9.