



The relationship between job reward satisfaction and job performance of knowledge-based employees

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Abstract. The purpose of this study is to investigate the relationship between job reward satisfaction and job performance of knowledge-based employees. In this paper, knowledge-based employees in Beijing were selected to conduct a questionnaire survey, and SPSS 26.0 was used to analyze and process the data between job reward satisfaction and job performance of knowledge-based employees, and the mediating effect of motivation was tested by Model 4 in Process. The results of the survey and analysis show that material reward, spiritual reward and feeling reward of knowledge-based employees positively affect their level of job performance, motivation plays a partly mediating role in the relationship between job reward satisfaction and job performance, and feeling reward has the greatest effect on the job performance of knowledge-based employees. The findings of this paper provide a theoretical basis for exploring the path of influence between job reward satisfaction and job performance of knowledge-based employees and further improving the level of job reward satisfaction and job performance.

Keywords: Job reward satisfaction; Job performance; Knowledge-based employees; Motivation

1 Introduction

With the development of the knowledge-based economy, the proportion of knowledge-based employees within an organization is gradually increasing, and providing a high level of reward and benefits alone is not sufficient to attract, retain, develop and motivate knowledge-based employees. For knowledge-based employees, they not only need to obtain reward and benefits that match their level of human capital, but also need to gain the respect and recognition of the organization, and at the same time are also very concerned about the balance between family and work¹, etc., and

only through the integrated use of a variety of reward factors can an enterprise win a competitive advantage in the fast-changing environment². The research is based on the group of knowledge-based employees, investigating the level of employees' satisfaction on job reward and their performance level through the questionnaire method, using the Delphi method to determine the weights of the indicators, analyzing and processing the data between the satisfaction on job reward and the performance of knowledge-based employees through SPSS 26.0, and testing the mediating effect of the motivation through Model 4 in Process. On the one hand, it explores the factors that have the greatest impact on job reward satisfaction and job performance for knowledge-based employees, so as to make targeted improvements; on the other hand, it investigates the path of job reward satisfaction on job performance and the mediating role of motivation in it.

Job reward is all the elements that an employee receives for working for an organization that he or she considers valuable. Job reward satisfaction is an important factor that affects the level of job satisfaction of employees, and is a subjective psychological feeling that arises after comparing the reward they receive with their expectations. The total reward model³ divides reward for work into two broad categories: economic and non-economic reward, which in turn includes internal and external reward and extrinsic reward. As the number of knowledge workers continues to grow and competition for talent intensifies, the importance of intrinsic non-financial rewards, such as opportunities for employee engagement, is gradually increasing. In this study, this type of reward is referred to as feeling reward, and together with material and spiritual reward, it measures the job reward satisfaction of knowledge workers. The definition of knowledge-based employees is richer, the American management guru Peter F. Drucker first put forward the concept of knowledge-based employees, he believes that knowledge-based employees are "those who master and use symbols and concepts, using knowledge or information work". In this paper, knowledge-based employees are defined as employees with education at undergraduate level and above, mastering and applying specialized knowledge and information, possessing creativity and innovation, and capable of continuous learning to create high-value contributions for the enterprise.

2 Heoretical Framework and Research Hypothesis

2.1 Heoretical Framework

The concept of job reward satisfaction comes from a combination of theory and practice, and its main theoretical foundations are social exchange theory and equity theory. Social exchange theory suggests that parties will become involved in and maintain exchange relationships with others in the expectation of receiving a reward; that both parties to an exchange have something of value that the other wants; and that the satisfaction of the parties to an exchange is a major influence on whether future exchanges occur. According to the social exchange theory, organizations provide employees with satisfactory reward for their work and thus obtain the high level of performance required by the organization. Equity theory states that employees are not only concerned with the absolute value of the reward they receive for their work, but also with the

relative reward compared to others or to the past, and that employees will show satisfaction with their work reward only if both of these aspects are in a state of satisfaction.

Abraham H. Maslow's Hierarchy of Needs theory divides human needs from low to high into five levels: physiological needs, safety needs, social needs, respect needs and self-actualization needs. For knowledge-based employees who have received higher education and have a higher level of skill, their needs are more skewed towards higher levels. When it comes to work reward, they are not satisfied with basic pay and benefits, but attach more importance to multi-dimensional factors such as respect, spiritual recognition, and work-life balance gained at work.

Motivation is a managerial process in which an organization induces individuals to be motivated to satisfy certain needs, which in turn leads to the convergence of individual behavior with organizational goals. Motivation theory is the core theory used in the behavioral sciences to address the relationship between needs, motivation, behavior, and outcomes, as shown in Figure 1. As the core of motivation theory, motivation is the intrinsic reason that pushes an individual to engage in a certain activity, and motivation drives employees to act in a way that benefits the organization and produces excellent job performance when they hold a higher level of job reward satisfaction.

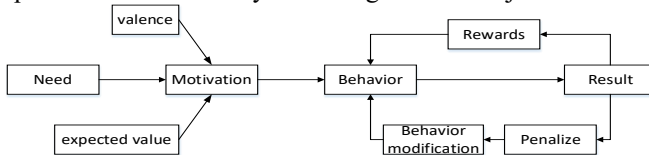


Fig. 1. "Need-Motivation-Behavior-Outcome" Relationship Map

2.2 Research Hypothesis

Based on the total reward model, this study categorizes the job reward satisfaction of knowledge-based employees into three dimensions: material reward, spiritual reward and feeling reward.

Job reward is gradually gaining importance as a powerful tool for attracting, motivating, revitalizing and retaining talent, which is competitive and exclusive, and is one of the most important and valuable incentives in organizational management. Social exchange theory⁴ suggests that the desire of social members to obtain rewards from each other through interactions and exchanges is the source of motivation for social members to engage in individual exchange behaviors, and these exchange rewards mainly include material money, obedience, social recognition and respect. In the social exchange process that occurs within an organization, employees can only create higher performance if their own needs are met. Organizational affirmation of employees' positive behaviors⁵, recognition of employees' work achievements etc. increase employees' willingness to work hard. In addition to this, the organization's concern for employees' physical and spiritual health, helping employees achieve work-life balance⁶, and encouraging employees to participate in the management of the company will increase employees' motivation and performance level⁷. In summary, the following assumptions are made in this paper:

H1: Job reward satisfaction has a positive impact on job performance.

H1a: Material reward has a positive influence on job performance.

H1b: spiritual reward has a positive influence on job performance.

H1c: Feeling reward has a positive influence on job performance.

Motivation is a complex psychological process that reflects an individual's willingness to work consistently toward organizational goals, and its strength depends not only on whether incentives are implemented and at what level, but also on how the individual perceives the incentives: The heterogeneity and complexity of human beings determine that different individuals have different levels of perception and evaluation criteria for incentives, thus generating different responses and behavioral tendencies to incentives. AMO theory states that high performance is the result of a combination of three factors: ability, motivation, and opportunity⁸, and the strength of motivation directly affects the level of commitment and enthusiasm of the organization or individual at work. Motivation is the psychological disposition of an individual to be willing to engage in an activity or behavior for some reason⁹. Employee performance is enhanced when they are in an environment that is supportive of their motivation and opportunities to use feedback. Therefore, this article makes the following hypotheses:

H2: Motivation has a positive mediating role in the relationship between job reward satisfaction and job performance.

3 Research Method

3.1 Research Sample and Data Collection

The questionnaire for this study consisted of four parts, including basic information, job reward satisfaction scale, motivation scale, and job performance scale. The basic information mainly includes gender, education, rank, etc.; the Job reward Satisfaction Scale consists of 9 questions, including 3 aspects of material reward, spiritual reward, and feeling reward; the Motivation Scale consists of 3 questions, covering material reward motivation, spiritual reward motivation, and feeling reward motivation; and the Job Performance Scale consists of 4 questions, covering appraisal rankings, end-of-year bonuses, performance pay, and recognition and rewards.

3.2 Research Tools

In this paper, the data used for the study were collected by questionnaire method and the weights of the indicator system were determined with the help of Delphi method. SPSS 26 software was used to analyze the reliability and validity of the questionnaire for the study of the regression relationship between job reward satisfaction and job performance of knowledge-based employees, and Boorstrap method was used to test the mediating effect of motivation in the relationship between job satisfaction and job performance through Model 4 in Process.

4 Data analysis and Results

4.1 Reliability and Validity Analysis

According to the survey data, a total of 230 questionnaires were distributed and 216 questionnaires were recovered, with a questionnaire recovery rate of 93.9%. After understanding the details of the questionnaire and removing the data of 5 pieces of data whose educational level is below bachelor's degree, a total of 211 valid questionnaires were recovered. The reliability and validity of the measurement model are shown in Table 1. Internal consistency reliability is measured by Cronbach's alpha value, when Cronbach's alpha value is greater than 0.7, the construct has internal consistency¹⁰. The reliability of the questionnaires in this study were all higher than 0.8, and the validity of the questionnaires were all higher than 0.7, indicating that the data in this study were all at a good level. In addition, the extracted average variance (AVE) denotes the variance extracted from the metrics, and the combined reliability (CR) denotes the value of the metrics for the quality of internal consistency reliability. When the AVE value is greater than 0.5 and the CR value is greater than 0.7, it indicates that the data have a good measure of goodness of fit¹¹. All latent variables of the model were observed to satisfy this criterion. The correlations between the observed variables were all less than the square root of their corresponding AVEs, indicating good discriminant validity between the variables. The discriminant validity test is shown in Table 2.

Table 1. Reliability and validity tests

latent variable	Cronbach's alpha	KMO	AVE	CR	Number of items
material reward	0.974	0.72	0.736	0.893	3
spiritual reward	0.885	0.738	0.663	0.854	3
feeling reward	0.955	0.734	0.688	0.869	3
job reward	0.946	0.877	0.68	0.962	9
motivation	0.954	0.756	0.781	0.914	3
job performance	0.906	0.707	0.685	0.897	4
synthesis	0.961	0.914	0.681	0.971	16

Table 2. Differentiation of validity

Latent variable	Material re-ward	Spiritual re-ward	Feeling re-ward	Motiva-tion	Job Perfor-mance
Material reward	0.736				
Spiritual reward	.608**	0.663			
Feeling reward	.733**	.582**	0.688		
Motivation	.574**	.460**	.543**	0.781	
Job Performance	.751**	.587**	.792**	.667**	0.685
AVE Square root	0.858	0.814	0.829	0.884	0.828

4.2 Regression Analysis

Regression analysis of material reward, spiritual reward, and feeling reward with job performance reveals that all three dimensions positively affect job performance, with feeling reward having the greatest effect on job performance, with an impact coefficient of 0.493. Regression analysis of physical, spiritual, and feeling reward with motivation showed that all three dimensions positively affected motivation. Regression analysis of job reward satisfaction with job performance and motivation, respectively, revealed that the coefficient of influence of job reward satisfaction on job performance and motivation was 0.814 and 0.609, respectively. Regression analysis of job reward satisfaction and motivation simultaneously with job performance revealed that the impact coefficients were 0.648 and 0.272, respectively. The specific results of this analysis are shown in Table 3.

Table 3. Regression analysis results

Outcome variable	Predictor variable	Standardized coefficient	R-square
Job performance	Material reward	0.329	0.696
	Spiritual reward	0.1	
	Feeling reward	0.493	
Motivation	Material reward	0.331	0.371
	Spiritual reward	0.127	
	Feeling reward	0.226	
Job performance	Job reward satisfaction	0.648	0.709
	Motivation	0.272	
Motivation	Job reward satisfaction	0.609	0.371
Job performance	Job reward satisfaction	0.814	0.662

4.3 Mediation Effect Test

In order to explore the underlying mechanism of the significant positive effect of job reward satisfaction on job performance, motivation was further introduced as a mediating variable brought into the structural equation in the study. The test of mediating effect was carried out by using Model 4 in the SPSS macro program Process to verify the mediating role of analyzing motivation between job satisfaction and job performance according to the method of Bootstrap provided by Hayes¹². The path coefficients of motivation between the three variables of job reward satisfaction and job performance are shown in Figure 2.

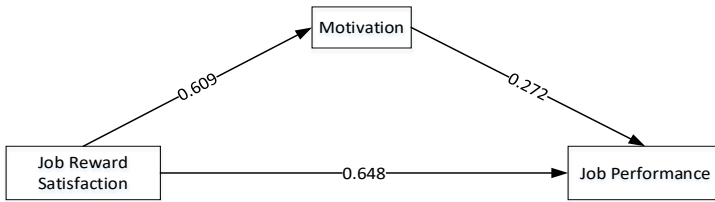


Fig. 2. Path coefficient diagram of job reward satisfaction, motivation and job performance

According to Tables 4 and 5, it can be seen that the Bootstrap of the mediating effect of job reward satisfaction on job performance and motivation, as well as motivation on job performance, does not contain 0 at the upper and lower limits of the 95% confidence intervals, indicating that job reward satisfaction not only plays a role in the direct effect on job performance, but also plays a role in mediating the mediating effect on job performance through the intermediary variable of motivation, and that the direct effect (0.5975) and mediating effect (0.1527) account for 79.6% and 20.4% of the total effect (0.7502) respectively.

Table 4. Breakdown of total, direct and indirect effects

	Efficiency value	se	LLCI	ULCI	Effect size
Total effect	0.7502	0.037	0.6772	0.8232	
Direct effect	0.5975	0.0435	0.5118	0.6832	79.60%
Indirect effect	0.1527	0.0307	0.0943	0.2151	20.40%

Table 5. Intermediary model testing

Regression equation(N=211)		Table of fitted values			Sig.
Outcome variable	predictor variable	R-square	F	β	T
Job performance	Job reward satisfaction	0.662	410.193	0.814	20.253***
Motivation	job reward satisfaction	0.371	123.201	0.609	11.1***
Job performance	job reward satisfaction	0.709	253.396	0.648	13.748***
	Motivation			0.272	5.768***

5 Conclusions and Recommendations

5.1 Conclusions

In this paper, the results of reliability and validity analysis verified the credibility and implement ability of the results of the questionnaire, and correlation analysis yielded the degree of correlation between the variables. The observed variables were linearly analyzed and regression equations and mediation tests were constructed to draw conclusions:

Firstly, Knowledge workers' job reward satisfaction not only positively affects their level of job performance directly (0.814), but also indirectly affects job performance through motivation (0.272).

Secondly, material reward (0.329), spiritual reward (0.1) and feeling reward (0.493) all positively affect motivation and job performance, with feeling reward having the greatest effect on job performance. This also confirms that knowledge workers are characterized by higher-level needs, and such people care more about the respect, recognition and opportunities to participate in management they receive at work. In summary, the hypotheses presented in this paper are all valid.

5.2 Recommendations

Firstly, Enterprises establish a total reward model suitable for the development of their own enterprises according to their actual situation, which can improve the satisfaction of knowledge-based employees' work reward in all aspects at a lower economic cost; establish a fair, reasonable and attractive reward system, and promote the enhancement of the work performance of knowledge-based employees by improving their motivation.

Secondly, Enterprises should start from the characteristics of high social sensitivity and strong demand for respect and self-realization of knowledge-based employee groups, give knowledge-based employees higher respect, recognition and enough opportunities to participate in the management of the actual work, and mobilize the motivation of knowledge-based employees by helping them to maintain a balance between their families and their work and help them improve their work performance.

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