

The Impact of Career Satisfaction on the Sustainable Career of Technical Developers in Enterprises Positive Effects

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Abstract: The contradictory relationship highlights that the group of enterprise technical developers is important, but the sustainability of their career is more likely to be challenged, especially in terms of poor interpersonal relationships, low career satisfaction, slow career development, and frequent career ceilings. This study examines the positive effect of career satisfaction on the sustainable career of enterprise technical developers from the perspective of sustainable career research. 100 enterprise technical developers were randomly selected for the questionnaire survey, and the positive effect of career satisfaction on the sustainable career of enterprise technical developers was verified from three dimensions of sense of belonging, employability, work engagement, dedication. The results of this study support the positive effect of career satisfaction on the sustainable career of technical developers in enterprises, which is of great significance for the better development of individuals and organizations.

Keywords: Career Satisfaction; Enterprise Technical Developers; Sustainable Career

In order to promote the sustainable development of the career of enterprise technical developers, the dialectical unity relationship between career satisfaction as the independent variable and the sustainable career of enterprise technology developers as the dependent variable was studied[1].

1. Introduction

Innovation is the core of an enterprise, the lifeline of the enterprise, and the driving force for its growth. In the new normal of the economy, it is even more true that enterprises want to survive better and develop faster. The core subject of enterprise innovation is technical developers. However, on the one hand, the importance of enterprise technical developers to

the enterprise is self-evident, but their innovation ability is generally insufficient, and the innovation achievements accumulated around career development are generally not significant; On the other hand, the career satisfaction of enterprise technical developers is generally not high, and their personality is relatively introverted (from the perspective of the nine personality types, they are quite a proportion of the NO.5 personality). Innovation requires consistency and teamwork. However, the current situation of enterprise technical developers is not particularly ideal in these aspects. The contradictory relationship highlights the importance of this group, but the sustainability of their career is more easily to be challenged, especially in terms of poor interpersonal relationships, low career satisfaction, slow career development, and frequent career ceilings. Therefore, career satisfaction may play a positive role in the sustainable career development of enterprise technical developers. The current research in this field, on the one hand, mainly focuses on personnel turnover[2], resignation, motivation and organizational identification[3], organizational loyalty[4], goal commitment[5], emotional commitment[6], job commitment, career adaptability[7], job satisfaction (attention should be paid to the difference between career satisfaction and job satisfaction)[8], satisfaction (involving life satisfaction and training satisfaction, etc.)[9]. On the other hand, it is carried out in the dimensions of career development system optimization, career management optimization design[10], career development channel design[11], career development dilemma and countermeasures, career management based on competency model[12], career management and loyalty research[13], and the integration perspective of Self-determination and trait activation theory and other dimensions[14]. There are few studies on the dialectical relationship between

career satisfaction and sustainable career but such research is also very necessary and important. From the perspective of sustainable career, this study verified the positive impact of the characteristics of career satisfaction of enterprise technical developers on their own sustainable career, and further explored the positive role of career satisfaction and the key to enterprise technology developers.

2. Theory and Hypothesis

2.1 The Relationship between Career Satisfaction and Sense of Belonging

The internal connection between an individual and the group to which he or she belongs (the delineation, identification, and maintenance of subordinate relationships) is called A sense of belonging. Career satisfaction has a significant positive predictive effect on employees' sense of belonging career identity, and career satisfaction will also indirectly affect their sense of belonging through career identity [15].

Hypothesis 1: employee's career satisfaction has a significant positive effect on their sense of belonging.

2.2The Relationship between Career Satisfaction and Employability

Employability encompasses the present and future employability. Knowledge Workers Organizational Commitment and Work Satisfaction and employability show an obvious positive correlation effect, which indicates that employability has a positive impact on employees' emotional loyalty. In addition, employability also has a positive and significant effect on various types of commitments, including standardized commitments, idealized work attitudes, financial investment, career development opportunities, and so on. Although we use different words to describe this concept, such as organizational commitment, emotional loyalty, standardized commitment, idealized work attitude, financial investment, career development opportunities, etc. They are actually closely related to the concept of career satisfaction.

Hypothesis 2: The career satisfaction of enterprise technical developers has a significant positive impact on their employability.

2.3The relationship between career satisfaction and job engagement

Work engagement is characterized by vitality, dedication, and concentration, as well as sustainability and diffusion. Managers can improve employee job satisfaction through various methods, thereby increasing their level of work engagement, gradually enhancing employee job satisfaction, and avoiding a decrease in psychological capital to stimulate employee work enthusiasm.

Hypothesis 3: The career satisfaction of enterprise technical developers has a significant positive impact on their own work engagement.

2.4The Mediating Role of Dedication

Dedication plays an important mediating role in the relationship between organizational atmosphere and employee career satisfaction. After comprehensive comparison[16], this study has decided to use dedication as a mediator variable.

Hypothesis 4: Dedication plays a mediating role in the relationship between career satisfaction and sense of belonging.

Hypothesis 5: Dedication plays a mediating role in the relationship between career satisfaction and employability.

Hypothesis 6: Dedication plays a mediating role in the relationship between career satisfaction and job engagement.

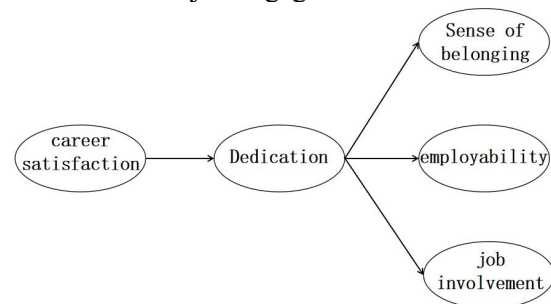


Figure 1. Research Model

3. Research Design

3.1Research Subjects and Sample Collection

The questionnaire was administered to a randomly selected sample of several hundred technical developers in the company. Prior to the formal launch of the questionnaire, the objectives of the study were explained in detail and all responses were guaranteed to be anonymous. A total of 100 enterprise technical developers were selected to participate in the

survey, with an average age of 33.89 years old and a standard deviation of 11.96; In terms of work experience, the average is 8.95 years with a standard deviation of 4.89. A total of 93 valid questionnaires were collected (invalid questionnaires are usually blank, with three or more indicators missing or all indicators having the same answer), accounting for 93% of all questionnaires. Among them, 68 were males, accounting for 73.1%, and 25 were females, accounting for 26.9%; 36 were from state-owned enterprises, accounting for 38.7%, and 57 were from non-state-owned enterprises, accounting for 61.3%; There are 22 junior technical developers, accounting for 23.7%, 61 intermediate technical developers, accounting for 65.6%, and 10 were senior technical developers, accounting for 10.7%.

3.2 Research Tools

The survey was conducted using the Occupational Satisfaction Questionnaire for Enterprise Technical Developers and the Sustainable Career Questionnaire for Enterprise Technical Developers.

We collected data and designed a table containing the following questions: challenging work, fair compensation, and a good work environment, etc. A total of five question options are divided into five levels of selection methods: "fully satisfied -5", "partially satisfied -4", "uncertain -3", "not satisfied -2", "strongly opposed -1"; In addition, Likert scale was used to calculate scores. This sustainable career development assessment includes three main categories: sense of belonging, employability, and job engagement, which are further subdivided into forty-two secondary dimensions; Of course, the evaluation of dedication is mainly carried out from three dimensions: willingness to promote, willingness to stay, and full effort. These are presented in five levels, from "completely agree -5", "partially agree -4" to "cannot be certain -3", then to "disagree -2" and "strongly disagree -1".

In this study, the Cronbach's alpha value of this test was 0.93; Through KMO and Bartlett's tests, it can be found that the appropriateness of KMO sampling is 0.82, which is significantly greater than 0.6. After Bartlett's sphericity test, the significance is 0.00, which is less than 0.05.

In order to avoid the influence of other factors, we cited past research findings in this analysis, including demographic important variables such

as gender, age group, education, work experience, and occupation to be used as control variables.

3.3 Statistical Methods

SPSS 25.0 was used for data statistics and analysis. We use it to implement descriptive statistical analysis and related statistical analysis.

4. Data Analysis and Hypothesis Testing

4.1 Results of Descriptive Statistics

As shown in Table 1, the mean, standard deviation and correlation degree of various research factors are all displayed. The data shows that the improvement of career satisfaction has a significant positive effect on employees' sense of belonging and employability ($r=0.15$, $p<0.01$) ($r=0.21$, $p<0.05$), and also leads to more active participation in work ($r=0.31$, $p<0.01$). This series of data preliminarily validates our hypotheses 1, 2, and 3.

4.2 Mediation Effect Test

We conducted a more in-depth verification of the mediating effect by using BOOSTRAP technology. Specifically, we set the BOOSTRAP loop to 4000 times and execute it with a 90% confidence level. Based on our analysis results (see Table 2), we can conclude that an increase in career satisfaction directly leads to an increase in sense of belonging ($\beta=0.37$, $p<0.001$), increase in employment opportunities ($\beta=0.38$ ($p<0.001$)) and an increase in active participation in work ($\beta=0.47$, $p<0.001$).

According to the data in Table 2, dedication plays an important mediating role in the association between career satisfaction and sense of belonging (mediation effect value=0.36, 90% CI=[0.30,0.55]), so we believe that hypothesis 4 is correct and has a complete mediating effect. In addition, we have confirmed hypothesis 5, which states that dedication plays a fully mediating role in the relationship between job satisfaction and employability (mediation effect value=0.39, 90% CI=[0.23,0.47]). In addition, the mediating effect of dedication between job satisfaction and job engagement is fully mediated (mediation effect value=0.35, 90%

CI=[0.29,0.48]), and hypothesis 6 has also been validated.

Table 1. Descriptive Statistics and Correlation Coefficients of Variables

variable	1	2	3	4	5	6
1.age	-0.02					
2.Years of service	0.50**	-0.04				
3.career satisfaction	-0.19	-0.04	0.08			
4.Sense of belonging	0.11	-0.08	0.15**	(0.73)		
5.employability	-0.22	-0.05	0.21*	0.04	(0.93)	
6.job involvement	-0.1	0.002	0.31**	-0.1	0.43**	(0.88)
average value	33.89	8.95	4.26	3.9	4.41	4.59
standard deviation	11.96	4.89	0.87	1.03	0.82	0.59

pour: N=100, * p<0.05; ** p<0.01, the content in diagonal brackets is the reliability coefficient.

Table 2 Mediation Effect Test Results

	route	effect value	SE	90% confidence interval	result
Assumption 1	Career satisfaction → sense of belonging	0.37	0.01	(0.29,0.56)	establish
Assumption 2	Career satisfaction → employability	0.38	0.01	(0.22,0.49)	establish
Assumption 3	Career satisfaction → Work engagement	0.47	0.03	(0.27,0.47)	establish
Assumption 4	Career satisfaction → dedication → sense of belonging	0.36	0.01	(0.30,0.55)	complete mediation
Assumption 5	Career satisfaction → dedication → employability	0.39	0.01	(0.23,0.47)	complete mediation
Assumption 6	Career satisfaction → Engagement → Work engagement	0.35	0.03	(0.29,0.48)	complete mediation

Note: N=100, BOOSTRAP count is set to 4000, and if the 90% confidence interval does not include 0, it indicates a significant effect.

5. Results and Discussion

This study selected 100 enterprise technology developers through random sampling to conduct a questionnaire survey and tested their effectiveness. For enterprise technology developers, their career satisfaction plays a crucial role in driving their sustainable career development, while also exploring the impact of dedication. These results all support six research hypotheses. Firstly, the occupational satisfaction of enterprise technical developers has a significant positive effect on their sense of belonging. Secondly, the career satisfaction of enterprise technical developers has a significant positive impact on their employability. Thirdly, the career satisfaction of enterprise technical developers has a significant positive impact on their work engagement. Fourthly, dedication

plays a completely mediating role in the relationship between career satisfaction and sense of belonging. Fifthly, dedication plays a completely mediating role in the relationship between career satisfaction and employability. Sixthly, dedication plays a completely mediating role in the relationship between career satisfaction and job engagement.

5.1 Theoretical significance

First of all, this study mainly focuses on the career growth of enterprise technical developers, providing strong empirical research basis for effectively promoting their sustainable career development. In addition, it further enriches the research on career satisfaction and sustainable career growth in the context of the new era. Secondly, in fact, this study found that higher career satisfaction

is an important means of promoting sustainable career development. Once again, the study found an important mediating role of dedication, that is, the career satisfaction of enterprise technical developers mainly promotes the sustainable development of individual careers by increasing their dedication.

5.2 Practical significance

This study found that career satisfaction plays a significant role in overcoming the professional difficulties of enterprise technical developers. From the individual perspective, career satisfaction can be improved by participating in team activities, action learning projects and other activities; from the organizational perspective, on the one hand, enterprises need to strictly control the quality of talent. In the process of talent evaluation and interviews, they should focus on examining and screening candidates with high career satisfaction. On the other hand, enterprises need to pay more attention to the promotion and training of corporate culture with the core objective of enhancing career satisfaction.

5.3 Research limitations and prospects

In view of the influence of a number of factors, our research still faces some limitations and challenges. First and foremost, although we have analyzed the data effectively on the five factors, we have mainly relied on questionnaires to collect information. In order to obtain data more accurately, we can try to use experimental methods or other means. In addition, possible scoring biases should also be taken into consideration, so it is necessary to increase the objectivity of the questions while utilizing diversified methods of assessment so as to reduce unnecessary errors. Furthermore, the existing evaluation criteria are not sufficient to cover all career development situations, so future research should expand the selection criteria. Finally, the current research has only selected a few companies as the surveyed units, and the sample size is limited. Therefore, it is recommended to expand the sample source. In addition, current research only focuses on the career satisfaction and employability of internal technical developers within organizations, without involving external factors, so it should also focus on the impact of interaction mechanisms between organizations, especially innovative network actors on the sustainable

career development of enterprise technical developers in. In this regard, reference can be made to Jifeng Zhou Min's "Research on the Characteristics of Regional Innovation Network Behavioral Subjects, Trust Building Mechanisms, and Trust Relationship"[17].

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