The Relationship between Knowledge Workers and Innovative Behavior Based on Brand Identity

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Abstract

Aim: The relationship between brand identity and innovative behavior of knowledge workers is studied taking the researchers in 81 enterprises as an example by using statistical research method. **Methods:** The questionnaires are made, theoretical basis and research hypothesis was done in these collected data, the results of descriptive statistics and correlation analysis of the variables are explained. **Results:** Brand identity is positively correlated with knowledge workers' innovative behavior. **Conclusion:** Brand identity has a positive impact on the innovative behavior of knowledge workers. Human resource management policies of enterprises can carry out various human resource management practices from the perspective of shaping a good employment relationship, so as to obtain excess added value through brand building.

Keywords

Brand Identity, Knowledge Worker, Innovative Behavior

1. Introduction

In the 21st century, China's economy has been developing rapidly, and the environment of enterprises has become more complex. How to maintain sustainable competitiveness and achieve sustainable development has become one of the main problems faced by enterprises. In 2018, Premier Li Keqiang emphasized in his government work report "speed up the construction of an innovative country, implement the innovation-driven development strategy in depth, strengthen the construction of the national innovation system, implement and improve the innovation incentive policy, and promote mass entrepreneurship and innovation

to a higher level". Under such economic situation and the call of the corresponding countries, enterprises can better cope with competition and achieve sustainable and stable development only through continuous innovation, strengthening their innovation ability and releasing productivity in an all-round way.

In the era of knowledge economy dominated by innovation, the creativity of knowledge workers is the potential resource of enterprises and the micro-foundation of enterprise innovation [1]. Therefore, how to stimulate the innovative behavior of knowledge workers is an important topic of long-term concern in the study of organizational behavior and management. The existing research on the innovative behavior of knowledge workers focuses more on their individual roles, leadership and team factors [2]. In recent years, with the rise of strategic human resource management theory, scholars believe that human resource management practice is one of the important factors affecting innovative behavior of knowledge workers, and prove the relationship between human resource practice activities (such as commitment-based, support-based, high-performance work system) and employees' innovative behavior through various ways [3]. However, due to the inertia of enterprise human resource management system and the uniqueness, continuity and consistency of human resource management practice, the impact of human resource management practice on employees' attitudes and behavior is often slow. Therefore, Kissel believed that human resource practice will not directly affect employees' behavior. It is possible to achieve through staff's cognition and evaluation of organizational human resource practices [4].

2. State of the Art

As a brand of human resource management service products, employer brand is essentially the perception and evaluation of employees and potential employees of a series of functional benefits, economic benefits and psychological benefits provided by employers. Therefore, it should be more obvious than the impact of human resource management activities and practices on employees' innovative behavior. In fact, according to social exchange theory, when individuals perceive more economic and social emotional resources obtained from the organization, they usually exchange with the organization with greater enthusiasm and investment, thus showing more positive organizational behaviors such as investment, innovation and so on [5]. Therefore, brand identity, as a cognition beyond human resource management practice, may promote knowledge workers' innovative behavior through the path of cognition to behavior.

Janssen defined innovative behavior as introducing and adapting new ideas to work roles, teams or organizations for the benefit of role performance, teams and organizations. Scott and Bruce believed that innovation was a multi-stage process, and each stage required different activities and individual behavior. According to West and Farr, employees' innovative behavior manifested as individuals developing, absorbing and implementing new ideas for products and

workflows. From the viewpoint of scholars, it is believed that employees' innovative behavior is the behavior that employees, for improving team or organizational performance, initiatively put forward new ideas related to work improvement, strive for resources support within the organization, put them into practice and actively participate in innovative activities within the organization and team [6].

The employer brand originated from the Best Employers competition held by Fortune magazine in the 1980s. In 1996, Ambler and Barrow drew lessons from the brand theory in marketing and defined employer brand as a combination of functions, economy and benefits brought about by employer relationship [7]. In recent research on innovative behavior, more attention has been paid to the influence of salary, position and reward, or to the external support of innovation, while neglecting the research on the individual initiative psychological factors of employees' innovative behavior. Lee took employee innovation behavior as dependent variable and brand identity as independent variable, and constructs a model to reveal the effect and mechanism of brand identity on employee innovation behavior. Based on a questionnaire survey of 946 employees in 81 enterprises, a multi-level linear model was used to analyze the sample data. The results showed that brand identity positively affected employees' job well-being and innovation behavior [8]. Omri took employee's perception and inner experience of brand building as the breakthrough point, and explored the internal mechanism of employer brand's influence on employee's innovative behavior in technology-based enterprises. It has important theoretical value and practical significance for promoting employer brand building and employee innovation in domestic technology enterprises [9]. Helm conducted project analysis, factor analysis, independent sample T-test, variance analysis and correlation analysis with the help of SPSS statistical software through questionnaires. It was found that there was a significant positive correlation between brand identity and employee innovation behavior. Each dimension of brand identity affected employee innovation at different levels, and individual variables significantly affected brand identity and employee innovation behavior. Therefore, enterprises can enhance employees' innovative behavior through the construction of brand identity, and adopt corresponding strategies according to the characteristics of different employees to increase the frequency of their innovative behavior [10]. Edú used employer brand theory, competitiveness theory, ecology theory, co-evolution theory and other theoretical tools to comprehensively and systematically study the impact mechanism, complex adaptability and co-evolution of employer brand in high-tech enterprises, taking employer brand in high-tech enterprises as the research object [11].

3. Methodology

3.1. Theoretical Basis and Research Hypothesis

The employer brand originated from the Best Employers competition held by

Fortune magazine in the 1980s. In 1996, Ambler and Barrow drew lessons from the brand theory in marketing and defined employer brand as a combination of functions, economy and benefits brought about by employer relationship [7]. With the deepening of people's understanding of employer's brand, the connotation of employer's brand has been continuously deepened. It is not only a good human resource image established by enterprises in the external labor market, but also an emotional relationship widely spread between enterprises and employees. It is also a brand commitment made by enterprises to internal employees and an employment experience of employees [8]. Good employment experience stimulates more organizational citizenship behavior, improve employee job satisfaction, organizational commitment and work input, and ultimately improve personal output and organizational performance [9]. In the variables of job performance and organizational citizenship behavior, innovation performance and innovation behavior are usually included. Based on this, it is assumed that brand identity is positively correlated with knowledge workers' innovative behavior.

3.2. Research Object

Research and development personnel of 10 manufacturing enterprises in Shanghai, Hangzhou, Beijing and Chengdu are investigated. The survey started in February 2016 and lasted three months. By the end of April, 1084 questionnaires were collected from 92 enterprises. After strict quality inspection of the questionnaire, excluding unqualified questionnaires, 946 questionnaires from 81 enterprises were finally retained. The questionnaire is mainly composed of two measurement scales of research variables and sample basic information. The basic information of the respondents mainly includes gender, age, education and position. The purpose of the questionnaire is to grasp the sample characteristics of the research subjects. The two scales used in the study are brand identity and knowledge workers' innovative behavior scale, which is in the form of Lickett 5-point scale.

In the final valid sample questionnaires, 426 males and 520 females were selected according to gender. 80 males aged 25 and younger, 343 males aged 26 to 30, 313 females aged 31 to 35, 169 females aged 36 to 41 and 41 females aged 41 and above were selected according to age. 57 people below junior college, 320 junior colleges, 470 undergraduates, and 99 people with master's degree or above were selected according to their educational background. According to the survey sample positions, 378 ordinary employees, 314 grassroots managers, 191 middle-level managers and 63 senior managers were selected. 70 people under one year, 204 people in one to two years, 332 people in three to five years, 206 people in six to ten years, 134 people over 11 years were selected in terms of working hours. The specific information is shown in Table 1.

3.3. Research Scale

The Brand Identity Scale is rearranged from the Job Experience Scale developed

Table 1. Descriptive statistical results of sample population characteristics.

Individual characteristic classification	Classification	Sample
Gender	Male	426
	Female	520
Age structure	Under 25 years old	80
	26 - 30 years old	343
	31 - 35 years old	313
	36 - 41 years old	169
	Above 41 years old	41
Education	Under Junior College	57
	Junior College	320
	Undergraduate	470
	Master and above	99
Position	Ordinary staff	378
	Grass-roots managers	314
	Middle managers	191
	Top managers	63

by Zhu Yongguo and Ding Xuefeng and the Internal Employer Brand Measurement Scale developed by Zhang Hong (2014). The scale includes five dimensions: salary and welfare, work arrangement, personal development, enterprise strength and enterprise image, including "the salary and performance of our employees are linked", "our enterprises can arrange appropriate work content according to the actual ability of employees", "our enterprises provide continuous training opportunities for employees", "our enterprises have a strong influence", "our enterprise is full of friendly cultural atmosphere" and other 24 topics. Reliability analysis shows that the Cronbach's a coefficient of the scale is 0.960; confirmatory factor analysis shows that the scale $X^2/df = 4.935$; GFI = 0.901; AGFI = 0.882; NFI = 0.923; IFI = 0.912; CFI = 0.912; and RMSEA = 0.092. All indicators reach acceptable levels, indicating that the scale has good reliability and structural validity.

Employee Innovation Behavior Scale was revised by Wang Guijun (2011) on the basis of employee innovation behavior developed by Zhou and George (2001). The scale includes two dimensions of "the generation of innovation behavior" and "the application of innovation behavior", including 12 items such as "I will pay attention to the problems that seldom occur in work, department, unit or market", "I will apply new ideas and methods to improve work flow, technology, products or services in daily work". Reliability analysis shows that the Cronbach's a coefficient of the scale is 0.957; confirmatory factor analysis shows that the scale $X^2/df = 3.873$; GFI = 0.947; AGFI = 0.910; NFI = 0.971; IFI = 0.9752; CFI = 0.975; RMSEA = 0.078. All indicators reach acceptable levels, in-

dicating that the scale has good reliability and structural validity.

4. Results and Discussion

4.1. Descriptive Statistics and Correlation Analysis of Variables

The results of descriptive statistics and correlation analysis of the variables are shown in Table 2. It can be seen that the average value of brand identity and innovation behavior is 3.6466 and 3.5090, respectively, and the standard deviation is 0.67547 and 0.70183, respectively. Relevant analysis results show that the correlation between brand identity and innovation behavior of knowledge workers has reached a very significant level.

4.2. Hypothesis Test

The results of correlation coefficients of the variables in Table 2 show that there are significant positive correlations among the variables, and the hypothesis is initially supported. This part focuses on further validation of the hypothesis, and tests the direct effect model of brand identity on knowledge workers' innovation behavior.

From Table 3, it can be seen that Chi-square degree of freedom ratio χ^2/df = 1.135 < 3; RMSEA = 0.023 < 0.08; GFI, NFI, TLI and CFI all reached the critical value above 0.9. Therefore, in general, the fitting indexes of the model reach acceptable level. Further comparing the path coefficients in the model, it is found that the path coefficients between organizational identity and innovation behavior in the model are 0.35 (P < 0.001), and the hypothesis is supported.

5. Conclusion

Taking research and development personnel-knowledge worker as the research object, the impact of brand identity on innovation behavior of knowledge workers is explored. The results show that brand identity has a positive impact on knowledge workers' innovative behavior. The results of empirical research have some guidance to human resource management in enterprises. The establishment of the influence mechanism of brand identity on employees' innovative behavior provides a new focus for human resource management in enterprises. In the

Table 2. Mean, standard deviation and correlation coefficient of variables.

Variable	Mean	Standard deviation	Brand identity	Innovative behavior
Brand identity	3.6466	0.67547		
Innovative behavior	3.5090	0.70183	0.323**	

Note: **P < 0.01.

Table 3. Model test.

	χ^2/df	RMSEA	GFI	NFI	TLI	CFI
Direct action model	1.135	0.023	0.964	0.969	0.995	0.996

new economic era, the distance between organizations and employees is becoming smaller and smaller because of the Internet, micro-blog and micro-messenger. Employees are freer to express their own emotional changes, value demands and perceptions of enterprises than ever before. Therefore, enterprises should accurately locate their brand value, and various human resources management of enterprises should be located based on respect, concern and trust for employees. Human resources management practices should be carried out from the perspective of shaping good employment relationship, so as to obtain excess added value through brand building.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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