



A Study on the Factors Influencing the Turnover of Knowledge Employees in State-Owned Enterprises

Taking CZ Company as a Case

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Abstract. Under the background of knowledge economy, the competition among enterprises is gradually condensed into that for human resources. However, the turnover rate of employee in stated-owned enterprises is actually getting higher and higher, particularly, the knowledge staff. CZ Company is chosen as a case to examine the factors influencing knowledge employee turnover in stated-owned enterprises. After data analysis, it is found that promotional opportunity, job stress, distributive justice, autonomy have a significant positive impact on employee turnover. Some suggestions are proposed to decrease the employee turnover in stated-owned enterprises in this paper.

Keywords: Knowledge employees · Turnover · Stated-owned enterprises

1 Introduction

Yang (2019) pointed out that human resources, as one of the most valuable resources in an organization, play a crucial role in its long-term development, and knowledge employees have become an important group within the organization [4]. However, the knowledge staff continue to lose. According to Liu (2016), the survey results conducted by the China Social Survey Office indicate that many state-owned enterprises introduced and lost a total of 7831 and 5521 knowledge employees between 2001 and 2014, with an inflow and outflow ratio of 100:71 [3]. Therefore, it is crucial for state-owned enterprises to retain, cultivate and attract talents. It is also of great significance to promote the long-term and stable sustainable development of enterprises and maintain the stability of the local economy.

2 Literature Review

On the reasons for employee turnover, Price (1977) proposed the core influencing factors of brain drain in enterprises based on early resignation model, including degree of centralization of power, establishment of communication channels (official receipt and release

of information), pay, reasonable communication and integration (employee participation in important matters and hierarchical relationships) [1]. Zhu (2022) mentioned that the main reasons for employee turnover in construction enterprises are family life, personal growth, pay, work atmosphere, mismatch between income and job, increased external employment opportunities, and the siphon effect of large and medium-sized cities [5]. On measures to prevent employee turnover, Yang (2019) analyzed the reasons for the increasing loss of knowledge workers in state-owned enterprises from three dimensions: individual, enterprise, and market. He mentioned measures such as creating career development opportunities, improving salary incentive systems, emphasizing the construction of corporate culture, and strengthening human resource management to retain knowledge employees [4]. In summary, from the perspective of research objects, research mainly focuses on small and medium-sized enterprises, and there is little research on the issue of knowledge worker turnover in state-owned enterprises.

3 Methodology

The quantity survey is adopted in this study and CZ Company is taken as the investigation target. Population is all 119 left knowledge employees in CZ Company. CZ Company was founded in 2005 and is a trading and distribution enterprise mainly engaged in grain distribution and its main business is policy-oriented grain and oil storage and marketing operation. Online survey using questionnaire is applied as the data collection method to get responses from targeted respondents. A five-point Likert scale is used in the survey instrument.

The questionnaire is compiled based on the Price-Muller Model in the study of Liu (2021) [2]. Three dimensions and 10 constructs in this model are applied in this study. Switching costs and career planning are chosen as two constructs considering the characteristics of knowledge workers in CZ Company in this study. The questionnaire is designed into two sections. Section A measures the demographic profile, which include age, gender, education, position, length of service and salary. Section B is organized to get the factors influencing employee turnover, which consists of 23 measurement items. Specifically, the measurement items in Section B derive from three independent variables and 12 constructs. Three independent variables are environment, individual and structure. 12 constructs are opportunity, switching cost, kinship responsibility, general training, career planning, autonomy, distributive justice, job stress, pay, promotional opportunity, routinization, and social support in this study.

4 Data Analysis

4.1 Descriptive Analysis

The target respondents were selected from knowledge workers who have resigned from CZ Company in the past 5 years. A total of 113 survey questionnaires were distributed, and 105 were collected, with a recovery rate of 93%. There are 103 valid questionnaires, with an effective rate of 91%. The proportion of males in the sample is 79.61% (82), while the proportion of females is 20.39% (21). Among the respondents, male proportion

is 3.9 times that of females. Respondents under 25 years old account for 23.3% (24), respondents aged 26–35 years old account for 36.89% (38), and respondents aged 31–35 years old accounts for 28.16% (29). The number of respondents with bachelor is 79, accounting for 76.70% and the number of respondents with master is 19, accounting for 15.53%. Respondents below bachelor only account for 4.85%. The results show that 45.63% (47) of respondents worked in marketing, 20.39% (21) in management, 18.45% (19) in business and 15.53% (16) in technology. The results also suggest that respondents have length of service of less than 1 years, which accounts for 10.68% (11), followed by between 1–2 years, which accounts for 15.53% (15.53%). Respondents with length of service of between 2–5 years account for 33.01% (34). Respondents with length of service of between 5–10 years account for 35.095% (37). The number of respondents with length of service of above 10 years is minimum and only accounts for 4.85% (5). Respondents with a salary of RMB 3500–6000 account for 28.16% (29). Respondents with a salary of RMB 6001–8000 account for 66.02% (29). Respondents with a salary of above RMB 10000 only account for 0.97% (1).

4.2 Reliability and Validity

The turnover of knowledge employees was analyzed from three dimensions: environment, individual, and structure in this study. Cronbach's alpha internal consistency coefficient is adopted to test the reliability of the scale, and Cronbach's alpha coefficient for the total scale is 0.731. A total reliability coefficient of Cronbach's alpha is 0.798, 0.861 and 0.878 for the environment variable with 2 items, the individual variable with 4 items and the structure variable with 17 items respectively. All reliability coefficient of Cronbach's alpha is larger than 0.6 and it indicates that the reliability of the measurement scale is high, its internal reliability is consistent. EFA is conducted on the measured valid sample data. The results show KMO value is 0.746 and a Bartlett's spherical test value is 6972.82 ($df = 253$, $p < 0.001$). That means the scale is suitable for principal component analysis.

4.3 Regression Analysis

The regression analysis is applied to analyze and demonstrate the statistical laws so as to deeply explore the deep causes of employee turnover. As is shown in Table 1, R^2 is 0.875, and adjusted R^2 is 0.859, which fully demonstrates the excellent quality of the data regression results and the high degree of fitting with the model sample. This also indicates that the independent variables have sufficient scientific validity in explaining the differences in the dependent variable. According to the results of variance analysis, F value is 52.688. According to the F value distribution table, if it is greater than the critical value, it is considered that the F-test has passed. The significance is 0.000 and less than the significance level of 0.05, and the equation is considered to be significant as a whole. The regression coefficient values of social support, routinization, promotional opportunity, pay, job stress, distributive justice, autonomy, career planning, general training, kinship responsibility, switching costs, and opportunities are -0.113 , -0.113 , 0.29 , -0.266 , 0.232 , 0.235 , 0.255 , 0.091 , 0.005 , 0.049 , -0.068 , 0.073 separately. To sum up, it is concluded that promotional opportunity, job stress, distributive justice, autonomy have

Table 1. Regression Analysis of Knowledge Employee Turnover in CZ Company

	Unstandardized Coefficients		standardized Coefficients	<i>t</i>	<i>p</i>	VIF
	<i>B</i>	Standard Error	<i>Beta</i>			
Constant	1.108	0.126	—	8.807	0.000***	-
Social Support	-0.113	0.092	-0.172	-1.221	0.225	14.418
Routinization	-0.113	0.092	-0.157	-1.237	0.219	11.638
Promotional Opportunities	0.299	0.108	0.428	2.775	0.007**	17.221
Pay	-0.266	0.114	-0.372	-2.326	0.022*	18.510
Job Stress	0.232	0.113	0.358	2.062	0.042*	21.754
Distributive Justice	0.235	0.106	0.315	2.222	0.029*	14.490
Autonomy	0.255	0.124	0.359	2.056	0.043*	21.976
Career Planning	0.091	0.071	0.146	1.292	0.199	9.168
General Training	0.005	0.062	0.008	0.087	0.931	6.501
Kinship Responsibility	0.049	0.077	0.074	0.638	0.525	9.694
Switching Costs	-0.068	0.053	-0.105	-1.297	0.198	4.711
Opportunities	0.073	0.049	0.100	1.492	0.139	3.262
<i>R</i> ²	0.875					
Adjusted <i>R</i> ²	0.859					
<i>F</i>	52.688***					
Dependent Variable: Employee Turnover						
* <i>p</i> < 0.05 ** <i>p</i> < 0.01 *** <i>p</i> < 0.001						

a significant positive impact on employee turnover, while pay has a significant negative impact on employee turnover.

5 Suggestions

Today, efforts should be made to break the constraints of limited management positions or high-level positions in stated-owned enterprises to improve its innovation mechanism. It is necessary to set up corresponding systems based on the content and contribution of each position. Moreover, it is needed to create a good corporate atmosphere, and reduce unnecessary pressure on employees. A corporate culture of equality and mutual assistance can be created to keep them mentally healthy and optimistic. In addition, managers

should enhance their trust in knowledge employees under prescribed conditions, dare to give them enough freedom, and enable them to fully utilize their abilities. The ultimate goal is to improve the income level of knowledge employees by increasing the salary and promoting performance system.

6 Conclusion

This study aims to examine the factors influencing knowledge employee turnover in stated-owned enterprises and some suggestions are given to avoid the rising leave of knowledge employee. CZ Company is chosen as a case to investigate and collect the data. The quantity survey is adopted in this study and respondents are the left employee in CZ Company. After analysis, it is also concluded that promotional opportunity, job stress, distributive justice, autonomy have a significant positive impact on employee turnover. Some suggestions are proposed to decrease the employee turnover in stated-owned enterprises. It is hoped that the results have certain significance for the future human resource management and healthy development of CZ Company.

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