

A Study on the Relationship between Turnover Intention of the New Generation of Knowledge Employees and Job Embeddedness in Food Processing Industry

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ABSTRACT: The new generation of knowledge-based employees with higher turnover rate is selected for the empirical analysis on the relationship between the job embeddedness and turnover intention, which is verified on the basis of the relevant assumptions made. And, combined with the actual situation of food processing industry of Henan Province, finally the comprehensive solution specific for the turnover behavior of the new generation of knowledge-based employees is proposed from two aspects of a total of six dimensions of off-the-job embeddedness and on-the-job embeddedness according to the conclusions of quantitative research and qualitative research.

KEYWORDS: Knowledge employees; Job embeddedness; Turnover intention; The new generation; empirical study.

INTRODUCTION

Due to the development trend of economic globalization, the human resource becomes a source of enterprise's core competition. With the increasing proportion of the new generation of knowledge-based employees (mainly referring to the knowledge-based employees of generations born in 1980s & 1990s) in the workplace, their high turnover rates also pull up the overall turnover rate of the enterprise. The new generation of knowledge-based employees is characterized by confidence, independence, publicity, rebellion and so on. They have the desire to participate in management, and grasp a certain amount of core technology. At work, while pursuing high payoff, they focus more on the satisfaction, self-efficacy and achievement. Once they find the current environment no longer suitable for their development or they are treated unfairly, they will look for another job. The turnover of the new generation of knowledge-based employees has become the focus of attention of the society. Especially the enterprises, they are more concerned about the high turnover rate and a series of problems it brings.

The advent of the knowledge economics age has brought unprecedented opportunities to the development of knowledge-based enterprises, which rejuvenates some enterprises. They adopt modern biological technology to upgrade enterprises, use knowledge management to replace the traditional management methods, so that knowledge becomes the main subject of enterprise investment. In the knowledge-based enterprises, the new generation of knowledge-based employees account for a higher proportion. Meanwhile, the knowledge obsolete cycle is shortened in the knowledge economics age, which promotes the more frequent talent flow. Several studies on the turnover situations of the new generation of knowledge-based employees show that the time in job of the new generation of knowledge-based employees gradually shortens and the turnover rate continues to rise [1]. One survey indicates that more than 80% of the new generation of knowledge-based employees has the experience of active turnover, among which, 40% of them have once job-hopping experience and 50% of them have more than twice job-hopping experience. Therefore, identifying the main factors affecting the turnover of the new generation of knowledge-based employees and taking targeted countermeasures has a very important practical significance.

In the thriving development process of knowledge-based enterprises, Henan Province, located in the hinterland of the Central Plains, also seizes this historic opportunity. Henan Province is significantly important in grain production and grain deep processing. According to The Food Industry Adjustment and Revitalization Plan in Henan Province, in 2012, the food gross value of industrial output will reach 1.2 trillion yuan; in 2015, it will rise up to 2 trillion yuan and in 2020, to 4 trillion yuan. By then, the proportion of total output value of food industry to the total output value of agricultural output will rise from the current 1.4: 1 to 2.5: 1. In recent years, the food processing enterprises in the industrial cluster districts across the province have a qualitative leap in terms of quantity and quality. At the same time, the proportion of the new generation of knowledge-based employees in food processing enterprise is also increasing with the occupation of more and more important positions. According to the survey of the Ministry of Human Resources and Social Security

of Henan Province, in food processing enterprises in the industrial cluster districts of various counties and cities in Henan Province, more than 40% of the new generation of knowledge-based employees serves with key positions in their enterprises, and they play pivotal roles in the development of their enterprises. With the new generation of knowledge-based employees in the food processing enterprises in the industrial cluster district of Henan Province as the study object, this paper will propose the assumption on the basis of relevant theories and experience, and obtain relative original data with the form of questionnaire. This paper will conduct relevant empirical research by introducing the job embeddedness model, and carries out the correlation analysis, regression analysis, factor analysis and so forth for the original data, attempting to find main factors affecting the turnover of the new generation of knowledge-based employees, on the basis of which, this paper also implements active and effective exploration, and puts forward corresponding countermeasures to improve the company's existing human resources management system, hoping to achieve the practical purpose of reducing the voluntary turnover rate of the new generation of knowledge-based employees.

THEORETICAL BACKGROUND

“Job embeddedness” is a concept proposed by Mitchell et al. in 2001. Their point of view is that “job embeddedness refers to the complex relationship between the individual and the internal & external environment of the organization; the relationship embeds the individual into it like a network, while the individual is one node in the network, so its behavior will be affected in varying degrees by various factors in the network” [2]. Since then, the concept of job embeddedness has been introduced into the study on the voluntary turnover of employee. Starting from the working and non-working factor, the job embeddedness is divided into two categories of on-the-job and off-the-job embeddedness by Mitchell et al., and is further refined into six dimensions, namely, the organizational link, organizational matching, organizational sacrifice, community link, community matching, and community sacrifice. It is because of the breakthrough of the research on it that the traditional turnover theory is supplemented and modified. The prediction of the turnover intention of employees from the non-working and non-emotional factors has been subject to the attention of the majority of scholars [3]. The introduction of this concept broadens the range of predictor variables in this research, and the non-working and non-emotional influencing factors are also first introduced into the research.

RESEARCH DESIGN

Research Hypothesis

H1: The on-the-job and off-the job embeddedness and the job embeddedness is positively correlated with the job satisfaction of the new generation of knowledge-based employees.

H2: The on-the-job and off-the job embeddedness and the job embeddedness is negatively correlated with the turnover intention.

H3: There is significant negative correlation between the job satisfaction and turnover intention.

H4: Compared with the job satisfaction, the job embeddedness reveals the mechanism of action of retention factors, and is superior to the explanation and prediction of traditional job satisfaction variables for the employee's turnover behavior

Research Subject sand Methods

The research subject of this study is the new generation of knowledge-based employees in the food processing enterprises across Henan Province. The reasons for selecting the research objects are that, on the one hand, this team becomes larger and larger, and its turnover rate presents a rising trend; on the other hand, the author knows more about their working and living conditions because of his work, and it's relatively easier to collect data. This study selects the in-service employees of Henan Shuanghui Investment & Development Co., Ltd., Zhengzhou Synear Food Co., Ltd., Zhengzhou Sanquan Food Co., Ltd., Henan DOYOO Group, Henan Yurun Group. A total of 280 questionnaires were issued, and 249 effective questionnaires were returned with the effective recovery rate of 88.9%. The SPSS 19.0 software was used to analyze and study the data of returned questionnaires mainly with the reliability & validity test, correlation analysis, regression analysis and other methods [4].

HYPOTHESIS TESTING AND RESULTS ANALYSIS

Validity Test

In the validity test, the higher validity, the measurement will be more consistent with the content observed, and on the contrary, the less consistent. After conducting the principal component and factor analysis on the data obtained from the survey with the SPSS 19.0 software, the results are shown in Table 1. As can be seen from Table 1, we can learn that the KMO value was 0.802, and the overall Bartlett sphericity test reached a significant level ($P < 0.001$), indicating that the data is suitable for factor analysis.

Table 1. KMO test and bartlett sphericity test.

KMO	.802
Bartlett:	
Approx Chi-Square	690.126
df	28
Sig.	.000

By Table 2, we can know that the on-the-job embeddedness, organizational sacrifice, organizational matching, job embeddedness, out-the-job embeddedness, community sacrifice, community sacrifice, job satisfaction and turnover intention are distributed on F1, while the organizational link and community link are distributed on F2, which shows good construct validity of three scales.

Table 2. Factor loadings after rotation.

	Components	
	1	2
Job satisfaction	.854	
Organizational matching	.847	
Organizational sacrifice	.811	
Organizational intention	-.738	
Community matching	.669	
Community sacrifice	.674	
Organizational link		.871
Community link		.835

Reliability Test

Table 3. Reliability coefficient.

Scales, namely, Component Elements	Project Number	Cronbach's Alpha
On-the-job embeddedness factors		
Factor 1: organizational link	7	.745
Factor 2: organizational matching	8	.850
Factor 3: organizational sacrifice	8	.741
Off-the-job embeddedness factors		
Factor 1: community link	6	.701
Factor 2: community matching	5	.788
Factor 3: community sacrifice	3	.736
Satisfaction	2	.730
Turnover intention	2	.765

The reliability test mainly analyzes the reliability and consistency of the questionnaire. We can know through the analysis results of Table 3 that the Cronbach’s alpha values of all variables are all above 0.7, indicating that the reliability of variables meets the requirements.

CORRELATION ANALYSIS

Table 4 shows the correlation analysis among variables. The job satisfaction is positively correlated with the job embeddedness, organizational matching and organizational sacrifice under the 0.1 significant levels, and positively correlated with community matching and community sacrifice under the 0.5 significant levels, which partially verifies the H1. It indicates that with the higher working and non-working income levels of employees, the employee’s satisfaction for the working organization and environment is easier to reach a better level. It can thus be seen that the higher level of on-the-job and off-the-job embeddedness of the new generation of knowledge-based employees, their job satisfaction will be higher. The turnover intention is positively correlated with the job embeddedness, all dimensions and job satisfaction under the 0.01 significant levels, which partially verifies the H2 and H3.

Table 4. Correlation analysis table of job embeddedness, all dimensions, turnover intention and job satisfaction.

	Job embeddedness	Organizational link	Organizational matching	Organizational sacrifice	Community link	Community matching	Community sacrifice	Turnover intention	Job satisfaction
Job embeddedness	1	.880**			.910**			.411**	.608**
On-the-job embeddedness	Organizational link	1	-.019	.005	.500**	.080	.074	.111	-.029
	Organizational	-.019	1	.590**	.090	.491**	.419**	-.599**	.724**
	Organizational sacrifice	.005	.590**	1	.096	.440**	.485**	-.490**	.657**
Off-the-job embeddedness	Community link	.500**	.090	.096	1	.099	.152*	-.024	.132
	Community matching	.080	.491**	.440**	.099	1	.608**	-.323**	.424*
	Community sacrifice	.074	.419**	.485**	.152*	.608**	1	-.301**	.464*
Turnover intention	.411**	.111	-.599**	-.490**	-.024	-.323**	-.301**	1	
Job satisfaction	.608**	-.029	.724**	.657**	.132	.424*	.464*		1

Note: ** indicates the coefficient is significant above the level of 0.01, * indicates the coefficient is significant above the level of 0.05.

REGRESSION ANALYSIS

The Regression Analysis between the Job Embeddedness (On-the-job and Off-the-job Embeddedness) and Job Satisfaction

Table 5. Regression Analysis between Job Embeddedness and Job Satisfaction.

Model summary^b.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.647 ^a	.418	.415	.60493	1.933

Table 6. ANOVA Variance Analysis Table for the Regression Analysis between Job Embeddedness and Job Satisfaction.

Model	Sum of Squares	df	Mean square	F	Sig.	
1	Regression	57.035	1	57.035	155.856	.000 ^a
	Residual	79.410	217	.366		
	Total	136.445	218			

a. Constant: on-the-job embeddedness.

b. Dependent variable: job satisfaction.

Table 5, 6 and 7 show the regression results with stepwise regression. It can be seen that the multiple correlation coefficient is 0.647, $F=155.865$, and $Sig.=0.000$, indicating significant linear relationship between on-the-job embeddedness and job satisfaction, so a linear regression equation can be established; from the coefficient of determination 0.41, we can know that the independent variable of “on-the-job embeddedness” can explain 41.8% of the variation of the dependent variable -“job satisfaction”, and the fitting is well; the significant probability p tested by the variable t is larger than 0.05, so off-the-job embeddedness variable cannot introduce the model. It thus shows that the “off-the-job satisfaction” does not have the ability to predict the “job satisfaction” in this study.

Regression Analysis between Job Embeddedness and Turnover Intention

Table 8, 9, 10 shows the regression results. With the dependent variable as the turnover intention and the independent variable as on-the-job and off-the-job embeddedness, it can be known by using the stepwise regression that the multiple correlation coefficient is 0.462, $F=58.949$, and $Sig.=0.000$, indicating the significant linear relationship between the job embeddedness and turnover intention, so a linear regression equation can be established; the significant probability p tested by the variable t is larger than 0.05, so off-the-job embeddedness variable cannot introduce the model. It thus shows that the “off-the-job satisfaction” does not have the ability to predict the “turnover intention” in this study.

Table 7. Statistical information table for variables excluded from the regression analysis between job embeddedness and job satisfaction.

Model	Bata In	t	Sig.	Partial Correlation	Collinearity Statistic		
					Tolerance	VIF	Minimum tolerance
1 off-the-job embeddedness	.104 ^a	1.609	.109	.109	.636	1.572	.636

a. Constant: on-the-job embeddedness.

b. Dependent variable: job satisfaction.

Table 8. Regression analysis between job embeddedness and turnover intention.

Model summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.462 ^a	.214	.210	.70159	2.091

a. Constant: on-the-job embeddedness.

b. Dependent variable: turnover intention.

Table 9. ANOVA variance analysis table for the regression analysis between job embeddedness and turnover intention.

Model	Sum of Squares	df	Mean quare	F	Sig.
1 Regression	29.017	1	29.017	58.949	.000 ^a
Residual	106.814	217	.492		
Total	135.831	218			

a. Constant: on-the-job embeddedness.

b. Dependent variable: turnover intention.

Table 10. Statistical information table for variables excluded from the regression analysis between job embeddedness and turnover intention.

Model	Bata In	t	Sig.	Partial Correlation	Collinearity Statistic		
					Tolerance	VIF	Minimum tolerance
1 off-the-job embeddedness	-.011 ^a	-.145	.885	-.010	.636	1.572	.636

a. Constant: on-the-job embeddedness.

b. Dependent variable: turnover intention.

Regression Analysis between Job Satisfaction and Turnover Intention

Table 11 shows the regression results. As can be seen, the multiple correlation coefficient is 0.629, P=141.717 and Sig. = 0.000, indicating the significant linear relationship between job satisfaction and turnover intention; the coefficient of determination is 0.395, and the fitting is well. Thus the linear equation can be established.

$$\text{Turnover intention} = 4.668 - 0.627 \times \text{job satisfaction}$$

This equation is a linear function of one variable, and the curve leans to the low right, indicating that the satisfaction is inversely proportional to turnover intention, thus verifying the hypothesis H3.

Table 11. Results of regression analysis (model summary^b).

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.629 ^a	.395	.392	.61535	1.936

a. Constant: job satisfaction.

b. Dependent variable: turnover intention

Model	Sum of Squares	df	Mean square	F	Sig.	
1	Regression	53.662	1	53.662	141.717	.000 ^a
	Residual	82.169	217	.379		
	Total	135.831	218			

a. Constant: job satisfaction

b. Dependent variable: turnover intention

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistic	
	B	Std. Error	Bata			Tolerance	VIF
1 job satisfaction	4.668	.179		26.055	.000	1.000	1.000
	-.627	.053	-.629	-11.905	.000		

a. Dependent variable: turnover intention.

In summary, as can be seen from the results of regression analysis, the linear relations of on-the-job embeddedness are more significant, and off-the-job embeddedness does not have the predictive ability basically, which also happens to verify the demographics of the new generation of knowledge-based employees. In the food processing enterprises, there are more young people with higher education, but few of them have home-ownership. Due to these characteristics, they are doomed to have lower dependence on the environment and pursue the career more than the environment.

CONCLUSIONS

In the research design stage, with the continuous progress of work, the validity and reliability of the questionnaire is tested mainly by the factor analysis and reliability analysis, during which, the scale is revised constantly to lay the foundation for later analysis.

In the stage of data analysis, the hypothesis is verified through the correlation and regression analysis, so that the theory of job embeddedness is more of empirical significance and more practical in studying the turnover problem field of the new generation of knowledge employees. Meanwhile, an effective theoretical basis is provided for the human resource construction of food processing enterprises from the perspective of theoretical research and empirical analysis.

SUGGESTIONS AND COUNTERMEASURES FOR THE HUMAN RESOURCE CONSTRUCTION OF FOOD PROCESSING INDUSTRIES

Suggestions Based on On-the-job Embeddedness

In Terms of Organizational Link

From the above analysis, there is a non-significant positive correlation between the organizational link and turnover intention. The new generation of knowledge-based employees is usually highly dependent, but they lack of team spirit. So the construction of workforce focuses on the increase in the intensity of enterprise cultural construction in order to improve the staff's overall quality and ability to serve the society as well as build a relatively stable workforce, ultimately coming down to the enhancement of the core competitiveness of enterprises. With the mentorship to guide freshmen by the experienced, the project management to guide most people with few competent people, and the job rotation system to guide the weak with the strong, the staff's enthusiasm for work and potential in job is stimulated so as to always maintain the organization's vitality.

In Terms of Organizational Matching

A majority of survey sample enterprises are listed companies, whose managers are mainly selected by the board of directors in the entrepreneur market. On the one hand, the accumulation of their work experience will help to guide the enterprise to develop rapidly and regularly. On the other hand, because of the accumulation of their industry experience as well as the complexity of social experience, their social attitudes and way of dealing with affairs are prone to result in estrangement and even the generation gap with the young employees just stepping into society. Therefore, with consistent rights and responsibilities, a post-management-based management system adapting to the development of modern society must be established, and its leadership style and management methods should adapt to the characteristics of the new generation of knowledge-based employees. The democratic way of management should be taken to respect the new generation of knowledge-based employees and ask them for more advices. The development and management of human resources of a unit can be said to have already been in place only grasping four links, including selecting, cultivating, making use of and retaining employees.

In Terms of Organizational Sacrifice

We can see from the above analysis that the job embeddedness of the new generation of employees focuses more on the "sacrifice". The effective incentive system can closely link the interests of employees with the overall interests, so as to effectively stimulate the staff's enthusiasm for work, and motivate them to serve the enterprise for a long time.

In general, the material rewards can reduce the turnover rate in a period of time. But once there are problems, the drawbacks of simple material rewards will be immediately apparent. If the rewards are stopped or the reduced, the staff's enthusiasm for work will drop down quickly, and even lower than the original level.

Suggestions Based on Off-the-job Embeddedness

In Terms of Community Link

There is a non-significant positive correlation between the organizational link and turnover intention. So corresponding measures should be taken according to the characteristics of Chinese society, for example, organize activities together with other local relevant enterprises or communities, etc., so that there will be more opportunities for the "linkage" with the community micro-environment to increase the difficulty of staff turnover and gradually integrate the employees into local living environment. Meanwhile, the geographical relationship can also be made use of to hire directly local employees, but there should be a good grasp of degrees to avoid affecting the foster of organizational innovation capability.

In Terms of Community Matching

The managers of knowledge-based enterprises also take pains in the "matching" by all manners of means in order to create a good living and working environment for employees on one hand, and on the other hand, constantly establish and improve various systems to enhance the job embeddedness of employees from the perspective of non-working factors.

In Terms of Community Sacrifice

The fast-paced living conditions and life pressure in modern society seriously affects the mental health of employees, and thus they will feel depressed, which leads to the organizational performance and even the occurrence of turnover [5] or more extreme events. Every enterprise should establish the EAP to strengthen the guidance for employees from the stress management, occupational psychological health, career development, healthy lifestyle, legal dispute, money management and other aspects, and help employees solve personal problems, so as to improve their job performance, improve their consideration of the material and psychological costs in the environment or community, and ultimately achieve the joint and harmonious development of the enterprise, school, environment or community.

In summary, the reasons for employee turnover are the result of many intertwined factors. It's impossible to solve all problems in human resource management with a wonderful idea, and a set of comprehensive, systematic, dynamic, forward-looking human resource management system must be established. In the dynamic management, it's right the ultimate goal of the retainability research for the new generation of employees in the knowledge-based enterprises on the basis of "job embeddedness" to constantly eliminate various unfavorable factors of employee turnover, construct diversified and personalized incentive strategies, establish the process type, full style and comprehensive talent maintain and incentive mechanism of the organization and build the long-term work mechanism for the development of employees.

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