Research on the Relationship Between IT Employee's Work Pressure, Control Points and Turnover Intention

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Abstract

The increasingly fierce competition, IT enterprise employees will feel more and more pressure of work. And in recent years, due to the rapid development of the Internet industry, the IT industry develops fast in the digital revolution, many of the factors make IT enterprise employees turnover rate increased year by year. Based on the IT enterprise employees as investigation object, this article using hierarchical regression method to verify the control points between work pressure and turnover intention has a regulatory role. IT companies in the recruitment and staff training should put employees control points included in the examination scope which can alleviate the pressure on employees to a certain extent and reduce employee turnover rate.

Key words: Work pressure; Control points; Turnover intension

INTRODUCTION

With the advent of the economic times, the world's IT industries are in rapid development, China is no exception. On the third session of the 12th National People's Congress, Premier Li Keqiang proposed to "Internet +" action plan, will further promote the information technology deep into all areas of social production and life, making the IT industry develop at a faster speed in the era of big data. With the big density of knowledge, strong innovative, high technology, high update speed and other characteristics, IT industry creates high value-added, and at the same time it also makes IT industry employees in terms of job characteristics and work life state obviously different from other industries. Specific performance: First, because of the replacement rate in the IT industry and products faster, making IT enterprise employee's work under more pressure than other industry, according to Zhaopin release of "workplace pressure survey report" shows that in all sectors the IT industry employees awareness of pressure ranked third. Work pressure increasing not only affect the physiological and psychological behavior of employees, but also will enhance employees burnout, job performance decreases, eventually led to the employees have turnover intention. Second, the industry's high employee's turnover, turnover rate is generally higher. According to relevant data, the average tenure of Chinese IT employees less than three years, the annual turnover rate is about 25%, thus reducing the employee's turnover rate in the IT industry has become the latest challenge.

Employee's normal turnover intention and the reality of the turnover behavior can be understood and accepted, but if there are a large number of staff turnover and turnover rate staying at a high level, on the one hand, will hinder the normal operation of the enterprise, and on the other hand, it is also difficult to guarantee the enterprise intelligence resources for future development, and ultimately it will not be able to achieve the sustainable development of the enterprise, especially the high technology content industry. Academia believes that the prediction variable of high turnover rate is the employee's turnover intention. Reducing the turnover intention and retaining talent has become a focus of each IT enterprise,

take IT enterprise employees as the object in this paper, and discusses the relationship between IT enterprise employee's work pressure, control points and turnover intention under the current situation. According to different levels of organization, put forward different pressure management strategies to reduce the employee's work pressure, improve the work efficiency, adjust and improve the organization management, in order to reduce the turnover rate.

1. CONCEPT DEFINITION AND THEORETICAL MODEL

1.1 Concept Definition

1.1.1 Theories About Work Pressure
In 1930s, Hans Selye puts forward the concept of pressure firstly, he believes that "pressure is a non-specific response of the body needs to have any effect on it". With the constant improvement of the theory, the theory of pressure formed different school, mainly include the theory of stressors doctrine, the doctrine of the pressure reaction and the pressure of stimulus - response interaction theory. And this paper adopt the pressure of stimulus - response interaction theory, believes that the pressure is the result of interaction reaction between the individual and environment, pressure not only includes the tension caused by environmental stimuli and people subjective responses to environmental stimuli, it also includes the individual feature and the strategy which they treat pressure.

As a high-tech industry, IT industry has many characteristics, such as high intelligence, high innovation, high risk, high growth and so on, and employees are the core and the key role in the IT industry. With the high rapid development of the technology, product upgrading rapidly makes the employees in the IT industry facing the working load intensity, knowledge updated faster and imperfect career planning and other work pressure. Proper work pressure can encourage employees to work actively, improve work efficiency, high working pressure, however, on the one hand will affect the physical and mental health of employees, and on the other hand will influence the employee's work satisfaction and eventually lead to employee absenteeism, turnover, etc.. In this paper, on the basis of IT industry employee's individual characteristics and characteristics of IT industry environment, adopt the pressure of stimulus - response interaction theory to define the IT industry employees work pressure, from different

angles to examine interaction effect between IT enterprise staff and rapidly changing stimuli.

1.1.2 Definition of Turnover and Turnover Intention
1.1.2.1 Definition of Turnover
Turnover is a behavior that mainly aimed at receiving the monetary reward employees interrupting the employment relationship with the enterprises. The concept of turnover is divided into two categories from different angles: voluntary and involuntary turnover, functional and dysfunctional turnover (Tang, 2007). And this paper mainly studies the voluntary turnover, it is usually unpredictable, it will bring a series of negative effects, so the research of voluntary turnover has great significance to the enterprise.

1.1.2.2 Definition of Turnover Intention
Turnover intention is that employees have the idea or intention which terminating the labor relationship. It is generally believed that when the turnover intention achieve a certain degree, employees will generate turnover behavior, most of scholars believe that turnover intention is the last cognitive stage in the process of voluntary turnover, and turnover intention in the study is used as a direct antecedent of turnover behavior, so this paper take turnover intention as the result of variable of working pressure attitude for exploration.

1.1.3 Theory of Control Points
Individual control point is the concept of personality trait, it is a belief coming from strengthening their actions and the consequence of behavior of individuals, which are used to measure the control of the individual tendency. Think through their own actions control the things happen to themselves called internal control type, while those who believe that things happen to themselves are beyond their control called external control type (Huang, 2010).

1.2 Theoretical Model
According to the above theories introduced, and the research purpose of this paper, this research will choose some specific factors that belong to the work pressure, individual characteristics and pressure results using empirical methods to explore the relationship between each other and function way. On the basis of pressure theory model of Robbins and the others, this paper proposed the following research model, The purpose of this research model is to study the relationship between work pressure, the control points and turnover intention, as shown in Figure 1:
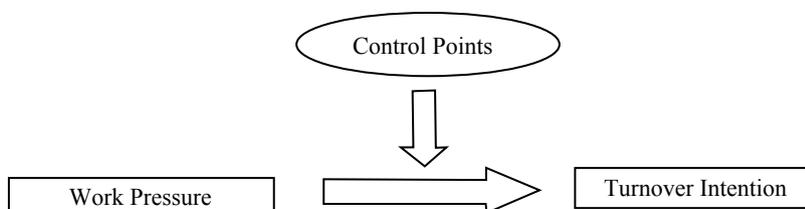

Figure 1
Research Model

2. QUESTIONS AND HYPOTHESIS

A large number of studies about work stress and turnover intention have shown that there is significant positive correlation between them, when the working pressure is greater, the turnover intention is stronger, that is to say, when individuals feel pressure or stress levels increase, it will increases the possibility that they leave the organization. There are many researchers also study the intermediate variable control points, a large number of studies about the control points have shown that the external control individuals are more likely to feel work stress than the internal control individuals, in terms of pressure response, the internal control individuals more easily face and solve the pressure than the external control individuals, and not easy to work in depression and frustration, work satisfaction is also higher. But the study of control points how to play a role in work pressure and turnover intention is less, this paper will research the relationship between work stress, control points and turnover intention. Put forward the following two assumptions for this study:

Hypothesis H1: IT enterprise employee's work pressure and control point has a significant negative correlation.

Hypothesis H2: IT enterprise employee's control point has a regulatory role on the relationship between work pressure and turnover intention.

3. RESEARCH METHODS

3.1 Study Subjects

The investigation object of this research mainly are the IT employees in Beijing, Hangzhou, Dalian and the other regions, the questionnaires mainly distributed through two ways, one is through the paper edition release, the other is through the Internet release, 170 questionnaires were issued, recycling 142 effective questionnaire, recovery rate was 83.5%, among them 113 were males (79.5%), 29 were females (20.5%), mostly in line with the IT industry males accounted for the majority of the population characteristics; aged at 20-30, 109 people (76.8%), IT professionals tend to be young; more than 124 people were the degree of bachelor of education (87.3%), IT enterprise employee's education level, cultural level is higher; under 2 years of work experience, 100 people (70.4%), this showed that the flow of the IT industry more frequently. According to the empirical analysis, get the following source of work pressure descriptive analysis:

Table 1
The Mean and Mean Dimension of the Items About the Working Pressure Sources Scale

Dimensions	Items	Means	Standard deviation	Mean of dimension
Work load	a1	3.86	1.21	
	a3	3.22	1.11	
	a6	2.92	1.12	3.34
	a8	3.34	1.07	
Company management	a10	3.22	1.06	
	a17	3.14	1.17	
	a23	3.36	0.98	3.21
	a24	3.12	1.05	
Pressure from colleagues	a7	2.05	0.95	
	a9	3.05	1.06	
	a18	2.34	0.91	2.48
	a19	2.48	1.02	
Pressure from superiors	a13	2.75	0.98	
	a14	2.77	1.09	2.85
	a15	3.02	0.96	
Career development	a4	2.95	1.04	
	a5	3.57	1.01	
	a16	3.47	1.19	3.36
	a20	3.46	0.98	
Job requirements	a2	3.89	0.89	
	a11	3.12	0.84	3.24
	a12	2.73	0.98	
Knowledge update	a21	3.29	0.93	
	a23	3.01	0.91	3.54
	a25	4.32	0.92	

Each item of the work pressure source scale was calculated the mean, and the calculated average dimensions mean, mean distribution can be obtained on each dimension in the table. Each item score of working pressure scale is positive (the score higher, the pressure greater), seen from the data in the table, the dimensions mean score of IT employees working pressures in descending order are: knowledge update (3.54), career

development (3.36), work load (3.34), job requirements (3.24), company management (3.21), pressure from superiors (2.85), pressure from colleagues (2.48). Working pressure overall score is 3.15, scoring more than 3 indicates that the pressure is too large, from the above data analysis, can know that IT employee's work pressures are from: knowledge update, career development, work load, job requirements and company management, and pressures from superiors and pressure from colleagues are relatively small. Wherein the knowledge update as the first pressure source may be associated with IT industry develop fast, product updates rapidly and the other relevant characteristics, IT employees in order to better develop in the fast-evolving industry and keep up with the pace of the Times, they must constantly update the knowledge.

4. DATE ANALYSIS AND RESULTS

4.1 Reliability and Validity of the Questionnaire Analysis

The control point questionnaire prepared by Rotter and turnover intention questionnaire designed by Aryee and Tan are after several previous studied and verified, showed good validity. This paper is based on this two questionnaires launched investigations. The working pressure questionnaire is modified on the basis of questionnaire put forward by foreign scholars Cooper et al, and absorbing the domestic scholars research results. This research mainly focused on conducting reliability

and validity analysis of the revised work pressure questionnaire. Through the analysis test, work pressure questionnaire Cronbach's coefficient is 0.748, the questionnaire is reliable.

This study used the varimax rotation method to do principal component factor analysis of the questionnaire to verify the validity of the questionnaire. By SPSS17.0 data analysis, work pressure questionnaire extracted five factors, explained 62.24% of the variance, from this can conclude that work pressure questionnaire has good construct validity. Five factors are knowledge update, career development, work load, job requirements and company management.

4.2 Correlation Between Work Pressure, Control Points and Turnover Intention

4.2.1 Correlation Between Work Pressure and Turnover Intention

Taking correlation analysis between the dimensions factor of the work pressure source and turnover intention, when the significance level is 0.01, making two-sided test, found that there are four dimension factors which were career development, company management, pressure from colleagues and work load were positively correlated with the turnover intention. The results showed that the overall correlation between employee's work pressure source and turnover intention, the above-mentioned four factors have a strong explain role, that is to say, when the IT employees in the face of pressure is mainly from the four aspects, the pressure greater and turnover intention will be stronger.

Table 2
Correlation Between Dimension Factor of Working Pressure Source and Turnover Intention

Project	Relationship test	Career development	Company management	Pressure from colleagues	Pressure from superiors	Work load	Job requirements	Knowledge update
Turnover Intention	Pearson correlation	0.43**	0.45**	0.28**	0.15	0.33**	0.09	0.09
	Significant bilateral	0.00	0.00	0.00	0.09	0.00	0.32	0.85

Note. ** indicates significant level at 0.01 (bilateral) significantly.

4.2.2 Correlation Analysis of Work Pressure and Control Points

As can be seen from Table 3, the control points and work pressure was a significant negative correlation, when the control point higher, the work pressure smaller, the

control points lower, the work pressure greater, that is to say, compared to the internal control workers, the external control workers under greater work pressure, which meant that the appropriate enhanced control point can help reduce the IT employee's work pressure, hypothesis H_1 be verified.

Table 3
Correlation Analysis Between the Work Pressure and Control Points

The correlation analysis about work pressure and control points		Control points
Work pressure	Pearson correlation	-.192**
	Significance (bilateral)	0.09

Note. ** indicates significant level at 0.01(bilateral) significantly.

4.2.3 Correlation Analysis of Control Points and Turnover Intention

As can be seen from Table 4, the control point and

turnover intention were a significant negative correlation, when the control point higher, the tendency of turnover intention is lower, the control point lower, the tendency of

turnover intention is higher. That is to say, the more likely internal control of personality characteristics is the lower turnover intention, the more likely external control of personality characteristics is higher turnover intention.

Table 4
Correlation Analysis Between Control Points and Turnover Intention

The correlation analysis about control points and turnover intention		Turnover intention
Control points	Pearson correlation	-.292**
	Significance (bilateral)	0.12

Note. ** indicates significant level at 0.01 (bilateral) significantly.

4.3 The Regulation of the Control Points on the Relationship between Work Pressure and Turnover Intention Analysis

According to the previously dimensions correlation analysis conclusion shown that four stressors factors, which included career development, company management, pressure from colleagues and work load, are variables that significantly associated with IT employee's turnover intention, taking regression analysis between each stressors factor and turnover, and then verify that the control point has a regulatory role between work stressors and turnover intention. This article is a reference to the research methods of Wen Zhonglin, Hou Jietai, Zhang Lei, making the independent variables and the manipulated variable center (the variable value minus the mean), taking $Y = aX + bM + cXM + e$ of hierarchical regression analysis, in which: Y is the dependent variable, represents turnover variable, X is the independent variable, represents four job stressors, M is the manipulated variable, represents control points, a, b, c are coefficients, e is the error (Wen, 2005). In accordance with the stepwise regression procedure, the independent variable, manipulated variable, the product of independent variable and manipulated variable were respectively and sequentially added to the regression equation, and then obtain results in Table 5:

Table 5
Regression Analysis About the Regulation of Control Points on the Work Pressure and Turnover Intention

		F	Sig.	R^2	Adj.R^2
Predictors	Source of work pressure	51.422	.000	.559	.542

Regression Equation One: Turnover intention = 0.485 * pressure from company management + 0.395 * pressure from career development + 0.246 * pressure from workload + 0.120 * pressure from colleagues

		F	Sig.	R^2	Adj.R^2
Predictors	Source of work pressure the control point	45.742	.000	.572	.569

Regression Equation Two: Turnover intention = 0.432 * pressure from company management + 0.365 * pressure from career development + 0.223 * pressure from workload + 0.118 * pressure from colleagues - 0.178 * the control point

		F	Sig.	R^2	Adj.R^2
Predictors	Source of work pressure [Source of work pressure * the control point]	46.009	.000	.581	.571

Regression Equation Three: Turnover intention = 0.422 * pressure from company management +0.375 * pressure from career development + 0.250 * pressure from workload + 0.109 * pressure from colleagues -0.265 * [work load * the control point]

As can be seen from Table 5, the results of the analysis have three regression equations. In the F-test, the significance level was 0, less than 0.01, indicating that the three models as a whole are significant. From the comparison of the coefficient of determination R^2 can find that the first regression equation explains the IT employee's turnover 54.2% of the variation; in the second regression equation, four dimensions of work pressure and control point explain 56.9% of the variance; the third regression equation explained 57.1% variation. It can be seen, the control point has a significant regulatory role in the relationship between work pressure and turnover intention. H$_2$ is verified.

By hierarchical regression analysis, get a conclusion that the control point has a regulatory role between the source of job stress and turnover intention, indicating that with the increase of employee control point, the negative effects of job stressors on turnover tendencies will diminish. In general, the control point has a dual mechanism of action, not only directly affect turnover intention IT employees, but also indirectly plays a regulatory role between work pressure and turnover intention.

CONCLUUSION

(a) To Reduce and Control Various Pressure Source at Work

Because IT industry is complicated, product updates faster, high working strength, etc., making employees susceptible to anxiety psychological causing the work pressure. According to the data analysis: The main pressure source affecting the IT enterprise staff are knowledge update, career development, workload, job requirements and the company management, in the

management, IT enterprise should consider the factors from this five aspects, through proper control pressure source to reduce the employee's work pressure.

First, the IT industry is a typical knowledge-intensive industry, industry knowledge updating speed very fast, technology is developing rapidly, IT enterprises should train employees on perfecting their knowledge structure, make their staff to better cope with the fast development of the industry. Keeping continuous training of employees, on the one hand can meet the needs of employees for rapid updating of knowledge learning, on the other hand, you can ask the staff to instill values of the enterprise, etc.. At the time of increasing staff to enterprise identity, also can promote the enterprise's loyalty of employees.

Second, auxiliary staff design and implement career planning, design professional rising channel for employees. According to the descriptive study, IT enterprise staffs are mostly young and highly educated intellectuals, if IT enterprise can help the employee clear career development matrix, design rising channel, can effectively increase the employee's perceived organizational support and reduce the turnover intention.

Third, the speed and efficiency is the soul of information industry, the IT enterprises should vigorously improve the enterprise management mode, abandoning rigid organizational structure, applying flexible management of the modern way, improving the decision-making efficiency and effectiveness of enterprises, providing timely help to the employees.

Fourth, work overload, task and requires highly are the typical characteristics of IT industry, enterprise should formulate feasible work target and implementation plan, so that employees can order and plan to work, thus reducing the work pressure on employees.

(b) Improve the Level of Control Points of IT Enterprise Employees

Through the research conclusion we can know that control points not only negatively correlated with work pressure, but also had a regulation role between work pressure and turnover intention, that is to say, in the face of great work pressure, internal control type employee's turnover intention weaker than external control employee. According to this conclusion, we can improve the IT enterprise staff's level of the control points to reduce the employee's turnover intention.

The first: Expand social skills and vocational skills training for staff. Strengthen their inner potential, cognitive ability, improve employee self-identification, support and training to improve their skills to meet the new work requirements. Second: Encourage their employees to reasonable attribution. When employees encounter difficulties in their work, encouraging employees to consider the issue optimistic and guiding employees believe they can adapt to changes in the external environment, and believe in their ability to solve problems, so as to enhance employee confidence. Third: Off to a good recruitment, when the company recruiting, it should test employee's psychological, evaluating the employees belong to internal or external control type, so that the staff can be arranged the corresponding positions by various control points in order to make person to match work.

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