The risk formation theory of knowledge-based talents flow in China

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ABSTRACT

Knowledge-based talents with advanced knowledge, experience and skills are major creators of enterprise value. A study on the various reasons causing the flow risks of knowledge-based talents is of great theoretical and practical significance. The article begins with a review of research literature, and then analysis on formation factors of knowledge-based talents' flow risk, through empirical study found that personal factors, organizational factors, team factors and environmental factors, including job interest, work ability, recognition of the work, working conditions, compensation and benefits, promotion prospects, relationship with superiors and colleagues, individual effort, economic and social environment are the critical factors of knowledge-based talents flow risk in China.

Keywords: Knowledge-based talents, Flow risk, Empirical analysis, China.

INTRODUCTION

Peter F. Drucker pointed out in his book *Management Challenges for the 21st Century*: A growing number of enterprise manager already are intellectuals, they are intellectual workers, and they are no longer the boss's subordinates, but partner [1]. Knowledge-based talents with advanced knowledge, they control the level of wealth creation. Because of the value and competitiveness of the enterprises are created by knowledge-based talents, their flow is bound to affect the enterprises' development. In recent years, the flow of knowledge-based talents becomes more and more popular in China. Reasons for their flow are complex, both objective environmental impacts, there are changes of subjective thought, for example, industrial structure adjustment, economic globalizations, market economy matures, subversion of traditional values are likely to become the reasons of knowledge-based talents leaving the enterprises. At the same time, knowledge-based talents with a strong sense of autonomy, compared to ordinary people, they aspire to enterprise environments with flexible and loose corporate culture. They do not wish to be subjected to any restrictions; this character also determines their flow is easier than most people. For enterprises, knowledge-based talents flow will cause many explicit or implicit losses, such as increased personnel costs, lower morale, and leakage of trade secrets, etc. [2]. Research on risk formation mechanism of knowledge-based talents, establish reasonable management strategies of flow risk, to the maintenance of human resource system function, as well as improving operational efficiency is of great significance.

CONNOTATION

Knowledge-based talents, also commonly referred to as knowledge workers. Peter F. Drucker in his book *The Landmarks of Tomorrow* introduced in "knowledge worker" [3]. He describes the knowledge worker as: access and make use of symbols and concepts, using of knowledge or information to work. Since then, scholars have further research on knowledge-based talents. Zhang believes that knowledge-based talents with high personal qualities, strong independent, innovative, high liquidity, high achievement motivation and work complexity, because of these complex properties, enterprises must pay more attention to the management of knowledge-based
talents [4]. Western economists earlier focus on knowledge-based talents’ flow problems, major research includes the unemployment rate, wages, and so on, psychologists and management after joining the ranks of research on knowledge-based talents, focusing on individual and organizational factors. Jean-Mari and Hiltrop pointed out that factors of affecting the knowledge-based talents’ flow including remuneration for work, challenges, training and promotion opportunities, socio-economic status, autonomy, job responsibilities, job security and career development opportunities[5]. According to Kong’s research, intrinsic motivation, including work, personal growth, need for achievement, as well as extrinsic motivators, including salaries, highly independent, external recognition, are major factors causing the flow of knowledge-based talents[6]. In summary, the conduct and character of knowledge-based talents with high complexity and uncertainty, they easily changes with time, and generate new characteristics. Therefore, the study of knowledge-based talents also has certain timeliness, requires timely attention and study.

THEORETICAL ANALYSIS

According to the existing literature, find scholars mainly from personal factors, organizational and environmental factors in an analysis of knowledge-based talents flow. Among them, the analysis of personal factors, organizational and environmental factors can learn from job satisfaction research tools (as shown in table 1), by measuring various aspects of the work, reveals the risk formation mechanism of knowledge-based talents flow.

Table 1: Job Satisfaction Survey Tools

<table>
<thead>
<tr>
<th>Tool Name</th>
<th>Scholar Name</th>
<th>Main Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index of Job Satisfaction, IJS[7]</td>
<td>Brayfield&amp;Rothe</td>
<td>Questionnaire for a total of 18 questions to measure pay, promotion, management, and corporate groups and other variables of satisfaction.</td>
</tr>
<tr>
<td>Need Satisfaction Questionnaire, NSQ[8]</td>
<td>Porter</td>
<td>Questionnaire applies to managers, each question has two items, including the &quot;ideal&quot; and &quot;reality&quot; score, representative of the difference between the satisfactions, higher the score, it means less satisfactory.</td>
</tr>
<tr>
<td>Minnesota Satisfaction Questionnaire, MSQ[9]</td>
<td>Weiss, Dawis, England &amp; Lofquist</td>
<td>Short form questionnaire consists of 20 topics, can measure the inner satisfaction, external satisfaction and general satisfaction. Long form questionnaire consists of 120 topics, can measure 20 variables of work satisfaction and general satisfaction.</td>
</tr>
<tr>
<td>Job Descriptive Index, JDI[10]</td>
<td>Smith, Kendall &amp; Hullin</td>
<td>Questionnaire can measure five variables of satisfaction, including the work itself, pay, promotion, superiors and colleagues. The total score of five variables represents the overall work satisfaction.</td>
</tr>
<tr>
<td>Job Diagnostic Survey, JDS[11]</td>
<td>Hackman &amp; Oldham</td>
<td>Questionnaire for measuring general satisfaction, intrinsic motivation and special satisfaction (Job security, supervision, salary, social relations and growth variables). Its purpose is to investigate whether the current workflow needs to be redesigned in order to improve the performance of enterprises.</td>
</tr>
</tbody>
</table>

Analysis of these research tools, the author considers questions quantity of rationality, questions of readability and participants' thinking habits is essential for the credibility and validity of the research results. Therefore, the author draws on ideas of JDI and JDS, and combined knowledge-based talents' personality and needs, measurement of job satisfaction extended to 11 variables, including job interest, work ability, recognition of the work, working conditions, compensation and benefits, promotion prospects, relationship with superiors and colleagues, individual effort, economic and social environment. The 11 variables set to second order variables, on this basis, abstracting the three dimensions, including personal factors, organizational factors, team factors and environmental factors. In terms of flow risk, author’s analysis from three variables, including the flow opportunity, flow costs and flow tendency, measuring knowledge talented person available social resources, their feelings about the labor market and employment information, as well as economic costs and psychological costs caused by flow.

EMPIRICAL ANALYSIS

Empirical object of this research is the knowledge-based talents in China. This research has special requirements for the qualifications of the participants, the nature of the work and wages, therefore, the first degree of participants are upon college, they have work experience and steady income. The questionnaire using the 7 point scale, and altogether provides questionnaire 800, the actual recovery of 602 copies, of which 550 valid questionnaires, for an effective questionnaire returns-ratio is 68.75%.

First of all, this research discusses reliability of the questionnaire, check internal consistency of the questionnaire; the results are shown in the following table 2.

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From table 2 we can see that the reliability coefficient for each variable is higher than 0.5, it means that reliability in this research is credible.

Second, this research discusses validity of the questionnaire, and using factor analysis for measuring validity, the results are shown in the following table 3.

From table 3 we can see that KMO of all variables are greater than 0.600, indicates that the analysis results can be accepted, and Sig<0.01, shows that there are significant correlations between variables. Therefore, these variables can be used for principal components analysis. The results of components analysis are shown in the following table 4.

From table 4 we can see that all variable factor loads are higher than 0.500, and total variance explained over 60%, shows that division of these dimensions is reasonable.

Finally, this research discusses Correlation of the dimensions; the purpose is to reveals the level of correlation.
between the dimensions, and the results are shown in the following table 5.

<table>
<thead>
<tr>
<th>Dimensions Parameter</th>
<th>Personal factors</th>
<th>Organizational factors</th>
<th>Team factors</th>
<th>Environmental factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow risk Pearson Correlation Coefficient</td>
<td>-0.753**</td>
<td>-0.795**</td>
<td>-0.712**</td>
<td>-0.647**</td>
</tr>
<tr>
<td>Sig. (Two-sided)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>N</td>
<td>550</td>
<td>550</td>
<td>550</td>
<td>550</td>
</tr>
</tbody>
</table>

** Statistical significance at the 0.01 level (two-sided test)

From table 4 we can see that the correlation coefficients between personal factors, organizational factors, team factors, and environmental factors and flow risk are significant at the 0.01 significance level (two-sided tests), and show the negative correlation. The result illustrates that if knowledge-based talents are more satisfied with personal factors, organizational factors, team factors, and environmental factors, then their flow risk will be lower; conversely, the flow risk will be higher.

**CONCLUSION**

This research found that there are significant negative correlations between flow risk and personal factors, organizational factors, team factors, and environmental factors. Therefore, improvements of these factors can significantly reduce the flow risk of knowledge-based talents. More specifically, in terms of personal factors, enterprises must focus on knowledge-based talents of interest, arranged for them to meet their interest in jobs; giving full play to their ability to work, helping them match the capacity to formulate and challenging work; improving the recognition of their work, so that they can feel the importance of the work and a sense of achievement. In terms of organizational factors, enterprises must create a good working environment for knowledge-based talents, and protect the quality of their work and life; attaching to their pay and benefits, and provide fair and reasonable salary to them; giving them enough opportunities for advancement, and help them to determine their career plan. In terms of team factors, enterprises must help them to build good relationships in enterprises, and ensure that they enjoy a harmonious working atmosphere; promoting collaborative spirit, helping them to integrate into the development of enterprises. In terms of environmental factors, enterprises must focus on their feelings about economic and social environment, including tax rates, price levels and health care, and so on. Helping them to improve their ability to adapt to the environment, and enhances their capacity to respond to external shocks. In conclusion, if enterprises want to reduce the flow risk of knowledge-based talents, by reducing their flow opportunity, increasing their flow costs and weakening their flow tendency, and then enterprises can control their flow risk in a reasonable level.

**REFERENCES**