The Empirical Study About Psychological Contract Structure of College Teachers

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Abstract: College teachers are intellectuals in all excellent people groups, and their work characteristics and feature for psychological needs determine that the composition of their psychological contract is different from the general staff, as well as composition of knowledge workers in business organizations. Based on deep interview and open questionnaire, this paper gives exploratory and confirmatory analysis about psychological contract structure of college teachers from two levels: colleges and teachers; confirms objective existence of three-dimension of college teachers’ psychological contract structure, and differences from composition of knowledge workers’ psychological contract.

Keywords: college teachers, psychological contract structure, empirical study

1. Introduction

College teachers are an important part of social human resource system, and one of the best among human resource groups. Whether college teachers can give full play their enthusiasm and initiative or not, to a large extent, affects quality of students, and its own development. College teachers as elite group in intellectuals bear different work from one that general knowledge groups do, and have different psychological needs from common people; which makes enthusiasm of college teachers has its own unique position and incentives to play. From work characteristics of point of view, college teachers directly bear the following basic functions: personnel training, scientific research and serving for society using learned knowledge; they are the actual persons to implement universities’ functions; whose work performance is good or bad often is measured and evaluated by social evaluation, is far from being evaluated directly by economic indicators as enterprises’ employees; or to say, the output of college teachers are performed by non-economic indicators, and performance of common enterprises; employees are more expressed as economic indicators. The hidden inside nature of their performance forms and examination determines gaining work performance mostly relies on self-inner pursuit of college teachers. In another aspect, college teachers are producers of spiritual wealth, but also the largest demanders for spiritual wealth. Although college teachers have common in pursuit for material wealth and its satisfaction as the basic need to survive and develop with common enterprises’ employees, they more college teachers take spiritual needs as their dominant demands. They are more concerned about whether their labor to be recognized by society, whether personal values are fully realized and specially concerns individual career growth. Work and psychological needs characteristics of college teachers determine they have unique and different psychological structure and value system from common workers while they deal with relationships between individuals and colleges, society. Modern organization theory shows that psychological contract is the most profound manifestation of psychological structure and its value concepts to determine people’s performances; different psychological contract and its components determine people will have different performance tendency in the same situations. Thus, the study about psychological contract of college teachers has great significance for understanding psychological needs and performance characteristics of college teachers and then for achieving effective incentive.

2. Review of Literature
In theoretical circles for psychological contract research, there has been argument about two-dimensional and three-dimensional. For the two-dimensional idea, there are more supporters, whose representatives mainly are Rousseau, Kissler, Robinson, Tsui, Millward and so on. They all support psychological contract structure include two kinds: transactional and relational, and get a great deal of empirical research findings to support. Transactional psychological contract more concern specific, short-term and economic interactions; and relational psychological contract focus on broad, long-term, socio-emotional interaction. Employees with relational orientation often have higher degree of trust and organizational satisfaction. Some scholars also support two-dimensional structure of the psychological contract, but do have objections to its composition, for example, Kickul name two-dimensional structure of psychological contract as internal factors and external factors.

While many scholars support two-dimensional structure of psychological contract, some scholars believe three-dimensional structure of psychological contract reveal its nature better. Chinese scholar Li Yuan studied compositions of Chinese employees’ psychological contract structure under the background of Chinese culture and advocated three-dimensional structure. He summed up as normative responsibility, development responsibility and interpersonal responsibilities. Normative responsibility performs as: enterprises provide economic interests and material conditions for employees, and employees comply with basic requirements to finish work, which is equivalent with transactional contract of two-dimensional structure; interpersonal responsibilities performs as: enterprises provide more interpersonal cares for employees, and employees create good interpersonal environment for enterprises; development responsibility performs as: enterprises provide more development space. Interpersonal and development responsibilities are basically equivalent with relational contract on two-dimensional structure and slightly different.

In this study, we have adopted Herriot’s concept (1995) of psychological contract and take responsibilities which employees perceive and both provide for both in the relationship between employees and organizations as psychological contract, which from perception for formal agreement, or hidden in a variety of anticipation. This study selects college teachers groups, having distinctive features in modern society, as object of study, and respectively explores dimension structure of psychological contract from university responsibility and responsibility of college teachers.

3. Methodology

3.1 Subjects
The subjects of this study are 670 teachers coming from Qufu Normal University, Shandong University of Technology, University of Jinan, Shandong Normal University, Shandong University, Shanghai Normal University, East China University of Technology, Hohai University and Nanjing Normal University. A total of 670 questionnaires were issued, 560 were recovered, recovery rate of 84%. Among them, 18 did not meet the rules and were removed; valid questionnaires are 542 and valid rate is 98.6%. Effective sample as follows: Doctors were 138, accounting for 25.5%; Master 301, accounting for 55.5%; undergraduate 103, accounting for 19%, 306 were males, accounting for 56.5%; women, 236 people, accounting for 43.5%. People to work for two years were 168, accounting for 31%; for 2-5 years, 210 people, accounting for 37.7%; work for 5-10 years, 158 persons, accounting for 30.1%; 10 years or more 6 people, accounting for 1.2%.

3.2 Questionnaire Design
Scientific and accuracy of measurement scale are the basic guarantee for effectiveness, for which we first carried out interviews about the content of psychological contract, selecting 11 teachers in Nanjing University, 6 in Hohai University, 11 in University of Jinan and 5 in Shandong Normal University and gave interviews on the promised responsibility projects between colleges and teachers. At last, we identified 14 projects responsibilities undertaken by the University as well as 13 items undertaken by teachers.
Scale used in this study is compiled by ourselves on the basis of learning from existing psychological contracts measurement scale at home and abroad, including the following measurement scales and items of psychological contract: Chen Jiazhou’s (2001), Rousseau’s (2000), Li Yuan’s (2002), Millward & Hopkins’ (1988) and others’. Among them, items of university responsibility are 15, and teachers’ responsibility 13. The scale is designed by using Likert’s five-point style (the answers are from 1, has never been a commitment to 5, very clear). At the same time, the questionnaire used to fill in the blanks or choices, and designed according items for individual data of subjects including age, gender, education, jobs, work experience and other items.

3.3 Reliability Analysis
We gave validation examination about questionnaire of psychological contract structure of college teachers and the results showed: Cronbach's alpha coefficient of questionnaire parts about university responsibility was 0.849, and about teachers’ responsibility was 0.815. The results showed the questionnaires have a more satisfactory reliability test.

3.4 Study Tools
This study used statistical spss13.0 processing tools, as well as lisrel8.70 statistical software; analysis ways to use principal component analysis, exploratory factor analysis and confirmatory factor analysis and so on.

4. Conclusion and Discussion

4.1 University responsibility
Using principal component analysis, accordance with eigenvalue greater than and the orthogonal rotation method varimax exploratory factor analysis, extracted three factors, the total amount of 53.847% to explain. Among them, the first factor included fair wage subsidy, flexible work plan, comprehensive medical, welfare scheme, a stable job security, a fair performance evaluation system, fair work arrangement as well as adequate trust and respect, (total 8 factors) and amount of variance explained 25.615%, named as material support. The second factor included adequate training opportunities, clear promotion opportunities, clear career development plans and challenging work and they reacted college teachers’ responsibility for colleges providing for teachers’ individual career growth; named development opportunities, is its factor loading of 15.083 %. The third factor included a harmonious working atmosphere, competent colleagues, trust and help among colleagues. This is teachers’ subjective perception about interpersonal atmosphere among teachers, interpersonal cooperation within the organization; it is teachers’ objective needs for self-realization under the tendency of team of modern organizations. The study named as environment construction, the amount of variance 13.149% to explain.

According to the existing literatures and two-factor model of competition model introduced for the study’s need, we use confirmatory factor analysis and three-factor model to compare advantages and disadvantages and determine the reliability of three-dimensional factor model. Measure standards for model’s advantages and disadvantages have many, usually attributed to the following:

\( x^2/df \): This indicator more close to 0, the model fit better; \( x^2/df<3 \), indicated that the overall model fit very well; \( x^2/df<5 \), indicated that the overall model fit better, you can accept; \( x^2/df>10 \), indicated that the overall model fit is poor.

RMSEA and SRMR: Changes in both values are between 0 and 1, more close to 0 showed fit better. If less than 0.08, then showed a very good fit; if less than 0.09, then the overall fit and able to accept; if is greater than 0.09, it indicated poor model fit.

GFI, NNFI, CFI, and IFI: Changes of these indicators were between 0 and 1, closer to 1, better. When more than 0.9, it is considered data and designed model were ideal fit. When less than 0.9, it is considered data and designed model were poor fit.
Confirmaory factor analysis results about three-dimensional structure model of university responsibility shown as Table1.
The result showed that value of $X^2/df$ in three-dimensional structure of the University responsibility is 2.97, less than three; value of $X^2/df$ in two-dimensional is 3.90, more than 3; by comparison, model fit of three-dimensional structure is better. From the values of RMSEA and SRMR in the three-dimensional structure, respectively, 0.076 and 0.069, all less than 0.080, both are well standard values of model fit; the values of RMSEA and SRMR in two-dimensional model are inferior to those in three-dimensional model. In GFI, NNFI, CFI, IFI, the test results showed their values were all greater than 0.90, the value of GFI was 0.89, nearly close to 0.90, comprehensively showed model fit in three-dimensional structure was good. Although in these test values, those in two-dimensional structure were close to or slightly higher than well standards of model fit, from comprehensive view of point; these values are inferior to those in three-dimensional structure model.

<table>
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<tr>
<th></th>
<th>$X^2/df$</th>
<th>RMSEA</th>
<th>SRMR</th>
<th>GFI</th>
<th>NNFI</th>
<th>CFI</th>
<th>IFI</th>
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<tr>
<td>Three-dimensional</td>
<td>2.97</td>
<td>0.076</td>
<td>0.069</td>
<td>0.89</td>
<td>0.91</td>
<td>0.93</td>
<td>0.93</td>
</tr>
<tr>
<td>Two-dimensional</td>
<td>3.90</td>
<td>0.110</td>
<td>0.085</td>
<td>0.85</td>
<td>0.87</td>
<td>0.89</td>
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4.2 Analysis on responsibility of University Teachers
Using principal component analysis, in accordance with eigenvalue greater than 1, and orthogonal varimax rotation factor analysis method, the study extracted three factors, and total amount of each factor to explain is 50.117%.
The first factor included identity for university cultures, long-term commitment to serve university, maintaining university reputation, keeping absolute loyalty to university, these five items; what it reflected is employees’ commitment about the relationship between them and university and named as organizational identity by this study; its factor loading is 28.701%. The second factor included undertaking work out of responsibility initiatively, striving to improve personal work performance and skills, giving necessary help for colleagues, obeying organizational work arrangements and comply with professional ethics of university, five items, reflecting college teachers’ commitment to perform their basic work responsibility; named as occupational norms by the study and its factor loading is 11.416%. The third factor included putting forward proposals for organizational changes, innovative research, teaching self-reform, these three factors, and named as innovation-orientation; its explained amount of variance is 10.00%.
The study tested model fit of three-dimensional structure by using structural equation analysis to make confirmatory analysis and to test whether model assumptions of this study fit well or not; at the same time, compared with two-dimensional structural model; Confirmatory s analysis results like in Table 2.

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Confirmatory analysis showed that the $X^2/df$ value in three-dimensional structure of college teachers' responsibility was 2.53, less than 3, $X^2/df$ value in two-dimensional structure was 3.72, greater than 3, by comparison, model fit in three-dimensional structure is better. From the RMSEA and SRMR values in three-dimensional structure, respectively, 0.072 and 0.040, all less than 0.080, both models fit well to meet standard value, however the RMSEA and SRMR values in two-dimensional structure, were 0.090 and 0.070, clearly inferior to those in three-dimensional structure. In GFI, NNFI, CFI, IFI and other indicators commonly used, the test results showed the values in three-dimensional structure were greater than 0.90, comprehensively showed models in three-dimensional structure fit well. Although the test values in this group, which were close to or higher than ideal standard of model fit in two-dimensional structure, generally speaking, model fit in two-dimensional structure was inferior to those in three-dimensional. Therefore, three-dimensional structure model about college teachers' responsibility of their psychological contract is superior to two-dimensional structure model and has more reliability.

### 4.3 Study conclusion and Discussion

In recent years, studies about psychological contract structure of knowledge workers under Chinese situations are becoming more and more boom. Zhu Xiaomei and Wang Zhongming gave some studies about psychological contract composition of knowledge workers in Chinese enterprises and put forward three-dimensional structure model of knowledge workers' psychological contract in Chinese enterprises. The study further supports reliability of three-dimensional structure of knowledge workers' psychological contract in Chinese enterprises by analysis results about 542 college teachers' samples. But in specific structure of psychological contract, because there are objective differences in work object, organizational responsibility and organizational culture environment ant so on between college teachers and knowledge workers in enterprises, their specific compositions are different from those of knowledge workers in enterprises. Firstly, in the dimension of university responsibility, material support has been considered to be the primary responsibility of university by university teachers. This result differs from existing western literatures and what Chinese scholars believe career development opportunities are the greatest aspirations of knowledge workers by studying knowledge workers. Why causes this result lie in current teachers' salaries in Chinese universities and material conditions of work have great differences from knowledge workers' as cores of enterprises; existing salary system in colleges and universities does not reflect knowledge content and values of knowledge owned by teachers, especially lack of incentive in aspect of pay. From a social background, in China, salary levels in China are often perceived as social expression of a person's value, which in a certain extent makes college teachers think material support should be performed as a primary responsibility of university.

Secondly, from the dimension of teachers' responsibility, college teachers regard organizational identity as the primary responsibility of teachers. This differs from knowledge workers in common enterprises; knowledge workers separate individual professional growth from organizational growth, that is, to be loyal for individuals is higher than to be loyal for organization; in recent years, the wastage rate of teachers in Chinese universities is much lower than the loss rate of knowledge workers in enterprises, which in some extent can explain demonstrate. This shows that college teachers' unity about professional identity and organizational identification in China is higher than knowledge workers in enterprises; this also has connection with management systems for Chinese college teachers, that is, restrictions and constraints on movement of China's college teachers is too large.

In summary, the study suggests three-dimensional structure of college teachers’ psychological contract is more in line with characteristics of college teachers. From university Responsibility, there are material support, development opportunities, environmental support three-dimensional factor; from the perspective of teachers, it contains organizational identity, professional norms, innovational direction.
three basic factors. But the study has an obvious lack, that is, select sample companies to be compared. At the same time, in psychological contract structure of college teachers, what kind of relationship exists between university responsibility dimension and teachers’ dimension should be revealed further.

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References