Psychological Contract Breach, Job Insecurity, and Job Engagement: The Moderating Effect of Employment Type
Linxheng Xiao1 Jian Chen1,*

1 Business School, Beijing Institute of Technology, Zhuhai, Zhuhai, Guangdong 519088, China
*Corresponding author. Email: 68691187@qq.com

ABSTRACT
This study integrates social exchange theory and resource conservation theory and explores the mechanism and boundary conditions of the impact of psychological contract breach on employees' job engagement. It uses a survey sample of 414 teachers from colleges and universities, and the empirical test results show that the psychological contract breach has a negative effect on job engagement, the psychological contract breach has a significant positive impact on job insecurity, and the job insecurity plays a mediation role in the impact of psychological contract breach on job engagement. The employment type moderates the relationship between psychological contract breach and job insecurity. Compared with teachers who have the establishment of public institutions, the relationship between psychological contract breach and job insecurity of contract teachers is stronger. Employment type also moderates the indirect effect of psychological contract breach on job engagement through job insecurity. Specifically, compared with teachers who have the establishment of public institutions, the impact of psychological contract breach on job engagement through job insecurity is more significant in contract teachers. These results are of great significance to comprehensively explain the path and mechanism of psychological contract breach on work engagement.

Keywords: Psychological contract breach, Job insecurity, Job engagement, Employment type.

1. INTRODUCTION
In an increasingly competitive environment, employees' job engagement directly or indirectly affects the organization's value creation, competitiveness and development prospects. The so-called job engagement refers to a continuous and universal positive emotional cognition and activated state of employees [1], including the physical, cognitive and emotional input of "self" in work [2]. When employees are engaged in work, they make full use of and express themselves, and present themselves psychologically at work [3]. The characteristics of job engagement are vitality, dedication and concentration [1]. Vitality refers to having a high degree of positive energy at work and being able to maintain vitality and willing to put in one's own efforts even in the face of difficulties. Dedication is a kind of intense engagement in work, and the experience of a sense of meaning, pride and challenge. Concentration is a pleasurable state of total dedication to work [1]. It is worth noting that, as a unique academic construction, the researcher pays attention to job engagement relatively late, and its cause and effect have not been fully developed in theory and empirical research [4]. In view of the importance of job engagement to the organization and the current research status in this field, it is necessary to further explore the factors that affect employees' job engagement [5] [6].

In the relationship between employees and organizations, in addition to the formal labor contract, there is an unwritten but tacit psychological contract between the two parties. The psychological contract reflects the employee's concept of reciprocity, and is considered to be an
important basis for determining the employee's job engagement [7][8]. On the one hand, employees hope to seek satisfactory returns through their own efforts, including fair wages, growth opportunities, promotion, and supportive working environment [25]; on the other hand, by meeting these expectations, the organization hopes that reciprocity norms will encourage employees to reward their work and organization with positive attitudes and behaviors [8][9]. According to the social exchange theory, in the exchange relation, continuous contributions and rewards increase the obligations between the two parties [10]. Therefore, the fulfillment of the psychological contract by the organization is conducive to shaping the attitude and behavior of the employees expected by the organization [11][12]. The psychological contract breach occurs when employees believe that their organization has not fulfilled its obligations and promises [13]. Studies have found that employees' perception of the organization's failure to fulfill their obligations, that is, the discovery of a psychological contract breach, will cause strong attitudes and emotional reactions [14]. The psychological contract breach stems from the unmet expectations of employees, such as job stability, fair remuneration, training and growth opportunities, decision-making participation, etc., which are regarded as important "resources" in the theory of resource conservation [15]. A review of the literature found that previous psychological contract research from the perspective of resources mainly explored the resources that employees obtained from the organization and their impact on employee attitudes and behaviors [12][16]. Although the fulfillment of the psychological contract and the breach of the psychological contract are part of a continuum, their impact on employee attitudes may be asymmetrical, so it is necessary to evaluate their impact on employee attitudes and behaviors separately [17].

Job security is one of the most important professional values of employees, and it is also the core content of the psychological contract [18][19]. Although the psychological contract breach is considered to be an important factor in determining the attitude and behavior of employees, the existing research on the mechanism of the psychological contract breach on job engagement is still relatively limited. Job insecurity reflects employees' concerns or uncertainty about future job loss and valuable job characteristics (such as development space, remuneration prospects, and working conditions) [20]. The psychological contract breach means that the resources that employees cherish, especially job stability, training and development opportunities, salary and welfare, etc. cannot be met. Resource conservation theory believes that people strive to acquire, retain and protect resources [21]. The possession of resources can meet the needs of employees and help them deal with challenges; conversely, when individuals are threatened by resource loss or lose resources, or fail to obtain corresponding returns after giving, pressure will arise [22]. Therefore, when employees experience that the organization fails to provide them with a guaranteed employment relationship, they will worry about their job survival and development prospects [23]. Furthermore, based on the principle of negative reciprocity [24], employees who feel the threat of unemployment and the loss of valuable job characteristics may "return like for like" and take the opportunity to "retaliate" against the organization. Therefore, this study predicts that job insecurity may be another path connecting the psychological contract breach and job engagement.

In China's employment system, there are two typical forms of employment, "inside the system" and "outside the system". As a concentrated expression of the employment system inside and outside the system, the establishment of public institutions and contract system represent two different types of employment. Min et al. [25] pointed out that the relationship between the psychological contract breach and the employee's attitude and behavioral response may be affected by the nature of the employment of both parties. Rousseau [26] also believed that psychological contract is a manifestation of the exchange relationship between employees and the organization, and their employment relationship will affect employees' response, so it is worthy of in-depth study. Unfortunately, there are only a few Chinese and foreign literatures exploring such issues [27][28], and there are few comparative studies based on the employment situation in China, especially the "inside-the-system" establishment of public institutions and the "outside-the-system" labor contract.

In the context of China, employees with a formal employment know that they will maintain a relationship with the organization for a long time, and their personal interests and development are closely related to the interests and development of the organization. Therefore, when the organization fails to fulfill its psychological contract, permanent staff are more likely to consider issues from the standpoint of the work unit and understand the
difficulties of the organization, thereby alleviating the attitude and behavioral response caused by the psychological contract breach; on the contrary, the relationship between contractual employees and the organization is more of an economic exchange, and their identity and sense of belonging to the organization are relatively weak [29]. Therefore, when perceiving that the organization has not fulfilled its promises and obligations, contractual employees may interpret the organization's breach of contract with a more negative mentality, and then produce stronger attitudes and behavioral responses. More importantly, the resource conservation theory believes that individuals with more resources are less susceptible to resource loss and are more capable of obtaining resources. Since the establishment of public institutions usually means stronger career stability and better job pay [29], this study forecasts that, compared with contractual employees, employees with a formal establishment of public institutions will have a relatively weaker job insecurity due to the institutional protection of employment when they encounter the psychological contract breach.

Based on the above discussion, this research proposes the following hypotheses:

H1: Psychological contract breach is negatively correlated with job engagement.
H2: Psychological contract breach is positively correlated with the job insecurity of employees.
H3: Job insecurity plays a mediation role between the psychological contract breach and job engagement, that is, the psychological contract breach affects job engagement through job insecurity.
H4: Employment type moderates the relationship between psychological contract breach and job insecurity. Compared with permanent teachers, the relationship between the psychological contract breach of contractual teachers and their job insecurity is stronger.
H5: Employment type moderates the indirect effect of psychological contract breach through job insecurity that affects job engagement. Compared with permanent teachers, the impact of psychological contract breach on job engagement through job insecurity is more significant for contractual teachers.

The theoretical model of this research is shown in "Figure 1".

![Figure 1 Theoretical model of this research.](image)

2. RESEARCH METHODS

2.1 Experimental Subject Selection and Investigation Procedure

This research takes teachers in universities and colleges as the research object. Among the teachers in universities and colleges, there are not only those with a formal establishment of public institutions, but also a large number of them under the contract (employment) system. With the advancement of China's employment system reform, a large number of the establishment of public institutions and contract employment methods coexist in some industries and even the same organizational system. Therefore, the in-staff and off-staff differences in teacher employment are, to some extent, a miniature of the changes in China's employment system. In addition, regardless of the differences in employment methods, the work of all teachers in universities and colleges is generally homogeneous, which provides this research with an opportunity to study organizational employees in the same field while controlling the main teaching and management variables.

A total of 560 teachers have participated in the research of this study, and they are mainly distributed in dozens of colleges and universities in Guangdong, Guangxi and other provinces. Data are collected using paper questionnaires (360 copies) and online questionnaires (200 copies). Among them, paper questionnaires are distributed at two time points. For the first time, it mainly collects
data on the psychological contract breach, employment type and other demographic variables; the second time is to collect data on variables such as job insecurity and job engagement. Paper questionnaires are distributed, answered and collected on the spot. In order to reduce the impact of common method bias, this study controls the investigation process, including anonymous investigation, non-disclosure agreement, etc. Online questionnaires are distributed through SO JUMP, and the quality of the data is ensured through paid answering and strict back-stage review. A total of 468 questionnaires are collected from the two survey methods, of which 414 are valid questionnaires. Among the 414 subjects, the proportions of men and women are 47.8% (198 persons) and 52.2% (216 persons) respectively; age distribution: 21.3% (88 persons) are aged 30 and below, 46.4% (192 persons) are aged 31-40, and 22.9% (95 persons) and 9.4% (39 persons) are aged 41-50 and 51 and above, respectively. Education background: The proportions of bachelor degree and below, master degree, and doctoral degree are 20.8% (86 persons), 53.6% (222 persons), and 25.6% (106 persons), respectively. Professional title: The total proportion of junior and medium-grade professional titles is 67.9% (281 persons), and the total proportion of senior professional title (including sub-senior) is 32.1% (133 persons).

2.2 Research Tools

In order to ensure the reliability and validity of the measurement, the variables involved in this study adopt a maturity scale; at the same time, taking into account the characteristics of the research object, some statements have been modified.

2.2.1 Psychological Contract Breach

The scale developed by Robinson and Morrison [30] contains a total of 5 items. Typical items include "So far, the work unit has done a good job in fulfilling the promise to me (reverse scoring)" and "Despite my dedication, the work unit has repeatedly violated the promise made to me". The Likert 5-point scoring method is taken, from 1="very inconsistent" to 5="very consistent", the higher the score, the higher the sense of psychological contract breach. In this study, the internal consistency coefficient of the scale is 0.87, showing good reliability.

2.2.2 Job Insecurity

The job insecurity scale developed by Hellgren et al. [31] is used. The scale includes two dimensions: quantitative (job continuation) job insecurity, qualitative (job development and prospects) job insecurity, a total of 7 items. This study measures it as a whole. The Likert 5-point scoring method is taken, from 1="strongly disagree" to 5="strongly agree". In this study, the internal consistency coefficient of the scale is 0.73.

2.2.3 Job Engagement

The job engagement scale (UWES-9) developed by Schaufeli et al. [32] is used. The scale contains three dimensions: vitality, concentration and dedication, each containing three items. This study measures it as a whole. The Likert 7-point scoring method is used, and from 0 = "never" to 6 = "always", the respondent is required to make a frequency response. In this study, the internal consistency coefficient of the scale is 0.92, indicating that the reliability is excellent.

2.2.4 Control Variables

Previous studies have shown that some common demographic variables have an impact on job engagement [33]. In this study, gender (female=0, male=1), age (1=30 years old and below, 2=31-40 years old, 3=41-50 years old, 4=51 years old and above), professional title (1= junior level, 2=medium-grade level, 3=sub-senior level, 4=senior level) and education background (1=bachelor degree and below, 2=master degree, 3=doctoral degree) are included in the statistical analysis as control variables.

3. RESEARCH RESULTS

3.1 Discrimination Validity and Common Method Bias Test

A confirmatory factor analysis is performed on three variables to test the discrimination validity of psychological contract breach, job insecurity, and job engagement. As shown in "Table 1", compared with the single-factor and two-two-factor models, the three-factor model has the best imitative effect (χ2/df=2.46, GFI=0.92, CFI=0.91, TLI=0.89, RMSEA=0.07 ); and all indicators have reached the standard, indicating that the three variables have good discrimination validity.
Table 1. Confirmatory factor analysis results

| Model                        | χ²     | df   | χ²/df | GFI   | CFI   | TLI   | RMSEA |
|------------------------------|--------|------|-------|-------|-------|-------|-------|
| Three-factor model           | 260.52 | 106  | 2.46  | 0.92  | 0.91  | 0.89  | 0.07  |
| Two-factor model (P+J,E)     | 1146.18| 149  | 7.69  | 0.69  | 0.73  | 0.69  | 0.14  |
| Two-factor model (P+E,J)     | 1625.57| 167  | 9.73  | 0.59  | 0.59  | 0.54  | 0.17  |
| Single-factor model (P+J+E)  | 1876.51| 169  | 11.10 | 0.31  | 0.24  | 0.28  | 0.25  |

Note: P represents psychological contract breach, J represents job insecurity, and E represents job engagement.

Since the survey data all come from the self-report of the subjects, it is necessary to conduct a common method bias test. The HARMAN single factor method is used to test. The results show that the unrotated first factor explains 32.33% of the variance, which fails to account for half of the total variance explained (71.94%). Therefore, it can be considered that the common method bias problem of this study is not serious.

3.2 Descriptive Statistics

"Table 2" shows the mean value, standard deviation and correlation coefficient of each variable. As shown in the data, psychological contract breach is significantly positively correlated with job insecurity (r=0.46, p<0.01); psychological contract breach is significantly negatively correlated with job engagement (r=-0.19, p<0.01); job insecurity has a significant negative correlation with job engagement (r=-0.28, p<0.01). These results are consistent with the expectations of this study.

| Variable          | M     | SD    | 1     | 2     | 3     | 4     | 5     | 6     | 7     |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. Gender         | 0.48  | 0.50  |       |       |       |       |       |       |       |
| 2. Age            | 2.21  | 0.88  | 0.16**|       |       |       |       |       |       |
| 3. Education      | 2.05  | 0.68  | 0.09  | 0.14**|       |       |       |       |       |
| background        |       |       |       |       |       |       |       |       |       |
| 4. Professional   | 2.14  | 0.83  | 0.16**| 0.65**| 0.31**|       |       |       |       |
| title             |       |       |       |       |       |       |       |       |       |
| 5. Employment     | 0.36  | 0.48  | -0.05 | 0.30**| 0.14**| 0.35**|       |       |       |
| type              |       |       |       |       |       |       |       |       |       |
| 6. Psychological  | 2.81  | 0.66  | 0.01  | 0.11**| 0.11**| 0.19**| 0.13**|       |       |
| contract breach   |       |       |       |       |       |       |       |       |       |
| 7. Job insecurity | 2.72  | 0.53  | -0.04 | -0.02**| 0.04  | -0.07 | 0.04  | 0.46**|       |
| 8. Job engagement | 4.02  | 0.89  | 0.05  | 0.15**| -0.04 | 0.04  | 0.32**| -0.19**| -0.28**|

Note: (1) **p<0.01, *p<0.05; (2) Employment type: contract =0, establishment=1.

3.3 Hypothesis Testing

According to the recommendations of Baron and Kenny [34], a hierarchical regression method is used to test the mediating effect.

According to the data in "Table 3", after controlling for demographic variables, the psychological contract breach is significantly negatively correlated with job engagement (Model 6, β=-0.20, p<0.001), and hypothesis 1 is supported. Psychological contract breach is significantly positively correlated with job insecurity (Model 2, β=0.49, p<0.001), AND hypothesis 2 holds. After bringing the control variables, psychological contract breach, and job insecurity into the regression equation (Model 7), it is found that job insecurity has a significant negative impact on job engagement (β=-0.24, p<0.001), and the regression coefficient of psychological contract breach on employees' job engagement drops from -0.20 to -0.09, and is no longer significant (p>0.05), indicating that job insecurity completely mediates the relationship between psychological contract breach and job engagement. Thus, Hypothesis 3 is supported.
Table 3. Hierarchical regression results

|                      | Job insecurity | Job engagement |
|----------------------|----------------|---------------|
|                      | Model 1        | Model 2       | Model 3       | Model 4       | Model 5       | Model 6       | Model 7       |
| Control variable     |                |               |               |               |               |               |               |
| Gender               | -0.04**        | -0.03**       | -0.03         | -0.02         | 0.03          | 0.02          | 0.02          |
| Age                  | 0.06**         | 0.07**        | 0.06          | 0.05          | 0.21***       | 0.20***       | 0.22***       |
| Professional title   | -0.12***       | -0.22***      | -0.20**       | -0.20**       | -0.04         | -0.03         | -0.02         |
| Education background | 0.08           | 0.05          | 0.05          | 0.04          | -0.08         | -0.05         | -0.10         |
| Psychological contract breach | 0.49***       | 0.49***       | 0.56***       | -0.20***      | -0.09         |               |               |
| Moderated variable   |                |               |               |               |               |               |               |
| Job insecurity       | -0.24***       |               |               |               |               |               |               |
| Independent variable |                |               |               |               |               |               |               |
| Psychological contract breach |            |               |               |               |               |               |               |
| Employment type      | 0.01           | 0.24          | 0.24          | 0.26          | 0.03          | 0.07          | 0.11          |
| Employment type      | 0.23**         | 0.00          | 0.02          | 0.04          | 0.04          | 0.04          |               |
| Interactive item     | -0.13**        |               |               |               |               |               |               |
| △R²                  | 0.09           | 26.87***      | 21.87***      | 19.75***      | 3.19**        | 6.14***       | 8.57***       |
| F                    | 0.99           | 9.89***       | 3.31***       | 6.47***       | 8.57***       | 9.57***       |               |

Next, it is a test regarding the moderating effect. Model 4 shows that after controlling for psychological contract breach and employment type, the interaction terms between psychological contract breach and employment type have a significant negative relationship with job insecurity (β=-0.13, p<0.05). Hypothesis 4 is verified. This study also draws a moderating effect map (see "Figure 2"), and conducts a simple slope analysis to further confirm the moderating effect of employment types. The results show that for contractual teachers, there is a very significant positive relationship between psychological contract breach and job insecurity (β=0.53, p<0.001); for teachers with the establishment of public institutions, the impact of psychological contract breach on job insecurity is also significant (β=0.34, p<0.001), but it is much lower than that of contractual teachers.

![Figure 2 Diagram of the moderating effect of employment types.](image)

Further, referring to the moderated mediation analysis model proposed by Preacher et al. [35], this study uses the Bootstrap method to analyze the mediating effect of job insecurity between psychological contract breach and job engagement under different types of employment. The results are shown in the left part of "Table 4". The data shows that for contractual employees, the mediating effect of psychological contract breach affecting job engagement through job insecurity is -0.1668, and the 95% confidence interval of Bootstrap test is (-0.2568, -0.0856), excluding 0. For employees...
with the establishment of public institutions, the mediating effect of psychological contract breach affecting job engagement through job insecurity is -0.0929, and the 95% confidence interval of the Bootstrap test is (-0.1656, -0.0367), which excludes 0, either. This shows that the mediating effect of job insecurity is significant for employees in the establishment of public institutions and contract system. Under the circumstances, the analysis of conditional mediating effect alone is not enough to conclude that there is a moderated mediating effect. In response to such situation, Hayes [36] proposed the Bootstrap method to conduct a moderated mediating effect test judgment INDEX, and this method has more advantages than the indirect effect of grouping conditions. According to this suggestion, the right part of "Table 4" presents the judgment INDEX obtained from the Process operation. The data shows that the mediating effect of employment type on psychological contract breach is 0.0739, and the 95% confidence interval of Bootstrap test is (0.0185, 0.1387), excluding 0, which shows that this moderated mediating effect is significant, that is, under different types of employment, there are significant differences in the mediating effect of job insecurity. Therefore, Hypothesis 5 is verified.

Table 4. Employment type difference test of the mediating effect of job insecurity

| Outcome variable | Difference test of mediating effect employment types | Judgment index for differences in mediating effect employment types |
|------------------|----------------------------------------------------|---------------------------------------------------------------|
| Employment type  | effect | SE | BootLLCI | BootULCI | INDEX | SE | BootLLCI | BootULCI |
| Job contract system | -0.1656 | 0.0435 | -0.2568 | -0.0856 | 0.0307 | 0.0307 | 0.0185 | 0.1387 |
| Engagement/Establishment | -0.0929 | 0.0337 | -0.1656 | -0.0367 | 0.0739 | 0.1307 | 0.0185 | 0.1387 |

4. CONCLUSION AND DISCUSSION

4.1 Research Conclusions

Taking teachers in colleges and universities as the research object, this study draws the following conclusions: First, psychological contract breach negatively affects employee's job engagement; second, psychological contract breach positively affects employees' job insecurity at work; third, job insecurity completely mediates the impact of psychological contract breach on job engagement; fourth, employment type plays a moderating effect in the relationship between psychological contract breach and job insecurity. Compared with teachers with the establishment of public institutions, the psychological contract breach has a greater impact on the job insecurity of contractual teachers; fifth, further, employment type moderates the indirect effect of psychological contract breach through job insecurity that affects job engagement. Compared with permanent teachers, the impact of psychological contract breach on job engagement through job insecurity is more significant for contractual teachers.

4.2 Research Contributions

First, some researchers argue that the impact of psychological contract fulfillment and psychological contract breach on employee attitudes may be asymmetrical, so it is necessary to evaluate the effect of the two on employee attitudes and behaviors [13] [17]. Bal et al. [12] also called on researchers to pay attention to the impact of psychological contract breach on employee job engagement. However, the previous literature mainly discussed the impact of psychological contract fulfillment on job engagement [12][15], and there are few studies on the impact of psychological contract breach on job engagement. This study responds to the above call and verifies the negative effect of psychological contract breach on job engagement. Therefore, this study enriches and expands the research on psychological contract and employees' work attitude and behavior, especially the research on the relationship between psychological contract and job engagement.

Second, it expands the research on the mechanism of psychological contract breach on job engagement. Although some studies have shown that psychological contract has an important effect on job engagement, the mechanism of psychological contract on job engagement is still a "black box" in the research. Rayton and Yalabik [37] are the few scholars who have responded positively to this issue. They have found that the impact of psychological contract breach on job engagement is conducted through job satisfaction. This research proves that job insecurity is another way to connect psychological contract breach and job engagement beyond job satisfaction. Specifically, because job security and valuable job characteristics are the core content of the psychological contract, the breach of the psychological contract means that the above expectations of the employees are not met, and the...
resources that the employees cherish cannot be met. This will cause employees to feel insecure at work. Furthermore, on one hand, employees who feel insecure will reduce their job engagement out of consideration of "negative reciprocity", and on the other hand, the lack of security will reduce their psychological activation level and make them unable to devote themselves to work. In summary, as an enrichment and supplement to the research of Rayton and Yalabik, this research points out that job insecurity is another explanation mechanism for the relationship between psychological contract breach and employees' work behavior. This helps people understand the relationship between psychological contracts and employee attitudes and behaviors and contributes to theoretical research and management practice.

Third, it examines the moderating effect of employment types in the process of psychological contract breach on job engagement. The few literatures in the past explored the impact of long-term employment and short-term employment in business organizations on the psychological contract breach and employee attitudes and behavioral responses. Based on the employment situation in China, this study empirically compares the differences in attitudes and psychological responses between the "inside-the-system" staff with the establishment of public institutions and "outside-the-system" labor contract personnel after the psychological contract breach. Through study, it is found that when the staff with the establishment of public institutions encounter the breach of the psychological contract, their job insecurity level is lower than that of the contractual staff, and the indirect effect of the job insecurity is relatively weaker.

4.3 Management Enlightenments

The management enlightenment of this research lies in: First, in order to reduce the breach of employees' psychological contract, the organization should do a good job of communicating with employees, timely and accurately convey the organization's expectations and obligations to employees, and prevent employees from receiving contradictory information. For example, at the employee's entry stage, the organization must fully consider the possibility of future default and its negative consequences, so as to accurately and clearly convey to the applicant the organization's working conditions, remuneration, development prospects and other factors that constitute the applicant's psychological contract and avoid making unrealistic promises. At the same time, in the process of fulfilling promises and obligations, timely communication and necessary resource support should be provided for problems that arise, which can also reduce the sense of psychological contract breach to a certain extent. Second, despite the changes in the traditional employment model, most laborers still want their jobs to be secured [38][39]. In addition, compared with the past, career development and growth opportunities occupy a more important position in people's career expectations. Therefore, in addition to providing employees with job stability and fair and reasonable salary, the organization should assist employees in personal career planning, provide necessary training opportunities, and provide them with career development channels, which will enhance employees' job security and encourage employees to increase job engagement. Third, from the perspective of social exchange, only when they trust and have confidence in their trading partners can people participate in mutually beneficial relationships. Therefore, managers should help employees establish and develop long-term, mutually beneficial and interdependent high-quality exchange relationships with their organizations and colleagues. Organizations and managers should let employees see that when they throw themselves into the organization, the organization will also give back to them and incorporate them into the organization's future development plan.

4.4 Research Deficiencies and Prospects

This study has the following limitations: First, although the paper questionnaire uses a two-stage survey method to collect data, since all variables are measured from self-reports, there is inevitably a common method bias problem. Although Harman's single-factor test shows that the homology deviation is not serious, it is recommended that subsequent studies should consider the use of multi-time points and multi-subject evaluation methods to collect data to reduce the homology deviation, and at the same time make the causal inferences between variables more rigorous. Second, this research proposes that job insecurity is the transmission mechanism of psychological contract breach to job engagement. Future research may focus on other variables. It is necessary to explore whether other known factors affecting job insecurity and job engagement play a similar mediation role, such as the sense of organizational
support, leader-member exchanges, etc., which will enrich and expand the current research.

**AUTHORS' CONTRIBUTIONS**

Linsheng Xiao was responsible for research design and contributed to writing, revising and editing, and Jian Chen analysed data and contributed to writing.

**REFERENCES**

[1] SCHAUFELEI W B, BAKKER A B. Job demands, job resources, and their relationship with burnout and engagement: a multi - sample study[J]. Journal of Organizational Behavior, 2004, 25(3):293-315.

[2] RICH B L, LEPINE J A, CRWAFORD E R. Job Engagement: Antecedents and Effects on Job Performance[J]. Academy of Management Journal, 2010, 53(3):617-635.

[3] KAHN W A. Psychological conditions of personal engagement and disengagement at work[J]. Academy of Management Journal, 1990, 33(4):692-724.

[4] MACEY W H. The Meaning of Employee Engagement[J]. Industrial and Organizational Psychology, 2008, 1(1):3–30.

[5] BAKKER A B, SCHAUFELEI W B. Positive organizational behavior: engaged employees in flourishing organizations[J]. Journal of Organizational Behavior, 2008, 29(2):147-154.

[6] RAYTON B A, YALABIK Z Y. Work engagement, psychological contract breach and job satisfaction[J]. The International Journal of Human Resource Management, 2014, 25(17):2382-2400.

[7] PARZEFALL, MARJO — RIIFTA, HAKANEN J. Psychological contract and its motivational and health — enhancing properties[J]. Journal of Managerial Psychology, 2010, 25(1):4-21.

[8] CROPANZANO R, MITCHELL M S. Social Exchange Theory: An Interdisciplinary Review[J]. Journal of Management, 2005, 31(6):874-900.

[9] TEKLEAB A G, CHIABURU D S. Social exchange: Empirical examination of form and focus[J]. Journal of Business Research, 2011, 64(5):0-466.

[10] BLAU P.M. Exchange and Power in Social Life[M].1964,New York: Wiley.

[11] SHORE M F, TETRICK L E. The Psychological Contract as an Explanatory Framework in the Employment Relationship[C]// C Cooper & D Rousseau. 1994.

[12] BAL P M, DE COOMAN R, MOL S T. Dynamics of psychological contracts with work engagement and turnover intention: The influence of organizational tenure[J]. European Journal of Work and Organizational Psychology, 2013, 22(1):107-122.

[13] CONWAY N, GUEST D, TRENBERTH L. Testing the differential effects of changes in psychological contract breach and fulfillment[J]. Journal of Vocational Behavior, 2011, 79(1):267-276.

[14] ROBINSON S L, ROUSSEAU D M. Violating the psychological contract: Not the exception but the norm[J]. Journal of Organizational Behavior, 1994, 15(3):245-259.

[15] HOBFOLL, STEVAN E. Conservation of resources: A new attempt at conceptualizing stress[J]. American Psychologist, 1989, 44(3):513-524.

[16] PARZEFALL, MARJO — RIIFTA, HAKANEN J. Psychological contract and its motivational and health — enhancing properties[J]. Journal of Managerial Psychology, 2010, 25(1):4-21.

[17] LAMBERT L S. Promised and delivered inducements and contributions: an integrated view of psychological contract appraisal[J]. Journal of Applied Psychology, 2011, 96(4):695.

[18] ARGYRIS C. Understanding organizational behavior[J]. American Journal of Sociology, 1960, 26(1):457-458.

[19] KEIM A C, LANDIS R S, PIERCE C A, et al. Why do employees worry about their jobs? A meta-analytic review of predictors of job insecurity[J]. Journal of Occupational Health Psychology, 2014, 19(3):269-290.
[20] GREENHALGH L, ROSENBLATT Z. Job Insecurity: Toward Conceptual Clarity[J]. Academy of Management Review, 1984, 9(3):438-448.

[21] HOBFOLL, STEVAN E. Social and psychological resources and adaptation[J]. Review of General Psychology, 2002, 6(4):307-324.

[22] WELLS J D, HOBFOLL S E, LAVIN J. When it rains, it pours: The greater impact of resource loss compared to gain on psychological distress[J]. Personality & Social Psychology Bulletin, 1999, 25(9):1172-1182.

[23] KRAAK J M, LUNARDO R, HERRBACH O, et al. Promises to employees matter, self-identity too: Effects of psychological contract breach and older worker identity on violation and turnover intentions[J]. Journal of Business Research, 2017, 70:108-117.

[24] GOULDNER A. The Norm of Reciprocity: A Preliminary Statement [J]. American Sociological Review, 1960, 25(2):161-178.

[25] MIN S K, JIN N C. Layoff victim's employment relationship with a new employer in Korea: effects of unmet tenure expectations on trust and psychological contract[J]. International Journal of Human Resource Management, 2010, 21(5):781-798.

[26] ROUSSEAU D M. Schema, promise and mutuality: The building blocks of the psychological contract[J]. Journal of Occupational & Organizational Psychology, 2011, 74(4):511-541.

[27] Fan Yun, Ji Xiaopeng, Shao Fang. Empirical Study Concerning the Effect of Employment Contract to Psychological Contract Breach [J]. Journal of Management Science, 2011, 24(6):57-68. (in Chinese)

[28] CHAMBEIL M J, LORENTE L, CARVALHO V, et al. Psychological contract profiles among permanent and temporary agency workers[J]. Journal of Managerial Psychology, 2016, 31(1):79-94.

[29] Li Zhifeng, Gao Hui, Gao Chunhua. Dilemma of Establishment of Public institutions: Organizational Identity Attribute and Identity Recognition of University Teachers [J]. Higher Education Development and Evaluation, 2013, 29(5):82-89. (in Chinese)

[30] ROBINSON S L, Morrison E W. The Development of Psychological Contract Breach and Violation: A Longitudinal Study[J]. Journal of Organizational Behavior, 2000, 21(5):525-546.

[31] HELLGREN J, SVERKE M, ISAKSSON K. A Two-dimensional Approach to Job Insecurity: Consequences for Employee Attitudes and Well-being[J]. European Journal of Work & Organizational Psychology, 1999, 8(2):179-195.

[32] SCHAUFELI W B, BAKKER A B, SALANOVA M. The Measurement of Work Engagement With a Short Questionnaire[J]. Educational & Psychological Measurement, 2016, 66(4):701-716.

[33] SCHAUFELI, W.B. Work Engagement. What Do We Know and Where Do We Go? [J].Romanian Journal of Applied Psychology, 2010, 14, (1):3-10.

[34] RM BARON,D. A. KENNY, The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations[J].Journal of Personality and Social Psychology, 1986,51(6):1173-1182.

[35] PREACHER K J, RUCKER D D, HAYES A F. Addressing moderated mediation hypotheses: Theory, methods, and prescriptions[J]. Multivariate Behavioral Research,2007,42(1):185-227.

[36] Hayes, Andrew F. An Index and Test of Linear Moderated Mediation[J]. Multivariate Behavioral Research, 2015, 50(1):1-22.

[37] RAYTON B A, YALABIK Z Y. Work engagement, psychological contract breach and job satisfaction[J]. The International Journal of Human Resource Management, 2014, 25(17):2382-2400.

[38] PICCOLI B, WITTE H D. Job insecurity and emotional exhaustion: Testing psychological contract breach versus distributive injustice as indicators of lack of reciprocity[J]. Work & Stress, 2015, 29(3):246-263.

[39] CUYPER N D, WITTE H D. Job insecurity in temporary versus permanent workers: Associations with attitudes, well-being, and behavior[J]. Work & Stress, 2007, 21(1):65-84.