

Retraction

Retracted: Psychological Contracts and Employee Innovative Behaviours: A Moderated Mediation Effect Model

Discrete Dynamics in Nature and Society

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

- [1] H. Li, C. Xu, and H. Zheng, "Psychological Contracts and Employee Innovative Behaviours: A Moderated Mediation Effect Model," *Discrete Dynamics in Nature and Society*, vol. 2021, Article ID 6400742, 11 pages, 2021.

Research Article

Psychological Contracts and Employee Innovative Behaviours: A Moderated Mediation Effect Model

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According to Bakker and Demerouti's work demand resource theory, abundant work resources can stimulate an individual's initiative to the maximum extent and finally achieve ideal work results. However, few scholars have discussed if psychological states could affect work resources. We believe that relationship embeddedness is an important work resource in the context of Chinese human relationship culture. A low degree of embeddedness among employees would affect employees' recognition of their organizations and reduce their motivation for voluntary innovative behaviours. This study was to provide empirical evidence on the relationship between psychological contracts and employee innovative behaviours as well as the mediating role and moderating role of relational embeddedness and organizational tenure. A descriptive cross-sectional survey design was adopted. Primary data were collected by a structured questionnaire targeting the employees in China. To test the hypotheses, data collected from 402 enterprise employees were used for a regression analysis in AMOS (version 22). We found that there is a significant positive correlation between psychological contract and employee innovation behaviour, while embedding strength and embedding quality mediated the influence of psychological contracts on employee innovative behaviours. Organizational tenure moderated the strength of the relationship between psychological contracts and employee innovative behaviours via embedding strength and embedding quality.

1. Introduction

Facing fiercely competitive business environments, enterprises are paying ever more attention to innovation to obtain competitive advantages. Organizational innovation ultimately relies on employee innovation, which is both the microcarrier of organizational innovation and the key to realizing organizational innovation. Therefore, increased attention is being paid to the practice of human resource management, which affects employees' innovative behaviours. Scott and Brace think that employee innovative behaviours begin with the cognitions and definitions of problems by individuals, followed by the seeking of aid and support for creativity or conceptions, the practicing of innovative ideas, the building of the innovative prototype or model, the final promotions of commercial products and services, and other complex

processes [1]. Scholars believe that it is relatively easy to promote the formation of individual innovative behaviour through situational factors that affect individual activities and individual psychological states, which are susceptible to external influences and can be easily excited. It plays an important role in individual innovation [2]. For example, psychological contracts. Psychological contract is an individual's understanding of the contents and conditions of reciprocal exchange between himself and others [3]. Psychological contract is often used to represent the quality of social exchange relationships in an organization. When employees perceive the fulfillment of psychological contracts, their willingness to innovate is significantly enhanced [4]. Employees usually establish different psychological contracts with their superiors and organizations [5]. Analyzing employees' psychological contracts can better explain their behaviours.

At present, most scholars believe that the fulfilment of psychological contracts has positive effects on employee innovative behaviour. These studies mainly include leadership style [6] and environmental factors [7] that affect the employees' psychological contracts and innovative behaviours. In addition, the practice of human resource management [8] and a human-environment fit [9] also affects innovative behaviours through employee psychological contracts. These studies mainly considered psychological contracts as mediator variables. Some scholars have also studied the effects of psychological contracts on employee innovative behaviours and the mediating role of personal creativity between psychological contracts and innovation behaviour. Ha found that employees' individual creativity had mediating roles in the causal relationships between relational psychological contracts and their innovative behaviours [10]. This study mainly explored the effects of psychological contract on innovative behaviours from the perspective of the individual. However, scholars believe that the influences of unilateral factors on employee innovative behaviours are limited, and employee innovative behaviours are the results of interactions between individuals and their external environments.

According to Bakker et al.'s work demand resource theory, abundant work resources can stimulate an individual's initiative to the maximum extent, enable the individual to feel positive emotions and psychological states, and finally achieve ideal work results [11], i.e., good work resources affect individual behaviours by influencing individual psychological states. Fernet et al. showed that transformational leadership results in fewer job demands and more quality of relationships [12] and indirectly contributes to more positive work attitudes and better job performance. However, few scholars have discussed if psychological states could affect work resources, such as relational embeddedness. Relational embeddedness is an exchange system superior to market logic; it includes the trust mechanism of informal network governance, the information sharing mechanism of communication information, and the common problem-solving mechanism of transferring knowledge and norms [13]. Many studies have proved that the collaborative relationship is a direct prerequisite for innovation behaviour [14]. Embeddedness in organizational innovation activities is a cooperative network formed by the cooperative relationship among members [15]. Relational embeddedness is not only an external factor that influences innovation activities but also a situational factor that influences innovation behaviour by changing the role characteristics within the organization [16]. However, when explaining the relationship between psychological contract and innovative behaviour, scholars ignore relationship embeddedness. We believe that relationship embeddedness is an important work resource in the context of Chinese human relationship culture. The degree of embeddedness among employees can improve cooperation among them to generate more innovative behaviours. We believe that a low degree of embeddedness among employees would affect employees' recognition of their organizations and reduce their motivation for voluntary innovative

behaviours. Hence, this study constructed a model to study the internal mechanisms of how psychological contracts influence innovative behaviours from the perspective of interpersonal interactions. In addition, the longer an employee works in an organization, the more likely he/she is to feel emotionally attached for his/her organization and the less willing he/she is to leave the organization. This kind of emotional bond with the organization would affect the employee's relationship with other employees and the organization [17]. Therefore, in addition to exploring the mediating mechanisms of psychological contracts on innovative behaviours, this study also examined the moderating effects of organizational tenure.

2. Study Hypotheses and Theoretical Deductions

2.1. Psychological Contracts and Employees' Innovative Behaviours. A fundamental assumption about psychological contracts is the existence of relationships of mutuality and reciprocity between employees and their organizations. According to social exchange theory, people always wish to maximize their outputs, while minimizing their inputs during exchanges [18]. For Robinson and Wolfe Morrison, psychological contracts are the decisive factor in the formation of working attitudes and behaviours [19]. The existing research has proved that the fulfilment of psychological contracts is significantly related to employees' attitudes and behaviours with regard to performance, organizational citizenship behaviours, absenteeism, and turnover intention [20–22]. In employee-organization relationships, employees adjust their inputs according to the benefits from the organization. When an employee deems his or her benefits to be greater than or equal to his or her inputs, then the employee is likely to maintain such inputs, thereby fulfilling the psychological contract. Their perceptions of organizational responsibilities motivate them to develop positive working attitudes and behave in ways that benefit their organizations [23]. When an employee deems his or her benefits to be lower than his or her inputs, then the employee tends to believe that he or she is being unfairly treated and will adjust his or her inputs, thereby breaching the psychological contract. It would decrease their levels of in-role and extrarole work performances [24]. The fulfilment of psychological contracts would increase an employee's positive emotions toward their organization, thus strengthening their innovative thinking and problem-solving abilities [17]. Psychological contract breaches reduce employee innovative behaviours [18]. Thus, psychological contracts have positive significant predictive effects on employee innovative behaviours [25]. This study formulated its first hypothesis:

H1: psychological contracts positively influence employee innovative behaviours

2.2. Psychological Contracts and Relational Embeddedness. The concept of "embeddedness" was first put forward by Polanyi in 1944 to refer to the entity embedding of the

market. However, no consensus has been reached among scholars on the connotations of the construct of network embeddedness, and different scholars have introduced different classifications from different angles. A classical classification framework, introduced by Granovetter, divides network embeddedness into relational embeddedness and structural embeddedness. The four indicators of interaction frequency, intimacy, mutual trust, and reciprocal service were used to measure the strength of relationship embeddedness [26]. This classification framework was most widely adopted by the successors. Some scholars believe that organizations should increase their in-depth communication to promote organizational innovation [27]. Some scholars believe that the level of relational embeddedness affects cooperation between organizations, exchange of resources, development of shared knowledge, etc., which further affect organizational performance [28]. Based on this, this study divided relational embeddedness into embedding strength and embedding quality. The embedding strength mainly includes the familiarity among employees and the frequency of communication. The embedding quality mainly includes the willingness to share information, trust, and cooperate to solve problems.

2.2.1. The Mediating Effect of Embedding Strength. The active communication and mutual assistance among employees accelerate the flows of technical knowledge and information inside the enterprise, and employees, who rely on the exchange of information and the collision of ideas, can generate more new ideas [29]. However, the externality, intangibility, and difficulty of the measurement of tacit knowledge decide that there be an unequal relationship between the supply side and demand side of knowledge; if there is a sound psychological contract between an organization and its members or among its members, then smooth cooperation and interactions will be maintained among them. A sound psychological contract between partners also strengthens their connections and realizes the communication of resources, knowledge, and information [30, 31]. Without psychological contracts, it would be impossible to communicate and share knowledge [32]. Most scholars believe that closer interorganizational connections (or stronger relational embeddedness) give rise to more frequent exchanges of information as well as more abundant knowledge and resources from networks, thus cultivating the competitive advantages of organizations. At the individual level in an organizational environment with a high level of embeddedness, the members of the organization have close relationships and voluntarily cooperate with each other, giving full play to their professional skills and mobilizing their subjective initiatives [33]. This study formulated its second hypothesis:

H2a: embedding strength plays a mediating role between psychological contracts and employee innovative behaviours

2.2.2. The Mediating Effect of Embedding Quality. Rousseau and Wade-Benzoni told that psychological contracts provide support to good trust relationships between

employees and have significant positive influences on the building of trust [34]. If there is a high degree of psychological contract fulfillment by both parties, then there will be stronger trust and a more harmonious relationship. On the contrary, if neither of them is capable of satisfying their demands, then there may be a psychological contract breach (or violation), which would greatly jeopardize the trust between them. A sound psychological contract between an organization and its members or among its members cultivates smooth cooperation and interactions, good interpersonal relationships, and an ideal organizational atmosphere, which enhances the employees' sense of responsibility and mission as well as promotes knowledge sharing [35]. Higher levels of colleague relationship will weaken the negative impact of work overload on employees' innovative behaviour [36]. In addition, some research found that a network of organizational has a positive impact on business model innovation [37]. Similar effects exist among individuals. A higher level of relational embeddedness between an organization and its members or among its members spurs the willingness to innovate and the effectiveness of innovation, while having a significant positive influence on employee innovative behaviours [38]. This is because, in the presence of close relationships between employees, more critical resources, such as emotional, technical, and informational support from colleagues, of the organization will be available to individuals. This means that employees will not only perceive the increased possibility of the success of their innovative efforts but also that they believe in being able to quickly regain the resources lost in failures. To some extent, close relationship between employees lowers the cost of employee innovations and encourages employees to engage in innovations [39]. Hence, this study formulated its third hypothesis:

H2b: embedding quality plays a mediating role between psychological contracts and employee innovative behaviours

2.3. Moderating Role of Organizational Tenure. Organizational tenure refers to the duration of time that an employee works for a particular organization [40]. The organizational tenure of an employee in an organization represents his or her sense of identity with the organization and his or her emotions toward the organization to some extent. The length of organizational tenure influences the employee's interpersonal relationships, job satisfaction, organizational citizenship behaviours, etc. A person's organizational tenure is particularly important for him to obtain job opportunities and organizational resources because the longer he works in the organization, the more likely he is to establish a stronger relationship with his colleagues [41]. The more likely to become emotionally attached to the organization, the less want to leave the organization [17]. Family culture is highly valued in China, and Chinese organizations advocate the cultivation of employees' homeland consciousness with the expectation of enhancing their sense of belonging. After joining organizations, new employees gradually become familiar with their

colleagues and organizations with the passage of service time, and during this process, they also increase their inputs into their organizations. Hence, this study formulated its fourth hypotheses:

H3a: organizational tenure moderates the mediating path of psychological contract influencing employees' innovative behaviour through embedded strength. The longer the tenure, the stronger the mediating effect.

Organizational tenure has been shown to moderate the reciprocal relationships between psychological contracts and job outcomes [42]. The relationships between psychological contract and work engagement performance dynamically evolve with increased service time [43]. In general, for employees with longer organizational tenure, multiteam cooperation is positively correlated with their job challenge and job performance [44]. Long-tenured employees' performances are likely to be related to their relational psychological contracts, such as trust, good faith, and exchange of intangible constructs with long time frames [3]. With the extension of their organizational tenure, employees invest more and more in the organization. In order to prevent the depreciation of their cumulative investment, employees' commitment to the organization will gradually become higher, which will promote employees' organizational citizenship behaviour [45]. Therefore, this study proposed the following hypotheses:

H3b: organizational tenure moderates the mediating path of psychological contract influencing employees' innovative behaviour through embedded quality. The longer the tenure, the stronger the mediating effect.

Figure 1 shows the model used for studying the influence mechanism of psychological contract on employee innovation behaviour.

3. Study Design

3.1. Sample Selection and Data Collection. The objects of this paper are employees who distributed in Ningxia, Shaanxi, Gansu, Qinghai, and Xinjiang. This paper is based on a structured questionnaire survey.

In this study, six employees were selected and interviewed; moreover, considering the problems existing in the trial interview, the questionnaire was modified. After modification, a preliminary questionnaire was formed. A small sample survey was shown by using the preliminary questionnaire, and a total of 77 questionnaires were obtained. We deal with small sample data to find the variables that can pass the reliability and validity test. After the relationship of variables conforms to the theoretical hypothesis, the questionnaire is modified to form a formal questionnaire. Finally, a formal questionnaire was used. This investigation is based on the accessibility of samples and is conducted within the ability of researchers; therefore, random sampling may not suit for this study. In order to solve this defect, according to the principle of quota sampling, researchers use the proportion of sample quota in different categories, which are based on the organizational tenure and

gender. In addition, samples are taken from each category in proportion to make the sample structure consistent with the population structure as close as possible; therefore, the sample conclusion can be inferred to the population as far as possible.

Members of the research group communicated some of the employees, explaining the purpose of the study to the respondents, ensuring that the respondents were voluntary, and obtained informed consent with no pressure to participate. Finally, the researchers will let the respondents complete the investigation independently.

In this study, 700 questionnaires distributed; 527 were recovered with a recovery rate of 75.3%. After screening, 402 valid questionnaires were eventually obtained with a validity rate of 76.3%. To be specific, in terms of gender distribution, 37.81% of the respondents were male and 62.19% were female. In terms of age distribution, they were divided into four age groups: younger than 25 years (24.88%), 26–35 years (47.26%), 36–45 years (25.87%), and older than 46 years (1.99%). In terms of marital status, unmarried employees and married ones accounted for 61.69% and 38.31%, respectively. Classified by the educational level, they were divided into three categories: those with university degrees or below (35.32%), those with bachelor's degrees (55.22%), and those with master's degrees or above (9.45%). Calculated by organizational tenure, 46.77% of employees had organizational tenure of less than five years, whereas those with intervals of 5–10 years and those with intervals of above ten years accounted for 26.87% and 26.37%, respectively, as detailed in Table 1.

3.2. Model Setting. In order to test H1, the following models are constructed:

Model 1:

$$IB = \alpha_0 + \alpha_1 PC + \epsilon_1. \quad (1)$$

In order to test H2a and H2b, the following mediating effect models were constructed:

Model 2:

$$\begin{aligned} ES &= \beta_0 + \beta_1 PC + \epsilon_2, \\ EQ &= \gamma_0 + \gamma_1 PC + \epsilon_3, \\ IB &= \lambda_0 + \lambda_1 PC + \lambda_3 ES + \lambda_4 EQ + \epsilon_4. \end{aligned} \quad (2)$$

In order to test H3a and H3b, the following mediating effect models were constructed:

Model 3:

$$\begin{aligned} ES &= \mu_0 + \mu_1 PC + \mu_2 PC^* QT + \epsilon_5, \\ EQ &= \theta_0 + \theta_1 PC + \theta_2 PC^* QT + \epsilon_6, \\ IB &= \omega_0 + \omega_1 PC + \omega_2 ES + \omega_3 EQ + \omega_4 PC^* QT + \epsilon_7. \end{aligned} \quad (3)$$

In the above formula, PC represents psychological contract, IB represents employee innovation behaviour,

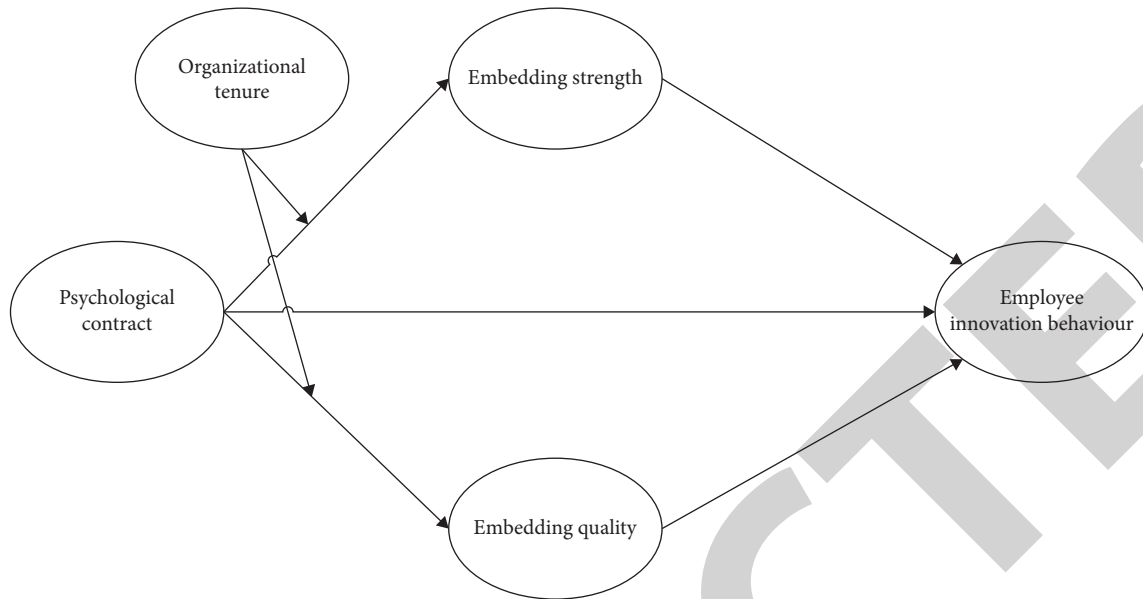


FIGURE 1: Research model of the influence mechanism of psychological contract on employee innovation behaviour.

TABLE 1: Description of the basic characteristics of the sample.

Demographic variables	Category	Number of people	Percentage (%)
Gender	Male	152	37.81
	Female	250	62.19
Age	Younger than 25 years	100	24.88
	26–35 years	190	47.26
	36–45 years	104	25.87
	Older than 46	8	1.99
Marital status	Unmarried	248	61.69
	Married	154	38.31
Educational background	University degrees or below	142	35.32
	Bachelor's degrees	222	55.22
	Master's degrees or above	38	9.45
Organizational tenure	Less than 5 years	188	46.77
	5–10 years	108	26.87
	More than 10 years	106	26.37

ES represents embedding strength, EQ represents embedding quality, and QT represents organizational tenure.

3.3. *Variable Measurements.* We used validated scales to measure constructs of the study. All the items were measured with five-point Likert scales ranging from 1 (strongly disagree) to 5 (strongly agree).

3.3.1. *Independent Variable (Psychological Contract).* Dabos and Rousseau scales are mainly used in the study of psychological contract [46]; the scale mainly measures three types of psychological contract: transactional psychological contract, relational psychological contract, and balanced psychological contract. Based on the survey of Chinese employees, Li and Guo found that the three-dimensional

structure is more reasonable than the two-dimensional structure for the psychological contract of Chinese employees [47]. Therefore, this study used a three-dimensional structure of psychological contract measurement and Dabos and Rousseau's scale. A sample item of the scale was "I can achieve the highest performance level which based on the high level of organization support."

3.3.2. *Mediating Variable (Embedding Strength and Embedding Quality) and Moderating Variable (Organizational Tenure).* Based on the scale of Granovetter [26] and Wang [48], we operationalized relational embeddedness as a second-order construct manifested by first-order constructs of embedding strength and embedding quality. A sample item of the scale was "frequent and wide range of information exchange between me and my colleagues."

The variable of organizational tenure (1=less than 5 years; 2=5–10 years; 3=more than 10 years) with the current employer was provided by the respondents.

3.3.3. Dependent Variable (Employee Innovation Behaviour). We employed the scale of Scott and Bruce [1]. There is one dimension. The representative items are “I often put forward innovative ideas and ideas.”

To ensure the effectiveness of the test results, statistical software such as SPSS and AMOS were used for the data obtained from formal large-scale surveys to perform reliability tests on the scales, as detailed in Table 2.

In this study, two indices, Cronbach's α and composite reliability, were adopted to test scale reliability. As can be seen from Table 1, Cronbach's α value of each variable was greater than 0.7, suggesting that different questions in the scales were highly correlated. After single questions were deleted, Cronbach's α value of each scale declined to some extent. Meanwhile, the CR value of each variable was greater than 0.7, suggesting that the scales had good internal consistency [49]. Factor loading and average variance extracted (AVE) were also used to assess the convergent validity of the scales. Clearly, each question in the scales had a factor loading of greater than 0.6 and an AVE value of greater than 0.5, suggesting that the scales had a sound convergent validity [49]. Table 2 shows that the value of the square root of AVE was greater than the Pearson correlation coefficient of the column concerned, meaning that the variable had a better discriminant validity than other variables.

4. Study Results

4.1. Correlation Analysis. In terms of correlation tests, the Pearson correlation coefficient was employed to test the degrees of correlation between variables. As can be seen from Table 3, there were significant positive correlations between each pair of variables.

4.2. Mediating Effect Testing. To further test the proposed hypotheses, the analytical results of the partial least squares structural equation were used for model testing, and the bootstrap method was adopted to determine the significance of each path coefficient. First, the goodness of fit of the model was corrected using Bollen–Stine, and the corrected goodness of fit indices included SRMR=0.1, chi-square/df=1.39, RMSEA=0.03, GFI=0.96, AGFI=0.94, and CFI=0.99. The results indicate that the model had high goodness of fit. Second, in the collinearity diagnosis of the model, the maximum VIF value of all the variables was 2.077 (less than 10), so there was no problem of collinearity between variables.

This study also tested the relationship between psychological contracts and employee innovative behaviours and found a significant positive correlation between them ($r=0.865$; the 95% confidence interval does not contain zero). Thus, H1 was supported.

To test the mediating effect, the model selected psychological contract as the independent variable, embedding strength and embedding quality as the mediating variables, and employee innovative behaviour as the dependent variable, as detailed in Table 4.

As can be seen from Table 4, the indirect effects of psychological contracts on employee innovative behaviours were 0.868 and significant (the 95% confidence interval does not contain zero), which testified to the presence of the mediating effect. Under the conditional indirect effect, the mediating effects of embedding strength in the influences of psychological contracts on employee innovative behaviours were 0.481 and significant (the 95% confidence interval does not contain zero). Thus, H2a was supported. The mediating effect of embedding quality in the influences of psychological contracts on employee innovative behaviours was 0.387 and significant (the 95% confidence interval does not contain zero). Thus, H2b was supported. To be specific, the mediating effect of embedding strength accounted for 55.41% of the total indirect effect, whereas that of embedding quality accounted for 44.59%.

4.3. Moderated Mediating Effect Testing. For the sake of further verifying the moderated mediating effect, researchers have introduced organizational tenure into the model. For the convenience of comparison, researchers have classified employees with organizational tenure of less than five years into the “short organizational tenure” group and those with organizational tenure of more than ten years into the “long organizational tenure” group. To test the interactive effects model, the interaction term (psychological contract \times organizational tenure) was entered, and the results (Table 5) reveal that the interaction items (psychological contract \times organizational tenure) have significant effects on both embedding strength (coeff=0.175, $t=2.267$, and $p < 0.05$) and embedding quality (coeff=0.193, $t=2.603$, and $p < 0.01$).

Table 6 also shows that organizational tenure moderated the mediated relationship between moderate psychological contracts and employee innovative behaviours via embedding strength (difference in mediating effect=0.066; the 95% confidence interval does not contain zero), and there was a significant difference in the intensity of moderation. Thus, H3a was supported. In addition, organizational tenure moderated the mediated relationship between moderate psychological contracts and employee innovative behaviours via embedding quality (difference in mediating effect=0.082; the 95% confidence interval does not contain zero). Thus, H3b was supported.

To facilitate the interpretation of the moderating effect, the interaction is plotted in Figure 2. As can be seen from Figure 2(a), in the subjects with short organizational tenure, psychological contract has a significant positive predictive effect on embedding strength. In the subjects with long organizational tenure, psychological contract also has a significant positive predictive effect on embedding strength, but the predictive effect is stronger than short organizational. Because of the slope of the long term is larger than the

TABLE 2: Reliability and validity test.

Variable	Std.	Cronbach's α	CR	AVE
Psychological contract	0.614–0.884	0.702	0.921	0.570
Embedding strength	0.656–0.814	0.791	0.817	0.530
Embedding quality	0.681–0.875	0.873	0.894	0.630
Employee innovative behaviour	0.792–0.800	0.874	0.862	0.556

TABLE 3: Descriptive statistics and bivariate correlations.

	M	SD	1	2	3	4	5	6	7	8	9
1. Gender	1.620	.486									
2. Age	2.050	.766	-0.07								
3. Marital status	1.380	.487	-0.019	-0.600**							
4. Education background	1.740	.618	-0.244**	0.059	-0.001						
5. Organizational tenure	1.800	.832	-0.117*	0.658**	-0.509**	0.033					
6. Psychological contract	3.552	.616	0.134**	-0.047	-0.003	-0.072	-0.058	(0.755)			
7. Embedding strength	3.868	.801	0.057	-0.016	-0.107*	0.034	-0.033	0.527**	(0.728)		
8. Embedding quality	4.099	.730	0.150**	0.043	-0.095	0.017	-0.031	0.348**	0.644**	(0.794)	
9. Employee innovative behaviour	3.830	.715	0.058	0.041	-0.027	0.042	0.005	0.501**	0.565**	0.537**	(0.746)

TABLE 4: The test of intermediary effect.

	Point estimation	Product of coeff.		Bias-corrected 95% CI		Percentile 95% CI	
		SE	Z	Lower	Upper	Lower	Upper
Psychological contract \rightarrow embedding strength	1.782	0.390	4.569	1.235	2.731	1.225	2.716
Psychological contract \rightarrow embedding quality	1.142	0.273	4.183	0.748	1.839	0.731	1.785
Embedding strength \rightarrow employee innovative behaviour	0.270	0.085	3.176	0.116	0.445	0.120	0.451
Embedding quality \rightarrow employee innovative behaviour	0.339	0.092	3.685	0.164	0.524	0.170	0.530
Psychological contract \rightarrow employee innovative behaviour	0.865	0.296	2.922	0.410	1.615	0.379	1.545
Psychological contract \rightarrow embedding strength \rightarrow employee innovative behaviour	0.481	0.198	2.429	0.193	0.965	0.196	0.970
Psychological contract \rightarrow embedding quality \rightarrow employee innovative behaviour	0.387	0.135	2.867	0.178	0.700	0.177	0.694
Total indirect effect	0.868	0.270	3.215	0.461	1.494	0.466	1.505
Total effect	1.733	0.352	4.923	1.283	2.700	1.256	2.621
Comparison of mediating effects between embedding strength and embedding quality	-0.094	0.205	-0.459	-0.548	0.279	-0.565	0.269

Note: 5,000 bootstrap samples.

TABLE 5: Regression analysis results for interactive effect.

	Embedding strength			Embedding quality		
	Coeff.	SE	t	Coeff.	SE	t
Psychological contract	0.658	0.061	10.810***	0.473	0.058	8.110***
Organizational tenure	-0.008	0.058	-0.137	-0.102	0.055	-1.837
Psychological contract \times organizational tenure	0.175	0.077	2.267*	0.193	0.074	2.603**
Gender	-0.042	0.076	-0.553	0.105	0.073	1.437
Age	-0.095	0.067	-1.409	0.024	0.064	0.374
Marital status	-0.251	0.093	-2.717**	-0.246	0.089	-2.776**
Education background	0.049	0.059	0.837	0.069	0.056	1.220
R2	0.247	0.183				
F	18.423***	12.642***				

Note: * means $p < 0.05$; ** means $p < 0.01$; *** means $p < 0.001$.

TABLE 6: Moderated mediated results for embedding strength and embedding quality across organizational tenure.

	Organizational tenure	Psychological contract \rightarrow embedding strength \rightarrow employee innovation behaviour				Psychological contract \rightarrow embedding quality \rightarrow employee innovation behaviour			
		Effect	BootSE	BootLLCI	BootULCI	Effect	BootSE	BootLLCI	BootULCI
		Moderated mediating effect	eff1 (less than 5 years)	0.120	0.028	0.068	0.178	0.084	0.030
	eff2 (5–10 years)	0.152	0.035	0.086	0.222	0.124	0.034	0.059	0.191
	eff3 (more than 10 years)	0.186	0.048	0.098	0.286	0.166	0.045	0.080	0.254
Comparison of moderated mediating effect	eff2 – eff1	0.032	0.018	0.004	0.071	0.040	0.017	0.010	0.077
	eff3 – eff1	0.066	0.036	0.007	0.146	0.082	0.035	0.020	0.157
	eff3 – eff2	0.034	0.018	0.004	0.074	0.042	0.018	0.010	0.080

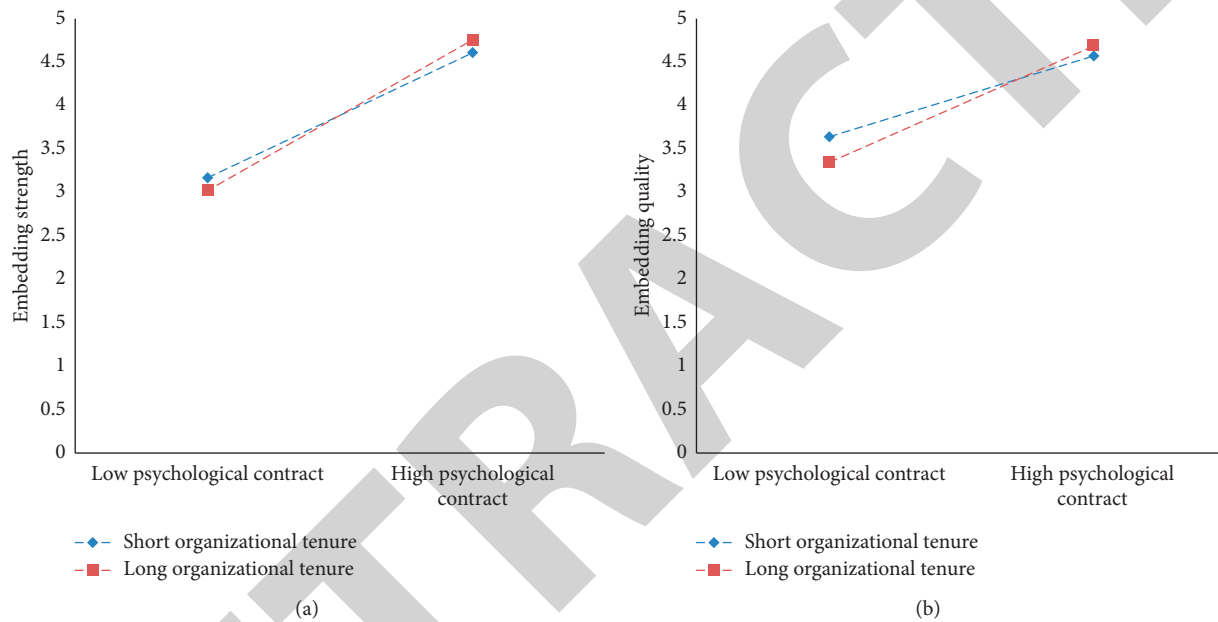


FIGURE 2: (a) Organizational tenure moderates the mediating path of psychological contract influencing employees' innovative behaviour through embedding strength. (b) Organizational tenure moderates the mediating path of psychological contract influencing employees' innovative behaviour through embedding quality.

short term, it shows that, with the increasing of organizational tenure, psychological contract has a greater impact on embedding strength. Similarly, as can be seen from Figure 2(b), because of the slope of the long term is larger than the short term, it shows that, with the increasing of organizational tenure, psychological contract has a greater impact on embedding quality.

5. Discussions

5.1. Discussions. This study explored how psychological contracts influenced employee innovative behaviours via mediation by embedding strength and embedding quality as well as identified the moderating role played by the organizational tenure in this process. The study revealed that

- (1) Psychological contracts significantly influenced employee innovative behaviours. This is consistent with the findings of Newton et al.'s survey on IT

professionals, and the completion level of psychological contract has a positive relationship with innovative behaviour [50]. The employees are not simple "economic men;" they are also "social men" and "harmonious men." Employees not only pursue economic returns but also consider interpersonal relationships with the organization and colleagues. When employees are met with physical motivation or personalized needs, they have a sense of attachment, identity, and responsibility to the organization, which may enhance the motivation of employees to contribute to the organization. Under such circumstances, they are more willing to give full play to their creativity in their work and make behaviours beneficial to the organization [51], such as initiatively find out organization's problems or promote new ideas, which contribute to the improvement of organizational effectiveness.

- (2) Embedding strength and embedding quality mediated the influences of psychological contracts on employee innovative behaviours. According to social exchange theory, when expectations are met, employees will be more willing to communicate with others and share information. On the contrary, employees become disappointed and reduce their suggestions [52]. The degree of satisfaction of the psychological contract is achieved between the individual and the enterprise. A good way of normal communication and cooperation. Such fulfillment helps to improve the relationships between organizations and their members. When there is psychological contract fulfillment, employees are more willing to communicate with their leaders and colleagues, cooperate with their colleagues in accomplishing working tasks, and help each other in problem-solving. Psychological contract fulfillment also encourages relational embeddedness between organizations and their members, creates a virtuous cycle, and strengthens organizational performances and employee innovative behaviours.
- (3) Organizational tenure moderated the strength of the relationship between psychological contracts and employee innovative behaviours via embedding strength and embedding quality. In addition, the mediated relationship was weaker among employees with short organizational tenure than among those with long organizational tenure because with the passage of time spent in organizations, new employees gradually become familiar with their leaders and colleagues, increasing embedding strength. At the same time, with the increasing of organizational tenure, employees will be promoted or changed positions. They will be more familiar with the job content and workflow and can accumulate more procedural knowledge. They have more human capital and social capital, which provide a basis for them to share knowledge and help others solve problems. From the perspective of employee mobility, we can also find that the longer the tenure, the lower the employee mobility and higher the embeddedness [53].

5.2. Theoretical Significance. First, this study has extended the angles of studies on the formation mechanisms of employee innovative behaviours. There is a diverse range of studies on employee innovative behaviours, and some scholars have conducted their studies from the perspective of individual-environment interactions. However, few of them have probed into the mediating role and moderating role in the formations of employee innovative behaviours from the perspective of individual traits-interpersonal interactions. Hence, this study explored the mediating role and moderating role of relational embeddedness and organizational tenure during the development of employee innovative behaviours. Second, this study has enriched the contents of studies on relational embeddedness. So far, there are only a

few studies on relational embeddedness that basically concentrate on the enterprise level and mainly analyze how the relational embeddedness between an enterprise and other enterprises in a network influences organizational performance and innovative performance. This study, by focusing on the individual employee level, is helpful for deeper, future investigations on relational embeddedness from the perspective of micromechanisms.

5.3. Managerial Insights. On account of the significant positive influences of psychological contracts on employee innovative behaviours, both embedding strength and embedding quality play mediating roles in the influences of psychological contracts on employee innovative behaviours. For this reason, organizations should strengthen the communications and connections among employees as well as between employees and organizations, enhance humanistic care for employees, and establish the goal of growing together with employees. The aim is to elevate the psychological contract levels of employees, while strengthening the embedding strength and embedding quality among employees so that employees would voluntarily undertake more organizational responsibilities. In addition, by organizing team activities and building multichannel communication platforms, organizations can promote extensive and in-depth communications among employees (especially new employees) and with their leaders and colleagues as well as encourage employees to share information and knowledge in their communications.

6. Limitations and Prospects

First of all, this study is a cross-sectional one. The process from the generation of innovative ideas to their implementation is dynamic. Longitudinal studies allow for a more accurate capture of the dynamics of changes in the studied phenomena and, to a greater extent, enable the formulation of cause-and-effect conclusions. However, because of limited capability and time, this study used only cross-sectional data, and researchers have not taken the longitudinal study approach. In future studies, we can carry out on the basis of data collected in the cross-lagged research paradigm.

Second, this study discusses the role of relational embeddedness in the impact of psychological contract on innovation behaviour. The results show that relational embeddedness plays an incomplete mediating role, which indicates that other factors play a mediating role. Research shows that job autonomy, social support, and relationship with the supervisor as work resources can alleviate employee burnout [54]. In future research, we can consider examining the role of more factors, such as work autonomy and social support. At the same time, in addition to discussing the working environment within the organization, we should also consider the social environment, such as employment opportunities and economic environment [55]. We can discuss the interaction mechanism of individual psychology, team resources, and social environment on employee innovation behaviour.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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