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Original Article

Influence of Employee-Perceived High-Commitment Work System on Employee Innovation Behavior in China

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Abstract

For organizations, enhancing employee innovation behavior (EIB) is among the most effective means to gain competitive advantage in the current modern business environment. Based on the conservation of resources theory, this study proposed a model to investigate the influence of the employee-perceived high-commitment work system (EPHCWS) on EIB, with two intervening variables, job embeddedness (JE) as the mediating variable, and creative self-efficacy (CSE) as the moderating variable. In total, 601 valid questionnaires were collected from Chinese employees between November to December 2022. Structural equation modeling technique was used to test the hypotheses. Results showed that EPHCWS positively affected EIB ($\beta = .36$, $p < .001$, $t = 11.93$) and JE ($\beta = .26$, $p < .001$, $t = 7.86$). When JE mediated the relationship between EPHCWS and EIB, the direct effect was significant ($\beta = .28$, $p < .001$, $t = 9.30$). Furthermore, JE positively affected EIB ($\beta = .33$, $p < .001$, $t = 9.31$), indicating that it exerts a partial mediation effect on the relationship between EPHCWS and EIB. Additional moderation results revealed that the interaction between EPHCWS and CSE significantly affected EIB ($\beta = .08$, $p < .01$, $t = 3.27$), which indicated that CSE moderated the effect of EPHCWS on EIB. The study suggests that managers should increase employees' positive perceptions of the organization-implemented high-commitment work system and enhance EIB by promoting JE and CSE.

Many firms are keen to improve their human resource management (HRM) system for meeting corporate goals while providing a win-win situation for their employees in a highly competitive business environment (Zhang et al., 2022). Most studies have demonstrated that strategic HRM has promising effects (Grothaus, 2015). As a category of strategic HRM practices, unlike other forms of HRM systems, a high-commitment work system emphasizes the development of long-term reciprocal relationships between the organization and its employees (Collins & Smith, 2006). While highlighting the prominence of a high-commitment work system, a macro-level one was not sufficient to encourage employee behavior and increase a company's innovative performance (Chang et al., 2014; Chen et al., 2018). Specific research has demonstrated that employee-perceived corporate HRM practices influence employee behaviors and attitudes (Alfes et al., 2013). Although employees have various opinions on the same HRM practice, the HRM system's attitudinal or behavioral benefits can be achieved when employees hold good perceptions about the HRM system (Nishii et al., 2008). Consequently, investigating how the employee-perceived high-commitment work system might effectively affect employee attitudes and behaviors is critical.

Studies have shown that the high-commitment work system (HCWS), as an organizational contextual factor, influences employee behavior and attitude (Li & Lin, 2021; Meijerink et al., 2020). Despite these studies, knowledge on the process through which the employee-perceived high-commitment work system (EPHCWS) affects employee behavior and attitude is still lacking (Bui et al., 2016). Job embeddedness (JE) describes several internal and external forces that affect employee embeddedness, which is like a network that traps a person. The stronger the embeddedness, the more difficult it is to leave the organization (Mitchell et al., 2001). JE influences other essential work-related behaviors. More importantly, the EPHCWS can facilitate JE. In other words, it can help employees access job resources (Ghosh & Gurunathan, 2015). JE, as a rich instrumental resource, can contribute to the effective implementation of innovative behaviors (Ampofo et al., 2018). This suggests that JE mediates the relationship between the EPHCWS and employee innovation behavior (EIB). This study also responds to the call of Dechawatanapaisa (2018) to examine the role of JE as a mediator. Tierney and Farmer (2002) first introduced the concept of creative self-efficacy (CSE) and defined it as the confidence with which an individual can work creatively. It includes several aspects such as being able to innovatively overcome work-related difficulties and challenges, finding ways to solve problems, and ultimately achieving creative work results. When employees are confident in their CSE, they tend to remove the inherent barriers to creative participation and devote themselves to creative behavior (Tierney & Farmer, 2011). As a cognitive and psychological resource for individuals, CSE may impact individual behavioral performance (Zhao & Jiang, 2018). One of the main factors that influence individual innovative behavior in work circumstances is CSE, which is an individual difference variable (Orth & Volme, 2017). Thus, this study contends that CSE plays a moderating role in the relationship between EPHCWS and EIB.

Although studies have demonstrated that EPHCWS and JE have a positive effect on EIB, certain gaps exist in the field of behavioral sciences as to whether EPHCWS affects EIB through JE and whether CSE can moderate the effect of EPHCWS on EIB as a contribution of research. This study aims to fill these gaps and contribute to the existing body of knowledge. Specifically, this study investigates the mechanism and boundary conditions of the effects of EPHCWS on EIB by using JE and CSE as the mediating and moderating variables, respectively.

Literature Review

This section discusses the findings of existing studies on the conservation of resources theory, high-commitment work systems (HCWS), job embeddedness (JE), creative self-efficacy (CSE), and employee innovation behavior (EIB). In addition, hypotheses are formulated by reviewing how HCWS affect EIB through JE, and the moderating role of CSE in the relationship between HCWS and EIB. Finally, this section presents the research framework.

Conservation of Resources Theory

As proposed by Hobfoll (1989), the theory of conservation of resources postulates that individuals tend to engage in resource investment behaviors when endowed with ample resources, thereby initiating a cycle of resource accumulation. Consequently, individuals employ rational consideration and calculation when distributing resources, that is, weighing the gains and losses of resources. For example, evaluating the trade-off between investing time and effort for higher rewards and career advancement.

The theory of conservation of resources has been commonly used in behavioral science. A HCWS can provide employees with effective work resources, and this has a significant positive effect on JE (Ghosh & Gurunathan, 2015). According to Halbesleben and Wheeler (2008), JE is a rich repository of work-related resources. Already well-resourced individuals can increase the autonomy of their work and invest in resources for promoting resource augmentation and gaining access to more valuable resources (Hobfoll et al., 2018). Notably, employees with high JE have more work resources and motivate proactive work

behaviors, such as innovative behaviors (Zhou & Qian, 2021). Innovative employees have greater access to valuable resources such as increased income, job security, promotion, recognition, and social support (Halbesleben et al., 2014). Thus, innovative behavior is used by employees to acquire and protect resources (Kiazad et al., 2014). Furthermore, functioning as a cognitive and psychological resource, CSE influences individual behavioral performance (Zhao & Jiang, 2018).

Building on these foundations, this study investigates the HCWS as a source of resource accumulation, with JE denoting a reservoir of initial work-related resources. Additionally, EIB is explored for resource cultivation and enhancement. The study further investigates the mediating and moderating roles of JE and CSE in the relationship between the EPHCWS and EIB.

Employee-Perceived High-Commitment Work System and Employee Innovation Behavior

Innovative behavior is a multistage process involving identification, development, dissemination, and implementation of problems (Scott & Bruce, 1994). A HCWS represents an assortment of interrelated HRM practices that contribute to employee skills, opportunities, and motivation (Ahmed et al., 2018). HCWS practices include careful employee selection, comprehensive training, socialization initiatives, and encouragement of internal promotions and job security. Behavior- and development-oriented assessments are employed to evaluate employee performance and growth. Employee involvement and broad information sharing are invigorated within the organization, emphasizing on teamwork and cooperation through team-based work arrangements. A HCWS is implemented to foster a strong commitment from employees toward the organization, thereby empowering them to excel in their roles and contribute positively to organizational success (Xiao & Björkman, 2006).

First, rigorously selecting right candidates in employee recruitment based on their competence, and then offering them professional training and encouraging them to socialize in group work and job rotating (Martínez-del-Río et al., 2012), and participate in decision-making and training (Cafferkey & Dundon, 2015) may generate the knowledge and competencies required to ultimately stimulate innovative behavior among employees. Further, from a motivational standpoint, a HCWS offers sufficient empowerment and respects and listens to the opinions of employees, which largely satisfies their need for autonomy at work and thus motivates them to improve their creativity (Cerasoli et al., 2014). The intrinsic desire of employees to engage in creative behavior can be increased through commitment-oriented HR strategies such as information sharing, incentive compensation, and employee engagement (Chang et al., 2014). Finally, from an opportunity standpoint, empowering employees, building flexible teams, and facilitating employee engagement would allow employees to validate their innovative ideas and further translate their knowledge, skills, or motivation into concrete innovative practices (Martínez-del-Río et al., 2012). Furthermore, internal promotions offer opportunities for continuous learning, self-development, and career success or encourage the emergence of innovative behaviors in employees (Ren & Zhang, 2015). Moreover, empirical studies have found that EPHCWS significantly and positively affects EIB (Chen et al., 2018). Hence, hypothesis 1 is proposed.

H1: Employee-perceived high-commitment work system positively influences employee innovation behavior.

The Mediating Role of Job Embeddedness

Mitchell et al. (2001) proposed the JE theory from the employee separation perspective, which states that JE motivates employees to immerse themselves in their work through a set of binding forces in their works, which includes the dimensions of employee–organizational connection, employee–organizational fit in terms of competencies and values, and employee sacrifice when leaving the organization. Some employees try to induce and maintain JE as a key work resource or driving force (Kiazad et al., 2015).

Individuals can obtain the required work resources from their social environment, for example, HRM systems, or can build or nurture resources (Feldman et al., 2015).

The organization provides information about organizational fit to employees through the recruitment, performance evaluation, socialization, and particular training processes, which help employees to improve employee–organizational fit (Bambacas & Kulik, 2013). Second, a HCWS nurtures strong relationships through team building, job rotation, and mentoring (Ghosh & Gurunathan, 2015). Communication during social interactions can increase the chances of good opportunities for employees to connect with each other. While information is shared, resources are exchanged, and interpersonal risks and responsibilities are shared among team members, the aforementioned interactions can facilitate more stable and lasting bonds in the organization (Kiazad et al., 2015). Finally, employee–organizational bonding and matching resources, incentive pay, generous benefits, career development opportunities, job security, dissatisfaction/grievance resolution procedures, and other measures improve the employees' perceptions of sacrifice when they leave their organization (Bambacas & Kulik, 2013). According to empirical studies, a HCWS considerably and positively influences JE (Ghosh & Gurunathan, 2015).

Furthermore, the deeper the employees are embedded in the organization, the more resources they acquire from the organization and the wider the access; this finding is consistent with the results of Kiazad et al. (2015). Being a plentiful instrumental resource, JE can offer employees the tools and job support for effectively implementing innovative behaviors (Ampofo et al., 2018). According to the conservation of resources theory, employees with sufficient initial resources are motivated to work, and based on their resources, they cultivate a value-added resource spiral to gain more resource stock (Hobfoll et al., 2018). Hereafter, they would capitalize the existing embedded resources and cultivate new resources in meaningful activities (e.g., innovative behaviors) to achieve work value and organization innovative goals (Ampofo et al., 2018). JE has a remarkable positive effect on EIB (Ng & Feldman, 2010). Hence, this study contends that EPHCWS may influence EIB through JE. Hence, hypothesis 2 is proposed.

H2: Job embeddedness mediates the relationship between employee-perceived high-commitment work system and employee innovation behavior.

The Moderating Role of Creative Self-Efficacy

Employees following the HCWS, as previously stated, can enhance their innovative behavior. However, the effect of EPHCWS on EIB may vary from individual to individual (Tierney & Farmer, 2002), and CSE is one of the crucial boundary conditions in work context to influence EIB (Orth & Volmer, 2017). Therefore, this study argues that individual differences (CSE) interact with the work context (organizational high-commitment work system) to exert differential effects on EIB.

The CSE can influence individual behavioral performance, which is a cognitive and psychological resource (Zhao & Jiang, 2018). Personal competence positively affects creative behavior (Koednok & Sungsanit, 2018). Employees with high CSE levels have distinctive characteristics contributing to their creative and forward-thinking approach to work. They demonstrate intrinsic solid motivation, which is driven by an innate passion for exploring new ideas and solutions. Because of their cognitive capabilities, they process information effectively, think critically, and develop innovative strategies (Wilaphan et al., 2023). Furthermore, employees with high CSE levels exhibit positive emotions and behaviors, thereby fostering a favorable and open-minded work environment. Owing to their belief in their knowledge and skills, such employees perceive themselves as competent agents who can implement creative initiatives in their professional endeavors (Jiang & Gu, 2017). In the face of challenges and uncertainties at workplace, these highly innovative individuals exhibit resilience and adaptability. Unlike employees with low innovative self-awareness, they identify obstacles as opportunities for growth and development (Richter et al., 2012).

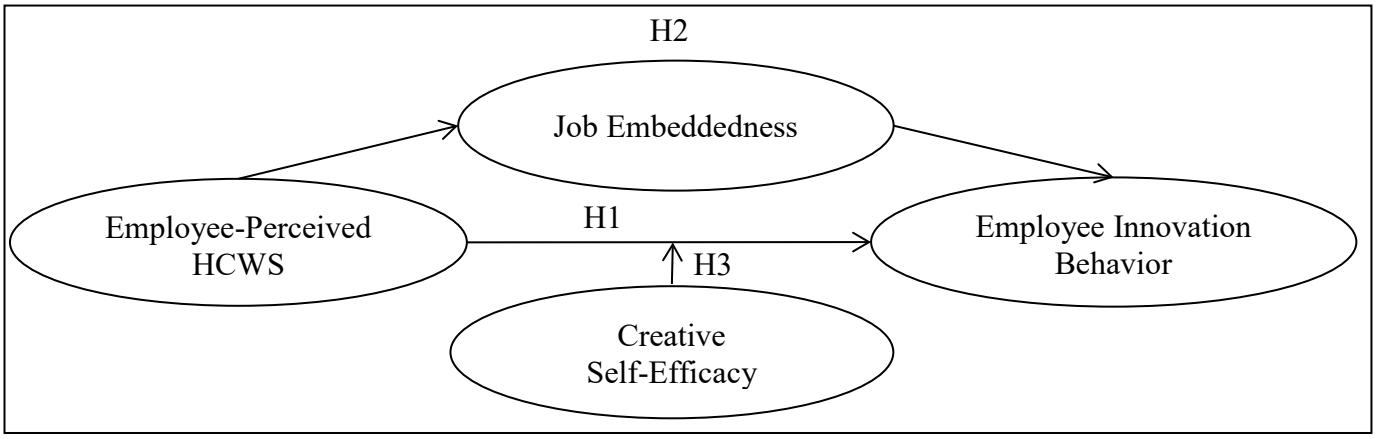
According to the conservation of resources theory, employees with a strong feeling of CSE often possess abundant psychological resources (such as courage and confidence) and are confident about their ability to handle challenging jobs (Hobfoll, 1989). The higher the self-efficacy, the stronger the employees tend to select a supportive environment to achieve their personal work goals, and the stronger their motivation to use innovative behaviors to enhance resources (Choi et al., 2021). Hence, CSE has been hypothesized to positively moderate the positive influence of EPHCWS on EIB. Hence, hypothesis 3 is proposed.

H3: Creative self-efficacy moderates the relationship between employee-perceived high-commitment work system and employee innovation behavior.

According to the aforementioned hypotheses, a conceptual framework was proposed (Figure 1).

Figure 1

Research Framework



Method

This section examines the sample and sampling technique, scale measurement, and ethical considerations.

Research Sample and Sampling Technique

In this study, a questionnaire survey of employees of companies in various Chinese provinces was conducted to expand the research on commitment-based HRM practices. China has 34 provincial-level administrative regions. The convenience sampling method of non-probability sampling was used for data collection. In the questionnaire survey, employees of enterprises in 21 provinces with high GDP rankings were selected as respondents. According to China's National Economic Industry Classification (GB/T 4754-2017), there are a total of 20 industry categories and 97 subcategories, and in this study, the following six industries were selected: (a) manufacturing; (b) information transmission, software, and information technology services; (c) scientific research and technology services; (d) education; (e) finance; and (f) construction. The above six industries together cover 48 subcategories, and according to the data analysis of the National Bureau of Statistics (https://data.stats.gov.cn/index.htm), the combined GPD share of the above industries has exceeded 50% in recent years, including 52.50% in 2022. The participants were asked to complete the questionnaire through a link to an online questionnaire platform called "Questionnaire Star," which was shared with them. Before disseminating the survey, the participants were clearly explained the research's academic purpose. They were assured that their contributions would remain confidential and that their survey responses would remain anonymous. An emphasis was laid on the point that their answers should be grounded solely in personal judgments. Submission of the questionnaire was considered to indicate participants' alignment with the established ethical guidelines.

In total, 705 participants were sent the questionnaire from November to December 2022, and 658 questionnaires were received. After excluding the responses inconsistent with one reverse question in the questionnaire, repetitive responses, and responses with unusually short completion times, a final dataset of 601 valid questionnaires remained. The respondents included 329 (54.74%) male and 272 (45.26%) female. Regarding the educational level, 45 (7.49%) participants had completed high school education, 163 (27.12%) participants were in junior college, 247 (41.10%) participants had a bachelor's degree, 132 (21.96%) participants had a master's degree, and 14 (2.33%) participants had a doctorate and above degree. Regarding the distribution of employees based on their position, 302 (50.25%) participants were grass-roots employees, 162 (26.96%) participants were basic-level managers, and 137 (22.79%) participants were mid-level managers. Regarding industries, 114 (19.00%) participants were in manufacturing, 101 (16.80%) participants were in information transmission, software, and information technology services, 105 (17.50%) participants were in scientific research and technology services, 98 (16.30%) participants were in education; 95 (15.8%) participants were in finance, and 88 (14.60%) participants were in construction.

Measurement

The English version of the scale, which is well-established and widely used, was adopted in this study. Considering the actual cultural background, Experts specializing in management studies who are fluent in Chinese and English were first invited to translate the research instrument from English to Chinese, and then the Chinese version was compared with the original text one by one, while several discussions were held with the instructors to revise the scale to ensure the consistency of the item contents in the table. All measurement tools were assessed using the Likert 5–point scale, where the participants had to choose appropriate responses within the range of 1–5 according to their perceptions, with 1 indicating "strongly disagree" and 5 indicating "strongly agree". The variables were measured as follows.

The EIB scale used in this study adopts a mature questionnaire with 10 items developed by Jong and Hartog (2010), which has been validated to exhibit good reliability and validity. It has questions such as "I will pay attention to and study work-related issues, even though they are not part of my daily job responsibilities" and "I will systematically introduce innovative ideas into work practices". The scale exhibited high reliability with a Cronbach’s alpha of .91.

The scale of the high-commitment work system used in this study adopts a 15-item questionnaire developed by Xiao and Björkman (2006), which has been demonstrated to possess good reliability and validity. It has questions such as "I feel the company has a careful selection process in the recruitment process". The scale exhibited high reliability with a Cronbach’s alpha of .95.

The JE scale used in this study adopts a mature questionnaire with seven items developed by Crossley et al. (2007) and has questions such as "I have a strong attachment to my organization" and "I care too much about my organization, so I cannot leave". The scale exhibited high reliability with a Cronbach’s alpha of .91.

The CSE scale used in this study adopts a mature questionnaire developed by Carmeli and Schaubroeck (2007), which consists of 8 items. Some of the questions included were "When confronted with difficult tasks, I am quite sure that I can do them very creatively" and "I can creatively overcome many challenges". The scale exhibited high reliability with a Cronbach’s alpha of .96.

Ethical Considerations

This study was carefully reviewed by the Academic Ethics Committee of Hainan University of Science and Technology, China, and was approved on October 28, 2022 (reference number: HKD-2022-40).

Results

This section began with sample means, standard deviations, and inter-variable correlation analyses using SPSS (version 22.0). Then, a confirmatory factor analysis (CFA) was conducted using Mplus (version 8.3) to validate the measurement model and scrutinize its validity and model fit. Third, The Hayes process of Model 4 was used to test for mediating effects and the Hayes process of Model 5 was used to test for moderating effects. Finally, the statistical significance of the mediating and moderating effects was also verified by the Bootstrap method with repeated sampling of 5000 and 95% confidence intervals (CIs) (Hayes et al., 2017).

Descritpive and Correlation Analysis

Descriptive statistics analyses were computed for demographic variables as well as key variables for the 601 participants. The analysis included different codes for each demographic variable such as, gender (male = 1, female = 2); education (high school education = 1, junior college education= 2, bachelor's degree = 3, master degree = 4, doctorate = 5); position (grass-roots employees = 1, basic-level managers = 2, mid-level managers = 3); industry (manufacturing = 1, information transmission, software, and information technology services = 2, scientific research and technology services = 3, education = 4, finance = 5, construction = 6). These results are detailed in Table 1.

All correlation coefficients were <0.7 (see Table 1), indicating the absence of collinearity and allowing for the execution of subsequent regression analysis (Benesty et al., 2009). The study results revealed that EPHCWS was significantly positively correlated with JE, r (599) = .31, p < .001, whereas no significant correlation was observed between EPHCWS and CSE, r (599) = -.01, p = .79. By contrast, a significant positive correlation was observed between EPHCWS and EIB, r (599) = .44, p < .001. Additionally, no significant correlation was observed between JE and CSE, r (599) = - 0.06, p = .16), but JE was significantly positively correlated with EIB, r (599) = 0.44, p < .001. CSE and EIB were significantly positively correlated, r (599) = 0.25, p < .001.

Table 1

Descriptive Statistics and Correlation Analysis (n = 601)

	M	SD	1	2	3	4	5	6	7	8
1.Gender	1.45	0.50	1							
2.Education	2.85	0.93	-.08*	1						
3.Position	1.73	0.81	-.09*	0.07	1					
4.Industry	3.37	1.71	-0.01	-0.01	-0.04	1				
5.EPHCWS	3.71	0.87	-.13**	.12**	.16**	-0.01	1			
6.Job embeddedness	4.11	0.73	-.12**	.10*	.09*	0.07	.31**	1		
7.Creative self-efficacy	2.36	1.14	-.09*	.20**	.08*	-0.02	-0.01	-0.06	1	
8.Employee innovation behavior	3.94	0.72	-.27**	.27**	.35**	-0.08	.44**	.44**	.25**	1

Note. * p < .05, ** p < .01, *** p < .001.

Measurement Model Assessment

In this study, the CFA method was employed to test the validity of the measurement model. The standardized factor loadings (FL) for all variables corresponding to the question items were > .50, and the average variance extracted (AVE) for all variables was > .50. All composite reliability (CR) values for all variables were > .80, which indicated acceptable convergent validity (Fornell & Larcker, 1981). Additionally, the correlations among all variables were less than the square roots of AVE, demonstrating

good discriminant validity between the four study variables. These study results collectively suggest that the measurement model used is reliable, valid, and suitable for further analysis and interpretation (Table 2).

Table 2
Validity Analysis

Variable	Factor Loading	AVE	CR
Employee-perceived high-commitment work system	.68 – .79	.55	.95
Job embeddedness	.73 – .88	.59	.91
Creative self-efficacy	.87 – .89	.78	.97
Employee innovation behavior	.68 – .75	.51	.91

In addition, model applicability tests were conducted to determine whether the proposed model was optimal. A multifactor validation model was also executed. Chi-square/degrees of freedom (χ^2/df) comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA) and standardized root mean residual (SRMR) were used. Multiple measurement parameters were implemented to test the goodness of fit of the model. The results of the model analysis showed that the four-factor model had the best fit with $\chi^2/df = 1.19 < 3$, CFI = .99 > 0.9, TLI = .99 > 0.9, RMSEA = .02 < .05, and SRMR = .03 < .08, which met the criteria (McDonald & Ho, 2002). It indicated good discriminant validity among the four study variables (Table 3).

Table 3
Model Fit Index

Standard	Model Fit Indicators				
	χ^2/df < 3	CFI > .9	TLI > .9	RMSEA < .05	SRMR < .08
Four-factor model (EPHCWS, JE, CSE, EIB)	1.19	.99	.99	.02	.03
Three-factor model (EPHCWS, JE+CSE, EIB)	7.98	.68	.66	.11	.15
Two-factor model (EPHCWS+JE+CSE, EIB)	11.09	.54	.51	.13	.18
One-factor model (EPHCWS+JE+CSE+EIB)	13.72	.42	.39	.15	.19

Note. EPHCWS = employee-perceived high-commitment work system, JE = job embeddedness, CSE = creative self-efficacy, EIB = employee innovation behavior.

The Mediating Effect of Job Embeddedness

The Hayes process of Model 4 was applied to verify the mediating role of JE (Table 4). The non-standardized values are as follows. The total effect coefficient of EPHCWS on EIB was .36, with a 95% CI of [.30, .42], and the interval did not contain 0. The direct effect coefficient of EPHCWS on EIB was .28, with a 95% CI of [.22, .33], and the interval did not contain 0. The indirect effect coefficient was .08, with a 95% CI of [.05, .12], and the interval did not contain 0, which indicated that the main effect coefficient decreased after JE was incorporated in the relationship between EPHCWS and EIB, and JE plays a partial mediating role between EPHCWS and EIB.

To test the mediating effect of JE, a bias-corrected non-parametric percentile bootstrapping method was employed by resampling the sample 5000 times. According to the results, (a) the indirect effect value was 0.08, with a 95% CI of [.05, .12], which did not include 0; (b) the direct effect value was .28, with a 95% CI of [.21, .34], which did not include 0; and (c) the total effect value was .36, with a 95% CI of [.30, .43], which did not include 0. The mediating effect accounted for 23.40% of the total effect, thereby confirming the significance of the partially mediated effect of JE. This robust analysis further strengthened the evidence supporting the mediating role of JE in the relationship between the study variables.

Table 4

The Mediating Effect of Job Embeddedness (Path: EPHCWS→ JE→EIB)

Predictor	*B*	*SE*	95% CI		R^2
			LL	UL	
Total effect	.36***	.30	.30	.42	.19
Direct effect	.28***	.30	.22	.33	
	Boot IE	Boot SE	95% CI		
			LL	UL	
Indirect effect via mindful acceptance	.08	.02	.05	.12	.29

Note. n = 601, * $p < .05$, ** $p < .01$, *** $p < .001$.

The Moderating Effect of Creative Self-efficacy

To test the moderating effect of CSE on the relationship between EPHCWS and EIB, the Hayes process of Model 5 was used (Table 5). The EPHCWS × CSE interaction significantly influenced EIB (β = .08, $p < .01$, $t = 3.27$), indicating that CSE moderates the impact of EPHCWS on EIB.

Table 5

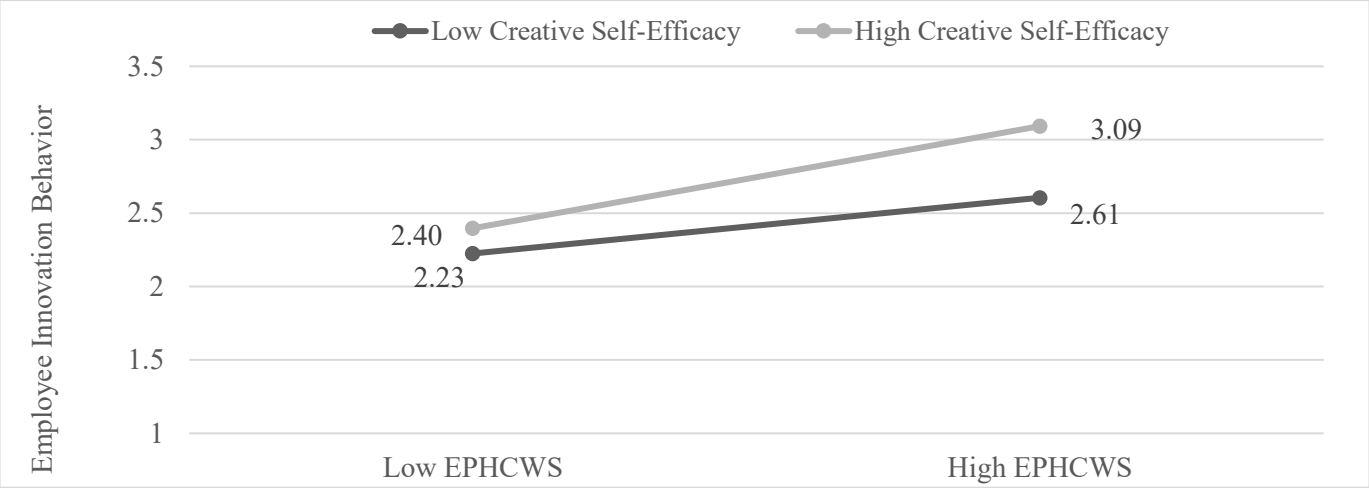
The Moderating Effect of Creative Self-efficacy (EPHCWS × CSE→EIB)

Variable	Model 1 Job embeddedness β (*t*)	Model 2 Employee innovation behavior system β (*t*)
EPHCWS	.26 (7.86***)	.27 (9.68***)
Job embeddedness		.33 (9.92***)
Creative self-efficacy		.17 (8.13***)
EPHCWS × Creative self-efficacy		.08 (3.27**)
R^2	.09	.38
F	61.72***	91.39***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Figure 2

The Moderating Effect of Creative Self-efficacy



To further explain the relationship of the aforementioned moderating effect, a simple slope test was conducted according to the procedure of Aiken and West (1991). The moderating effect was plotted, as shown in Figure 2. The positive effect of EPHCWS on EIB was weaker when CSE was low (slope = .18, *t* =

4.43, $p < .001$), whereas it was stronger when CSE was high (slope = .36, $t = 9.38$, $p < .001$). These results indicated that the positive influence of EPHCWS on EIB increased when employees' CSE was stronger.

Discussion and Conclusion

Discussion of Main Results

The study findings verify research hypothesis 1, indicating that EPHCWS has a significant positive influence on EIB. This finding is similar to those of earlier studies (Chen et al., 2018). In addition, this study confirms that employee-perceived corporate HRM practices influence the attitudes and behaviors of employees (Alfes et al., 2013). Employees with positive perceptions are more likely to create attitudes and behaviors that benefit their organizations (Nishii et al., 2008). When employees perceive a high-commitment work system in their organizations, their competence, opportunities, and motivation increase (Ahmed et al., 2018). For example, the organization's extensive and professional training for rigorously and carefully selected employees, as well as information exchange during their work and training, can improve the professional competence of those employees and may stimulate their innovative ideas (Cafferkey & Dundon, 2015). Companies can motivate EIB if internal promotion mechanisms, job security systems, and performance evaluation mechanisms are implemented based on the behavioral and developmental orientations of the employees (Chang et al., 2014). Employees can realize that their development or their professional development can be enhanced through innovative behaviors (Ren & Zhang, 2015).

The findings further verify research hypothesis 2, proving that JE mediates the EPHCWS–EIB relationship to some extent. According to the study findings, when EPHCWS is higher, employees more firmly embed themselves in the organization, which more strongly motivates their innovative behavior. EPHCWS has a beneficial effect on JE (Ghosh & Gurunathan, 2015). Studies evaluating JE as a mediating variable are few, and additional studies are warranted to investigate the mediating role of JE (Dechawatanapaisal, 2018). The present study verified the mediating role of JE. Some studies have also proved that JE influences EIB (Ampofo et al., 2018; Ng & Feldman, 2010). After employees experience a high-commitment work system, JE enhances employees' commitment to the organization and can boost EIB. These findings also validated the conservation of resources theory, which states that individuals having sufficient resources initially can effectively foster positive behavioral performance to protect the value-added spiral of resources (Hobfoll et al., 2018). EPHCWS (i.e., situational resources) promotes the implementation of innovative behaviors by employees (i.e., actualizing value-added resources) through JE (resource-rich individuals). The study findings confirm that JE plays a mediating role in the mechanism underlying the influence of the perceived high-commitment work system on EIB.

The findings support research hypothesis 3, indicating that CSE has a moderating effect on the relationship between EPHCWS and EIB and that the higher the CSE level, the stronger the positive effect of EPHCWS on EIB. This finding is similar to those of Orth and Volme (2017), who found that CSE has a significant moderating role in influencing EIB. According to Tierney and Farmer's (2002), CSE is a critical driver of EIB and strongly predicts EIB compared with JE. The study findings reaffirm the aforementioned finding. This study provides additional evidence to substantiate that EIB should be predicted based on personal and contextual characteristics. Employees with high a CSE level often own wealthy psychological resources (e.g., confidence, courage) and are confident of their ability to accomplish challenging activities such as innovation (Richter et al., 2012). This finding extends the application of the conservation of resources theory (Hobfoll et al., 2018). According to this theory, employees with a high CSE level (individual plentiful resource) actively interact with the organization's high-commitment work system (situational resources) and thus implement innovative behaviors (realizing the value of resources).

Limitations

Although this study contributes to understanding the mechanisms of EPHCWS in influencing EIB via JE and the moderating role of CSE, it has some limitations. First, this study examined the mediating

role of JE in the EPHCWS–EIB relationship and the moderating effect of CSE, but only from employees' perspectives. The objectivity of the study results can be enhanced by using paired questionnaires in future studies, such as the ratings of employees for the high-commitment work system, JE, and CSE, and the ratings of managers for the EIB. Second, future studies can use longitudinal design, rather than cross-sectional design, to investigate the time series effect of the mechanism underlying the influence of EPHCWS on EIB, as EIB is associated with the time lag effect. Third, this study evaluated the role of only JE as a mediator; JE exerted a mediating effect of 23.40% only on the total effect of EPHCWS on EIB. Future studies can investigate the indirect effects of other mediating variables in the EPHCWS–EIB relationship.

Implications for Behavioral Science

This research contributes to the advancement of behavioral science theory and practice. First, it explored the impact of EPHCWS on EIB based on the theory of conservation of resources. This expands the scope of the application of this theory to behavioral sciences. This study investigated the impact of a high-commitment work system as a source of resource accumulation (Xiao & Björkman, 2006), JE by representing an initial pool of work-related resources (Halbesleben & Wheeler, 2008), and CSE as a complementary psychological resource (Zhao & Jiang, 2018) on facilitating the resource spiral value-added EIB (Kiazad et al., 2014). Second, using EPHCWS as an independent variable, JE as the mediator variable, and CSE as the moderator variable, this study established a research model of the influence of EPHCWS on EIB and revealed the role of JE and CSE in the process of EPHCWS's influence on EIB. It also enriched the theoretical framework of the factors influencing EIB. Finally, according to the study results, from the perspective of practice, it emphasized that the stronger the positive perception of a high-commitment work system in the organization, the more conducive it is to the improvement of JE (Ghosh & Gurunathan, 2015), and the better the EIB (Chen et al., 2018). Additionally, the interaction between employees' CSE and EPHCWS positively affects EIB (Hobfoll et al., 2018). Therefore, improvement in employees' perception of the high-commitment work system can be achieved through strategic communication of the company's intention to implement it to build long-term emotional commitment. Then, employees' JE can be increased by implementing strategies, such as organizing recruitment and training, prioritizing internal promotion, providing a wide range of jobs and internal rotation, emphasizing team performance and employee effort, implementing a diverse compensation system, keeping information-sharing fluid, and providing a platform for employee participation in decision-making, to enhance the strong bond between employees and the company (Ghosh & Gurunathan, 2015). Moreover, companies must improve employees' innovative self-efficacy, increase their confidence in implementing innovative behaviors, and allow them to perceive the resource value-added from implementing innovative behaviors (Richter et al., 2012). The aforementioned management practices can help organizations improve the EIB and gain long-term competitive advantage.

Conclusions

The study results help organizational managers understand the factors that influence EIB. The results revealed that EPHCWS exerts a direct as well as indirect positive impact on EIB through the mediating variable JE. The higher the CSE level, the stronger the positive impact of EPHCWS on EIB. This suggests that managers need to emphasize positive employee perceptions of implementing a high-commitment work system, so as to improve JE, as well as strengthen the CSE of the employee, which ultimately enhances EIB.

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