


# Innovation, self-efficacy and creativity-oriented HRM: What helps to enhance the innovativeness of organization employees?

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## Abstract

The paper examines how creativity-focused Human Resource Management (HRM) enhances employee creativity by investigating the mediating role of creative self-efficacy. The research employs a sample of 264 participants from IT-based firms in Pakistan. Partial least square structural equation modeling (PLS-SEM) confirmed the proposed hypotheses. Findings reveal that creativity-oriented HRM significantly enhances employee creativity directly and through creative self-efficacy. This study validates a creativity-oriented HRM measurement in the context of an emerging economy, adding value to the literature on strategic human resource management. Additionally, it looks at the connection between employee creativity and HRM, which values creativity from the complementary standpoint of innovativeness. This perspective emphasizes the critical mediating function that creative self-efficacy plays.

**Keywords:** Creativity-oriented HRM, creative self-efficacy, employee creativity.

## 1 Introduction

The significance of employee creativity for competitive advantage has been widely acknowledged (Cheese et al., 2007; (Jaboob et al., 2023; Jeong & Shin, 2019; Meirun et al., 2023). A study has defined it as generating of novel and organizationally valued ideas at the individual level (Amabile, 1996), employee creativity is linked to developing innovative solutions to organizational challenges and the evolution of labor-intensive business models (Manzoor et al., 2021). Consequently, the urgency and relevance of employee creativity have garnered increasing attention in the literature (Li et al., 2015; Salmen & Festing, 2022). Despite recognizing creativity at the individual level, the scholarly focus has predominantly centered on team creativity (Jeong

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& Shin, 2019). Although the concepts of innovation and creativity are closely related to each other, these are two distinct concepts. Innovation refers to the adoption of new ideas and solutions to improve existing products and services or introduce new products and services, whereas, creativity is the generation of creative ideas and solutions which may be considered as antecedent of innovation (Saroooghi et al., 2015; Tang, 2017). Hence, organizations need to understand the factors contributing to employee creativity.

Although, scholars explained the crucial role of employees' creative ideas and solutions to improve products and services, very limited studies investigated the role of strategically aligned HRM in promoting employee creativity (Rehman et al., 2019). Prior studies predominantly focused on the universalistic perspective of HRM i.e., high-performance work system (Liu et al., 2017; Ma et al., 2017), and high-commitment work system (Chang et al., 2014) neglecting the configuration of HRM systems to achieve strategic goals. To address this void, Wang and Horng, (2002), in their research argued that within established SHRM systems certain HR practices in comparison to other practices were found positively correlated with employee creativity (Manzoor et al., 2021). Consequently, the systematic development of supportive HRM systems to foster and maintain employee creativity becomes imperative (Al-Sulaiti, 2007; Ismail et al., 2009). In light of this, we posit that creativity-oriented HRM systems, characterized by a collection of HRM practices that effectively nurture employee creativity by encouraging the generation of novel and valuable ideas, may outperform general HRM practices in fostering employee creativity.

According to Shalley et al. (2004) individual characteristics and the environment in which they operate are responsible for employee innovation. In a similar vein, other research has found several precursors of employee creativity. Research has revealed a substantial correlation between an employee's creative self-efficacy and their innovative activity (Gong et al., 2009; Tierney & Farmer, 2002). Gong et al. (2009) discovered that creative self-efficacy has a major influence in forecasting employee creativity. HRM systems are important, but they are insufficient to directly impact employee creativity; instead, it is necessary to comprehend any potential internal mechanisms at play (Yasir & Majid, 2020). Christensen-Salem et al. (2021) suggested to examine the interaction effect of creative self-efficacy. They also held the opinion that people are highly motivated to seek advice and direction while implementing creative behavior when they have a strong belief in their creative selves (Al-Sulaiti, 2005). Therefore, by examining the mediating role of creative self-efficacy in the relationship between innovative climate and employee creativity, this study aims to close this gap.

The core objective of the study is to examine the mechanism through which employee creativity is impacted by creativity-oriented HRM systems. To investigate the association between employee creativity and a creativity-oriented HRM system, we adopted the theoretical framework of ability-motivation-opportunity to contribute (Salvador-Gómez et al., 2023). Since it is inferred that HRM does not directly affect employee performance, it is crucial to comprehend the transmission mechanism, to understand how HRM affects employee creativity, a topic of growing attention in the literature (Chowhan, 2016). Consistent with earlier research indicating that HRM practices could impart knowledge and impact employees' beliefs, values, and actions, ultimately fostering creative self-efficacy (Slåtten, 2014), the study argues that creativity-oriented HRM system enhances employee's creative self-efficacy and motivate them to share their creative ideas and solutions without any negative consequences.

The next section will explain the theoretical background and proposed hypotheses leading to the research model (figure 1). The proceeding section will cover research methods used to collect and analyze data to confirm hypotheses. After the methods section, the results of the study will be discussed in light of the previous literature. The last section explains the implications, limitations, future directions, and conclusion of this study.

## 2 Theory and hypotheses development

### 2.1 Creativity-oriented HRM systems–employee creativity

Strategic HRM scholars used human capital or social exchange perspectives as a theoretical lens to explain the HRM–employee outcomes relationships (de la Rosa-Navarro et al., 2020). Recently, these scholars pointed out that the ability-motivation-opportunity framework provides a more comprehensive explanation of HRM employee outcomes (Salvador-Gómez et al., 2023). The ability–motivation–opportunity (AMO) framework explains that employee performance mainly depends on employees' abilities, motivation to invest their abilities, and opportunity to utilize their abilities (Hattie et al., 2020). AMO framework further explains that employee's abilities (A), motivation (M), and opportunity (O) are enhanced through the adoption and implementation of ability-enhancing, motivation-enhancing, and opportunity-enhancing practices. Accordingly, this study uses the AMO framework to propose hypotheses. It suggests that domain-relevant skills (knowledge, competence, technical skills, intelligence, and talent in the specific field in which the problem solver works), creativity-relevant skills (cognitive styles, personality traits, and disciplined work styles and skills that are conducive to generate ideas), and intrinsic motivation are the factors that determine an employee's creativity (Thuan & Thanh, 2020). Amabile (1996) proposed that external factors, such as encouragement and empowerment from the organization, are equally important for fostering employee creativity in addition to these internal factors. Therefore, HRM systems that prioritize creativity should strengthen employees' creative abilities, increase their intrinsic motivation, and give them more chances to express their creativity.

According to recent research, creativity-oriented HRM increases employee creativity by strengthening employees' intrinsic motivation, developing their creative abilities, and giving them chances to express their creativity (Zhang, 2020). First, creativity related skills enhancing HRM practices help organizations to enhance employee's creativity-relevant knowledge, talents, and skills. This study proposes that employee's creativity-related knowledge, skills and abilities enhance their creativity (De Meulenaere et al., 2021). Therefore, creative skill-enhancing procedures guarantee that staff members have the necessary information and abilities to support staff members' creativity. Second, the adoption and implementation of strategies that promote intrinsic motivation may enhance employee's motivation that help to foster creativity in organizations (Zhang & Bartol, 2010). Scholars argued that employee intrinsic motivation can be enhanced through implementation of specific HR practices, such as creativity-based performance evaluations (Manzoor et al., 2021). Another study conducted by Malik et al. (2015) asserted that organizations rewards and incentives practices help to promote intrinsic motivation among employees. As a result of superior intrinsic motivation employees are more likely to share creative ideas and solutions that foster creativity.

Finally, techniques that promote empowerment are essential for igniting advanced creativity. According to research, when paired with activities that increase empowerment, the majority of HRM practices have a synergistic effect and improve performance (Lepak et al., 2006). Using upward feedback systems, this set of HRM strategies seeks to enable employee voice and engagement (Wood & Wall, 2007). By allowing employees to participate in decision-making and voice their opinions more frequently, these strategies enable firms to accept more innovative ideas. More significantly, by demonstrating the organizational support for creative behaviors, these HRM approaches will result in high levels of creative performance from employees in firm (Yu & Frenkel, 2013). Thus, we suggest that creativity-oriented HRM will encourage employees' creativity.

*H1. Creativity-oriented HRM is positively associated with employee creativity.*

## 2.2 Creativity-oriented HRM–creative self-efficacy

Organizational creative environments are greatly influenced by Human Resource Management (HRM) approaches that prioritize creativity. Tierney and Farmer, (2002), explained the term ‘creative self-efficacy’ as a person's confidence in their capacity to come up with innovative ideas and solutions. Studies reveal that employee creativity is enhanced by creativity-oriented human resource management (HRM) strategies, which include initiatives to enhance creative skills and intrinsic motivators. This suggests that HRM practices that encourage employee creativity have a beneficial effect on the organization's total creative output. The notion that one can plan and carry out behaviors that result in successful creative endeavors is known as creative self-efficacy (Anderson, 2020). In addition to being essential for perseverance once creative endeavors are underway, creative self-efficacy plays a pivotal role in deciding to take the chance of starting a creative endeavor at the outset (Anderson, 2020; Tierney & Farmer, 2002). To put it simply, companies that use creativity-oriented HRM strategies encourage their employees' creative self-efficacy, which in turn makes their workforce more creative and innovative.

H2. Creativity-oriented HRM is positively linked with creative self-efficacy.

## 2.3 Creative self-efficacy–employee creativity

Social cognitive theory states that self-efficacy is a measure of a person's confidence in performing, even in the face of risk and uncertainty (Bandura, 2001). Because creative work involves risks, disputes, uncertainties, and probable failures, it requires courage and determination (Islam & Asad, 2024). According to Bandura (1991), employees having a high believe on their own abilities are more likely to take on new challenges, be innovative in their work, and set ambitious goals in order to effect change (Zhang et al., 2018). They also believe that their efforts lead to positive outcomes and prevent bad ones. Ford (1996), also underlined that fostering creativity at work requires employees to have faith in their own skills. As a result, we propose that people who have high levels of creative self-efficacy (CSE) are more likely to take on new challenges and be naturally driven to finish tasks that aren't standardized or routine. As a result, employees feel more confident to utilize their cognitive abilities to resolve existing problems and introduce new products and services (Fuchs et al., 2019). In addition, employees having confidence on their abilities to provide creative ideas and solutions confidently contribute in the innovation process (Ng et al., 2022; Yuan et al., 2023). As a result, CSE contribute to the employee creativity (Ma et al., 2021; Valdez-Juárez & Pérez-de-Lema, 2023). Therefore, hypothesis 3 is proposed as

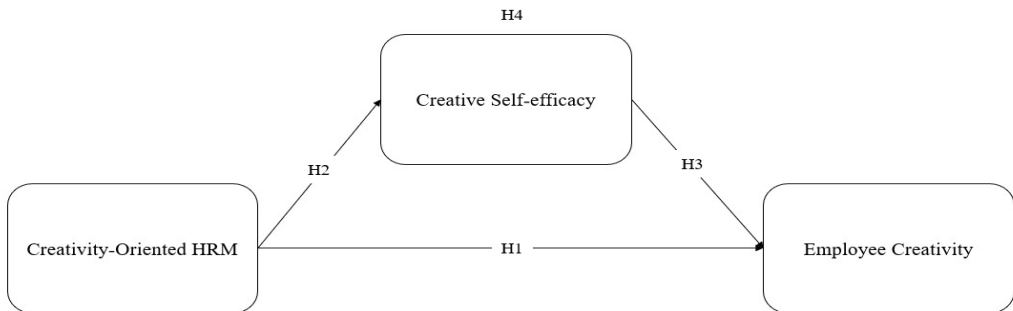
H3. *Creative self-efficacy is positively link with employee creativity.*

## 2.4 Creative self-efficacy as Mediator

Creative self-efficacy refers to “an individual's level of confidence in their capacity to provide creative and innovative ideas and solutions” (Tierney & Farmer, 2002). This is further explained as the individual's belief on their own knowledge, skills and abilities to provide creative ideas and solutions (Tang & Wei, 2022). Accordingly, Tierney & Farmer (2002) in their pioneer study examined the effect of creative self-efficacy on employee's creativity. Following the footprints, few studies highlighted the critical role of creative self-efficacy in employee creativity performance (Du et al., 2020; Gong et al., 2009). A recent also highlighted the substantial effect of creative self-efficacy in promoting creativity in organizations. It has been established that

creative self-efficacy has a greater role in fostering employee creativity (Qian & Kee, [2023](#)). Understanding the roles of self-efficacy in creative performance involves recognizing that self-efficaciousness instills intrinsic belief and motivation for successful task performance (Bandura, [2001](#)). Although contextual factors impact individual behavior in organizational contexts, creative self-efficacy provides positive confidence and excitement for participating in creative behavior (Li et al., [2017](#)). Therefore, we hypothesize:

*H4. Creative self-efficacy mediates the effect of creativity-oriented HRM on employee creativity*



**Figure 1: Conceptual Framework**

### 3 Methods

#### 3.1 Sample and procedure

This study adopted deductive approach with a structured and self-administered questionnaire to collect data by following the literature guidelines (Abani et al. [2023](#); Abbas et al. [2024](#)). We gathered the data from IT firms equipped with formal Human Resource Management (HRM) departments in Lahore Pakistan. This study used purposive sampling technique to collect data. Utilizing personal connections, we requested managers of these firms to help in collection of data. Upon securing their consent, we distributed questionnaires and provided details about the investigation process (Tabassum et al., [2024](#); Tan et al., [2024](#)). Employees of these organizations were asked to provide their feedback on creativity-oriented HRM, creative self-efficacy and employee creativity. Questionnaire were administered through online survey form to get the responses by following the literature's set criteria ((Jaffar et al., [2024](#); Zhang et al., [2024](#)). More than 450 questionnaires were shared and 294 questionnaires were returned. Response rate of this study is 65.33 %. Moreover, 30 of the incomplete questionnaires were rejected due to missing information, bringing the total useable questionnaires for data analysis up to 264. On average, these firms had been in operation for 3-5 years, employing more than 50 individuals.

Table1 shows our sample, which included 264 respondents belonging to different areas of country, out of which 61.4% (162) were male, and 38.6% (102) were female (Local Burden of Disease, [2024](#)). The results revealed that 41.3% (109) participants were 25 years old, while 48.9% (129) were aged between 26–45 years. The remaining 8.3% (23) were 46–55 years old and only 1.1% (3) were 56 years and above. With regard to education, 55.3% (146) respondents had bachelor degrees, 39.4% (104) had Master degree, and 5.3% (14) had Ph.D. In addition, all 264 participants were local employees.

**Table 1:** Demographics

Demographic Variables	Categories	Frequency	Percent
Gender	Male	162	61.4
	Female	102	38.6
Age	Up to 25	109	41.3
	26 to 45	129	48.9
	46 to 55	23	8.3
	56 and above	3	1.1
Education	Bachelor's	154	58.3
	Master's	110	31.6
Length of Service	0-1 year	36	13.6
	2-5 years	75	28.4
	5-10 years	90	34.09
	More than 10 years	63	23.8

### 3.2 Measures

The study variables were measured using already validated scales on a five-point Likert scale, “where 1=strongly disagree and 5=strongly agree”. The original English scales were used as the respondents of the study have minimum graduation.

Creativity-orientated HRM. A three-dimension scale was used to measure creativity-orientated HRM. The value of composite reliability (CR=0.88) confirms internal consistency of the scale.

Creative self-efficacy. This study used a three-item scale of Tierney and Farmer, (2002). The value of CR=0.90 confirms internal consistency of the scale.

Employee creativity. A four-item scale validated by Tierney and Farmer, (2011) was utilized to measure employee creativity. The value of CR=0.90 confirms internal consistency of the scale.

### 3.3 Common method bias

Self-reported data, according to academics may result in common method bias (CMB), which might artificially disturb the findings (Podsakoff & Organ, 1986). To overcome the potential issue of CMB, recommendations given by Podsakoff et al. (2003) and Rodríguez-Ardura et al. (2020) were followed. Harman’s single-factor test, confirms that there is no issue of CMB (Podsakoff et al., 2003; Rodríguez-Ardura & Meseguer-Artola, 2020).

## 4 Data analysis and results

PLS-SEM was applied on the proposed model for checking the validity of variables using Smart PLS 4. Researchers believe that PLS-SEM is an appropriate statistical tool for investigating complex underlying mechanism (Hair et al., 2019; Henseler et al., 2009). Hair et al. (2014), have explained that to assess the outcomes of measurement and structural model, PLS-SEM uses non-parametric assessment standards. Before moving to testing hypotheses testing stage in our study, detailed instructions of Hair et al. (2019) guided us to verify convergent as well as discriminant validity of variables.

### 4.1 Measurement model assessment

The measurement model assessment provides factor loading, CR and average variance extracted (AVE) to confirm reliability of measures, the convergent validity and discriminant validity (Hair et al., 2021). Findings in Table 2 shows that all of the factor loadings were well within accepted criteria, i.e. 0.61 to 0.90 (Hair et al., 2021). Results disclosed that all items had significant loading scores on their respective variables, demonstrating a valid factor structure of measurement

variables. The CR values varying between 0.881 to 0.903, in Table 2 confirm good internal consistency (Hair et al., 2019). The values of AVE (COH = 0.59; CSE = 0.65; EC = 0.64) reveal that all variables exhibited variance of their items, above 50% which established convergent validity (Hair et al., 2019).

The range, up to that a variable in comparison to other variable exhibits practical variance is referred to discriminant validity. Henseler et al. (2015), offered Histamine Trifluoromethyl-Toluidine (HTMT) criterion to confirm discriminant validity. This study used HTMT ratio to establish discriminant validity of constructs as it provides more reliable results as compared to Fronell-Larcker criterion. Findings in table 3 endorse discriminant validity because all values of HTMT are below than the minimum criterion i.e., 0.85.

**Table 2:** Convergent Validity

Construct	Items	Loadings	Alpha	rho_a	CR	AVE
Creativity-Oriented HRM	C-OHRM1	0.794	0.832	0.835	0.881	0.598
	C-OHRM2	0.773				
	C-OHRM3	0.788				
	C-OHRM4	0.783				
	C-OHRM5	0.725				
	C-OHRM6	0.789				
	C-OHRM7	0.745				
	C-OHRM8	0.784				
	C-OHRM9	0.776				
	C-OHRM10	0.737				
	C-OHRM11	0.765				
Creative Self-Efficacy	CSE1	0.830	0.866	0.893	0.903	0.653
	CSE2	0.886				
	CSE3	0.825				
Employee Creativity	CE1	0.779	0.864	0.876	0.901	0.646
	CE2	0.864				
	CE3	0.801				
	CE4	0.806				

*Note: "CR=composite reliability", "AVE=average variance extracted".*

**Table 3:** Discriminant Validity (HTMT Criteria)

	CSE	EC	COH
CSE			
EC	0.687		
COH	0.511	0.559	

*Note: CSE=creative self-efficacy; EC=employee creativity; COH=creativity-oriented HRM*

#### 4.2 Structural model and hypotheses testing

PLS-SEM in SmartPLS 4 was employed to test proposed hypotheses. The coefficient of determination (R<sup>2</sup>) and effect size f<sup>2</sup> values are used for explaining the ability of the overall model and effect of each exogenous variable respectively (Hair et al., 2014). Results of R<sup>2</sup> show that TM

explains 48% and 49% variance on destination image and destination loyalty respectively. Furthermore, the effect size ( $f^2$ ), which measures how much an exogenous variable contributes to the  $R^2$  values of an endogenous variable, was also examined (Hair et al., 2014). The standard assessment criterion for effect size has been described as large (value higher than 0.35), medium (value higher than 0.15) and small (value higher than 0.02)" (Cohen et al., 2002), The values of  $f^2$  in Table 5, explain the small effect size of creativity-oriented HRM on creative self-efficacy and employee creativity. Similarly, the effect of creative self-efficacy and employee creativity is also small.

**Table 4:** Coefficient of Determination

	<b>R-square</b>	<b>Effect Size</b>
CSE	0.487	Substantial
EC	0.495	Substantial

**Table 5:** Effect Size

	<b>F2</b>	<b>Effect</b>	<b>F2</b>	<b>Effect</b>
		CSE		EC
CSE	-	-	0.117	small
EC	-	-	-	-
COH	0.023	small	0.094	small

**Table 6:** Path Analysis

<b>Relationship</b>	<b>Beta</b>	<b>SD</b>	<b>t-value</b>	<b>P-value</b>	<b>Decision</b>
H1 COH -> EC	0.41	0.057	7.259	0	Accepted
H2 COH -> CSE	0.533	0.064	8.27	0	Accepted
H3 CSE -> EC	0.382	0.057	6.681	0	Accepted
H4 COH -> CSE ->EC	0.204	0.045	4.531	0	Accepted

The SmartPLS structure model offers an inner-modeling analysis, including path coefficients and "t values", of the direct and indirect linkage among exogenous variables, mediators, moderators and endogenous variables. The "path coefficient" is same like regression analysis "standardized beta coefficient" (Henseler et al., 2009). The study followed the suggestions of (Hair et al., 2014) and applied bootstrapping method with 5,000 resampling iterations to test hypotheses. Results of hypotheses testing is shown in table 6.

The findings reveal that COH has a substantial and favorable association with EC ( $\beta=0.41$ ,  $t=7.259$ ;  $p<0.05$ ); thus, hypothesis 1 is accepted. Results in table 6 also confirm that COH has a substantial and favorable linkage with CSE ( $\beta=0.533$ ,  $t=8.27$ ;  $p<0.05$ ) and CSE had substantial and favorable link with EC ( $\beta=0.382$ ,  $t=6.681$ ;  $p<0.05$ ); thereby, hypothesis 2 and hypothesis 3 are accepted. Further, results revealed that CSE significantly mediates the relationship between creativity-oriented HRM and employee creativity ( $\beta=0.204$ ,  $t=4.531$ ;  $p<0.05$ ), hence, hypothesis 4 is supported.



## 5 Discussion

Although prior literature demonstrated the beneficial effects of specific HR practices on employee creativity (He et al., 2021; Jaiswal & Dhar, 2017), findings contribute the literature on strategic HRM by examining the relationship between employee creativity and creativity-oriented HRM using the ability-motivation-opportunity framework. Given the conflicting results regarding the association between general HRM practices and creativity (Liao et al., 2024; Wang & Horng, 2002), it is suggested that creativity-oriented HRM can improve employee creativity by fostering intrinsic motivation, nurturing creative knowledge and skills, and expanding opportunities for creative engagement. The investigation of creativity-oriented HRM not only fills a gap in the literature but also provides a useful and different strategy for encouraging employee creativity, which is essential for the success of organizations.

While researchers generally agree that employee creativity is important for organizational progress, this research focuses on the individual employee level, an area that needs additional attention (Hundscheil et al., 2022). Prior literature predominantly focused on the team-level creativity (Lua et al., 2023), and individual-level creativity remains understudied. Accordingly, scholars explained the effect of HRM systems on employee-level outcomes including creativity (Mariappanadar, 2020). Therefore, by using the strategic HRM assertion that HRM systems configured in line with strategic objectives help firms to achieve these goals. This study examined the effect of creativity-oriented HRM on creative self-efficacy and employee creativity. By explaining these relationships, the study contributes to literature of strategic HRM, individual-level creativity self-efficacy and creativity.

Finding contributes to the debate of 'black-box' between HRM and innovation by explain the mediating mechanism of creative self-efficacy between creativity-oriented HRM and employee creativity. This is line with prior literature that shows positive link between HRM system, self-efficacy and employee performance (Beltrán-Martín et al., 2017; Ma et al., 2021). The findings of this study established that the adoption of strategically aligned HRM i.e., creativity-oriented HRM promote creative self-efficacy among staff members that contribute in superior creativity performance.

### 5.1 Limitations and directions for future research

A number of possible limitations and directions for further research become apparent when examining the effect of creativity-oriented HRM on employee creativity with an emphasis on the mediating function of creative self-efficacy. Because the study only focused on IT related firms in Pakistan, its generalizability may be limited. To improve the external validity of findings across industries and geographical areas, future research should diversify sample sizes. Because of the constraints of the cross-sectional design, it may be necessary to conduct longitudinal research to fully understand the dynamic interactions that emerge over time between employee creativity, creative self-efficacy, and creativity-oriented HRM practices. By using objective measurements or a variety of data sources, concerns regarding common method bias in self-reported measures can be addressed. The proposed relationships were tested without including the contextual factors i.e., culture, climate, and strategic orientation which may positively or negatively affect these relationships. Hence, future research may investigate these contextual factors as moderators. In addition, the collection of self-reported data is also considered limitation because it may lead to common method bias. Future research may collect multi-source data to address the issue of common method bias.

## 5.2 Conclusion

The study's findings are helpful and explained that a strategically aligned HRM system, such as, creativity-oriented HRM may help organizations to achieve strategic goals i.e., employee creativity. Further, the study shows a positive effect of creativity-oriented HRM on employees' creative self-efficacy and creativity. The study also confirms that creative self-efficacy serves as an underlying mechanism between creativity-oriented HRM and employee creativity. The findings contribute to the knowledge of strategic HRM by explaining the emerging conceptualization of creativity-oriented HRM's effect on employee creativity

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