Macrothink Institute™

Business and Economic Research
ISSN 2162-4860
2025, Vol. 15, No. 4

How do Challenge-hindrance Stressors Differential Influence Employees' Innovative Behavior? The Roles of Job Crafting and Constructive Controversy

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Received: August 5, 2025 Accepted: September 18, 2025 Published: September 19, 2025

doi:10.5296/ber.v15i4.23037 URL: https://doi.org/10.5296/ber.v15i4.23037

Abstract

This study investigates the complex relationship between challenge-hindrance stressors and employees' innovative behavior by examining job crafting as a mediating variable and constructive controversy as a moderating variable. To test our theoretical model, we utilized multilevel sampling method to collected data from a sample of 560 employees of high-tech enterprises in eastern China, and performed confirmatory factor analysis using AMOS 24, conducted reliability tests and hierarchical regression analysis via SPSS 26, and examined the mediating and moderating effects through the Bootstrap sampling approach. Our findings indicate that challenge stressor have a positive influence on both job crafting and employees' innovative behavior. Conversely, hindrance stressor has a significant negative correlation with job crafting and employees' innovative behavior. Notably, job crafting serves as a mediating factor in the relationship between challenge-hindrance stressors and employees' innovative behavior. Furthermore, constructive controversy amplifies the positive impact of challenge stressors on job crafting, it positively moderates the mediating influence of job crafting on the relationship between challenge stressors and employees' innovative behavior.

Keywords: Stressors, Job crafting, Controversy, Innovative, High-tech enterprises

1. Introduction

Currently, innovation plays a key role in driving the economic growth of various countries. The competition between enterprises is no longer limited to product quality and enterprise strength; having stronger innovative ability is more critical (Bai, 2022). Employees are the

key participants in enterprise innovation. They continually generate new ideas and methods, and maximizing their innovation has become crucial to enterprise development. Enterprises have established higher innovation targets for employees, which has exerted considerable pressure on employees (Wang et al., 2022). This has been receiving increasing attention. According to Lepping et al. (2016), work stress exceeded the scope of an individual's capabilities or resources and was a hindrance for the individual. However, Cavanaugh et al. (2000) found that a type of stress arises from challenging work demands, such as work load and complexity. Another type of stress is unrelated to job content, such as organizational politics, ambiguous roles, and work autonomy. In 2020, he proposed the concept of challenge-hindrance stressors. Challenge stressors refer to a category of stress associated with challenging work demands. This type of stress is primarily linked to work requirements or the work environment, with typical examples including workload, time pressure, task complexity, and work responsibilities. Hindrance stressors are defined as a form of stress that impedes the development of an individual's capabilities and thwarts the realization of their personal value. Challenge stressors can induce stress, but they can also have positive effects, such as fostering employee growth, improving earnings, and enhancing achievement (Kochenour, 2020). Hindrance stressors impede individual development and value realization (Cavanaugh et al., 2000), and this leads to negative emotions such as fear and frustration (French et al., 2019).

This study focuses on innovation at the individual level, delving deep into the relationship between challenge-hindrance stressors and employees' innovative behavior, which is crucial for enterprises to effectively implement stress management and enhance competitiveness.

Scholars have increasingly conducted in-depth research on challenge-hindrance stressors and gained a systematic understanding of stress connotations and dimensions. They have also emphasized the importance of distinguishing between stressors and explored how challenge-hindrance stressors affect individual emotions, work behavior, innovation, and performance differently (Du et al., 2023; Farrukh et al., 2022; Lu et al., 2016; Min et al., 2015b; Xu & Wang, 2020). In recent years, the research perspective has expanded to the interaction between individuals and situations. Liu et al. (2022) and Shang et al. (2023) found that social support and organizational identification can reduce employees' perceived stress.

Scott and Bruce (1994) believes that innovative behavior refers to the actions taken by employees to generate innovative ideas or solutions to problems and then implement them. This behavior is crucial for maintaining organizational competitiveness and improving performance(Montani et al., 2017). The academic research on employees' innovative behavior mainly focuses on their antecedent variables (Wang et al., 2022). The research focus has gradually shifted from personal characteristics such as individual motivation (Zhao et al., 2011), personal traits (Chao et al., 2011), and self-efficacy (Rohr et al., 2014) to organizational characteristics such as organizational atmosphere (Kang et al., 2016), organizational support (Guo & Zhu, 2022), and leadership style (Zhang & Wang, 2022).

Currently, some scholars have paid attention to the relationship between challenge-hindrance stressors and employees' innovative behavior. Meng et al (2023)believed that challenge

stressors promote employees' innovative behavior through psychological distance, while hindrance stressors inhibit it. Fan et al. (2022) found that hindrance stressors have significant negative impact on employees' innovative behavior, and proactive personality and employment relationship atmosphere can alleviate this negative impact to a certain extent. However, studies overlook the spontaneous reconfiguration of work content, style, and relationships, as well as the effects of healthy debates between employees on various kinds of information, theories, and perspectives.

In 2001, Wrzesniewski and Dutton (2001) introduced the concept of job crafting, which refers to employees taking the initiative to redefine and shape their work tasks, methods, and relationships (Wrzesniewski & Dutton, 2001). Unlike traditional top-down work arrangements, job crafting is a bottom-up process, passive management approach and offers employees more work resources and new working perspectives (Wrzesniewski et al., 2010). When employees face challenge-hindrance stressors, they are more likely to exhibit innovative behavior through job crafting(Yu et al., 2023).

Constructive controversy involves debate between individuals regarding different ideas, facts, theories, and opinions (Chen et al., 2011), This can lead to an open discussion based on trust and ultimately arrive at clear conclusions(Alper et al., 1998). Ou et al. (2018) think the conflict of different viewpoints and ideas is a crucial prerequisite for creativity. In various stressful situations, job crafting and innovative behavior are influenced differently, leading to varied outcomes(Yu et al., 2023).

Therefore, this study constructs a theoretical framework for the relationship between challenge-hindrance stressors and employees' innovative behavior, exploring the mechanism of job crafting and constructive controversy.

2. Literature Review and Hypotheses

2.1 Challenge-hindrance Stressors and Employees' Innovative Behavior

According to the conservation of resources model, individuals consider resources valuable and work to acquire and maintain them. Consequently, individuals view challenge stressors as critical for achieving their personal goals (Hobfoll, 1989). When faced with them, employees tend to adopt positive coping strategies, invest more time and energy, and promote innovative ideas and behaviors (Podsakoff et al., 2007). Under stressful situations, employees are more likely to explore various solutions and find innovative ways to deal with difficulties and challenges (Moin et al., 2023). Challenge stressors can motivate employees to step out of their comfort zone, calling upon their inner motivation and driving them to creatively solve problems through innovative thinking (Yu et al., 2023).

However, Lu et al (2016) believe that the negative emotions attributable to hindrance stressors can exhaust employees' emotional resources, weaken their innovation ability and motivation. Wang et al. (2022) find that employees may lack the knowledge and skills to solve problems and may perceive this as a hindrance to personal growth and ability. When facing hindrance stressors, they are more likely to avoid risks and behave conservatively, rather than try new innovative methods and ideas (Yu et al., 2023). According to the theory of

resource conservation, when individuals face a pressure that consumes a lot of energy and time without yielding effective returns, they may consider avoiding it or giving up (Pearsall et al., 2009). This could lead to the lack of proactive initiative in dealing with such pressure and may even result in negative attitudes toward problem-solving, reducing innovative behavior (Hobfoll et al., 2018).

Therefore, this study proposes the following hypotheses:

H1a: Challenge stressors are positively correlated with employees' innovation behavior.

H1b: Hindrance stressors are negatively correlated with employees' innovation behavior.

2.2 Mediating Role of Job Crafting

When employees encounter challenging work requirements set by the organization or managers, they realize their autonomy in their work through cognitive evaluation, and this enables them to engage in job crafting by improving work methods, altering job content, and expanding job scope, to successfully complete the task and receive rewards (Liu & Ren, 2022; Tims & Bakker, 2010). Harju et al (2016) demonstrated that employees are inclined to strengthen communicative interactions with both leaders and colleagues, proactively pursue feedback and support, and take initiative in optimizing workplace interpersonal relationships by means of relationship-building practices. Tims and Bakker believe that job crafting helps employees gather work-related information and expand their work resources, enabling them to perform more effectively. When individuals actively face challenge stressors and accomplish challenging work, they experience a sense of work value and achievement, which promotes cognitive job crafting, altering their perception of work. Thus, individuals become more actively involved in their work and deal with stress in a more positive and healthier manner (Slemp et al., 2021).

Wrzesniewski et al (2010) believe through job crafting, employees seek feedback and support from the organization from the bottom up, allowing them to create or access resources that enhance their work efficiency. This process also grants them greater autonomy and decision-making power, enabling them to choose working methods that suit them best. Li et al (2021) find the increase in work resources can stimulate employees' intrinsic motivation, fostering creative thinking to solve problems. Furthermore, job crafting improves interpersonal relationships and increases interpersonal resources, creating a more comfortable working environment and fostering high-quality social relations (Tims & Bakker, 2010). By interacting with different colleagues, employees can gain diverse information, thereby enhancing their creativity level (Mueller & Kamdar, 2011). Cognitive reshaping deepens employees' understanding of the meaning of work and enhances their identification with work. This fosters a positive working attitude, leading employees to dedicate themselves to their work, exhibit greater creativity, and engage in innovative behavior (Bindl et al., 2019).

Hindrance stressors, such as organizational politics and ambiguous roles, present significant obstacles to employees and are challenging to resolve (Cavanaugh et al., 2000). Chen et al (2021) believe through cognitive evaluation, employees perceive that such work may cause psychological and physical harm, making it difficult for them to gain rewards; this may lead

to risk aversion and a conservative mindset. They then tend to maintain the status quo, reduce their time and energy inputs, and are unwilling to try to reshape their work. They may also respond negatively to job requirements, reduce their work commitment, and refuse to take on additional tasks owing to uncertainty and tension. Employees may no longer try to find new ways to solve problems and thus lack the internal motivation to generate innovative ideas, inhibiting the occurrence of innovative behavior (Min et al., 2015).

Therefore, this study proposes the following hypotheses:

H2a: Job crafting plays a mediating role between challenge stressors and employees' innovative behavior.

H2b: Job crafting plays a mediating role between hindrance stressors and employees' innovative behavior.

2.3 Moderating Role of Constructive Controversy

Constructive controversy, as a form of horizontal interaction between employees, prompts employees to deeply consider diverse viewpoints and encourages them to adopt an open-minded approach to cognitive doubts (Johnson & Johnson, 2009). It can help employees learn from others' experiences, contemplate how to enhance their own working methods and content, and reassess their working status and environment (Bird & Erickson, 2010). When individuals actively confront challenge stressors and overcome the pressure to complete challenging work, they gain a sense of work value and achievement, and this can lead to increased engagement in work and a more positive and healthier approach to managing pressure (Lin & Ling, 2018). The conflict of differing viewpoints provides a fresh perspective for employees' work, expands their cognitive boundaries, and increases their cognitive resources (Ou et al., 2018). When employees face challenging work requirements set by the organization or managers, constructive controversy helps them gain more resources to improve working methods, change job content and scope, and engage in job crafting (Wei et al., 2023). Through constructive controversy, employees can enhance their communication with leaders and colleagues, broaden their interpersonal communication, and rebuild relationships (Bhatnagar & Tjosvold, 2012). Collision with colleagues' viewpoints also helps employees better understand their own job content, leading to more active participation in work, a more positive and healthier attitude in coping with stress, and cognitive job crafting (Chen et al., 2011; Tims et al., 2013). Tims and Bakker (2010) find job crafting brings about changes in employees' interpersonal relationships and increases their interpersonal resources. Harju et al (2016) believes job crafting makes it easier for employees to gather work information and expand work resources in new work situations and perspectives as well as build high-quality social relationships. This also provides them opportunities to identify new problems, face more challenges and growth opportunities, proactively seek solutions, and exhibit greater creativity. Tim et al. (2016) also find that when employees face hindrance stressors such as organizational politics, ambiguous roles, and work autonomy, positive and constructive communication and debate can help them relieve pressure, improve emotions, better handle difficulties and challenges, and reduce the psychological and physiological damage attributable to hindrance stressors. Thus, constructive controversy can reduce the

negative impact of hindrance stressors on job crafting and help employees innovate.

H3a: Constructive controversy positively moderates the relationship between challenge stressors and job crafting.

H3b: Constructive controversy negatively moderates the relationship between hindrance stressors and job crafting.

H4a: When the constructive controversy is higher, the mediating effect of job crafting between challenge stressor and employees' innovative behavior is stronger.

H4b: When the constructive controversy is higher, the mediating effect of job crafting between negative stressor and employees' innovative behavior is weaker.

Figure 1 illustrates the research framework for challenge-hindrance stressors, job crafting, constructive controversy, and employees' innovative behavior.

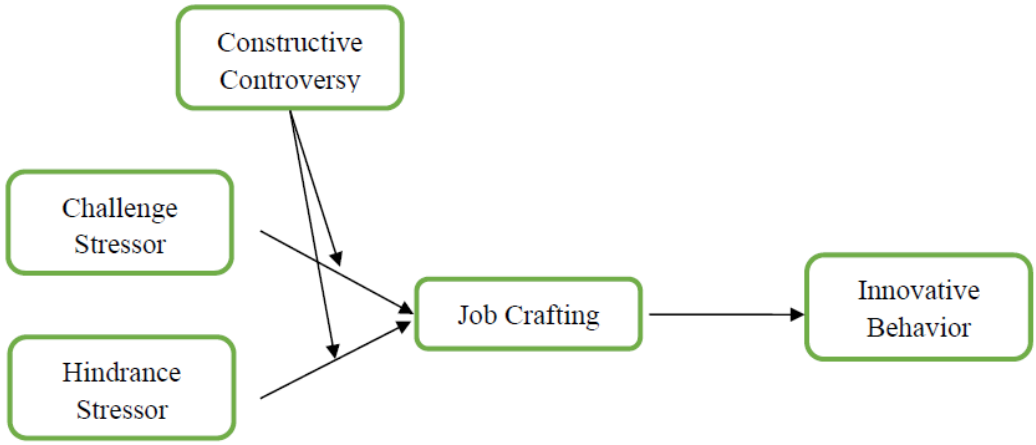

Figure 1. Research framework

3. Method

3.1 Measures

The current study aims to explore the relationship between challenge-hindrance stressors, job crafting and constructive controversy, and how they directly and indirectly impact employees' innovative behavior. This research is conducted using a quantitative approach. A Likert scale was used to assess the variables in the questionnaire.

We used the scale originally developed by Cavanaugh in 2000 to measure challenge-hindrance stressors, which has two-dimensional. The CS dimension consists of six questions, regarding topics such as "The number of projects and or assignments I have." The HS dimension comprises five questions, regarding topics such as "The degree to which politics rather than performance affects organizational decisions." This scale has good reliability and validity.

We used the scale originally developed by Slemp et al. (2013) to measure job crafting (JC),

which has three dimensions: task crafting (TC; five questions), cognitive crafting (CCR; five questions), and relational crafting (RC; five questions)(Slemp & Vella-Brodrick, 2013). Example of tasks include "Introduce new approaches to improve your work," "Think about how your job gives your life purpose," and "Make an effort to get to know people well at work." This scale demonstrates good reliability and validity.

We used the scale originally developed by Tjosvold in 1998 to measure constructive controversy (CC) (Tjosvold, 1998), which includes one dimension and eight measurement items, such as "Team members express their own views directly to each other." This scale too has good reliability and validity.

Additionally, we used the scale originally developed by Zhang et al. (2016) to measure innovative behavior (IB) (Zhou et al., 2023), which consists of one dimension and eight questions, such as "I am always looking for opportunities to improve my work methods and processes." This scale also has good reliability and validity.

3.2 Data and Sample

This study considers the employees of high-tech enterprises in eastern China (Hainan, Guangdong, Fujian, Shanghai, Zhejiang, Jiangsu, Shandong, Hebei, Tianjin, and Beijing).

To ensure employees across diverse company levels and types are adequately represented in the sample, this study employs a stratified random sampling method for data collection. This approach enhances the sample's ability to mirror the characteristics of the target population, minimizes sampling bias, and thereby strengthens the generalization and persuasiveness of the research findings. The questionnaire was issued from Sep. 5, 2023 to Oct. 28, 2023.Based on industry classification, high-tech enterprises were divided into seven categories: electronic information technology, biological and medical technology, aerospace technology, new material technology, new energy and energy-saving technology, resources and environmental technology, and high-tech service industry. For each industry, we randomly selected eight enterprises, and for each enterprise, we issued 10 questionnaires. With the help of human resource management personnel, we distributed 560 questionnaires, of which 498 were recovered, with a recovery rate of 88.93%. To ensure data quality, we removed 11 questionnaires with abnormally short filling time, 19 questionnaires with similar answers and missing items, and 8 questionnaires with obviously contradictory options. After screening, 460 valid questionnaires were finally used for the study.

Of the research participants, 228 were male (49.6%) and 232 female (50.4%), indicating a balanced proportion. In terms of age, 80 employees were under 25 years (17.4%), 229 were 26–35 years (49.8%), 126 were 36–45 years (27.4%), and 25 were 46 years and above (5.4%), indicating that the majority of the participants were 35 years or below. In terms of education, 99.6% of the surveyed employees had a bachelor's degree or higher. Most employees had worked in their current company for 2–10 years (78.4%). In terms of the nature of the enterprise, 32 participants were from state-owned enterprises (7%), 277 were from private enterprises (60.2%), 125 were from foreign-owned/joint ventures (27.2%), and 26 were from other types of enterprises (5.7%). In terms of breakdown by position, the largest group

comprised general employees, with 207 participants (45%), followed by 121 grassroots managers (26.3%), and 132 middle and senior managers (28.7%). For specific data, see Table 1.

Table 1. Demographic characteristics

Characteristics	Category	Frequency	Percentage
Gender	Female	232	50.4
	Male	228	49.6
Age (years)	25 and below	80	17.4
	26–35	229	49.8
	36–45	126	27.4
	46 and more	25	5.4
Education	Specialist or under	2	0.4
	Bachelor's	310	67.4
	Master's	122	26.5
	Doctor	26	5.7
Years of working	1 or less	67	14.6
	2–5	180	39.1
	6–10	181	39.3
	11 or more	32	7.0
Unit category	State-owned enterprises	32	7.0
	Private enterprises	277	60.2
	Foreign/joint ventures	125	27.2
	Others	26	5.7
Position level	General staff	207	45.0
	Grassroots management	121	26.3
	Middle management	100	21.7
	Senior management	32	7.0

4. Empirical Analysis

4.1 Reliability and Validity Analysis

We used SPSS 26 and AMOS 24 software to assess the reliability and validity of the scales. The KMO values for all scales exceeded 0,8, (0.8) indicating strong correlation between the scale items, which is essential for factor analysis. The standardized factor load coefficients were all greater than 0.5, the average variance extracted (AVE) ranged from 0.470 to 0.772, and composite reliability (CR) ranged from 0.811 to 0.973. These three indices satisfied the requirements of convergence validity(Everitt & Dunn, 2001; Fornell & Larcker, 1981).The Cronbach'α of HS was 0.799; for all the other variables, it was greater than 0.9, indicating high internal consistency (Thorpe, 2021). See Table 2.

Table 2. Reliability and validity test results

Variable	Item Code	Factor Loadings			Cronbach α	AVE	CR	KMO
CS	**CS1**	0.882			0.928	0.736	0.943	0.929
	CS2	0.854						
	CS3	0.838						
	CS4	0.846						
	CS5	0.858						
	CS6	0.868						
HS	**HS1**	0.691			0.799	0.556	0.862	0.816
	HS2	0.787						
	HS3	0.702						
	HS4	0.752						
	HS5	0.789						
JC	**TC1**		0.826		0.927	0.509	0.836	0.927
	TC2		0.821					
	TC3		0.622					
	TC4		0.688					
	TC5		0.575					
	CCR1			0.671		0.470	0.811	
	CCR2			0.835				
	CCR3			0.775				
	CCR4			0.505				
	CCR5			0.590				
	RC1	0.716				0.542	0.855	
	RC2	0.731						
	RC3	0.736						
	RC4	0.741						
	RC5	0.757						
CC	**CC1**	0.893			0.959	0.772	0.973	0.962
	CC2	0.878						
	CC3	0.888						
	CC4	0.862						
	CC5	0.866						
	CC6	0.871						
	CC7	0.892						
	CC8	0.885						
IB	**IB1**	0.804			0.919	0.638	0.934	0.937
	IB2	0.782						
	IB3	0.773						
	IB4	0.765						
	IB5	0.803						
	IB6	0.783						
	IB7	0.828						
	IB8	0.848						

Table 3 indicates that the five-factor model had the best fit among several models, with each variable demonstrating good discriminative validity. Additionally, the fit indices of the five-factor model (RMSEA = 0.044, IFI = 0.937, CFI = 0.936, TFI = 0.930, $\chi 2/df = 2.607$) met the requirements and were all significant at the $p < 0.01$ level. These results indicated good structural validity of the study.

Table 3. Model fitting table (N=460)

Model	χ^2	df	χ^2/df	RMR	CFI	IFI	RMSEA	TLI
Five-factor	1029.653	395	2.607	.044	.936	.937	.059	.930
Four-factor	1572.056	399	3.940	.052	.882	.883	.080	.872
Three-factor	2461.914	402	6.124	.140	.794	.794	.106	.777
Two-factor	3568.994	404	8.834	.103	.683	.684	.131	.658
Single factor	4037.326	405	9.969	.103	.636	.637	.140	.609

Single factormodel: CS+HS+JC+CC+IB; Two-factormodel: CS+HS+JC+CC, IB; Three-factormodel: CS+HS, JC+CC, IB；Four-factor model: CS+HS, JC, CC, IB；Five-factormodel: CS, HS, JC, CC, IB.

4.2 Common Method Variance Test

When common method factor was added to the five-factor model and then the model compared with the five-factor model, the RMR, RMSEA, CFI, and IFI indices did not change, but the TLI index decreased by 0.01. Therefore, there was no common methodological bias in the study, as shown in Table 4.

Table 4. Common methodological bias tests

Model	χ^2	df	χ^2/df	RMR	CFI	IFI	RMSEA	TLI
Five-factor	797.457	395	2.019	.039	.959	.959	.047	.955
Add common method factor	797.452	393	2.029	.039	.959	.959	.047	.954

4.3 Data Descriptive Statistics

The mean and standard deviation in this study fell within the normal range. The standard error ranged from 0.030 to 0.045, indicating little difference between the sample mean and population mean. Therefore, the sample data were representative of the population data.

Table 5. Data descriptive statistics

Variable	Mean	SD	SE
CS	3.394	0.791	0.037
HS	2.762	0.653	0.030
TC	3.781	0.714	0.033
CCR	3.690	0.734	0.034
RC	3.687	0.757	0.036
JC	3.719	0.648	0.030
CC	3.564	0.971	0.045
IB	3.397	0.783	0.034

4.4 Hypothesis Testing

4.4.1 Challenge-hindrance Stressors and Employees' Innovative Behavior

In Model 1, the control variables indicated that employees' innovative behavior was

significantly influenced by unit category and position level. In Models 2 and 3, employees' innovative behavior was significantly affected by challenge stressors ($\beta = 0.502$, $p < 0.01$) and significantly negatively affected by hindrance stressors ($\beta = -0.546$, $p < 0.01$). Therefore, H1a and H1b were supported (Table 6).

Hence, when employees face meaningful challenges, it stimulates innovative behavior by prompting them to think creatively and seek new solutions(Min et al., 2015a). However, when faced with hindrance stressors, employees may perceive difficulties as insurmountable, leading to decreased ability and motivation to innovate. This negative perception may also cause them to adopt a negative attitude toward problem-solving, further reducing their innovative behavior(Yu et al., 2023).

Table 6. Multiple regression analyses results

Variables	Employees' innovative behavior					Job crafting			
	M1	**M2**	**M3**	**M4**	**M5**	**M6**	**M7**	**M8**	**M9**
Gender	0.018	0.006	0.053	0.029	0.085	-0.079	-0.082	-0.063	-0.063
Age	-0.097	-0.069	-0.102	-0.071	-0.125	-0.034	-0.032	-0.051	-0.051
Degree of education	0.000	-0.044	-0.014	-0.032	0.032	-0.036	-0.032	-0.007	-0.007
Years of working	-0.039	-0.009	0.034	-0.001	0.017	0.000	0.004	-0.009	-0.010
Unit category	-0.139***	-0.062	-0.055	-0.061	-0.115***	0.006	0.004	-0.034	-0.033
Position level	0.302***	0.201***	0.107***	0.172***	0.161***	0.109*	0.100	0.140*	0.141*
CS		0.502***		0.447***		0.276***	0.280***		
HS			-0.546***		-0.538***			-0.134**	-0.134**
JC				0.227***	0.223***				
CC						0.410***	0.436***	0.361***	0.360***
CS*CC							0.087*		
HS*CC									0.008
F	6.619***	30.009***	85.553***	32.350***	47.001***	18.707***	17.205***	13.623***	12.087***
R^2	0.081	0.317	0.603	0.365	0.455	0.249	0.256	0.195	0.195
Adj-R^2	0.068	0.307	0.596	0.353	0.445	0.236	0.241	0.180	0.179

* p＜0.1， ** p＜0.05,*** p＜0.01

4.4.2 Mediating Effect of Job Crafting

Following the procedure of existing studies, this study tested the mediating effect using hierarchical regression(Baron & Kenny, 1986)and Bootstrap sampling(Efron, 1992) methods.

In Table 6, and according to Model 2, employees' innovative behavior was significantly affected by challenge stressors. Building on Model 2, job crafting was added to create Model 4. In Model 4, employees' innovative behavior was significantly influenced by job crafting ($\beta = 0.227$, $p < 0.01$), indicating a significant mediating effect, thus supporting H2a. In Model 4, after adding the mediator variable job crafting, the coefficient of innovative behavior affected by challenge stressors decreased, suggesting that job crafting partially mediated this relationship. Similarly, according to Model 3, employees' innovative behavior was significantly negatively affected by hindrance stressors. Furthermore, when job crafting was added to construct Model 5, employees' innovative behavior was significantly affected by job crafting ($\beta = 0.223$, $p < 0.01$), supporting H2b. The coefficient of hindrance stressors' effect on employees' innovative behavior decreased, indicating that job crafting plays a partial

mediating role.

Therefore, challenging pressure can stimulate employees' internal motivation and drive them to proactively reshape their work to better cope with external challenges(Xu & Wang, 2020). This behavior of reinvention can help promote employees' innovative behavior (Luoh et al., 2014; Tims & Bakker, 2010). Conversely, obstructive stress can act as a barrier to employees, leading to a tendency to maintain the status quo, lack of willingness to change work, and reluctance to try to find new solutions; this ultimately inhibits innovative behavior(Liu et al., 2022; X. Wang et al., 2022).

4.4.3 Moderating Effect of Constructive Controversy

As depicted in Table 6, challenge stressors and constructive controversy were added to Model 1 to build Model 6, and this increased the explanatory effect on job crafting (△R square = 0.219). Then, the interaction terms of challenge stressors and constructive controversy were added to build Model 7, revealing a significant moderating effect ($\beta = 0.087$, $p < 0.05$), and thereby supporting H3a. Next, hindrance stressors and constructive controversy were added to Model 1 to obtain Model 8. The interaction terms of hindrance stressors and constructive controversy were added to build Model 9. According to the test results, the interaction terms of hindrance stressors and constructive controversy did not significantly moderate job crafting ($\beta = 0.008$, $p > 0.05$), and so H3b was not supported. As H4b was based on H3b, H4b also was not supported, and hence we did not further verify H4b in this paper.

To further examine the direction of the moderating effect, we added or subtract one standard deviation from the mean of the moderator variable and divided the moderator variable into high and low levels respectively. The slope of constructive controversy was slightly larger at high levels, indicating that the higher the level of constructive controversy, the more significant the effect of challenge stressors on job crafting (Figure 2).

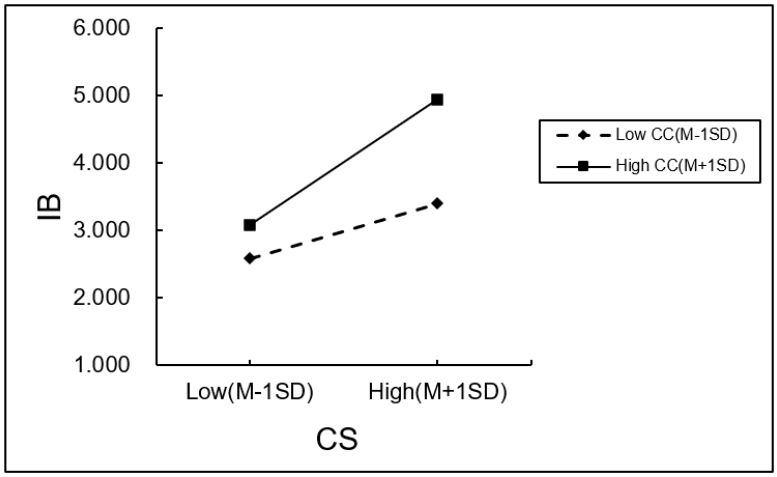

Figure 2. Moderating effect of constructive controversy

In the model where challenge stressors affect employees' innovative behavior through job

crafting under the condition of high constructive controversy, the confidence interval was [0.0498, 0.1383], excluding 0, with an indirect effect of 0.0894. The moderated mediating effect was significant. Under low constructive controversy, the confidence interval was [0.0119, 0.0848], excluding 0, with an indirect effect of 0.0429. The moderated mediating effect was again significant. Compared with low-level constructive controversy, when there is high-level constructive controversy, job crafting played a stronger mediating role in the relationship between challenge stressors and employees' innovative behavior.Thus, H4a was supported, as shown in Table 7.

Table 7. Results of moderated mediating effect tests

	Effect	BootSE	Bootstrap 95% confidence interval	
			BootLLCI	BootULCI
Moderated mediation model	0.0239	0.0111	0.0024	0.0459
Low CC (mean -1 standard deviation)	0.0429	0.0185	0.0119	0.0848
High CC (mean +1 standard deviation)	0.0894	0.0226	0.0498	0.1383

Therefore, when employees face challenging work requirements arranged by the organization or managers, constructive controversy helps them acquire more resources and information(Chen et al., 2011), and this in turn enables them to improve their work methods, alter the content and scope of their work, and engage in work reshaping (Bakker et al., 2012). Thus, employees have the opportunity to identify new problems and demonstrate greater creativity (Harju et al., 2016). However, when faced with hindrance stressors, although debate and communication can alleviate stress, they are not effective in mitigating the negative effects of organizational politics, role ambiguity, and other factors(O'Brien & Beehr, 2019). Employees will still lack the motivation to change their work and are reluctant to invest in finding new solutions, ultimately inhibiting innovative behavior (Wisse et al., 2015). Therefore, constructive controversy alone is not enough to overcome the barriers to work formulation and innovative behavior(Chen et al., 2011).

5. Results

This study found that employees' innovative behavior is positively affected by challenge stressors and negatively affected by hindrance stressors. Furthermore, challenge-hindrance stressors influence employees' innovative behavior through job crafting. Under challenge stressors, constructive controversy promotes job crafting and employees' innovative behavior, enhancing the mediating role of job crafting. However, constructive controversy does not play a moderating role in hindrance stressor situations. The results are presented in Table 8.

Table 8. Results of hypothesis test

	Hypothetical	Results
H1a	Challenge stressors are positively correlated with employees' innovation behavior.	Support
H1b	Hindrance stressors are negatively correlated with employees' innovation behavior.	Support
H2a	Job crafting plays a mediating role between challenge stressors and employees' innovative behavior.	Support
H2b	Job crafting plays a mediating role between hindrance stressors and employees' innovative behavior.	Support
H3a	Constructive controversy positively moderates the relationship between challenge stressors and job crafting.	Support
H3b	Constructive controversy negatively moderates the relationship between hindrance stressors and job crafting.	No
H4a	When the constructive controversy is higher, the mediating effect of job crafting between challenge stressor and employees' innovative behavior is stronger.	Support
H4b	When the constructive controversy is higher, the mediating effect of job crafting between negative stressor and employees' innovative behavior is weaker.	No

6. Research Contribution

6.1 Theoretical Contribution

This study examined the influence mechanism of challenge-hindrance stressors on employees' innovative behavior, with job crafting as the mediating variable and constructive controversy as the moderating variable. This approach is helpful to further understand the influence of different types of stress on employees' innovative behavior. This study thus supplements the literature by providing a new theoretical framework for research in the field of organizational behavior.

6.2 Management Practice Contribution

The results of this study can serve as valuable reference for enterprise managers, helping them design and implement effective management measures. Thus, managers can improve employees' innovative ability and work performance by promoting job crafting and constructive controversy, optimizing the working environment, minimizing the impact of adverse factors on employees' innovation, and improving organizational innovative ability and competitiveness.

7. Recommendations

7.1 Use Challenge Stressors Effectively

Employees should be assigned challenging tasks and provided with training and learning opportunities to help them continuously improve their ability to cope with and overcome challenges(Azeem et al., 2023); Furthermore, employees' efforts and achievements should be recognized and rewarded in a timely manner to motivate them to continue contributing to the success of the organization.

7.2 Encourage Debate between different Viewpoints

Managers should break the traditional organizational hierarchy, change the management

approach, and provide space and an environment for the free exchange of ideas among employees (Wei et al., 2023). They should properly design, initiate, and lead constructive controversy by promoting open communication and discussion, encouraging employees to share innovative ideas and experiences, and providing timely feedback and recognition. Through effective communication and cooperation, managers will be able to better leverage constructive controversy, promote innovation, and enhance the enthusiasm and motivation of employees for innovation.

8. Limitations and Future Research

1. This study analyzes challenge-hindrance stressors, job crafting, constructive controversy, and employees' innovative behavior mainly at the individual level, and not at the team level. Future studies should use a cross-level model to further explore and improve the theoretical system of challenge-hindrance stressors and employees' innovative behavior.

2. This study examines employees' innovative behavior without differentiating between active and passive innovative behavior. The involuntary innovative behaviors of employees who are under internal and external stress to complete innovation indicators or tasks represent passive innovative behaviors (赵斌 et al., 2015). Future studies can start from specific situationsto enrich and refine the theoretical system of individual innovative behavior.

Acknowledgments

We greatly appreciate the valuable contributions of every team member who took the time to participate in this study.

Authors contributions

Dr. Yuying Tang were responsible for study design, data collection. Xueliang Lai drafted the manuscript and revised it. All authors read and approved the final manuscript. Authors contributed equally to the study.

Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Informed consent

Obtained.

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

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References

Abbas, M., & Raja, U. (2019). Challenge-Hindrance Stressors and Job Outcomes: the Moderating Role of Conscientiousness. *Journal of Business and Psychology, 34*(2), 189-201. https://doi.org/10.1007/s10869-018-9535-z

Alper, Tjosvold, & Law. (1998). Interdependence and Controversy in Group Decision Making: Antecedents to Effective Self-Managing Teams. *Organizational behavior and human decision processes, 74*(1), 33-52. https://doi.org/10.1006/obhd.1998.2748

Azeem, M. U., Haq, I. U., Murtaza, G., & Jaffery, H. (2022). Challenge – hindrance stressors, helping behavior and job performance: double-edged sword of religiousness.*Journal of Business Ethics, 184*(3), 687-699. https://doi.org/10.1007/s10551-022-05129-7

Bai, M. (2022). An Empirical Study on the Relationship between Stock Price Information and Enterprise Innovation Management Based on Information Learning Mechanism. *Computational Intelligence and Neuroscience*. https://doi.org/10.1155/2022/9425405

Bakker, A. B., Tims, M., & Derks, D. (2012). Proactive personality and job performance: The role of job crafting and work engagement. *Human Relations, 65*(10), 1359-1378. https://doi.org/10.1177/0018726712453471

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Chapman and Hall, 51*(6), 1173-1182. https://doi.org/10.1037/0022-3514.51.6.1173

Berg, J. M., Wrzesniewski, A., & Dutton, J. E. (2010). Perceiving and responding to challenges in job crafting at different ranks: when proactivity requires adaptivity. *Journal of Organizational Behavior, 31*(2-3), 158-186. https://doi.org/10.1002/job.645

Bhatnagar, D., & Tjosvold, D. (2012). Leader values for constructive controversy and team effectiveness in India. *International Journal of Human Resource Management, 23*(1), 109-125. https://doi.org/10.1080/09585192.2011.610961

Bindl, U. K., Unsworth, K. L., Gibson, C. B., & Stride, C. B. (2019). Job Crafting Revisited: Implications of an Extended Framework for Active Changes at Work. *Journal of Applied Psychology, 104*(5), 605-628. https://doi.org/10.1037/apl0000362

Bird, S. R., & Erickson, K. A. (2010). A Constructive Controversy Approach to "Case Studies". *Teaching Sociology, 38*(2), 119-131. https://doi.org/10.1177/0092055x10364014

Cavanaugh, M. A., Boswell, W. R., Roehling, M. V., & Boudreau, J. W. (2000). An empirical examination of self-reported work stress among U.S. managers. *The Journal of applied psychology, 85*(1), 65-74. https://doi.org/10.1037/0021-9010.85.1.65

Chao, C.Y., Lin, Y.S., Cheng, Y.L., & Tseng, Y.C. (2011). Employee innovation, supervisory leadership, organizational justice, and organizational culture in Taiwan's manufacturing industry. *African Journal of Business Management, 5*(6), 2501-2511.

Chen, G., Tjosvold, D., Zhao, H., Ning, N., & Fu, Y. (2011). Constructive controversy for learning and team effectiveness in China. *Asia Pacific Journal of Human Resources, 49*(1), 88-104. https://doi.org/10.1177/1038411110391708

Chen, H., Wang, H., Yuan, M., & Xu, S. (2021). Daily Challenge/Hindrance Demands and Cognitive Wellbeing: A Multilevel Moderated Mediation Model. *Frontiers in Psychology, 12*, Article 616002. https://doi.org/10.3389/fpsyg.2021.616002

Du, D., Wu, Z., & Lu, C.-q. (2023). In What Stressful Context Does Self-Efficacy Promote Job Performance? The Roles of Challenge-Hindrance Stressors. *International Journal of Stress Management, 30*(1), 27-37. https://doi.org/10.1037/str0000282

Efron, B. (1992). Bootstrap Methods: Another Look at the Jackknife. In S. Kotz & N. L. Johnson (Eds.), *Breakthroughs in Statistics: Methodology and Distribution*, 569-593. Springer New York. https://doi.org/10.1007/978-1-4612-4380-9_41

Everitt, B. S., & Dunn, G. (2001). Confirmatory Factor Analysis and Covariance Structure Models. In *Applied Multivariate Data Analysis,* 291-307. https://doi.org/10.1002/9781118887486.ch13

Fan, J. P., Fan, Y. K., Yu, L. L., & Man, S. Y. (2022). How hindrance stress, proactive personality, and the employment relationship atmosphere affect employees' innovative behavior. *Frontiers in Psychology, 13*, 969013. https://doi.org/10.3389/fpsyg.2022.969013

Farrukh, M. M., Paola, S., Nawaz, K. A., & Zahid, H. (2022). Challenge-hindrance stressors and service employees job outcomes. *Current Psychology, 42*(28), 24623-24634. https://doi.org/10.1007/s12144-022-03531-y

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research, 18*(1), 39-50. https://doi.org/10.1177/002224378101800104

French, K. A., Allen, T. D., & Henderson, T. G. (2019). Challenge and hindrance stressors in relation to sleep. *Social Science & Medicine, 222*, 145-153. https://doi.org/10.1016/j.socscimed.2019.01.009

Guo, Y., & Zhu, Y. (2022). How Does Organizational Compassion Motivate Employee Innovative Behavior: A Cross-Level Mediation Model. *Psychological Reports, 125*(6),

3162-3182. https://doi.org/10.1177/00332941211037598

Harju, L. K., Hakanen, J. J., & Schaufeli, W. B. (2016). Can job crafting reduce job boredom and increase work engagement? A three-year cross-lagged panel study. *Journal of Vocational Behavior, 95-96*, 11-20. https://doi.org/https://doi.org/10.1016/j.jvb.2016.07.001

Hobfoll, S. E. (1989). Conservation of resources. A new attempt at conceptualizing stress [; Review]. *The American psychologist, 44*(3), 513-524. https://doi.org/10.1037/0003-066x.44.3.513

Hobfoll, S. E., Halbesleben, J., Neveu, J.-P., & Westman, M. (2018). Conservation of Resources in the Organizational Context: The Reality of Resources and Their Consequences. In F. Morgeson (Ed.), *Annual Review of Organizational Psychology and Organizational Behavior, 5*(103-128). https://doi.org/10.1146/annurev-orgpsych-032117-104640

Johnson, D. W., & Johnson, R. T. (2009). Energizing Learning: The Instructional Power of Conflict. *Educational Researcher, 38*(1), 37-51. https://doi.org/10.3102/0013189x 08330540

Kang, J. H., Matusik, J. G., Kim, T.Y., & Phillips, J. M. (2016). Interactive effects of multiple organizational climates on employee innovative behavior in entrepreneurial firms: A cross-level investigation. *Journal of Business Venturing, 31*(6), 628-642. https://doi.org/10.1016/j.jbusvent.2016.08.002

Kochenour, A. (2020). *The Appraisal of Challenge-Hindrance Stressors: Considering the Role of Personal Resources*.

LePine, M. A. (2022). The Challenge-Hindrance Stressor Framework: An Integrative Conceptual Review and Path Forward. *Group & Organization Management, 47*(2), 223-254. https://doi.org/10.1177/10596011221079970

LePine, M. A., Zhang, Y. W., Crawford, E. R., & Rich, B. L. (2016). Turning Their Pain to Gain: Charismatic Leader Influence on Follower Stress Appraisal and Job Performance. *Academy of Management Journal, 59*(3), 1036-1059. https://doi.org/10.5465/ amj.2013.0778

Li, H., Xu, C., & Zheng, H. (2021). Psychological Contracts and Employee Innovative Behaviors: A Moderated Mediation Effect Model . *Discrete Dynamics in Nature and Society, 2021*. https://doi.org/10.1155/2021/6400742

Lin, C. P., Xian, J., Li, B., & Huang, H. (2020). Transformational Leadership and Employees' Thriving at Work: The Mediating Roles of Challenge-Hindrance Stressors. *Frontiers in Psychology, 11*. https://doi.org/10.3389/fpsyg.2020.01400

Lin, M., & Ling, Q. (2018). Is role stress always harmful? Differentiating role overload and role ambiguity in the challenge-hindrance stressors framework. *Tourism Management, 68*, 355-366. https://doi.org/10.1016/j.tourman.2018.04.007

Liu, B., Xin, X., Gao, X., & Gao, L. (2022). Challenge-Hindrance Stressors and Employability: The Combined Role of the Energy-Motivation Process and Organizational Investment. *Psychology Research and Behavior Management, 15*, 3411-3425.

https://doi.org/10.2147/prbm.S387080

Liu, Y., & Ren, L. (2022). Challenge-hindrance stressors and career initiative: a moderated mediation model. *Journal of Managerial Psychology, 37*(5), 467-479. https://doi.org/10.1108/jmp-05-2020-0227

Lu, C.Q., Du, D.Y., & Xu, X.M. (2016). What Differentiates Employees' Job Performance Under Stressful Situations: The Role of General Self-Efficacy. *Journal of Psychology, 150*(7), 837-848. https://doi.org/10.1080/00223980.2016.1203277

Luoh, H.F., Tsaur, S.H., & Tang, Y.Y. (2014). Empowering employees: job standardization and innovative behavior. *International Journal of Contemporary Hospitality Management, 26*(7), 1100-1117. https://doi.org/10.1108/ijchm-03-2013-0153

Ma, J., Liu, C., Peng, Y., & Xu, X. (2021). How Do Employees Appraise Challenge and Hindrance Stressors? Uncovering the Double-Edged Effect of Conscientiousness. *Journal of Occupational Health Psychology, 26*(3), 243-257. https://doi.org/10.1037/ocp0000275

Mazzola, J. J., & Disselhorst, R. (2019). Should we be "challenging" employees?: A critical review and meta‐analysis of the challenge‐hindrance model of stress. *Journal of Organizational Behavior, 40*(8). https://doi.org/10.1002/job.2412

Meng, J. Q., & Liu, Z. Y. (2023). Examining the effect of challenging and threatening work stress on employees' innovative behavior. *Social Behavior and Personality, 51*(4). https://doi.org/10.2224/sbp.12144

Min, H., Kim, H. J., & Lee, S.-B. (2015a). Extending the challenge-hindrance stressor framework: The role of psychological capital. *International Journal of Hospitality Management, 50*, 105-114. https://doi.org/10.1016/j.ijhm.2015.07.006

Min, H., Kim, H. J., & Lee, S. B. (2015b). Extending the challenge–hindrance stressor framework: The role of psychological capital. *International Journal of Hospitality Management, 50*, 105-114. https://doi.org/10.1016/j.ijhm.2015.07.006

Moin, M. F., Spagnoli, P., Khan, A. N., & Hameed, Z. (2023). Challenge-hindrance stressors and service employees job outcomes. *Current Psychology, 42*(28), 24623-24634. https://doi.org/10.1007/s12144-022-03531-y

Montani, F., Courcy, F., & Vandenberghe, C. (2017). Innovating under stress: The role of commitment and leader-member exchange. *Journal of Business Research, 77*, 1-13. https://doi.org/10.1016/j.jbusres.2017.03.024

Mueller, J. S., & Kamdar, D. (2011). Why Seeking Help From Teammates Is a Blessing and a Curse: A Theory of Help Seeking and Individual Creativity in Team Contexts. *Journal of Applied Psychology, 96*(2), 263-276. https://doi.org/10.1037/a0021574

O'Brien, K. E., & Beehr, T. A. (2019). So far, so good: Up to now, the challenge-hindrance framework describes a practical and accurate distinction. *Journal of Organizational Behavior, 40*(8), 962-972. https://doi.org/10.1002/job.2405

Ou, Z., Chen, T., Li, F., & Tang, P. (2018). Constructive controversy and creative process engagement: The roles of positive conflict value, cognitive flexibility, and psychological safety. *Journal of Applied Social Psychology, 48*(2), 101-113. https://doi.org/10.1111/jasp.12494

Peng, Y., Zhang, W., Xu, X., Matthews, R., & Jex, S. (2019). When Do Work Stressors Lead to Innovative Performance? An Examination of the Moderating Effects of Learning Goal Orientation and Job Autonomy. *International Journal of Stress Management, 26*(3), 250-260. https://doi.org/10.1037/str0000109

Pindek, S., Meyer, K., Valvo, A., & Arvan, M. (2024). A Dynamic View of the Challenge-Hindrance Stressor Framework: a Meta-Analysis of Daily Diary Studies. *Journal of Business and Psychology*. https://doi.org/10.1007/s10869-024-09933-y

Podsakoff, N. P., LePine, J. A., & LePine, M. A. (2007). Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: a meta-analysis. *The Journal of applied psychology, 92*(2), 438-454. https://doi.org/10.1037/0021-9010.92.2.438

Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal, 37*(3), 580-607. https://doi.org/10.5465/256701

Shang, Y., Zhao, R., & Richards, M. (2023). Do work stressors facilitate or impede job crafting? The role of employee trait and work regulatory focus. *Career Development International, 28*(2), 250-274. https://doi.org/10.1108/cdi-02-2022-0028

Slemp, G., & Vella-Brodrick, D. (2013). The job crafting questionnaire: A new scale to measure the extent to which employees engage in job crafting. *International Journal of Wellbeing, 3*. https://doi.org/10.5502/ijw.v3i2.1

Slemp, G. R., Zhao, Y., Hou, H., & Vallerand, R. J. (2021). Job crafting, leader autonomy support, and passion for work: Testing a model in Australia and China. *Motivation and Emotion, 45*(1), 60-74. https://doi.org/10.1007/s11031-020-09850-6

Spector, P. E. (2019). Introduction: The challenge-hindrance stressor model. *Journal of Organizational Behavior, 40*(8), 947-948. https://doi.org/10.1002/job.2404

Thorpe, R. F. D. C. T. (2021). *Scale Development：Theory and Applications*. Sage Publications.

Tims, M., & Bakker, A. B. (2010). Job crafting: towards a new model of individual job redesign . *SA Journal of Industrial Psychology, 36*(2), 1-9. https://doi.org/10.4102/sajip.v36i2.841

Tims, M., Bakker, A. B., & Derks, D. (2013). The Impact of Job Crafting on Job Demands, Job Resources, and Well-Being. *Journal of Occupational Health Psychology, 18*(2), 230-240. https://doi.org/10.1037/a0032141

Tims, M., Derks, D., & Bakker, A. B. (2016). Job crafting and its relationships with person-job fit and meaningfulness: A three-wave study. *Journal of Vocational Behavior, 92*, 44-53. https://doi.org/10.1016/j.jvb.2015.11.007

Tjosvold, D. (1998). Cooperative and Competitive Goal Approach to Conflict: Accomplishments and Challenges. *Applied Psychology, 47*(3), 285-313. https://doi.org /10.1111/j.1464-0597.1998.tb00025.x

Vollmer, A., & Seyr, S. (2013). Constructive controversy research in the business organizational context A literature review . *International Journal of Conflict Management, 24*(4), 399-420. https://doi.org/10.1108/ijcma-07-2011-0055

Wang, X., Zhang, Z., & Chun, D. (2022). How Does Mobile Workplace Stress Affect Employee Innovative Behavior? The Role of Work-Family Conflict and Employee Engagement . *Behavioral Sciences, 12*(1), Article 2. https://doi.org/10.3390/bs12010002

Wang, Z., Cui, T., Cai, S., & Ren, S. (2022). Team reflexivity, individual intellectual capital and employee innovative behavior: a multilevel moderated mediation . *Journal of Intellectual Capital, 23*(6), 1276-1295. https://doi.org/10.1108/jic-11-2020-0362

Wei, W., Zhou, Y., & Wang, D. (2023). Learning to integrate conflicts: Paradoxical leadership fosters team innovation. *Journal of Business Research, 165*, Article 114076. https://doi.org/10.1016/j.jbusres.2023.114076

Wisse, B., Barelds, D. P. H., & Rietzschel, E. F. (2015). How innovative is your employee? The role of employee and supervisor Dark Triad personality traits in supervisor perceptions of employee innovative behavior. *Personality and Individual Differences, 82*, 158-162. https://doi.org/10.1016/j.paid.2015.03.020

Wrzesniewski, A., Berg, J. M., & Dutton, J. E. (2010). Turn the Job You Have into the Job You Want. *Harvard Business Review, 88*(6), 114.

Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a Job: Revisioning Employees as Active Crafters of Their Work. *Academy of Management Review, 26*(2), 179-201. https://doi.org/10.5465/amr.2001.4378011

Xu, L., & Wang, J. (2020). Influence of Challenge-Hindrance Stressors on Unethical Pro-Organizational Behavior: Mediating Role of Emotions. *Sustainability, 12*(18), Article 7576. https://doi.org/10.3390/su12187576

Yu, J., Liu, J., Lin, S., & Chi, X. (2023). The relationship between stressors and Chinese employees' innovative work behavior: the role of task crafting and psychological detachment. *European Journal of Innovation Management*. https://doi.org/10.1108/ejim-08-2022-0417

Zhang, G., & Wang, Y. (2022). Organizational identification and employees' innovative behavior: the mediating role of work engagement and the moderating role of creative self-efficacy . *Chinese Management Studies, 16*(5), 1108-1123. https://doi.org/10.1108/cms-07-2021-0294

Zhou, X., Wang, Y., Zhang, X., & Li, L. (2023). The Influence of Decision-Making Logic on Employees' Innovative Behavior: The Mediating Role of Positive Error Orientation and the Moderating Role of Environmental Dynamics. *Psychology Research and Behavior Management, 16*, 2297-2313. https://doi.org/10.2147/prbm.S416595

Zhu, Y., & Wu, J. (2023). Does charismatic leadership encourage or suppress follower voice? The moderating role of challenge-hindrance stressors . *Asian Business & Management, 22*(2), 595-620. https://doi.org/10.1057/s41291-020-00125-z