The Dual Impact of Challenging Stressor on Employee's Innovation Behavior: The Mediating Role of Feedback Seeking Behavior and Emotional Exhaustion

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Abstract

Based on cognitive evaluation theory and conservation of resources theory, this paper introduces two variables: feedback seeking behavior and emotional exhaustion, to analyze the mechanism of challenging stressor on employee`s innovation behavior. Research shows that in terms of total effect, challenging stressor has a significant positive impact on employee`s innovation behavior; but in terms of mediation effect, challenging stressor has indirect positive impact and negative impact on employee`s innovation behavior through feedback seeking behavior and emotional exhaustion. It could be seen that challenging stressor as a kind of "good pressure" also have a bad influence. Although the overall impact is positive, it is necessary to recognize the duality of its stress nature for a better management application.

Keywords

Employees' Innovative Behavior, Challenging Stressor, Feedback Seeking Behavior, Emotional Exhaustion.

1. Introduction

Under the background of global economic downturn and increasingly complex business competition environment, innovation has become the key to shaping competitive advantage. The academic community has been paying more and more attention to this. Some scholars start from organizational management to explore the impact of organizational environment on employee`s innovation. Another part of the scholars, starting from positive psychology, analyzes the internal mechanism of the impact of work stress on employee`s innovation.

At present, although research has proposed that pressure has a "double-edged effect" on employee's work behavior, it pays more attention to the intensity change of pressure, but ignores the difference in pressure nature. After the challenge-hindrance stress model was proposed, the previous research was effectively supplemented. A large number of scholars believe that the challenging and hindrance stressor positively and negatively affect the positive work behavior of employees. It can be seen that while fully affirming the positive effects of challenging stressor, we ignore the negative consequences of resource exhaustion and work anxiety that may be caused by its stress nature.

Some scholars already suggested positive pressures with challenging stressor characteristics will increase the overload of employee roles, lead to negative emotions, and non-ethical behavior. The meta-analysis results of Lepine (2005) also show that time pressures have both promoting and depleting effects on job performance. In order to further test the complex mechanism of challenging stressor on employee`s innovation behavior in China, this study introduces employee feedback seeking behavior and emotional exhaustion to analyze the double-edged effect.

2. Theoretical review

2.1 Employees' Innovative Behavior

Employee`s innovation behavior refers to the behavior of employees who put new ideas that will help improve work efficiency in the course of their work. Based on Scott's definition of innovative behavior, this study considers that complete innovations include three stages: generating new ideas, implementing new ideas, and applicating new ideas. Studies show that employee`s innovation

behavior is largely influenced by individual characteristics (active personality, proactive personality, extroversion, responsibility, etc.), organizational environment (internal person identity perception, goal orientation, error management, etc.), leadership behavior (transformation leadership, Transactional leadership, service leadership, coaching leadership, etc.), work mood (job satisfaction, job anxiety, achievement motivation, stress perception, etc.) and job characteristics (work complexity, job autonomy, etc.).

2.2 Challenging Stressor

"Pressure" was first applied to the field of physics. It was introduced into the social sciences by Selye in the middle of the twentieth century, he also proposed the idea of positive pressure and negative pressure. Later, Cavanaugh (2000) clearly divided pressure into two part: challenging and hindrance stressor, based on the source what caused pressure. Challenging stressors include time pressure, job responsibilities, overload workload, work complexity, etc. Hindrance stressors include interpersonal conflicts, corporate politics, and ambiguous job requirements. A large number of studies have pointed out challenging stressor and hindrance stressor have different effects on employee`s outcome variables. Now, scholars are paying more attention to the positive effects of challenging stressor on employee`s innovation behavior, while ignoring the negative impacts it may be caused.

2.3 Cognitive evaluation theory

Lazarus et al believe that stress is the result of the interaction of the environment and the individual. Individuals not only simply perceive the surrounding environment, but also predict future conditions, including potential gains or losses, then making decisions based on the information he has gathered. When individuals face information related to job requirements, they will evaluate it as "challenge" or "threat". If job requires have considerable potential benefits, employees tends to perceive it as a "challenge" and work hard for it; if the job requires a lot of resources and is difficult to get a return, employees tends to perceive it as a "threat" and try to avoid.

2.4 Conservation of Resources Theory(COR)

Conservation of resources theory believes that individuals resources is limited such as attention, emotion and energy, and have endogenous motivation to acquire and protect it. A sense of urgency arises when an individual discovers that a resource may be threatened, damaged, or unable to obtain the desired resource. Therefore, when a person in a stressful environment, he will tend to create a resource acquisition environment to help himself supplement resources to avoid excessive loss. Therefore, when employee`s resources required for work can bring better compensation or development, they will increase their effort to obtain future resources, when resource consumption is too fast to sustain and potential returns are low, they will be burnout.

3. Research hypothesis

3.1 Challenging stressor and employee`s innovation

Challenging stressors include time pressure, workload, work responsibilities, and so on. They not only demonstrate the organization's trust in employees, but also help meet staff`s competencies, which could stimulate them achievement motivation, promoting more positive work behavior. Therefore, when employee predict himself do not have enough time or ability to meet challenging tasks, he will make full use of individual initiative to ensure the completion of tasks by time adjustment and skill learning. Studies have shown that challenging stressors have a positive impact on job performance, organizational commitment, employee`s loyalty, job satisfaction.

Therefore, this study proposes the following assumptions:

H1: Challenging stressor are positively affecting employee`s innovation behavior.

3.2 Challenging stressor, feedback seeking behavior and emotional exhaustion

Feedback seeking behavior refers to activities in which employees actively collect effective feedback information by observing the environment or asking others. Individuals can use feedback to clarify the status quo and adjust their working methods to meet job needs which help to improve performance.

Based on conservation of resources theory, in a challenging environment, employees will increase information seeking to help themselves quickly master task skills, adjust role positioning, obtain evaluation guidance, increase work control and reduce behavioral errors, finally facilitate work performance. In addition, according to cognitive evaluation theory, if employee finds actively coping with challenging stressor contributes to career development, it will stimulate him self-achievement motivation, and then adopt feedback seeking behaviors to improve task performance and innovation performance.

Therefore, this study proposes the following assumptions:

H2: Challenging stressors is positively affecting employee`s feedback seeking behavior.

Although the challenging stressor has been defined as good pressure, the nature of pressure has not changed, a meta-analysis shows that the prediction range of performance by challenging stress is [-0.38, 0.22], which prove the mechanism of it is complex. At present, researches pays more attention to its positive impact, but ignores its dark side. In a challenging environment, in order to meet work requirements and complete tasks, employees not only need to maintain a high level of mental stress during working hours, but also need to sacrifice time to work in the night, resulting in a large consumption of cognitive and emotional resources. In addition, if employee feel himself will be punished for failing to complete the challenging tasks, they will generate negative emotions such as depression, anxiety and pain.

Therefore, this study proposes the following assumptions:

H3: Challenging stressor are positively affecting employee`s emotional exhaustion.

3.3 Feedback seeking behavior, emotional exhaustion and employee`s innovation behavior

By seeking feedback to collect information, it helps staff to master work skills and organizational requirements, then establish a better innovative goals for themselves, promoting innovative ideas and behaviors. Feedback seeking behavior is a proactive work skill that helps individuals respond quickly to role expectations, then enhances self-level and promotes job innovation. As time goes by, employee who often seek feedback from superiors will gradually match his superiors' perceptions of work, and shift in thinking model of himself which also helps to promote innovation.

Therefore, this study proposes the following assumptions:

H4: Feedback seeking behavior positively affects employee`s innovation behavior.

H5: Feedback seeking behavior mediates the relationship between challenging stressor and employee`s innovation behavior.

Emotional exhaustion is a typical stress response, it is the state of fatigue after excessive consumption of individual cognitive resources, which often lead to negative work behavior. According to conservation of resources theory, when individuals perceive excessive loss of their resources, they will be more cautious in resource allocation, such as reducing the scope of attention distribution, adopting normal working methods, and negative work. Challenging tasks will be assessed by superiors in company, thus even if employees find cognitive resources are greatly depleted, they still have to force themselves to continue maintain high-intensity work, which eventually lead to work mental withdrawal and behavior retreat, inhibiting positive response behavior and innovation.

Therefore, this study proposes the following assumptions:

H6: Emotional exhaustion negatively affects employee`s innovation behavior.

H7: Emotional exhaustion mediates the relationship between challenging stressor and employee`s innovation.

4. Research method

4.1 Research sample

The samples of this study are mainly from Chongqing, Shandong, Guangdong, Fujian, Sichuan, and Henan. Data collection was conducted by an online questionnaire, 343 questionnaires were collected,

of which 283 were valid, the effective rate was 82.5%. Among the valid samples, the proportion of females is 55.4%, males is 44.6%; the proportion of high school and below is 2.9%, the specialist qualifications is 16.0%, the bachelor degree is 56.0%, the master's degree and above is 25.1%, working under 2 years is 47.8%; 3~5 years is 31.8%; 6~10 years is 16.3%, 11 years and above is 4.1%.

4.2 Variable measurement

The scale of this study was mostly based on mature scale, using the Likert 7-point score.

(1) Challenging stressor. Using the challenging- hindrance stress scale compiled by Cavanaugh (2000), the scale of challenging stressor contains six items[9], the scale Cronbach` s α coefficient is 0.868.

(2) Feedback seeking behavior. Using the feedback seeking scale[14] compiled by Vandewalle (2000), the scale contains a total of 5 items. This study selects three items directly related to work. The Cronbach`s α coefficient of the scale is 0.880.

(3) Emotional exhaustion. Using the scale which Li Chaoping (2003) based on the Maslach Job Burnout Questionnaire (Third Edition) revised the Chinese Job Burnout Scale, in which the emotional exhaustion dimension contains five items, the scale Cronbach`s α coefficient is 0.927.

(4) Employee`s innovation behavior. Using the innovative behavioral scale[5] compiled by Scott (1994), the scale contains six items. The Cronbach`s α coefficient of the scale is 0.916.

5. Data analysis

5.1 Confirmatory factor analysis

This study used SPSS 23 and AMOS 17 for statistical analysis. In order to test the differential validity of the variables involved in this study, a confirmatory factor analysis was carried out on challenge stressor, feedback seeking behavior, emotional exhaustion and employee`s innovation behavior. The results are shown in Table 1. It can be seen that the four-factor model data fit (χ^2/df=1.60, RMSEA=0.046, CFI=0.977, TLI=0.973, GFI=0.920) is the most ideal and significantly better than other models, indicating that the above four variables do represent 4 different constructs.

Table 1 Results of confirmatory factor analysis

Models	χ^2	df	χ^2/df	RMSEA	CFI	TLI	GFI
Four factors	206.92	129	1.60	0.046	0.977	0.973	0.920
Three factor a	689.90	133	5.19	0.122	0.837	0.813	0.719
Three factor b	654.72	132	4.96	0.119	0.847	0.823	0.749
Three factor c	791.27	132	5.99	0.133	0.807	0.777	0.710
Two factor d	879.49	134	6.563	0.140	0.782	0.751	0.696
One factor e	1926.39	135	14.27	0.217	0.476	0.407	0.479

Note: a: Challenging stressor + feedback seeking behavior, employee`s innovation behavior, emotional exhaustion; b: challenging stressor+ employee`s innovation behavior, feedback seeking behavior, emotional exhaustion; c: challenging stressor + emotional exhaustion, employee`s innovation behavior, feedback Seeking behavior; d: challenging stressor + feedback seeking behavior + employee`s innovation behavior, emotional exhaustion; e: challenging stressor + feedback seeking behavior + employee`s innovation behavior + emotional exhaustion.

5.2 Descriptive statistical analysis

Table 2 Mean, standard deviation and correlation of variables

	Mean	SD	1	2	3	4	5	6

Age	1.54	0.50						
Education	3.08	0.71	-0.252**					
Working years	1.69	0.83	0.733**	-0.412**				
CS	5.44	1.00	0.106	-0.028	-0.043			
FSB	5.50	0.92	0.141*	-0.027	0.140	0.339**		
EE	3.88	1.01	0.041	-0.086	-0.004	0.219**	-0.164**	
EIB	4.83	0.83	0.280**	-0.144	0.238**	0.382**	0.380**	0.315**

Note: * is significantly correlated at the 0.05 level (both sides); ** is significantly correlated at the 0.01 level (two sides); *** is significantly correlated at the 0.001 level (two sides). CS: Challenging stressor; FSB: Feedback seeking behavior; EE: Emotional exhaustion; EIB: Employee`s innovation behavior

Descriptive statistics mainly show the mean, standard deviation and correlation coefficient of each variable, as shown in Table 2. It can be seen that there is a significant correlation between variables, which provides a basis for further hypothesis verification.

5.3 Common method deviation test

Common method bias is a problem often encountered in collecting data which use self-report questionnaire method. In order to test the seriousness of the problem, this study used the Harman single factor test to analyze all the items in the questionnaire by unrotated factor analysis, and the first principal component interpretation variation was 35.64%, which did not account for half of the total variation interpretation (75.4%). In addition, as can be seen from Table 1, the single factor model fit (χ^2/df=14.27, RMSEA=0.217, CFI=0.476, TLI=0.407, GFI=0.479) is far worse than the four factors model, which also means the data homology error is not serious.

5.4 Hypothetical test

In order to test the impact of challenging stressor on employee`s innovation behavior, this paper firstly constructs a structural equation model with challenging stressor as the independent variable, employee`s innovation behavior as the dependent variable, feedback seeking behavior and emotional exhaustion as the mediator variables. As shown in Figure 1,the results show that the challenging stressors has a significant positive impact on employee`s innovation behavior ($\beta = 0.284$, $P < 0.001$), H1 is verified. Challenging stressor also has a significant positive impact on employee`s feedback seeking behavior ($\beta=0.377$, $P<0.001$) and emotional exhaustion ($\beta=0.239$, $P<0.001$), H2 and H3 are supported by data; feedback seeking behavior and emotional exhaustion has positively ($\beta=0.584$, $P<0.001$) and negatively ($\beta=-0.136$, $P<0.05$) effect on employee`s innovation behavior respectively, H4 and H6 are supported by data. In addition, the data also showed that the path coefficient of challenge stressor to employee`s innovation behavior in the model is 0.284 ($P<0.001$), less than 0.448 ($P<0.001$) when the mediator variables was not considered, indicating that feedback seeking behavior and emotional exhaustion played a mediating role,H5 and H7 are verified.

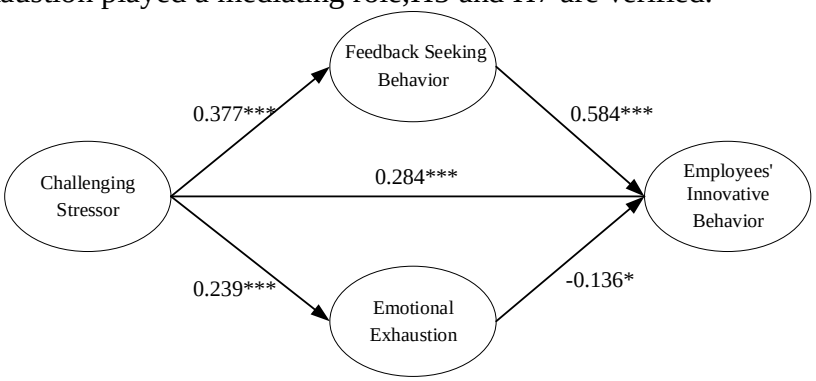

Figure 1 Hypothetical model

6. Research conclusions and research limitations

6.1 Research conclusions

From the perspective of the inherent mechanism of challenging stressor on employee`s innovation behavior, it has both advantages and disadvantages. On the one hand, challenging stressors can stimulate employee`s achievement motivation, increase feedback seeking behavior which has a positive impact on employee`s innovation behavior; on the other hand, it will also cause individual emotional exhaustion due to excessive resource consumption in the stress response process, and negatively affect employee`s innovation behavior. It can be seen that "good pressure" also produce bad results, which is consistent with the findings of Widmer (2012), which is still ignored in domestic academic circles.

6.2 Research limitations

This study collects data by employee`s self-report, which may lead to deviations in results. Although the analysis shows that the common method bias problem is not significant, in the future, it is better to collete data by pairing or other control procedures, verifying the variable relationship. In addition, this study uses cross-sectional data for analyzing, subsequent studies could track a longterm to get data then explore how challenging stressor influence employee`s behavior.

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