

Research on the Effect of Challenge-hindrane Stressors on Vietnamese Employees' Innovative Behavior in Service Industry

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Abstract

Based on the data of questionnaires from 400 Vietnamese employees, this paper empirically studied the effects of challenge-hindrane stressors on Vietnamese employees' innovative behavior in service industry with the mediating role of work engagement and work autonomy. The results showed that the challenge stressor has a positive impact on the innovative behavior of Vietnamese employees in service industry, and the hindrance stressor has a negative impact on the innovative behavior of Vietnamese employees in service industry. Challenge stressor has a positive impact on work engagement, while hindrance stressor has a negative impact on work engagement; challenge stressor has a positive impact on work autonomy, and hindrance stressor has a negative impact on work autonomy. There is a positive effect between work engagement and employees' innovative behavior. Work autonomy has a positive impact on innovative behavior of Vietnamese employees. There are mediating roles of work engagement and work autonomy between the challenge-hindrane stressors and Vietnamese employees' innovative behavior in service industry.

Keywords

Challenge-Hindrane stressors; Employees' innovative behavior; Work engagement; Work autonomy.

1. Introduction

The share of Vietnam's service industry is increasing, and has gradually become the key industry of the country. According to the National Bureau of Statistics (2018), 42.7% of Vietnam's GDP was contributed by the service industry. In 2018, the service industry grew by 7.03%, higher than the growth of 2012-2016 period. Among them, the market service industry made a great contribution to GDP growth: wholesale and retail; financial, banking and insurance activities; accommodation and catering services; transportation, warehousing, etc. By 2019, Vietnam's service industry accounted for 45% of GDP, but compared with western developed countries and even some developing countries, its development level was still relatively backward. Especially after Vietnam's accession to the WTO (2007), the service industry was facing unprecedented challenges and pressures, but also has potential opportunities for rapid development.

With the continuous development of the economy, the fierce market competition brings pressure and challenges to the enterprise, and the pressure on the employees in the service industry is growing as well. Therefore, innovation has become a key factor for the survival and development of the enterprise. Between technological innovation and service innovation, service innovation is easy to be imitated, so service enterprises should constantly improve their innovation ability. Lepine (2004) and et al. believed that employees will distinguish the stressors according to whether they are favorable or not, which are challenge and hindrance. When the stressors affect employees' innovation behavior, they may increase their service

innovation ability due to the stressors, or they may just be perfunctory in order to complete the innovation indicators, or the innovation due to the stressors has completely become a "task".

So, what is the relationship between stressors and employees' innovative behavior in service industry? This has always been an area of interest for many scientists and managers and will be addressed in this study.

2. Hypotheses

2.1. The Relationship between Challenge - hindrance Stressors and Employees' Innovative Behavior in Service Industry

Working pressure has an effect on individual creativity and innovative behavior. According to Nell. A and Carsten K.W. (2004), different level of working pressure will bring a series of reactions to employees' psychology and behavior. It is worth noting that the increase of working pressure will lead to the change of individual innovative behavior. Cavanaugh et al. (2002) put forward the concept of challenge stressor, which is considered to be the stressor that can promote employees' positive behaviors, such as job responsibilities, time pressure and high learning requirements. In the working environment, challenge stressors are considered as a good pressure source, it not only consumes the resources, time and energy of employees, but also brings them growth opportunities and future risk benefits. As long as employees deal with the challenges calmly, they can get better performance, more skills and work experience, so that employees are full of expectations for the future, offset the negative impact of stressors, and get better work results.

Hypothesis H1: Challenge-Hindrance stressors have an impact on employee's innovative behavior in service industry.

Hypothesis H1a: Challenge stressors have an positive impact on employee's innovative behavior in service industry.

Hypothesis H1b: Hindrance stressors have an negative impact on employee's innovative behavior in service industry.

2.2. The Relationship between Challenge-hindrance Stressors and Work Engagement

Shore (1995) pointed out that when employees perceive that the practice of human resource management in an organization is a kind of recognition, appreciation and investment for themselves, a social exchange relationship will be formed between employees and the organization, which goes beyond the mere economic relationship. At this point, it is possible for employees to increase the level of work engagement in return for the organization. Cavanaugh et al. (2000) pointed out that challenge-hindrance stressors are two forms of social interaction that organizations give to individuals. Among them, moderate challenge stressors can give employees a sense of work responsibility, make them feel the recognition and trust of the organization, and improve their work engagement level; while the job insecurity and role ambiguity caused by hindrance stressors will have a negative impact on employees, and reduce their work engagement level.

Hypothesis H2: Challenge-hindrance stressors have an effect on employee's work engagement.

Suppose H2a: Challenge stressors have an positive effect on employee's work engagement.

Suppose that H2b: Hindrance stressors have an negative effect on employee's work engagement.

2.3. The Relationship between Work Engagement and Employees' Innovative Behavior

Kahn (1990) pointed out that there was a significant positive correlation between individual work engagement and work performance. Zheng Quanquan, Su Qianqian and Qian Baiyun (2011) indicated that employees' innovative behavior can measure employees' performance, which reflects their cognition and belief in innovative behavior. To sum up, it can be considered that employees with high work engagement are more likely to have innovative behaviors at work. Therefore, the work input of this study may have a significant role in promoting innovative behavior, and the hypothesis is as follows:

Hypothesis H3: Work engagement and employees' innovative behavior have a positive impact.

2.4. The Relationship between the Challenge-hindrane Stressors and Work Autonomy

Zhang Kaili also pointed out that to some extent, challenge stressors are an incentive, especially for those employees who have and can control many resources, it will increase their work enthusiasm and motivation (Zhang Kaili et al., 2009). Therefore, it is reasonable to expect that work autonomy will play a positive role in the process of career growth. At the same time, Liden's research indicated that when the organization provides employees with certain decision-making autonomy, employees are more confident to accept challenging work and tasks, and will work harder (Liden et al, 2000). When facing challenge stressors, employees will feel the importance and trust of the organization to them, and better mobilize their work motivation, so as to improve their career growth.

Hypothesis H4: Challenge-hindrane stressors have an effect on work autonomy.

Hypothesis H4a: Challenge stressor has a positive effect on work autonomy.

Hypothesis H4b: Hindrance stressor has a negative effect on work autonomy.

2.5. The Relationship between Work Autonomy and Employees' Innovative Behavior

Shalley, Wang duanxu and Zhao Yi proposed and proved that work autonomy is positively related to employee creativity. Work autonomy itself means that employees are less limited by various factors in their work, and can put forward new ideas of work without sticking to the existing work mode. Employees' subjective cognition of work autonomy will affect their psychological state and work output. When employees have a high degree of self-determination in the work, they will have a high sense of identity with the organization, and then generate behaviors conducive to the organization. In addition, work autonomy conveys the organization's full trust and authorization to employees, as well as the expectation of employees. Based on the theory of social exchange, employees will have behaviors beneficial to the organization. Cummings and Molloy's study pointed out that employees' work autonomy performance had a positive effect on enterprises. Therefore, this paper proposes that: (chỗ này em nghĩ bị thiếu mấy cái năm chỗ tài liệu tham khảo với tác giả).

Hypothesis H5: Work autonomy has a significant positive impact on employees' innovative behavior.

2.6. The Mediating Role of Work Engagement

The research's Gao Yuan (2011) showed that individuals with high level of work engagement had higher requirements for their own performance, so they are more concerned about the success or failure of the work. When they think that the task or responsibility is over their ability, the negative impact will be greater. When employees use more abundant resources and information to deal with problems in their work, their work motivation will be improved (Zhang Kaili et al., 2009), and the negative effect of hindrance stressors on their career growth

will be reduced. Wayne and et al. also believed that if the organization provides employees with decision-making freedom and makes them feel the opportunity of self-determination, then they will have better development than the employees without these rights (Wayne et al, 2000). Therefore, this study proposes the following hypotheses:

Hypothesis H6: There is a mediating effect of work engagement between challenge-hindrane stressors and employees' innovative behavior in service industry.

Hypothesis H6a: There is a mediating effect of work engagement between challenge stressors and employees' innovative behavior in service industry.

Hypothesis H6b: There is a mediating effect between work engagement and employees' innovative behavior in service industry.

2.7. The Mediating Role of Work Autonomy

Anderson et al. (2004) believed that work pressure makes employees focus on solving problems, stimulate their work enthusiasm, and spread creative thinking, so as to propose new solutions to problems. Koestler (1964) found that work pressure hindered innovation. Other scholars thought that the relationship between work pressure and innovative behavior was curvilinear. Bear and Oldham (2006) found that stressors can improve employees' work performance within a certain range, and once a specific point is crossed, it will reduce employees' work performance.

Employees, who will not be subject to many restrictions in the process of work, can break the original working mode, and explore new working ideas and methods. According to the social exchange theory of Hormans to a large extent, the higher work autonomy is, the higher employees will have a sense of identity for the organization. When the employees highly recognize the organization, the corresponding behavior will be more conducive to the organization. The possibility of innovative behavior will increase greatly.

Hypothesis H7: There is a mediating effect of work autonomy between challenge-hindrane stressors and employees' innovative behavior in service industry.

Hypothesis H7a: There is a mediating effect of work autonomy between challenge stressors and employees' innovative behavior in service industry.

Hypothesis H7b: There is a mediating effect of work autonomy between hindrance stressors and employees' innovative behavior in service industry.

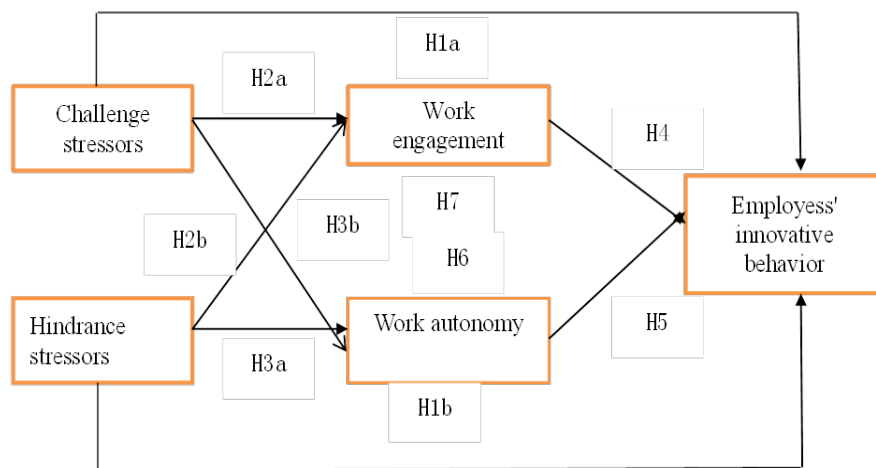


Fig 1. Hypothetical graph

3. Research Methodology

3.1. Sample Selection and Data Collection

In this study, questionnaire survey was used to collect data to test the research hypotheses. Research variables include challenge stressors, hindrance stressors, work engagement, work autonomy and employees' innovative behavior. The independent variables and dependent variables adopt a 5-point Likert-type scale. The questionnaire was issued to the bank staffs in Hanoi province. A total of 400 questionnaires were sent out and 362 were taken back, of which 325 were valid, with an effective rate of 89.8%. The analysis software used in this paper is SPSS 22.

3.2. Variable Measure

and hindrance stressor. It was mainly used the scale developed by Cavanaugh et al. (2000), and made appropriate modifications to make it more suitable for the research object of this paper.

Employees' innovative behavior was used the scale developed by Scott and Bruce (1994).

Work engagement was measured by using the scale compiled by Schaufeli, Bakker and Salanova (2006).

Work autonomy adopted the scale of Spreizer (1995).

3.3. Reliability Analysis

Cronbach alpha was used to investigate the reliability of the scale. In this paper, SPSS was used to calculate the reliability coefficient of each factor in the questionnaire. Table 1 showed that Cronbach α of the five factors is greater than 0.70. Therefore, this questionnaire had a good reliability.

Table 1. reliability coefficient of each factor in the questionnaire

	factor	Cronbach α
Independent variables	Challenge stressors	0.860
	Hindrance stressors	0.910
intermediate variable	Work engagement	0.936
	Work autonomy	0.818
dependent variable	Employeess' innovative behavior	0.900

3.4. Exploratory Factor Analysis

In this paper, 5 factors were analyzed by KMO test, and the results are shown in Table 2. KMO = 0.896 > 0.5, indicating that it is suitable for factor analysis.

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.896
	Approx. Chi-Square	3780.533
Bartlett's Test of Sphericity	df	120
	Sig.	.000

Table 3.Factor loading from Pattern Matrix

	ingredient			
	1	2	3	4
Work engagement 4	.889			
Work engagement 3	.879			
Work engagement 2	.854			
Work engagement 5	.847			
Work engagement 1	.830			
Hindrance stressors 2		.850		
Hindrance stressors 4		.845		
Hindrance stressors 3		.844		
Hindrance stressors 1		.760		
Challenge stressors 2			.857	
Challenge stressors 3			.809	
Challenge stressors 1			.788	
Challenge stressors 4			.723	
Work autonomy 1				.829
Work autonomy 2				.796
Work autonomy 3				.775

3.5. Hypothesis Test Results

In this paper, hierarchical regression analysis and mediating effect test were used to analyze and test hypotheses one by one. There was no strong multicollinearity between the variables. The results are shown in the table.

Table 4. Mediating function test: Work engagement as a mediator

Variable type	Variable name	Work engagement			Employeess' innovative behavior					
		model 1	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9
	Standard error	.634	.597	.564	.606	.573	.552	.527	.517	.512
	gender	.038	.039	.019	-.092	-.091	-.109*	-.111	-.108*	-.117*
	age	.010	.013	-.012	.026	.028	.006	.021	.023	.011
	Education	.041	.032	.044	.004	-.004	.008	-.016	-.018	-.009
	operating hours	.016	.012	.033	.033	.029	.049	.025	.024	.036
	position	-.080	-.076	-.061	.021	.025	.038	.061	.058	.061
Indepen dent variable s	Challenge stressors		.337***			.329** *			.182 ***	
	Hindrance stressors			-.458***			-.416 ***			-.239** *
interme diate variable	Work engagem ent							.479** *	.435** *	.387***
	R ² (R-squared)	0.010	.123	.218	.010	.118	.181	.254	.283	.299
	Adjusted R-Square	-.006	.107	.203	-.006	.101	.166	.240	.268	.283
	F	.630	7.446***	14.785 ***	.634	7.075 ***	11.74 9***	18.04 4***	17.907 ***	19.276 ***

Note: *P<0.05; **P<0.01; ***P<0.001

When the employees’ innovative behavior was taken as the dependent variable, the regression analysis results are shown in the table above:

In order to test hypothesis 1, regression analysis was carried out on employees’ innovative behavior. After adding 5 control variables, the results of model 4 to model 6 were obtained as shown in the table 4. There was a significant positive correlation between challenge stressors and employees’ innovative behavior ($\beta = 0.329$; $P < 0.001$). Hypothesis 1A was established, hindrance stressors and employees’ innovative behavior were negatively correlated ($\beta = -0.416$; $P < 0.001$), and 1b was established.

In order to test hypothesis 2: first, the control variables were taken as the independent variables, work engagement as the dependent variable, and take them into model 1; then add the challenge stressors as the independent variable, and take it into model 2; finally, replace the challenge stressors with the hindrance stressors, and take it into model 3. There was a significant positive impact between challenge stressors and work engagement ($\beta = 0.337$; $P < 0.001$). Hypothesis 2a was established, hindrance stressors and work engagement were negatively correlated ($\beta = -0.458$; $P < 0.001$), and 2b was established.

In order to test hypothesis 4: model 7 showed job engagement had a positive impact on employees' innovative behavior ($\beta = 0.497$, $P < 0.01$), and Hypothesis 4 was established.

In order to test hypothesis 6: in model 8, it can be seen that after adding challenge stressor and work engagement at the same time, work engagement had a significant positive impact on employees' innovative behavior ($\beta = 0.435$, $P < 0.01$), and the impact of challenge stressor on employees' innovative behavior was significantly weakened ($\beta = 0.182$, $P < 0.01$). It showed that the challenge stressor had a positive impact on employees' innovative behavior and work engagement, and the work engagement had a positive impact on employees' innovative behavior. The work engagement played a partial mediating role between the challenge stressor and employees' innovative behavior. Hypothesis 6a is established.

From model 9, it can be seen that work engagement had a significant positive effect on employees' innovative behavior ($\beta = 0.387$, $P < 0.01$), and the effect of the work engagement on employees' innovative behavior was significantly weakened ($\beta = -0.239$, $P < 0.01$). It also showed that hindrance stressor had a negatively impact on employees' innovative behavior and work engagement, and work engagement had a positive impact on employees' innovative behavior. Work engagement played a partial mediating role between the hindrance stressor and employees' innovative behavior. Hypothesis 6B was established.

In order to test hypothesis 3: first, the control variables were taken as the independent variables, and work autonomy as the dependent variable, then take control variables into model 10; the challenge stressor was added as the independent variable into model 11; finally, the challenge stressor was replaced by hindrance stressor, which was put into model 12. There was a significant positive impact between challenge stressor and work autonomy ($\beta = 0.395$; $P < 0.001$), hypothesis 3A was established; hindrance stressor and work autonomy were significantly negative correlation ($\beta = -0.437$; $P < 0.001$), hypothesis 3B was established.

In order to test hypothesis 5: model 13 showed that work autonomy had a positive impact on employees' innovative behavior ($\beta = 0.615$, $P < 0.01$). Hypothesis 5 was established.

From the model 14, it can be seen that when we added challenge stressors and work autonomy at the same time, work autonomy had a significant positive impact on employees' innovative behavior ($\beta = 0.574$, $P < 0.01$), and the impact of challenge stressors on employees' innovative behavior was significantly weakened ($\beta = 0.102$, $P < 0.01$). It showed that challenge stressor had a positive impact on employees' innovative behavior and work autonomy, and work autonomy had a positive impact on employees' innovative behavior. Work autonomy played a partial mediating role between challenge stressor and employees' innovative behavior. Hypothesis 7a was established.

Table 5. Mediating function test: work autonomy as a mediator variable

Variable type	Variable name	Work autonomy			Employess' innovative behavior		
		model 10	model 11	model 12	model 13	model 14	model 15
	Standard error	.540	.496	4.470	.481	.478	.471
	gender	-.005	-.005	-.024	-.088	-.089*	-.097*
	age	.129	.132*	.108	-.053	-.047	-.052
	Education	.068	.058	.072	-.038	-.037	-.031
	operating hours	.048	.044	.065	.003	.004	.014
	position	-.040	-.036	-.023	.046	.045	.050
Independent variables	Challenge stressors		.395***			.102*	
	Hindrance stressors			-.437***			-.183***
intermediate variable	Work autonomy				.615***	.574***	.534***
	R ² (R-squared)	.020	.175	.209	.380	.389	.407
	Adjusted R-Square	.005	.160	.194	.369	.376	.394
	F	1.295	11.276***	14.013***	32.534***	28.852***	31.091***

From model 15, it can be seen that work autonomy had a significant positive effect on employees' innovative behavior ($\beta = 0.534, P < 0.01$), and the effect of the work autonomy on employees' innovative behavior was significantly weakened ($\beta = -0.183, P < 0.01$). It also showed that hindrance stressor had a negatively impact on employees' innovative behavior and work autonomy, and work autonomy had a positive impact on employees' innovative behavior. Work autonomy played a partial mediating role between the hindrance stressor and employees' innovative behavior. Hypothesis 7B was established.

4. Conclusion

Hypothesis 1 of this paper is supported, which shows that stressors and employees' innovative behavior play a very important role in service industry, and different stressors have different impact on employees' innovative behavior. Hypothesis 2 is supported, indicating that the impact of stressors on work engagement is different. Hypothesis 3 is supported, indicating that the effect of stressors on work autonomy is different. Hypothesis 4

and Hypothesis 5 are supported, it means that work engagement and work autonomy have a positive impact on employees' innovative behavior. Hypothesis 6 is supported, which shows that job engagement plays a significant mediating role in stressors and employees' innovative behavior. Hypothesis 7 is supported, which shows that work autonomy plays a significant mediating role in stressors and employees' innovative behavior.

Compared with the previous studies, the theoretical significance of the results of this study is to establish a theoretical link between the challenge-hindrances stressors and employees' innovative behavior. Different stressors have different level of influence on employees' innovative behavior, and employees' innovative behavior as an important tool to promote the rapid development of enterprises has certain practical and theoretical value. Work engagement and work autonomy play a partial mediating role between challenge-hindrances stressors and Vietnamese employees' innovative behavior in service industry.

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