



The Impact of Digital Transformation on Employee Innovative Behavior: The Role of Job Crafting and Promotion Focus

Min Ni

School of Entrepreneurship, Wuhan University of Technology, Wuhan, 430070, China

3482754337@qq.com

Abstract. This study examines the connection between employee innovative behavior and digital transformation with the JD-R model and regulatory focus theory. A sample of 291 employees from Chinese companies was used to identify the following conclusions: digital transformation is positively related to employee innovative behavior; job crafting mediates the relationship between enterprise digital transformation on innovative behavior; promotion focus moderates the relationship between digital transformation and job crafting, and promotion focus moderates the indirect effect of digital transformation on innovative behavior through job crafting.

Keywords: digital transformation; innovative behavior; job crafting; promotion focus.

1 Introduction

With the advancement of digital economy, innovative talent has emerged as a crucial component. How organizations stimulate potential become more important in both theory and practice. The conduct by employees who come up with novel ideas and encourage implementation refer to innovative behavior. Researchers have focused on telework and digital leadership(Erhan,2022)^[1] but few research examines relationship between digital transformation and innovative behavior in digital context. Job crafting is activity of employees who make adjustments based on their abilities. When employees have responsible manner, they are more able to innovate. The goal of this study is to investigate the mediating mechanism of job crafting in digital transformation and employee innovative behaviors, and also the moderating role of promotion focus.

2 Literature Review

2.1 Digital Transformation and Employee Innovative Behavior

The process by which companies apply digital technology to encourage adjustments in production and service is known as digital transformation. First, using digital technologies makes it easier for staff members to access resources(Wu, 2021)^[2]. Second, digital context facilitates employees to get rid of daily repetitive tasks and reduces employees' workload, thus engaging in more creative tasks(Chan, 2021)^[3]. Lastly, they are aware of the worth of work, which makes them feel obligated to give back to the company(Zhu X, 2021)^[4].

Hypothesis 1. Digital transformation has a positive effect on employee innovative behavior.

2.2 Digital Transformation and Job Crafting

According to the JD-R model, job demands lead to psychological costs and stress. Resources can decrease workloads and promote personal growth. First, with digital technologies, employees optimize work in an automatic way(Zhu J, 2022)^[5]. Second, employees' participation in decision-making and work methods facilitate job crafting. Thirdly, digital technology increases self-confidence. So they are more confident to face possible consequences and adopt more job-crafting practices in the workplace.

Hypothesis 2. Digital transformation has a positive effect on job crafting.

2.3 Job crafting and Employee Innovative Behavior

Social and structural job resources are involved in job crafting, according to the JD-R model, facilitating innovation (Lichtenthaler,2018)^[6].As task boundaries vary with job crafting, employees expand interpersonal resources to update ideas. When employees undergo job crafting, they integrate tasks and skills to match demands and create ideas, thus enhancing personal creativity. Increasing challenging job demands helps to stimulate employees' determination to accumulate innovative energies at work.

Hypothesis 3. Job crafting has a positive effect on employee innovative behavior.

Hypothesis 4. Digital transformation has indirect effects on innovative behavior via job crafting.

2.4 Moderating Role of Promotion Focus

The process by which individuals control thoughts and behaviors to achieve goals is self-regulation. Employees that are highly motivated to advance are eager to succeed, try to seize opportunity(Higgins, 1997)^[7].They prefer to deal with challenges rather than avoid them, and more likely to react pleasantly to difficulties and opportunities to increase their capacity and engage in task reinvention. They are also fearless with digital transformation, generate job crafting, and actively utilize the various resources around them, contributing to innovative behaviors.

Hypothesis 5. The relationship between digital transformation and job crafting is moderated (strengthened) by promotion focus, and the effect is stronger (vs. weaker) for followers who have a high (vs. low) promotion focus.

Hypothesis 6. The positive indirect relation between digital transformation and employee innovative behavior via job crafting are stronger when promotion focus is higher (vs. low).

3 Method

3.1 Sample and Data Collection

This survey was conducted in April 2023 in Chinese companies. 328 survey responses were collected from Wenjuanxing and 37 were discarded for obvious inappropriate fillings, leaving 291 valid questionnaires and an effective questionnaire recovery rate of 88.72%. Men was 52.9% , 60.1% had college education and 66.0% were 26-35 years old.

3.2 Measures of Constructs

Likert scales ranging from (1) strongly disagree to (5) strongly agree were used for scoring the items. Digital transformation was measured by 3 items from Chi et al. (2020)^[8]. The Cronbach α was 0.883. Eight items from Petrou et al. (2012) were used to measure job crafting^[9]. Because of the similarity between two items, they were translated into 1 item, "I will take the initiative to seek advice from my superiors or coworkers". The Cronbach α for the current study was 0.921. Eight questions from a scale created by Zhang Z et al. (2016) were used to measure the innovative behavior of employees^[10]. The Cronbach α was 0.928. Four items from a Zhou et al.(2012) were used to measure promotion focus^[11]. The Cronbach α was 0.891.

4 Results

4.1 Preliminary Analysis

In Table 1, we presented correlations of the various variables. The four-factor model showed the best fit ($\chi^2/df=2.662, RMSEA=0.076, IFI=0.92, TLI=0.909, CFI=0.92$), and fit better than other models. There was little improvement with common method factor ($\Delta\chi^2/df=0.053, \Delta RMSEA=0.001, \Delta IFI=-0.002, \Delta TLI=-0.003, \Delta CFI=-0.002$). Therefore, the problem of common methodological bias is not serious. AVE is from 0.594 to 0.718 and CR is from 0.884 to 0.928.

Table 1. Descriptive statistical analysis

Variable	M	SD	1	2	3	4	5	6	7	8	9	10
1.Gender	1.47	0.50										
2.Age	2.04	0.62	-.125*	—								
3.Education	2.19	0.62	-0.027	0.081	—							
4.Eniority	1.99	0.88	-0.048	.121*	0.103	—						
5.Position	1.34	0.69	-.190*	.380**	.203**	0.06	—					
6.Industry	6.92	4.31	0.035	0.067	-0.113	-0.082	-0.012	—				
7.Digital transformation	3.40	0.77	0.082	-0.051	.126*	0.007	-0.041	-0.058	—			
8.Job crafting	3.19	0.62	-0.016	0.024	0.098	-0.053	-0.020	-0.012	.400**	—		
9.Promotion focus	3.41	0.64	-0.048	-0.033	0.067	0.011	-0.041	-0.064	.351**	.608**	—	
10.Innovative behavior	3.30	0.62	-0.079	0.103	0.103	0.020	0.071	-0.064	.433**	.387**	.408	—

Note: *p< .05, **p< .01, Source: made by the author

4.2 Hypothesis Testing

In Table 2, digital transformation showed a positive impact on innovative behavior(B = 0.354,p< .001) in support of Hypothesis 1.In support of Hypothesis 2,3,digital transformation was positively related to job crafting(B=0.321,p<.001) and job crafting promoted innovative behavior(B=0.379,p<.001).The indirect effect was 0.078 (95 %CI[0.031,0.142]), supporting Hypothesis 4.

Table 2. Regression results for moderation and moderation effects. (Source: made by the author)

Variable	Employee innovative behavior			Job crafting			
	M1	M2	M3	M4	M5	M7	M8
Gender	-0.077	-0.118	-0.102	-0.027	-0.064	-0.009	0.000
Age	0.091	0.106	0.092	0.044	0.057	0.061	0.055
Education	0.086	0.027	0.013	0.112	0.058	0.044	0.041
Eniority	-0.006	-0.006	0.006	-0.048	-0.048	-0.049	-0.053
Position	0.006	0.022	0.032	-0.053	-0.038	-0.016	-0.030
Industry	-0.008	-0.005	-0.006	-0.001	0.001	0.004	0.004
DT		0.354***	0.275***		0.321***	0.171***	0.204***
JC			0.244***				
PRO						0.519***	0.532***
DT×PRO							0.105*
R-square	0.027	0.216	0.266	0.017	0.172	0.419	0.429
F	1.317	11.187***	12.801***	0.833	8.411***	25.452***	23.482***

Note.* p<0.05, ** p<0.01, ***p< 0.001

Considering the regression's results, a simple slope plot of the effect of promotion focus moderating digital transformation on job crafting was plotted in Figure 1. The results show that the relationship of digital transformation on job crafting is stronger at high levels of promotion focus ($\gamma=0.27, SE=0.06, p<.001$) than low one ($\gamma=0.14, SE=0.04, p<.01$), suggesting that high levels of promotion focus strengthens the effect between digital transformation and job crafting, confirming Hypothesis 5.

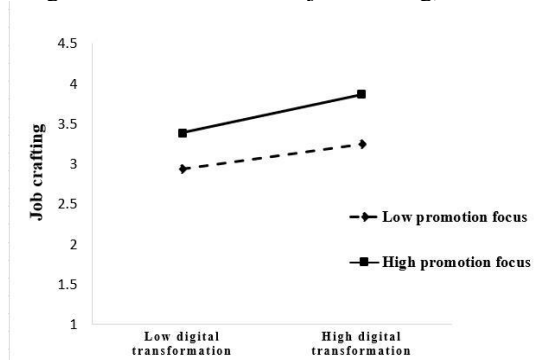


Fig. 1. Promotion focus moderates the relation between digital transformation and job crafting (Source: made by the author)

The Index of moderated mediation effect was 0.026 (95% CI [0.0004, 0.066]). The indirect effect was larger at higher levels of promotion focus (conditional indirect effect is 0.066, 95% CI [0.024, 0.133]) and smaller at lower levels of promotion focus (conditional indirect effect is 0.033, 95% CI [0.003, 0.079]), supporting Hypothesis 6.

5 Conclusion

In summary, digital transformation is positively related to innovative behavior. Digital transformation has indirect effects on innovative behavior via job crafting. The relationship between digital transformation and job crafting is strengthened by promotion focus. Furthermore, promotion focus positively moderates the indirect effects of digital transformation on innovative behavior through job crafting.

Theoretically, this study examines the mediating role, extending existing research on employee innovative behavior. Additionally, it extends the boundary conditions between digital transformation and employee creativity. Practically, supervisors encourage employees to take on job crafting as a means of obtaining more challenging assignments. Organizations should cultivate promotion focus so that employees focus on improving themselves. However, every variable was based on employee self-report, and the study was carried out in a high-power distance culture in China. As a result, researchers in several nations can examine the relationship.

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