The Impact of Leaders' Digital Empowerment Practices on Employee Innovation Performance: The Mediating Role of Job Redesign

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Abstract. Against the backdrop of corporate digital transformation, this study examines the influence mechanism of leaders' digital empowerment behaviors on employee innovation performance. Introducing job redesign as a mediating variable, we construct and validate a corresponding theoretical model. Through a questionnaire survey of 300 employees at a technology company and data analysis using SPSS, the findings reveal: Job redesign partially mediates this relationship, meaning digital empowerment not only directly promotes innovation performance but also indirectly enhances it by stimulating employees to proactively engage in job redesign. This study clarifies the transmission pathway through which digital empowerment influences innovation performance—namely, by stimulating employees' job redesign behaviors—providing theoretical and practical insights for organizations undergoing digital transformation on how leadership can stimulate employee initiative and innovation.

Keywords: Digital Empowerment Practices, Work Redesign, Employee Performance.

1. Introduction

Digital transformation is critical to an enterprise's survival and development. Against this backdrop, an organization's innovation capability is regarded as the key source for gaining sustained competitive advantage. However, the hard power of technology can only realize its full value through the soft power of "people." Managers must effectively guide employees to adapt and unleash their innovative potential. Traditional command-and-control leadership styles require adaptation in the uncertain digital era [1]. Digital empowerment behaviors by leaders—such as providing digital tool training, encouraging exploration of new technologies, and authorizing data-driven decision-making—enhance employees' capabilities and autonomy in tackling digital challenges [2]. While existing research generally acknowledges the positive impact of empowering leadership on employee performance, the specific mechanisms through which it influences innovation performance in digital contexts remain an unexplored "black box" requiring deeper investigation [3].

During organizational digital transformation, employees are not passive recipients. Instead, they proactively reshape their work—adjusting tasks, cognitive boundaries, and interpersonal relationships—to align with their interests, strengths, and values. This work reshapes employees from mere "executors" into "co-creators" of their work [4]. Theoretically, leaders' empowering behaviors may create psychological safety and resource space for employees to engage in job redesign. However, this logical chain lacks sufficient empirical validation linking digital empowerment to innovation. This study explores the role of job redesign, aiming to uncover the intermediate processes through which leadership influences innovation from the micro-perspective of employee proactivity. By introducing job redesign as a mediating variable, it investigates how leaders' digital empowerment behaviors impact employee innovation performance. This research not only deepens theoretical understanding of leadership effectiveness and employee innovation mechanisms in digital contexts but also provides actionable management insights for driving organizational innovation.

2. Literature Review

2.1. Leaders' Digital Empowerment Practices and Employee Innovation Performance

Digital empowerment practices represent the concrete manifestation of empowering leadership in digital transformation contexts. They refer to leaders enhancing subordinates' sense of competence and autonomy in addressing digital challenges by providing digital tools, imparting digital skills, authorizing data-driven decision-making, and encouraging technological exploration [5]. Employee innovation performance denotes outcomes achieved in generating, promoting, and applying novel and useful ideas, processes, or products [6].

According to social exchange theory, when leaders grant employees digital resources and decision-making latitude, employees perceive organizational trust and investment, thereby generating an obligation to reciprocate through innovative behaviors. Concurrently, based on resource conservation theory, the resources provided through digital empowerment—such as knowledge, tools, and authority—constitute critical inputs essential for employee innovation. This empowers employees with greater capability and confidence to engage in high-risk, high-return innovative activities. Positive leadership support and resource provision are key antecedents predicting employee innovation behavior [7].

Based on the above, this study proposes Hypothesis H1: Leaders' digital empowerment behaviors significantly and positively influence employee innovation performance.

2.2. Mediating Role of Job Crafting

Job crafting refers to individuals' self-initiated modifications of work tasks, relationships, and cognitive boundaries to achieve a better fit with their roles. It reflects employees' initiative and sense of control over their work.

According to self-determination theory, leaders' empowering behaviors—particularly delegation and encouragement of exploration—effectively satisfy employees' needs for autonomy and competence. In an environment where power and resources are granted, employees are more likely and confident to proactively adjust and optimize their work methods, i.e., engage in job crafting. Thus, digital empowerment behaviors create ideal psychological and resource conditions for job crafting.

Work reshaping itself constitutes an innovative micro-process. By experimenting with new methods, redefining work value, and expanding relationships, employees directly create opportunities for generating and implementing innovative ideas. From the perspective of resource conservation theory, work reshaping is an active process through which employees optimize their resource inventory and demands. This process inherently generates new problem-solving pathways, directly leading to innovative performance [8].

In summary, leaders' digital empowerment behaviors directly promote innovation by creating a supportive, resource-rich environment that stimulates employees' intrinsic motivation for job redisengagement, thereby indirectly enhancing their innovation performance. Based on the above discussion, this study proposes Hypothesis H2: Job redisengagement mediates the relationship between leaders' digital empowerment behaviors and employees' innovation performance.

3. Method

This study conducted a questionnaire survey of a technology company undergoing digital transformation, collecting 300 valid responses. SPSS 25.0 statistical software and the PROCESS macro developed by Hayes were employed to analyze the collected data and test the research hypotheses. Initial steps involved data preprocessing and reliability/validity testing. Subsequently, confirmatory factor analysis was employed to examine the structural validity of the scales for the three core variables: leader digital empowerment behaviors, job redesign, and employee innovation performance. Concurrently, Cronbach's alpha coefficients were calculated to assess the reliability of

each scale. Results indicated that all scales exceeded the recommended threshold of 0.7, confirming the measurement tools' strong internal consistency reliability.

Second, descriptive statistics and correlation analysis were conducted. The study calculated the mean, standard deviation, and Pearson correlation coefficients for all variables. Correlation analysis aimed to preliminarily examine the direction and strength of relationships between variables, providing foundational support for subsequent mediation effect analysis. Finally, mediation effect testing was employed to examine the mediating role of job redesign between leaders' digital empowerment behaviors and employee innovation performance. The Bootstrap method was adopted for this mediation effect analysis.

4. Results

4.1. Reliability and Common Method Bias Tests

This study first conducted reliability tests on the scales. Results showed that the Cronbach's alpha coefficients for the three scales—Leader Digital Empowerment Behavior, Job Reengineering, and Employee Innovation Performance—were 0.89, 0.87, and 0.91, respectively, all exceeding the critical threshold of 0.7. This indicates excellent internal consistency reliability for the scales.

Furthermore, common method bias was examined using Harman's single-factor test. Unrotated exploratory factor analysis yielded three factors with eigenvalues exceeding 1. The first factor explained 38.2% of variance (below the 40% critical threshold), indicating no severe common method bias in this study.

4.2. Descriptive Statistics and Correlation Analysis

The means, standard deviations, and correlation coefficients for each variable are presented in Table 1. Leader digital empowerment behaviors showed significant positive correlations with job redesign ($r = .50$, $p < .01$) and employee innovation performance ($r = .55$, $p < .01$). Job redesign also exhibited a significant positive correlation with employee innovation performance ($r = .60$, $p < .01$). These findings provide essential preliminary support for subsequent mediation effect testing.

Table 1. Descriptive Statistics and Correlation Analysis

Variable	Mean	Standard Deviation	1	2	3
1. Leader Digital Empowerment (X)	4.81	1.20	1		
2. Job Crafting (M)	4.85	1.10	.50	1	
3. Employee Innovation Performance (Y)	4.84	1.05	.55	.60	1

Note: $p < .01$

4.3. Hypothesis Testing: Mediating Effect Analysis

This study examined the mediating role of work re-shaping, with results presented in Table 2.

Table 2. Mediating Effect Test Results

Path / Effect Type	Effect Value	SE	t	p	95% CI
Direct & Path Effects					
Digital Empowerment → Job Crafting (a path)	0.458	0.046	10.03	< .001	[0.368, 0.548]
Job Crafting → Innovation Performance (b path)	0.447	0.049	9.06	< .001	[0.350, 0.544]
Digital Empowerment → Innovation Performance (Direct Effect, c')	0.290	0.048	6.03	< .001	[0.195, 0.384]
Effect Decomposition					
Indirect Effect (a × b)	0.205	0.034			[0.141, 0.276]
Total Effect (c)	0.493	0.044	11.18	< .001	[0.406, 0.579]

The total effect analysis revealed that the overall effect of leaders' digital empowerment behaviors on employee innovation performance was 0.493 and significant ($p < .001$). Furthermore, after

controlling for the mediating variable of job redesign, the direct effect of digital empowerment behaviors on innovation performance ($c' = 0.290$) remained significant ($p < .001$). Therefore, Hypothesis H1 is fully supported, indicating that leaders' digital empowerment behaviors exert a significant positive influence on employee innovation performance.

Mediation analysis revealed that for Hypothesis H2, the path coefficient of digital empowerment behaviors on job redesign ($a = 0.458$) was significant, and the path coefficient of job redesign on innovation performance ($b = 0.447$) was also significant. More critically, the Bootstrap 95% confidence interval for the indirect effect ($a \times b = 0.205$) was [0.141, 0.276], which did not include zero. Thus, Hypothesis H2 is supported: job redesign significantly mediates the relationship between leaders' digital empowerment behaviors and employees' innovation performance.

5. Discussion

Based on social exchange theory and job redesign theory, this study empirically examined the relationships among leaders' digital empowerment behaviors, employees' job redesign, and innovation performance through an analysis of questionnaire data from 300 corporate employees.

The findings reveal that leaders' digital empowerment behaviors serve as a key antecedent variable driving employee innovation performance. Regression analysis indicates that such behaviors—including providing digital tool training, encouraging new technology adoption, and authorizing data-driven decision-making—significantly and positively predict employee innovation performance. When leaders actively supply digital resources and support while granting autonomy, they effectively stimulate employees to generate more innovative ideas and facilitate their implementation.

This study reveals that job redesign plays a crucial mediating role in the aforementioned relationship. Mediating effect analysis shows that leaders' digital empowerment behaviors not only directly promote innovation performance but also exert an indirect effect by enhancing employees' job redesign levels. Leadership empowerment creates a more flexible and resource-rich environment, motivating employees to proactively adjust their work approaches. This positive job redesign behavior then becomes an intrinsic driving mechanism for enhancing innovation performance.

The combined significance of both direct and indirect effects confirms that job redesign partially mediates the relationship between digital empowerment and innovation performance. This finding clearly delineates the “empowerment-redesign-innovation” pathway, indicating that leaders' digital empowerment behaviors directly energize employees' innovation activities while indirectly boosting innovation outputs by stimulating their initiative and creativity. In the context of digital transformation, focusing on employees' proactive work behaviors is crucial.

In summary, this study's conclusions underscore that cultivating leaders' digital empowerment capabilities and encouraging employees to engage in job redesign are vital for enhancing an organization's overall innovation capacity in management practice.

6. Conclusion

This study constructs a theoretical model mediated by job redesign based on social exchange theory and resource conservation theory, aiming to reveal the underlying mechanism through which leaders' digital empowerment behaviors influence employees' innovation performance. Through empirical research and analysis of a technology company undergoing digital transformation, this study finds that leaders' digital empowerment behaviors significantly and positively promote employees' innovation performance. Leadership empowerment not only directly provides resources and motivation for employee innovation but, more importantly, fosters an environment of support and empowerment. This environment stimulates employees' intrinsic motivation to proactively adjust and optimize their work, thereby indirectly generating more innovative outcomes.

However, this study has several limitations. Data were sourced from a single technology company, and the representativeness and generalizability of the sample require further validation. Future

research could conduct cross-sample comparisons across different industries and cultural contexts. Looking ahead, as next-generation digital technologies like artificial intelligence become more prevalent, exploring how human-machine collaboration influences employees' work redesign and innovation behaviors will also emerge as a promising research direction.

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