

Research on the Driving Mechanism of Organizational Support and Psychological Safety on Employee Innovative Behavior under the Background of Digital Transformation

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Abstract: As digital transformation continues to progress, employees' innovative activities increasingly serve as a vital element for firms striving to improve competitiveness and sustain development. This study aims to explore the driving mechanisms of employee innovative behavior in the context of digital transformation, with a focus on the roles of organizational support and psychological safety. Through a systematic review of relevant theoretical literature, this study adopts a theoretical analysis approach to conceptually examine the characteristics of employee innovative behavior, the mechanisms of organizational support and psychological safety, and the impact of digital transformation on organizational behavior from the perspective of organizational behavior. The findings indicate that organizational support can create conditions for employees to implement innovative behaviors by providing resources, guidance, and emotional recognition; psychological safety can reduce employees' psychological stress and stimulate their willingness to try new approaches and propose innovative ideas; the two factors exhibit complementary and synergistic effects in the context of digital transformation, enhancing the proactivity, creativity, and sustainability of employee innovative behavior. Based on theoretical analysis, this study proposes three core conclusions: organizational support positively drives employee innovative behavior in the context of digital transformation; psychological safety has a positive impact on employee innovative behavior; the combined effect of organizational support and psychological safety can further enhance the level of employee innovative behavior. These conclusions provide a theoretical basis for understanding the intrinsic mechanisms of

employee innovative behavior in a digital transformation environment and offer managerial insights for optimizing organizational support and psychological safety.

Keywords: Digital Transformation; Employee Innovative Behavior; Organizational Support; Psychological Safety; Organizational Behavior

1. Introduction

In the era of the digital economy, enterprise digital transformation has become a key means to enhance competitiveness, optimize resource allocation, and respond to rapidly changing market environments [1]. With the widespread application of digital technologies such as big data, artificial intelligence, cloud computing, and the Internet of Things, enterprises' operational models, management processes, and organizational structures are undergoing profound changes. Digital transformation not only alters the internal allocation of resources and modes of collaboration within organizations but also has a significant impact on employees' work content, role positioning, and behavior patterns [2]. Particularly in an innovation-driven economic environment, employee innovative behavior has become a crucial guarantee for enterprises to gain sustainable competitive advantages. Innovative behavior includes not only improvements to existing work processes but also the proposal and implementation of new products, services, or methods, which directly determine an organization's adaptability and innovation capability in a highly competitive market.

However, digital transformation also brings new challenges for employees. Accelerated information flow, faster work pace, frequent technological updates, and increasingly complex

tasks can trigger psychological stress and adaptation burdens, affecting employees' motivation and performance in innovation [3]. In this context, how to stimulate employee innovative behavior in a digital transformation environment has become a core issue that organizations need to address. Organizational support and psychological safety, as important psychological and organizational factors affecting employee innovative behavior, become even more critical in a digital environment. Organizational support can enhance employees' sense of belonging and proactivity through resource provision, incentives and recognition, and work guidance, thereby creating necessary conditions for innovation. Psychological safety provides employees with a sense of security when trying new ideas, taking innovation risks, and offering constructive suggestions, enabling them to express opinions, experiment, and explore new working methods.

Although existing research has examined employee innovative behavior and its influencing factors, most studies focus on traditional organizational contexts or single-factor analyses, lacking a systematic theoretical review of the mechanisms of organizational support and psychological safety under digital transformation. Digital transformation not only changes organizational structure and management methods but may also influence innovative behavior through altering employees' work experience, communication patterns, and psychological perceptions in multi-level and multi-dimensional ways. Therefore, it is necessary to analyze, from the perspective of organizational behavior, how organizational support and psychological safety drive employee innovative behavior in a digital environment and to propose systematic conceptual analyses and theoretical propositions.

Based on the above background, the primary objective of this study is to explore, from a theoretical perspective, the driving mechanisms of organizational support and psychological safety on employee innovative behavior under digital transformation. By systematically reviewing relevant theories and literature, this study analyzes potential pathways through which digital transformation affects employee innovative behavior, examines the functional logic of organizational support and psychological safety, and proposes theoretical propositions for future empirical verification.

This study not only contributes to the theoretical research at the intersection of digital transformation and organizational behavior but also provides a theoretical reference and practical guidance for enterprises to optimize organizational management and enhance employee innovation capabilities during digital transformation. By in-depth analysis of this topic, the study aims to offer dual value for theoretical research and organizational practice, helping enterprises better understand the intrinsic mechanisms of employee innovative behavior in a digital environment and providing a systematic theoretical framework for future empirical studies.

2. Literature Review

2.1 Employee Innovative Behavior

Employee innovative behavior refers to the actions in which employees proactively propose new ideas, improve work processes, or develop new products or services in their daily work to enhance organizational value [4]. Such behavior encompasses not only technological or product innovation but also management innovation, process innovation, and service model innovation. Employee innovative behavior is characterized by high proactivity, non-routine nature, and a certain degree of uncertainty, making it a key factor for maintaining long-term competitiveness and promoting sustainable development [5]. Research indicates that employee innovative behavior is influenced by multiple factors, including individual traits, team climate, organizational environment, and external pressures [6].

In the context of the digital economy and digital transformation, employee innovative behavior shows more diversity and complexity [2]. Employees are not only required to leverage digital tools to propose process optimization suggestions but also to participate in cross-departmental online collaborative discussions and improve work decisions through data analysis and intelligent systems. The introduction of digital technologies makes innovative behavior increasingly dependent on information technology skills and collaboration abilities while emphasizing understanding organizational strategy and value creation awareness [7]. Therefore, in a digital transformation context, employee innovative behavior reflects not only individual capabilities

but also constitutes an essential component of the organization's overall innovation capacity. Moreover, employee innovative behavior is influenced by organizational culture and work climate. An organizational culture that encourages innovation, tolerates failure, and actively supports experimentation can stimulate employees' creativity, while high-pressure, strictly controlled, and low-trust environments may suppress innovation [8]. Digital transformation provides organizations with more flexible work modes and information-sharing channels, which can facilitate the development of innovative behavior to a certain extent. However, it also increases demands on employees' information-processing abilities, technology adaptation, and cross-departmental collaboration. Therefore, understanding the multidimensional factors influencing employee innovative behavior is valuable for both theoretical research and practical management.

2.2 Organizational Support

Organizational support refers to employees' perception of the organization's concern for and recognition of their value, contributions, and welfare [9]. High levels of organizational support enhance employees' sense of belonging and psychological security, thereby promoting work engagement and innovative behavior. Organizational support primarily manifests in three aspects: resource provision, emotional and cognitive support, and work guidance and feedback [10]. Resource provision includes offering necessary tools, funding, and training opportunities to enable employees to complete work efficiently and attempt innovations. Emotional and cognitive support, through encouragement, recognition, and career development care, enhances employees' sense of value, increasing their confidence in innovation processes. Work guidance and feedback help employees understand organizational goals and clarify innovation directions, thereby improving the effectiveness of innovative behavior.

Within the environment of digital transformation, organizational support plays an especially vital role. As digital tools and information systems are introduced, work procedures grow in complexity and task allocation becomes more flexible, prompting employees to depend on organizational guidance and resources to adapt to emerging technologies. Effective organizational support can alleviate employees'

technological stress and help them establish clear innovation goals and directions in a digital environment, thus improving the frequency and quality of innovative behavior [11]. Organizational support also influences employees' perception and attitude toward work challenges. When employees feel valued and supported, they are more likely to view challenges as opportunities for learning and growth, proactively seeking innovative solutions. Long-term organizational support can foster a sustained innovation culture, making innovation a routine part of employees' work and providing continuous momentum for organizational strategic development.

2.3 Psychological Safety

Psychological safety refers to the perception of a work environment in which employees feel free to express opinions, take risks, and try new methods without fear of negative consequences [12]. It serves as a critical psychological foundation for employee innovative behavior, reducing anxiety and worry during the innovation process and encouraging employees to propose and implement new ideas. In a digital transformation environment, employees' work methods, collaboration patterns, and information-processing approaches undergo significant changes, increasing the uncertainty and potential risks associated with innovative behavior [13]. Psychological safety allows employees to believe that their organization and team will tolerate mistakes and failures, thereby enhancing proactivity and exploratory behavior. Psychological safety also promotes knowledge sharing and collaboration within teams [14]. In a psychologically safe environment, employees are more willing to exchange ideas, share experiences, discuss problems, and collaboratively solve challenges, which not only improves the quality of innovative ideas but also strengthens overall organizational innovation capability. The prevalence of remote collaboration, cross-departmental teamwork, and information systems in a digital transformation context increases communication complexity and information uncertainty. Psychological safety helps alleviate employees' psychological stress, enabling them to voice diverse opinions and innovative solutions, thereby sustaining organizational innovation behavior. It also influences employees' perception of failure and mistakes. Employees in psychologically safe

environments tend to view failures as opportunities for learning and improvement rather than sources of negative evaluation, fostering a positive innovation mindset and continuous innovative behavior.

2.4 The Impact of Digital Transformation on Organizational Behavior

Digital transformation not only changes enterprise operational models but also profoundly affects organizational behavior and employee psychological states [15]. Digital tools and process optimizations enhance information flow efficiency and collaboration levels but may also increase cognitive load and technology adaptation pressures on employees. Studies show that employees' work methods, communication patterns, role perceptions, and innovative behaviors are all influenced under digital transformation [16]. For example, digital platforms provide opportunities for cross-departmental collaboration and knowledge sharing but require employees to quickly adapt to new tools, manage large volumes of information, and maintain work efficiency.

In this context, organizational support and psychological safety become key factors in sustaining employee innovative behavior. High levels of organizational support help employees cope with technological challenges and work pressures induced by digital transformation, while high psychological safety encourages employees to remain proactive and engaged when trying new methods or proposing innovative ideas. Digital transformation not only provides tools and environments conducive to innovation but also imposes new managerial demands, requiring organizations to leverage effective support and foster psychological safety to stimulate employee innovation. Overall, digital transformation serves both as a source of innovation opportunities and a potential stressor, and the organization's ability to provide resource support while cultivating a psychologically safe environment directly affects the quality and sustainability of employee innovative behavior.

3. Theoretical Analysis

3.1 The Role of Organizational Support on Employee Innovative Behavior

Organizational support describes employees' belief that their organization values their contributions and well-being, serving as a key

driver that fosters work involvement and encourages innovative actions. In the context of digital transformation, employees face new technological tools, complex data analysis tasks, and cross-departmental collaboration requirements, which can impose high adaptation pressures and psychological loads. Without sufficient organizational support, employees may feel isolated and helpless, reducing their willingness to innovate. Organizational support includes not only the provision of resources, such as training opportunities, tool usage guidance, and work resource guarantees, but also emotional and cognitive recognition, such as encouraging employees to try new methods, acknowledging innovative achievements, and attending to career development.

Adequate organizational support can enhance employees' sense of belonging, responsibility, and security, allowing them to maintain proactivity and positivity when facing uncertainty and challenges. Organizational support guides employees to align innovative behavior with organizational strategic goals through clear objectives, feedback, and continuous incentives, thereby improving the effectiveness and directionality of innovation. In a digital transformation environment, the role of organizational support is particularly prominent, as employees require clear guidance, resource provision, and psychological backing when adapting to new technologies, processing large volumes of information, and collaborating across departments. Long-term organizational support not only stimulates short-term innovative behavior but also fosters an innovation culture within the organization, making innovation a habitual part of employees' work and providing a solid foundation for sustainable development.

Furthermore, organizational support influences employees' perceptions and attitudes toward work challenges. When employees perceive that the organization values and supports them, they are more likely to view challenges as opportunities for growth and learning, actively seeking innovative solutions. Especially in a digital transformation context, facing rapidly changing markets and technological updates, organizational support can provide stable psychological backing and practical guidance, enabling employees to explore new methods and experiment with new ideas confidently and positively, further enhancing the frequency and quality of innovative behavior.

3.2 The Role of Psychological Safety on Employee Innovative Behavior

Psychological safety refers to employees' perception of a work environment in which they can express opinions and try new methods without fear of failure. It is a crucial psychological foundation for innovative behavior. Psychological safety reduces anxiety and concerns during the innovation process, allowing employees to propose and implement new ideas. In the context of digital transformation, employees' work methods, collaboration patterns, and information-processing approaches undergo significant changes, increasing the uncertainty and potential risks associated with innovation. Psychological safety enables employees to trust that even if attempts or differing opinions fail, the organization and team will provide support and tolerance, which significantly stimulates proactivity and exploratory behavior.

Psychological safety also promotes knowledge sharing and collaboration within teams. In a psychologically safe environment, employees are more willing to exchange ideas, discuss problems, and solve challenges together, which improves the quality of innovative ideas and strengthens overall organizational innovation capability. Digital transformation introduces remote collaboration, cross-departmental cooperation, and widespread information systems, increasing communication complexity and information uncertainty. Psychological safety alleviates employees' psychological pressure, enabling them to voice differing opinions and innovative solutions, thus supporting the continuous development of organizational innovative behavior.

In addition, psychological safety affects employees' perceptions of failure and mistakes. Employees in psychologically safe environments tend to view failures as opportunities for learning and improvement rather than sources of negative evaluation. This positive psychological cognition stimulates continuous innovation behavior, enabling employees to remain proactive and persistent when facing the uncertainties and challenges brought by digital transformation, continually experimenting with and optimizing innovative solutions, thereby generating sustained innovation outcomes for the organization.

3.3 The Combined Effect of Organizational Support and Psychological Safety under Digital Transformation

In the context of digital transformation, organizational support and psychological safety jointly influence employee innovative behavior, creating a synergistic effect. Organizational support provides resource guarantees, work guidance, and emotional recognition, creating conditions for employees to engage in innovative behavior. Psychological safety reduces psychological stress and perceived risk, providing a secure environment for employees to try new methods and propose innovative ideas. Together, these factors complement each other, enabling employees to maintain innovation despite the uncertainties and challenges brought by digital transformation.

Digital transformation changes information flow, communication methods, and work processes, presenting both innovation opportunities and adaptation pressures. If organizations can design digital processes reasonably, provide continuous resources and guidance, and cultivate a psychologically safe environment that tolerates failure and encourages experimentation, employees' proactivity and motivation for innovation will be significantly enhanced. Organizational support helps employees cope with technological challenges and work pressures, while psychological safety strengthens employees' capacity to bear innovation risks and explore boldly. Their combined effect forms a virtuous cycle in the digital environment, making employee innovative behavior more sustainable and effective.

Based on the above analysis, this study proposes three theoretical propositions. First, organizational support positively drives employee innovative behavior in the context of digital transformation by providing necessary resources and guidance, enhancing proactivity and engagement. Second, psychological safety positively impacts employee innovative behavior in a digital environment by offering psychological assurance that stimulates innovative motivation and exploratory spirit. Third, the combined effect of organizational support and psychological safety enhances employee innovative behavior, making it more proactive, creative, and sustainable. These propositions provide clear conceptual guidance for subsequent theoretical and empirical research and offer a theoretical foundation for optimizing

management practices during digital transformation.

4. Conclusion

From the perspective of organizational behavior, this study explored the driving mechanisms of employee innovative behavior under the context of digital transformation, focusing on the roles of organizational support and psychological safety. By systematically reviewing and theoretically analyzing the characteristics and influencing factors of employee innovative behavior, the functions of organizational support, the psychological mechanisms of psychological safety, and the profound impact of digital transformation on organizational behavior, the study draws the following main conclusions.

First, employee innovative behavior is a core action for enterprises to respond to rapidly changing environments, enhance competitiveness, and achieve sustainable development. Digital transformation provides new platforms and tools for employee innovation, making innovative behavior more diverse and complex, while also demanding higher adaptability, information-processing capability, and collaboration skills from employees. In this context, organizational support and psychological safety become critical factors driving employee innovative behavior. Organizational support creates conditions for employees to implement innovative behavior by providing resources, guidance, and emotional recognition. Psychological safety provides psychological assurance, enabling employees to try new methods and express innovative ideas, thereby stimulating sustained innovation motivation.

Second, organizational support and psychological safety exhibit a synergistic effect under digital transformation. While a single factor can promote employee innovative behavior to some extent, the combination of the two generates a more stable and long-lasting innovation-driving force. Organizational support provides necessary material and cognitive resources, and psychological safety offers psychological stability and courage. This complementary effect allows employees to maintain proactive innovative behavior despite the uncertainties, information overload, and work pressures brought by digital transformation. By creating a supportive environment and a psychologically safe atmosphere, organizations

can not only improve the quantity and quality of employee innovative behavior but also foster a positive innovation cycle internally, promoting the long-term development of an innovation culture.

Finally, based on theoretical analysis, this study proposes three core propositions: First, organizational support positively drives employee innovative behavior under digital transformation by providing necessary resources and guidance. Second, psychological safety has a positive effect on employee innovative behavior in a digital environment by reducing psychological pressure and perceived risk, thereby stimulating innovation motivation. Third, the combined effect of organizational support and psychological safety enhances employee innovative behavior, making it more proactive, creative, and sustainable. These conclusions provide a theoretical basis for understanding the intrinsic mechanisms of employee innovative behavior in a digital transformation environment and offer practical guidance for optimizing organizational support and psychological safety in management practice.

In summary, digital transformation provides both opportunities and new managerial challenges for enterprise innovation. By systematically analyzing the mechanisms through which organizational support and psychological safety influence employee innovative behavior, this study contributes theoretically to organizational behavior research under digital transformation and provides practical guidance for enterprise management. Future research can further empirically examine the differences in the impact of organizational support and psychological safety on employee innovative behavior across different types of enterprises and digital transformation scenarios, providing richer evidence for theoretical refinement and practical application.

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