THE EFFECTS OF ORGANIZATIONAL CULTURE AND INFORMAL
ORGANIZATIONAL COMMUNICATION ON RETENTION
INTENTION AND INNOVATION BEHAVIOR - A STUDY BASED ON
CHINESE R&D EMPLOYEES

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This study establishes a comprehensive framework where employee innovation behavior serves as the dependent variable, while organizational culture and informal organizational communication act as independent variables, and retention intention functions as the mediating variable. The foundational conceptual framework extends to include demographic variables such as gender, age, and education. Based on this structure, the study presents the following hypotheses: 1. Positive relationship between organizational culture and retention intentions. 2. Positive impact of informal organizational communication on retention intentions. 3. Mediating role of retention intentions in the organizational culture-innovative behavior link. 4. Mediating role of retention intentions in the informal organizational communication-innovative behavior link. 5. Within the context of retention intentions as a mediator, this hypothesis asserts that both organizational culture and informal organizational communication positively affect the innovative behavior of Chinese R&D personnel. The research methodology involved the distribution and retrieval of 500 questionnaires through a stratified sampling approach within the Chinese R&D workforce, encompassing both public and private organizations across the technology, pharmaceutical, automotive, and electronics sectors. The study's findings indicate a robust positive relationship between organizational culture and employees' inclination to remain within the organization. Similarly, a strong positive association exists between informal organizational communication and the willingness of employees to stay. Through an empirical exploration

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of Chinese R&D personnel across diverse industry domains, this research delves into the intrinsic dimensions of organizational culture, informal organizational communication, retention intentions, and employee innovative behavior. These findings contribute valuable insights to organizations’ developmental endeavors.

**Keywords:** organizational culture; informal organizational communication; retention; intention; innovation behavior

**Introduction**

The multidimensional impact of globalization necessitates unique strategic advantages for firms. Organizational culture and informal communication, vital for employee behavior and outcomes, gain prominence. The COVID-19 pandemic accentuates their importance, particularly in knowledge-intensive sectors like R&D. In the post-pandemic era, these factors remain pivotal for remote work success. China's innovation growth, attributed to R&D investments and human capital, underscores cultural and communication roles.

China's innovation drive amplifies R&D focus, global collaborations, and commercialization. Human capital expansion through STEM education and talent attraction supports innovation. Organizational culture embracing inclusiveness and creativity, alongside informal communication, aids transparency and idea exchange. Positive cultures enhance retention intentions, while innovation-supportive cultures stimulate innovative behaviors. Organizational culture indirectly influences innovation through retention intentions, shaping Chinese R&D workers' attitudes and actions.

This study addresses the void in comprehending how organizational culture and informal communication impact employee retention intentions and innovation behavior, particularly within China's cultural and socioeconomic context. Existing research lacks integration, leaving gaps in strategies. While organizational culture shapes behavior, its effect on Chinese R&D personnel's retention intentions and innovative behavior remains unexplored. Similarly, informal communication's link to retention intentions and innovation is underexplored.

A crucial gap is the role of "intention to stay" as a mediator, influencing innovative behavior amid organizational culture and informal communication. Existing research minimizes the demographics of China's R&D workforce. As China leads in R&D, understanding this demographic is vital for local and international organizations.

This study aims to bridge these gaps, enhancing theoretical understanding, offering practical insights, and nurturing innovation culture in Chinese R&D. The study underscores the mediating role of retention intention, which is underexplored in understanding how organizational culture and informal communication impact innovation. The research contributes fresh insights into these intricate relationships. The focus on Chinese R&D workers is crucial in the face of rapid technological advancement and the imperative of innovation for economic growth. Practical implications are noteworthy, aiding R&D organizations in informed decision-making. By identifying culture and communication aspects that foster retention intentions and innovation, this study informs effective management strategies in a competitive environment.

In summary, this study fills literature gaps, offering a comprehensive view of the interrelationships among organizational culture, informal communication, retention
intentions, and innovative behaviors. Practical insights cater to China's burgeoning R&D sector.

**Research objectives**

This study aims to achieve several objectives and to provide a more comprehensive understanding of the relationship between organizational culture, informal organizational communication, retention intentions, and innovation behavior among Chinese R&D personnel.

Objective 1: To explore the relationship between organizational culture and retention intentions. Analyze the impact of organizational culture on retention intentions. This includes exploring aspects of organizational culture - such as values, norms, and beliefs - and how they affect employees' intentions to stay within the organization.

Objective 2: Investigate the impact of informal organizational communication on retention intentions: the second objective is to assess the impact of informal organizational communication on retention intentions. This involves assessing the impact of spontaneous, unstructured information exchanges that occur outside of formal communication channels on employees' intentions to stay in the organization.

Objective 3: Examine the mediating role of intention to stay: an in-depth examination of the role of intention to stay as a mediating variable in the relationship between organizational culture, informal organizational communication, and innovative behavior. This will involve a closer look at the indirect effects of organizational culture and informal organizational communication on innovative behavior through intention to stay.

Objective 4: Assess the impact on innovation behavior: The final objective is to assess how organizational culture and informal organizational communication, mediated by retention intentions, influence the innovation behavior of Chinese R&D personnel.

**Literature review**

The COVID-19 crisis reshaped organizational dynamics, prompting a need to reassess practices. Post-pandemic, understanding organizational culture, informal communication, retention intentions, and innovation is crucial amid changing circumstances. Organizational culture's role in shaping behaviors is established, but remote work challenges it. Emphasizing well-being, flexibility, and balance aids retention in the post-pandemic era. Informal communication vital for collaboration shifted to digital channels.

This literature review examines the impact of organizational culture and informal communication on retention intentions and innovation. Current research often isolates these factors, overlooking their interplay, especially within China's R&D sector. The mediating role of retention intention is unexplored in terms of cultural and communication impact on innovation. COVID-19's effect on organizational culture, informal communication, retention, and innovation is explored. Remote work's influence on culture and the role of digital channels in promoting innovation are assessed.

The review aims to identify gaps, contributing to theoretical knowledge and practical insights. This knowledge can guide organizational leaders in enhancing retention and innovation strategies. The scope includes SCOPUS database articles within a decade,
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encompassing various industries and global contexts. The limitation is SCOPUS's potential omissions, mitigated by a thorough search and cross-referencing.

Positive and negative organizational culture impacts are evident. Amid 20th-century restructuring, strong cultures became vital, ensuring shared intentions steer organizations toward common goals. As COVID-19 disrupted operations and communications, organizational cultures were challenged.

Each organization possesses a primary and secondary culture.

The study categorizes organizational culture by various researchers. Cameron & Quinn (2006) identifies supportive, innovative, bureaucratic, and efficiency cultures. The impact of organizational culture on employee engagement is profound. Positive cultures aligned with employees' values enhance engagement, driven by support, recognition, empowerment, and collaboration.

A study by Denison (1990) highlights the correlation between adaptive cultures and employee satisfaction, commitment, and engagement, contributing to organizational effectiveness. Organizational culture also shapes employee performance, productivity, and job satisfaction. Aligned cultures motivate employees, increasing commitment and motivation. Positive cultures with open communication, collaboration, and teamwork improve performance outcomes (Denison, 1990).

Innovation, crucial in the dynamic business landscape, thrives in organizations fostering creativity and risk-taking. A supportive culture encourages idea-sharing and experimentation (Cai et al., 2020). Leadership's role in promoting innovation through cultural values is highlighted (Creswell & Creswell, 2018).

Informal communication encompasses the exchange of information, ideas, and knowledge through avenues such as water cooler conversations and electronic platforms. Effective information sharing enhances understanding and allows employees to acquire valuable insights.

Social Connections: Social interactions involve informal conversations and relationships that develop among employees. Activities like team building and informal gatherings foster trust, camaraderie, and a supportive work environment (Dorenbosch et al., 2005).

Informal communication positively influences employee retention intentions. High-quality informal communication characterized by information sharing, social interactions, and trust fosters loyalty to the organization (Allen et al., 2020). Trust and psychological safety within informal communication encourage employees to stay by creating a supportive environment (Davies & Wong, 2018).

Employee retention, a critical aspect of organizational success, depends on various factors that influence employees' intention to remain within an organization. McClelland's Needs Theory underscores individual differences in achievement, power, and affiliation needs. The need for achievement drives employees to excel and strive for success. High achievers are motivated by challenging tasks and continuous improvement, thus influencing their retention intention.

Gong et al. (2009) emphasizes the importance of employee learning and development. The correlation between learning opportunities and retention is evident. Employees seek growth and progression, and when these needs are met, their retention likelihood increases.

Hayes (2017) notes that high performers actively explore alternative opportunities if their career advancement stagnates.
Hargadon & Bechky (2006) identified organizational commitment as a primary contributor to retention. Employees who possess high organizational commitment feel part of the team, align with organizational values, and have a strong connection. This sense of belonging and engagement enhances their intention to remain within the organization.


The cumulative effect of organizational culture and informal communication on retention intentions transcends the mere summation of their individual impacts. The ensuing mechanisms and factors underscore the synergistic interplay:

Shared Values and Communication Climate: A positive organizational culture forges shared values and advocates open communication, trust, and psychological safety. When employees perceive a congenial communication milieu knitted into the organizational culture, they are more at ease engaging in informal communication. This, in turn, fortifies relationships, amplifies knowledge exchange, and nurtures a sense of belonging, fostering heightened retention intentions.

Social Integration and Sense of Belonging: Informal communication augments social integration and engenders a sense of belonging among employees. Within a sanguine organizational culture, informal communication networks offer employees opportunities for camaraderie, relationship cultivation, and community building. When employees sense social integration and camaraderie through informal communication, their inclination to remain is reinforced.

Informal Communication as a Cultural Artifact: Informal communication practices mirror and reinforce an organization's cultural values and norms. Within organizations steeped in positive cultures that extol collaboration, information sharing, and supportive bonds, informal communication emerges as a pivotal cultural artifact. The informal communication practice harmonizes with cultural values, perpetuating a positive impact on retention intentions.

Knowledge Sharing and Learning: Informal communication conduits expedite knowledge sharing, learning, and the transfer of tacit knowledge. In a positive organizational culture nurturing collaboration and knowledge exchange, employees share insights, experiences, and best practices through informal communication. This informal dissemination of valuable knowledge and expertise heightens employees' perceived value, elevates job satisfaction, and favorably impacts retention intentions.

The collective impact of organizational culture and informal communication on innovative behavior goes beyond the mere summation of their individual effects. The ensuing mechanisms and factors illuminate the synergistic interaction:

Psychological Safety and Supportive Climate: A favorable organizational culture engenders psychological safety, risk-taking, and open communication, creating an ambiance conducive to innovative behavior. When employees perceive an environment where they can freely share ideas, solicit feedback, and participate in constructive discourse through informal communication, they are more inclined to embrace risk, explore novel avenues, and exhibit innovative behavior.
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Results

In the regression analysis assessing the influence of organizational culture on retention intention, the summary of the model reveals an adjusted R-squared value of 0.407. This signifies that organizational culture, the independent variable, accounts for approximately 40.7% of the variance in retention intention, the dependent variable.

The variance test demonstrates a noteworthy F-value of 344.148, and the associated p-value of .000 (below 0.01) indicates high statistical significance at the 0.01 level. This underscores that the regression model holds substantial significance and offers valuable interpretability and applicability. Upon scrutinizing the Coefficients, the unstandardized coefficient for organizational culture stands at 0.530.

Simultaneously, the standardized coefficient, at 0.639, is noteworthy. Both coefficients exhibit a p-value of 0.000, indicating a robust positive correlation between organizational culture and retention intention. This correlation underscores the substantial influence of organizational culture in fostering retention intention.

In the regression analysis exploring the influence of informal organizational communication on retention intention, the summary of the model unveils an adjusted R-squared value of 0.847. This signifies that informal organizational communication, serving as the independent variable, accounts for an impressive 84.7% of the variance in retention intention, the dependent variable. The variance test reveals a significant F-value of 2750.525, accompanied by a p-value of .000 (below 0.01).

This substantiates the regression model's substantial significance at the 0.01 level, affirming its practical usability and meaningfulness. Upon scrutinizing the Coefficients, the unstandardized coefficient attributed to informal organizational communication stands at 0.813. Concurrently, the standardized coefficient is notable at 0.920, both accompanied by a p-value of 0.000, this robustly underscores a potent positive correlation between informal organizational communication and retention intention. Evidently, informal organizational communication positively influences retention intention within the job context.

The Average Causal Mediation Effect (ACME), which gauges the average causal mediation effect, stands at 0.00170. However, its 95% confidence interval spans from -0.03103 to 0.04. The p-value of 0.93 renders this statistically insignificant, surpassing the conventional threshold of 0.05. Consequently, we lack grounds to affirm that Btotal serves as a significant mediator in the relationship between Atotal and Dtotal.

For the Average Direct Effects (ADE), reflecting the direct influence of the independent variable (Atotal) on the dependent variable (Dtotal) with the mediator variable (Btotal) held constant, the estimate is 0.82606. Its 95% confidence interval ranges from 0.78044 to 0.87. With a p-value below 0.001, this demonstrates a robustly significant direct effect of Atotal on Dtotal.

The Total Effect, denoting the comprehensive impact of the independent variable (Atotal) on the dependent variable (Dtotal), measures 0.82776. Its 95% confidence interval spans from 0.79557 to 0.86, accompanied by a p-value below 0.001. This signifies a statistically significant total effect of Atotal on Dtotal.

The Proportion Mediated, which outlines the proportion of the total effect mediated by Btotal, is calculated as 0.00169. Notably, the confidence interval encompasses 0, and the p-value remains non-significant at 0.93.
This implies insignificance in the proportion of the total effect mediated by $B_{total}$. Therefore, we cannot assert that the interplay of organizational culture and informal organizational communication, mediated by retention intention, positively influences the innovative behavior of Chinese R&D employees. Furthermore, the analysis suggests that individuals aligned with the organizational culture and proficient in effective informal communication do not exhibit a heightened tendency for innovative behavior at work, ultimately impacting retention intention.

**Discussion**

The findings of this study offer valuable insights into the intricate nexus among organizational culture, informal organizational communication, retention intentions, and innovation behavior in the context of Chinese R&D personnel. This discussion section delves into the implications of these findings, their alignment with prior literature, potential rationales for unexpected outcomes, and recommendations for enhancing talent retention and innovation within R&D organizations.

The observed positive association between organizational culture and retention intentions resonates with existing research that underscores organizational culture's pivotal role in shaping employee commitment and retention (Davies & Wong, 2018; Jiang et al., 2016). A vibrant organizational culture marked by shared values, norms, and beliefs fosters a sense of belonging and allegiance among employees. These findings underscore the necessity of cultivating a nurturing work environment that champions collaboration, teamwork, and employee well-being. Organizations should prioritize the establishment of a culture that nurtures employee satisfaction and engagement, thereby heightening the probability of prolonged employee tenure.

The robust positive correlation detected between informal organizational communication and retention intentions underscores the crucial role played by effective informal communication avenues in cultivating employee commitment. This alignment echoes existing research that underscores the significance of transparent and open communication networks in augmenting employee contentment and affiliation with the organization (Dorenbosch et al., 2015). Nurturing a communication-friendly culture where spontaneous, unstructured information exchange is encouraged—whether through digital platforms or face-to-face interactions—can substantially foster camaraderie and loyalty among employees.

Contrary to the initial hypothesis, the study did not unveil a significant partial mediating role for retention intentions in the interplay between organizational culture, informal organizational communication, and innovative behavior. This unexpected result contrasts with some preceding studies that underscore the mediating function of employee commitment within the relationship connecting organizational facets and innovation (Carmeli et al., 2011). Several rationales might elucidate this deviation:

Innovative behavior is intricate, influenced by a spectrum of individual, organizational, and contextual factors. While retention intention bears relevance for employee commitment, it might not wholly encapsulate the intricacies of innovative behavior. Other elements like intrinsic motivation, task characteristics, and leadership support are likely pivotal in catalyzing innovative behavior (Carmeli et al., 2011).
Future research could explore additional mediators to unearth the multifaceted mechanisms underpinning the link between organizational factors and innovative behavior.

Organizational culture and informal organizational communication possess the potential for direct impacts on innovative behavior, independently of mediation through retention intentions. Positive organizational culture and effective communication avenues might directly stimulate creativity, knowledge sharing, and idea generation among employees (Carmeli et al., 2011). These direct effects could be disentangled from indirect effects stemming from the intent to stay. Subsequent research could explore alternative mediators to unveil the holistic pathways influencing innovative behavior.

The unexpected finding that intention to stay did not moderate the relationship between organizational culture, informal organizational communication, and innovative behavior sparks intriguing inquiries. While "stay" intentions may not have a mediating role, it's imperative to acknowledge that innovative behavior is multifaceted and influenced by factors extending beyond intentions to remain within the organization. Employees' intentions to stay can be impacted by facets unrelated to their innovative behavior.

**Conclusion**

The research underscores a robust positive correlation between organizational culture and employees' retention intentions. This signifies that a constructive and supportive organizational culture, characterized by shared values and norms, profoundly impacts employees' inclination to remain in an R&D setting. These findings align with prior studies stressing organizational culture's pivotal role in shaping employee commitment and retention (Davies & Wong, 2018; Jiang et al., 2016). A robust organizational culture nurtures a sense of belonging, loyalty, and emotional attachment to the organization, fostering greater willingness among employees to contribute and persevere.

Furthermore, the study identifies a compelling positive correlation between informal organizational communication and intentions to stay. This point to the pivotal role played by effective informal communication channels—such as face-to-face interactions, social networks, and online forums—in bolstering employees' disposition to remain within the organization. Employees who partake in unstructured, impromptu information exchanges beyond formal communication avenues experience heightened connections and loyalty to colleagues and the organization. This underscores the imperative of fostering candid and transparent communication platforms to bolster camaraderie and employees' bond with the organization.

In contrast to the initial hypothesis, the study does not validate the significant partial mediating role of intentions to stay in the interplay between organizational culture, informal organizational communication, and innovative behavior. This implies that while both organizational culture and informal communication positively impact employees' intention to stay, this intention fails to comprehensively account for the association between these facets and employees' innovative behavior. This suggests that while intention to stay is influenced by organizational culture and informal communication, other variables might also exert influence in the exploration of their effect on employee innovative behavior.

A surprising outcome emerges from the study: alignment with organizational culture and participation in effective informal organizational communication do not directly steer employees' innovative behavior through their intentions to stay. Even though organizational
culture and informal communication exhibit positive correlations with retention intentions, they do not singularly lead to heightened innovative behavior. This finding underscores that innovative behavior springs from a multifarious interplay of factors, beyond merely intending to remain within the organization. Organizational culture and communication are pivotal in cultivating employee loyalty, yet innovation might stem from other motivational factors not explicitly covered in this study.

The research underscores the imperative of nurturing a constructive and supportive organizational culture. Organizations should center efforts on promoting values such as collaboration, teamwork, employee development, and a compelling sense of purpose. A thriving organizational culture accentuates employee satisfaction, engagement, and longevity within the organization.

The study demonstrates that effective informal communication channels significantly impact employees' intentions to stay. As such, organizations must emphasize fostering resilient informal communication networks that foster knowledge exchange, camaraderie, and collaboration among employees. Leveraging both face-to-face interactions and digital platforms can facilitate efficacious communication.

Despite intentions to stay not directly moderating the nexus between organizational culture, informal organizational communication, and innovative behaviors, organizations should not downplay the significance of nurturing an innovation-driven culture. Encouraging employees to think creatively, take calculated risks, and translate their ideas into action can usher in an innovative culture, even if it might not singularly influence their intentions to remain.

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