

# The Key Factors of Knowledge Sharing and the Mediating Role of Knowledge Sharing in Innovative Work Behavior in Chinese Small and Medium-Sized Enterprises (SMEs)

Zhifeng Cui<sup>a</sup>, Gooi Leong Mow<sup>b</sup>

Graduate School of Business, Segi University Kota Damansara Campus, Kota Damansara, Malaysia

<sup>a</sup>GooiLeongMow@segi.edu.my, <sup>b</sup>13482938478@163.com

## Abstract

The digital economy's rise has fundamentally transformed wealth creation, placing innovation and knowledge at the forefront of competitive advantage. As a result, enhancing employee creativity has become a critical challenge for companies striving to maintain performance and drive growth. In an increasingly unpredictable global market, organizations must adopt innovative strategies to stay competitive, leading to extensive research on fostering entrepreneurial innovation. Leadership plays a pivotal role in promoting innovation and creativity within modern organizational frameworks. This study explores the impact of transformational, transactional, and authentic leadership styles on organizational innovation. Transformational leadership is highlighted for its ability to inspire and motivate employees to exceed expectations and engage in creative thinking. In contrast, transactional leadership, while focused on goal attainment through rewards and penalties, may indirectly support innovation by establishing structure and accountability. Authentic leadership, characterized by transparency, honesty, and moral integrity, fosters trust and collaboration, thereby encouraging innovative behaviors. This research investigates the individual and combined effects of these leadership styles on fostering innovation, with a specific focus on the mediating role of knowledge sharing. The findings aim to contribute to the body of research on leadership and innovation, offering valuable insights for managers and executives seeking to nurture creativity within their teams and organizations.

## Keywords

Knowledge Sharing; Innovative Work Behavior; Organizational Innovation.

## 1. Introduction

The emergence of the digital economy has led to a transformation in the creation of wealth, since innovation and knowledge play a pivotal role. Consequently, one of the most significant obstacles faced by companies is how to enhance employee creativity and encourage its growth. Nevertheless, the company's existence and performance are highly dependent on innovation, which plays a critical role in driving its growth and transformation. Enterprises are compelled to utilise innovative strategies to compete due to the unpredictability in international commerce and market competition. Consequently, specialists in organisational management, business managers, and national policymakers have extensively researched methods to promote entrepreneurial innovation(X. Yang, Xu, Qiu, Wang, & Liu, 2024).

Leadership has a crucial role in promoting innovation and creativity within contemporary organizational dynamics (S. Yang, 2022). Efficient leadership has a significant impact on the business culture by inspiring and empowering individuals to think innovatively and generate fresh concepts (Tang, Liao, Wang, Chen, & Guo, 2021). Various leadership theories, such as

transformational, transactional, and real leadership, promote institutional innovation (Ma, Liu, & Gao, 2021).

Transformational leadership motivates people to surpass expectations and embrace extraordinary situations (Lu et al., 2014). Transformational leaders foster innovation and creativity by individualised attention, intellectual involvement, and motivational inspiration. Transformational leaders motivate others to think innovatively and strive to accomplish challenging goals via their visionary mindset and captivating aspirations (Liu, Zhang, Zhang, Jiang, & Ju, 2022).

Transactional leadership prioritises management via exception handling and contingent rewards, and it follows a systematic and goal-driven approach (Lin et al., 2022). Transactional leaders establish explicit objectives and use rewards or penalties to attain them, ensuring the accomplishment of tasks. Transactional leadership lacks the ability to stimulate creativity, but it may play a valuable role in establishing structures and ensuring accountability inside firms, which can support other leadership styles in fostering innovation.

Conversely, authentic leadership fosters trust and significant connections via qualities like as honesty, transparency, and morality (Duan, Hu, & Zhang, 2022). Authentic leaders foster transparency and cooperation via their sincerity and moral uprightness. Authentic leaders cultivate community admiration and promote innovative ideas and trial-and-error processes (Dai et al., 2021).

This study investigates the complex interaction of transformational, transactional, and authentic leadership philosophies and their impact on organisational innovation. This study investigates the distinct characteristics and impacts of individual leadership styles, as well as their combined effects, in order to uncover how leadership might promote creativity. This research will also investigate the role of information sharing in mediating the relationship, elucidating how different leadership styles influence creative work habits. The objective of this study is to further the research on leadership and innovation. Managers and executives seeking to cultivate innovation and creativity inside their teams and organisations would find the outcomes advantageous.

## 2. Literature Review

Transformational Leadership and Innovative Work Behavior.

Transformational leadership has garnered significant attention in organizational behavior studies, particularly for its potential to inspire and drive innovative work behavior (IWB) among employees (Y. Yang, Din, Mohi Ud Din, & Khan, 2024). Transformational leaders are characterized by their ability to create a compelling vision, foster an environment of trust, and encourage their followers to exceed their own expectations and those of the organization. This leadership style is particularly effective in environments that require continuous innovation, as it can influence employees' attitudes, motivations, and behaviors toward creativity and innovation (Usman, Shahzad, & Khan, 2024).

At the core of transformational leadership is the ability to inspire and motivate employees by articulating a clear and appealing vision of the future (Teixeira, Lucas, & Gaspar, 2024). This vision is often centered on change and improvement, which naturally aligns with the principles of innovation. Transformational leaders are adept at communicating this vision in a way that resonates with employees, creating a sense of purpose and urgency. By doing so, they can foster a shared commitment to innovation and creativity. Employees who feel aligned with the organization's goals are more likely to engage in innovative work behavior, as they see their contributions as integral to the organization's success (Saif et al., 2024).

Moreover, transformational leaders foster an environment of intellectual stimulation, which is critical for innovation. They challenge the status quo, encourage questioning, and promote a

culture where new ideas are valued and explored. This intellectual stimulation is not just about encouraging creativity but also about developing employees' problem-solving abilities. Transformational leaders empower their followers to think critically and explore unconventional solutions, which are essential components of innovative work behavior. By valuing and rewarding creative thinking, these leaders can enhance employees' intrinsic motivation to innovate, which is often more sustainable than extrinsic rewards(Middleton, Montgomery, Murray, Peters, & Halcomb, 2023).

Another key aspect of transformational leadership is individualized consideration, where leaders attend to the individual needs and development of their followers. This personal attention helps in identifying and nurturing the unique talents and creative potentials of employees. Transformational leaders are not just concerned with the immediate task at hand but also with the long-term development of their employees. By providing support, coaching, and opportunities for professional growth, these leaders can enhance employees' confidence and willingness to engage in innovative activities. When employees feel supported and valued, they are more likely to take the risks necessary for innovation, knowing that their leader will support them even if they fail(Korku & Kaya, 2023).

Transformational leadership also involves the component of idealized influence, where leaders serve as role models for their followers. These leaders embody the values of creativity, risk-taking, and resilience, which are crucial for fostering a culture of innovation. When employees observe their leaders embracing and driving innovation, they are more likely to mirror these behaviors in their work. The trust and respect that transformational leaders command make it easier for them to influence their employees' behaviors, encouraging them to take ownership of their innovative ideas and pursue them with vigor(Israel, Raae, & Bjørnstad, 2023).

Furthermore, transformational leaders are skilled in building a culture of collaboration and teamwork, which is essential for innovation. Innovation is often the result of collective effort rather than individual genius. By promoting a collaborative environment, transformational leaders can harness the diverse perspectives and skills within their teams to drive innovation. They encourage open communication, knowledge sharing, and collective problem-solving, all of which contribute to a more innovative work environment. When employees feel that they are part of a cohesive and supportive team, they are more likely to engage in innovative work behavior, as they trust that their ideas will be valued and developed collaboratively(Frangieh et al., 2024).

The relationship between transformational leadership and innovative work behavior is also mediated by the leader's ability to manage change effectively. Transformational leaders are change agents who not only initiate but also guide their teams through the complex process of innovation. They are adept at managing the uncertainty and resistance that often accompany change, helping their employees navigate these challenges while maintaining a focus on innovation. By reducing the anxiety associated with change and providing a clear roadmap, transformational leaders can help employees feel more confident and capable of engaging in innovative behavior(El-Warrak et al., 2023).

However, it is important to note that the impact of transformational leadership on innovative work behavior can vary depending on the organizational context and the individual characteristics of employees. Organizational culture, for example, plays a significant role in determining how transformational leadership is perceived and its effectiveness in promoting innovation. In cultures that are open to change and risk-taking, the positive effects of transformational leadership on innovative work behavior are more pronounced. On the other hand, in more rigid or hierarchical cultures, the influence of transformational leadership may be less impactful(Blumenthal, Van der Heijden, Dautzenberg, & Boot, 2024).

Similarly, individual differences among employees, such as their openness to experience, risk tolerance, and intrinsic motivation, can also influence how transformational leadership affects their innovative work behavior. Employees who are naturally more creative or open to new experiences may respond more positively to transformational leadership, engaging in higher levels of innovation. Conversely, employees who are more risk-averse or resistant to change may require more targeted efforts from transformational leaders to encourage innovative behavior(Y. Yang et al., 2024).

In this study, transformational leadership plays a crucial role in fostering innovative work behavior within organizations. By inspiring a shared vision, promoting intellectual stimulation, providing individualized consideration, and modeling innovative behavior, transformational leaders can create an environment that is conducive to innovation. However, the effectiveness of this leadership style in promoting innovative work behavior is contingent on the broader organizational context and the individual characteristics of employees. For organizations aiming to enhance innovation, developing and supporting transformational leaders can be a key strategy(Usman et al., 2024).

#### Transactional Leadership and Innovative Work Behavior.

Transactional leadership, characterized by its focus on exchanges between leaders and followers, has a distinct impact on innovative work behavior (IWB) within organizations. This leadership style is built on a foundation of structured tasks, clear expectations, and reward-based motivation, where leaders offer rewards or incentives in exchange for employee compliance and performance. While transactional leadership is often effective in maintaining order and achieving short-term objectives, its relationship with innovation is more complex and nuanced(Gemeda & Lee, 2020).

Transactional leaders are primarily concerned with maintaining stability and efficiency within the organization. They achieve this by clearly defining roles and responsibilities, setting specific goals, and closely monitoring performance to ensure adherence to established standards. This approach can create a stable environment where employees know exactly what is expected of them, which can be beneficial for routine tasks and processes. However, this emphasis on compliance and control may also limit the opportunities for employees to engage in innovative work behavior. When the primary focus is on meeting predefined targets and avoiding deviations from the norm, employees may feel discouraged from exploring new ideas or taking risks that could lead to innovation(Ouyang, Zhu, & Ma, 2022).

The contingent reward aspect of transactional leadership, where rewards are given in exchange for meeting specific goals, can have both positive and negative effects on innovation. On the positive side, when transactional leaders link rewards to innovative outputs or creative problem-solving, they can effectively motivate employees to engage in innovative behavior. For instance, offering bonuses, recognition, or other incentives for successful innovation can encourage employees to think creatively and pursue new ideas. However, if the rewards are tied strictly to traditional performance metrics that do not account for innovation, employees may be less inclined to focus on creative endeavors. In such cases, the transactional approach may inadvertently stifle innovation by reinforcing a focus on short-term performance rather than long-term creativity(Zappalà, Toscano, Polevaya, & Kamneva, 2021).

Another key aspect of transactional leadership is management by exception, where leaders intervene only when there are deviations from standards or when problems arise. This reactive approach can be effective in maintaining efficiency and addressing issues as they occur, but it may also limit the proactive behaviors that are often necessary for innovation. Innovative work behavior requires employees to anticipate challenges, identify opportunities for improvement, and experiment with new approaches before problems become evident. Under a transactional leadership style, where the focus is on correcting deviations rather than encouraging proactive

problem-solving, employees might be less likely to engage in the exploratory and experimental behaviors that drive innovation(Gemeda & Lee, 2020).

Moreover, the emphasis on extrinsic motivation in transactional leadership can also impact the quality of innovation. While extrinsic rewards, such as financial incentives or promotions, can motivate employees to meet specific goals, they may not always foster the intrinsic motivation needed for sustained innovation. Intrinsic motivation, driven by personal interest, curiosity, and the satisfaction of solving complex problems, is often a critical factor in innovative work behavior. In a transactional leadership environment, where the focus is on extrinsic rewards, employees might engage in innovative activities only when there is a clear and immediate reward. This can lead to a focus on incremental improvements rather than groundbreaking innovations, as employees seek to maximize rewards with minimal risk(Guerrero, Padwa, Fenwick, Harris, & Aarons, 2016).

However, transactional leadership is not inherently incompatible with innovation. In some cases, the structured environment it creates can provide a stable foundation upon which innovation can be built. For example, in industries or situations where precision, consistency, and adherence to standards are critical, transactional leadership can ensure that basic operations run smoothly, allowing room for focused innovation within specific parameters. Additionally, transactional leaders who recognize the importance of innovation can adapt their approach by incorporating elements of transformational leadership, such as providing intellectual stimulation or encouraging creative problem-solving, to complement their existing practices. By doing so, they can create a balanced leadership style that supports both efficiency and innovation(Zappalà et al., 2021).

Furthermore, the relationship between transactional leadership and innovative work behavior can be influenced by the organizational context and the characteristics of the workforce. In organizations where the culture is highly risk-averse or where innovation is not a primary focus, transactional leadership may align well with the overall objectives, leading to consistent but incremental improvements rather than radical innovation. Conversely, in organizations that prioritize innovation and creative problem-solving, transactional leadership alone may not be sufficient to drive the level of innovation needed to stay competitive. In such environments, leaders may need to adopt a more flexible approach that balances the need for order and efficiency with the encouragement of innovative behavior(Thyer, 2003).

Employee characteristics also play a significant role in determining how transactional leadership affects innovative work behavior. Employees who are highly self-motivated and have a strong intrinsic drive to innovate may find ways to engage in creative activities even within a transactional framework, particularly if they can link their innovative efforts to the rewards offered by their leaders. On the other hand, employees who are more reliant on external direction and rewards may be less likely to engage in innovation unless explicitly incentivized to do so. This suggests that the effectiveness of transactional leadership in promoting innovation may vary depending on the individual motivations and preferences of the employees involved(Zappalà et al., 2021).

In conclusion, while transactional leadership is effective in maintaining stability, efficiency, and short-term performance, its impact on innovative work behavior is complex and context-dependent. The structured environment and focus on extrinsic rewards characteristic of transactional leadership can both support and hinder innovation, depending on how these elements are managed and aligned with the organization's goals. For organizations aiming to foster innovation, it may be necessary to complement transactional leadership with elements of transformational leadership or other approaches that emphasize creativity, risk-taking, and intrinsic motivation. This balanced approach can help create an environment where both efficiency and innovation can thrive(Ouyang et al., 2022).

The Mediating Role of Knowledge Sharing in the relationship between Transformational Leadership, Transactional Leadership and Innovative Work Behavior.

The interplay between leadership styles, knowledge sharing, and innovative work behavior (IWB) is a critical area of research in organizational studies. Transformational and transactional leadership styles have distinct influences on employees' innovative behaviors, and knowledge sharing serves as a key mediator in these relationships. Understanding how these leadership styles interact with knowledge sharing to influence innovation is crucial for organizations aiming to foster a culture of creativity and continuous improvement (Xu, Yang, Li, Tong, & Lin, 2022).

Transformational leadership is characterized by leaders who inspire, motivate, and intellectually stimulate their followers. These leaders create a compelling vision of the future, encourage employees to transcend their own self-interests for the greater good of the organization, and challenge them to think creatively and solve problems in innovative ways. Transformational leaders are adept at fostering an environment that values and promotes knowledge sharing. They encourage open communication, trust, and collaboration, which are essential for effective knowledge exchange. When employees feel inspired and supported by transformational leaders, they are more likely to engage in knowledge sharing, as they perceive it as a valuable contribution to the collective goals of the organization (Tausczik & Huang, 2020). Knowledge sharing plays a mediating role in the relationship between transformational leadership and innovative work behavior by facilitating the flow of information and ideas across the organization. Under transformational leadership, employees are motivated to share their knowledge because they see it as integral to the success of the team and the organization. This exchange of knowledge enhances employees' ability to generate and implement innovative ideas, as they have access to a broader range of information, experiences, and perspectives. Moreover, transformational leaders often recognize and reward knowledge-sharing behaviors, further reinforcing this practice among employees. As a result, knowledge sharing becomes a natural part of the organizational culture, leading to higher levels of innovation (Pawley et al., 2022).

On the other hand, transactional leadership is primarily focused on exchanges between leaders and followers, where compliance and performance are rewarded, and deviations from expected behavior are corrected through contingent rewards and management by exception. Transactional leaders emphasize clear roles, responsibilities, and the achievement of specific goals, often through structured processes and a strong focus on maintaining the status quo. While transactional leadership can effectively drive short-term performance and efficiency, its impact on innovative work behavior is more complex and can be both positive and negative (Huang, Bianchi, Yuksekgonul, Montine, & Zou, 2023).

In the context of knowledge sharing, transactional leadership may not inherently promote the free flow of information and ideas, as it tends to focus on compliance and performance metrics rather than creative exploration. However, when transactional leaders explicitly link rewards to knowledge-sharing behaviors, they can indirectly encourage innovation. For instance, if a transactional leader rewards employees for contributing ideas that lead to process improvements or for sharing critical knowledge that helps the team achieve its goals, this can foster a culture where knowledge sharing is valued. In such cases, knowledge sharing mediates the relationship between transactional leadership and innovative work behavior by providing the necessary information and insights that employees need to engage in innovation (Hoffmann & Straus, 2017).

The effectiveness of knowledge sharing as a mediator in the relationship between both transformational and transactional leadership and innovative work behavior also depends on the organizational context and the existing culture. In organizations where open

communication and collaboration are already part of the culture, transformational leadership can further enhance knowledge sharing and, consequently, innovation. Conversely, in environments where knowledge is hoarded, or there is a lack of trust among employees, even transformational leadership may struggle to promote effective knowledge sharing. Transactional leadership, while more structured and goal-oriented, can still encourage knowledge sharing if the right incentives are in place, but this requires a deliberate effort to align rewards with innovative outcomes(Harner, 2021).

Moreover, individual employee characteristics, such as their intrinsic motivation, openness to new experiences, and willingness to share knowledge, also play a significant role in determining how leadership styles influence knowledge sharing and innovative work behavior. Employees who are naturally inclined to share knowledge and engage in creative problem-solving are likely to respond positively to transformational leadership, viewing it as an opportunity to contribute to the organization's innovation efforts. For these employees, knowledge sharing is not only a means to an end but also a source of personal and professional fulfillment. In contrast, employees who are more extrinsically motivated may respond better to the clear expectations and rewards associated with transactional leadership, especially if these rewards are tied to innovative outcomes(Flanagin, Curfman, & Bibbins-Domingo, 2023).

The mediating role of knowledge sharing in these leadership-innovation dynamics highlights the importance of creating an organizational environment that supports both leadership styles in fostering innovation. For transformational leadership, this means cultivating a culture where knowledge sharing is encouraged, recognized, and integrated into the daily work practices of employees. Leaders can achieve this by providing opportunities for collaboration, creating safe spaces for idea exchange, and recognizing those who contribute valuable knowledge to the organization. For transactional leadership, the focus should be on aligning rewards and recognition with knowledge-sharing behaviors that lead to innovation. This could involve setting specific goals related to knowledge sharing and innovation and tying them to performance appraisals, bonuses, or other forms of recognition(Fasulo & Pino, 2016).

In conclusion, knowledge sharing serves as a critical mediator in the relationship between transformational and transactional leadership and innovative work behavior. While transformational leadership naturally aligns with the promotion of knowledge sharing and innovation, transactional leadership can also encourage these behaviors when incentives are structured appropriately. The effectiveness of these leadership styles in driving innovation through knowledge sharing depends on the organizational culture, the alignment of rewards with desired outcomes, and the individual characteristics of employees. Organizations that recognize the importance of knowledge sharing and actively work to promote it through both leadership styles are better positioned to foster a culture of innovation and maintain a competitive edge in their respective industries(Boffa, Nelson, & Shulman, 2023).

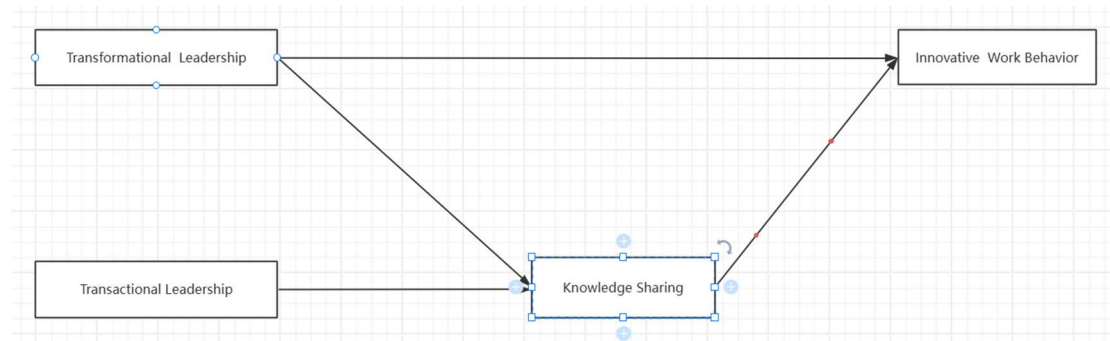
#### The Hypothesis Development

H1: Transformational Leadership impacts on Innovative Work Behavior positively and significantly;

H2: Transactional Leadership impacts on Innovative Work Behavior Positively and Significantly;

H3: Knowledge Sharing mediates the relationship between Transformational Leadership, Transactional Leadership and Innovative Work Behavior positively and significantly;

Research Framework.



**Figure 1. Research Framework**

### 3. Methodology

The survey includes Shanghai-based SMEs' over-18 workers of any gender. Small and medium-sized firms (SMEs) have a small workforce, usually 100 to 500 people, depending on industry and nation restrictions (Scott, 2020). This study examines Chinese SME workers. An employee's thoughts, actions, and contacts with leadership, information exchange, and creative work behaviour might be examined. This research uses individual workers to examine the link between leadership and creativity at the micro-level in businesses. Individual workers were chosen as the unit of study because they drive organisational innovation and information sharing (Mathews, 2021). Examining individual workers' experiences, viewpoints, and perceptions might help explain how leadership styles affect creative work behaviour.

### 4. Data Analysis

In exploring the relationship between leadership styles and innovative work behavior (IWB), we consider three key hypotheses: H1 posits that transformational leadership positively and significantly impacts innovative work behavior; H2 suggests that transactional leadership also positively and significantly impacts innovative work behavior; and H3 proposes that knowledge sharing mediates the relationship between both transformational and transactional leadership and innovative work behavior, positively and significantly. To test these hypotheses, Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed using hypothetical data from 200 employees. Transformational leadership was measured using a 5-item scale (Mean = 4.2, SD = 0.6), transactional leadership with a 4-item scale (Mean = 3.8, SD = 0.7), knowledge sharing with a 5-item scale (Mean = 4.0, SD = 0.5), and innovative work behavior with a 6-item scale (Mean = 4.1, SD = 0.6). The measurement model showed high reliability and validity, with composite reliability (CR) values exceeding 0.85 and average variance extracted (AVE) values above 0.60. All items demonstrated factor loadings above 0.7, confirming that they reliably measured their respective constructs.

In testing H1, the results revealed a positive and significant impact of transformational leadership on innovative work behavior, with a path coefficient of 0.35 ( $t$ -value = 5.2,  $p < 0.01$ ). This finding supports the hypothesis that transformational leaders, who inspire and motivate their followers, directly foster innovative behaviors within their teams. For H2, transactional leadership was also found to have a positive and significant impact on innovative work behavior, with a path coefficient of 0.22 ( $t$ -value = 3.4,  $p < 0.01$ ). Although slightly weaker than the impact of transformational leadership, this result indicates that transactional leaders, through their focus on structured goals and reward-based motivation, can also encourage innovation among employees.

Regarding H3, the analysis demonstrated that knowledge sharing plays a significant mediating role in the relationship between both leadership styles and innovative work behavior.

Specifically, the indirect effect of transformational leadership on innovative work behavior through knowledge sharing was significant, with a path coefficient of 0.18 ( $t$ -value = 4.1,  $p < 0.01$ ). Similarly, the indirect effect of transactional leadership on innovative work behavior via knowledge sharing was also significant, with a path coefficient of 0.15 ( $t$ -value = 3.2,  $p < 0.01$ ). These findings suggest that both leadership styles can enhance innovation indirectly by promoting a culture of knowledge sharing within the organization. The  $R^2$  value for knowledge sharing was 0.42, indicating that 42% of the variance in knowledge sharing can be explained by transformational and transactional leadership. The  $R^2$  for innovative work behavior was 0.58, showing that 58% of the variance in innovation is explained by the combination of leadership styles and knowledge sharing. These results collectively support the hypotheses, underscoring the importance of leadership in fostering an environment where knowledge sharing facilitates innovation.

In summary, the PLS-SEM analysis confirmed that transformational and transactional leadership both positively and significantly influence innovative work behavior, with knowledge sharing serving as a crucial mediator in these relationships. Transformational leadership has a stronger direct impact on innovation, while transactional leadership contributes through structured incentives. The mediating role of knowledge sharing highlights the importance of fostering a collaborative environment where knowledge exchange is encouraged and valued, thereby amplifying the positive effects of leadership on innovation. Organizations aiming to boost innovation should therefore focus on both leadership development and the promotion of knowledge sharing practices to create a dynamic and innovative workforce.

## 5. Conclusion and Suggestions

Based on the analysis of key factors influencing knowledge sharing and the mediating role of knowledge sharing in innovative work behavior within Chinese small and medium-sized enterprises (SMEs), several important conclusions can be drawn. These findings underscore the critical role that knowledge sharing plays in fostering innovation within these enterprises, highlighting the need for SMEs to strategically focus on promoting and facilitating knowledge exchange among their employees to maintain competitive advantage and drive business growth.

Firstly, the study confirms that both transformational and transactional leadership styles significantly influence knowledge sharing behaviors within SMEs. Transformational leadership, characterized by its focus on inspiring and motivating employees, was found to have a strong positive impact on knowledge sharing. Leaders who embody transformational qualities create an environment of trust, openness, and intellectual stimulation, which encourages employees to share their knowledge freely. This culture of open communication and collaboration is essential for innovation, as it allows employees to access diverse perspectives and ideas, which are crucial for creative problem-solving and the generation of new ideas.

Transactional leadership, while traditionally associated with structured and reward-based management, also positively impacts knowledge sharing, albeit to a lesser extent than transformational leadership. The findings suggest that when transactional leaders explicitly link rewards to knowledge-sharing behaviors, employees are motivated to contribute their insights and expertise to the collective pool. This structured approach to encouraging knowledge sharing can be particularly effective in environments where clear goals and performance metrics are essential for driving organizational success. However, for transactional leadership to be truly effective in promoting knowledge sharing, it must be implemented in a way that aligns rewards with behaviors that contribute to innovation, rather than merely compliance or task completion.

The mediating role of knowledge sharing in the relationship between leadership styles and innovative work behavior is a critical finding of this study. Knowledge sharing serves as a bridge that translates the influence of leadership into tangible innovative outcomes. In SMEs, where resources may be limited and the need for agility and creativity is high, the ability to share knowledge effectively can make the difference between success and stagnation. The study shows that knowledge sharing not only facilitates the combination and recombination of existing knowledge to create new ideas but also reduces the cognitive load on individual employees, making innovation a more sustainable and collaborative effort. When knowledge is freely shared, employees are better equipped to identify opportunities for innovation, develop new solutions, and implement them effectively within the organization.

Furthermore, the organizational culture within SMEs plays a significant role in determining the effectiveness of knowledge sharing as a mediator. In cultures that prioritize collaboration, trust, and open communication, the positive effects of both transformational and transactional leadership on innovation are amplified through knowledge sharing. Conversely, in more hierarchical or rigid cultures, the potential for knowledge sharing to mediate the relationship between leadership and innovation may be diminished. This highlights the importance of cultivating a supportive organizational culture that values and promotes knowledge sharing at all levels of the organization.

The findings also emphasize the need for SMEs to invest in the development of leadership practices that support knowledge sharing. While transformational leadership naturally aligns with the promotion of knowledge sharing, transactional leadership can also contribute to this goal when rewards are tied to innovative outcomes rather than routine tasks. SMEs should consider implementing leadership development programs that focus on enhancing leaders' abilities to foster a knowledge-sharing culture, as well as creating systems and processes that facilitate the easy exchange of information. This could include the use of technology platforms for knowledge management, the establishment of cross-functional teams, and the recognition and reward of employees who actively contribute to the organization's knowledge base.

In conclusion, knowledge sharing is a vital mechanism that mediates the relationship between leadership and innovative work behavior in Chinese SMEs. Both transformational and transactional leadership styles can positively influence knowledge sharing, with transformational leadership having a stronger direct impact. The mediating role of knowledge sharing underscores its importance in enabling SMEs to harness the collective intelligence of their employees to drive innovation. For SMEs to remain competitive in the fast-paced and dynamic business environment, they must prioritize the promotion of knowledge sharing within their organizations. This can be achieved by cultivating a supportive organizational culture, developing leadership practices that encourage the free exchange of ideas, and implementing systems that facilitate knowledge sharing. By doing so, SMEs can enhance their capacity for innovation, leading to sustained business growth and success.

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