

Examining Leadership Styles and Its Influence on Innovative Work Behaviour Through Innovation Culture: A Proposed Framework

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ABSTRACT

Innovation is widely recognized as a critical driver of organizational competitiveness in dynamic and knowledge-intensive economies. Leadership plays a central role in shaping employee behaviours that foster innovation within organizations. This proposed paper develops an integrated framework examining how leadership styles (transformational, transactional, and situational leadership) influence innovative work behaviour through the mediating role of innovation culture. Grounded in leadership and organizational culture theories, the study explains how leaders shape shared values, norms, and practices that support innovation. The proposed framework posits that leadership styles significantly contribute to the development of a strong innovation culture, which subsequently stimulates employees' engagement in innovative work behaviours, including idea generation, idea promotion, and idea implementation. By synthesizing insights from leadership and innovation literature, this paper advances current theoretical understanding by positioning innovation culture as a key explanatory mechanism linking leadership styles to innovative work behaviour. The framework provides a foundation for future empirical research and offers practical insights for organizations seeking to cultivate leadership practices and cultural environments that enhance employee-driven innovation.

Keywords: Leadership Styles, Innovation Culture, Innovative Work Behavior, Proposed Framework.

INTRODUCTION

In today's rapidly evolving business environment, organizations must continuously innovate in order to remain competitive and sustainable (Sott et al., 2025). Innovation is not driven solely by technological advancements or organizational resources; it also depends on employees' willingness and ability to generate, promote, and implement new ideas within the workplace (Gharama et al., 2020). This form of employee-driven innovation is commonly referred to as innovative work behaviour (Nazarian et al., 2024).

Leadership plays a critical role in fostering such innovative behaviours among employees. Transformational leaders typically focus on long-term goals and future organizational needs while motivating and inspiring employees through a humanistic and visionary approach (Avolio & Bass, 1994). In contrast, transactional leadership emphasizes goal achievement by setting clear objectives, monitoring performance, and regulating outcomes through rewards and corrective actions. Situational leadership, on the other hand, is based on two primary leadership behaviours—task behaviour and relationship behaviour—where leaders adapt their style according to the needs, capabilities, and commitment levels of their followers (Del Pino-Marchito, 2025).

A large body of literature suggests that contemporary leadership approaches are essential for organizations to effectively respond to dynamic environmental changes and future challenges (Gharama et al., 2020). Previous studies also indicate that leaders play a significant role in shaping and maintaining organizational culture, which can influence employees' innovative behaviours by fostering shared values that support creativity and experimentation (Simmou et al., 2019). Similarly, leaders can cultivate and manage an organizational culture that encourages innovation and enhances employees' capacity for creative thinking (Teixeira Fernandes,

2024). Despite these contributions, several gaps remain in the literature concerning the effects of different leadership styles particularly transformational, transactional, and situational leadership on innovation and creativity. While many studies have examined the influence of transformational and transactional leadership on innovation, inconsistent findings still exist regarding their impact on innovative work behaviour (Jia et al., 2018; Khan, 2018). Moreover, some studies have focused primarily on the relationship between leadership styles and overall employee performance rather than specifically examining innovative work behaviour (Jia et al., 2018). Additionally, limited empirical research has explored the specific leadership behaviours that academic leaders should adopt to enhance innovative work behaviour among employees (Abbas, 2017). Earlier research also suggests that future studies should further investigate the roles of different leadership styles in shaping innovation-related outcomes within organizations (Abbas et al., 2012).

Leaders influence employees' motivation, attitudes, and behaviours by shaping organizational structures, decision-making processes, and cultural norms (Al Mazrouei, 2024). Leadership styles such as transformational, transactional, and situational leadership have been widely associated with employee creativity and innovation (Del Pino-Marchito, 2025; Zaitoun & Taib, 2024; Sott et al., 2025). Another key factor that supports innovation is innovation culture, which refers to the shared values, beliefs, and organizational practices that encourage experimentation, knowledge sharing, and risk-taking. Leaders play a crucial role in cultivating and sustaining such a culture.

Despite the growing body of literature on leadership and innovation, limited research has examined how leadership styles influence innovative work behaviour through innovation culture as a mediating mechanism. Therefore, this study proposes a conceptual framework that investigates the relationship between leadership styles and innovative work behaviour, with innovation culture acting as a mediator..

THEORETICAL LITERATURE AND HYPOTHESIS DEVELOPMENT

The theoretical justification for the relationships specified in the conceptual framework draws on multiple complementary theories. Transformational Leadership Theory explains why leaders who articulate vision and provide intellectual stimulation foster innovation-supportive cultures and motivate employees to exceed routine performance expectations (Bass & Avolio, 1994; Zaitoun & Taib, 2024). Social Exchange Theory further explains that when employees perceive leadership support and fair treatment, they reciprocate through discretionary behaviors such as innovative work behaviour, particularly when such behaviors are culturally endorsed (Ryu, 2022). Organizational Culture Theory provides the macro-level explanation by emphasizing that shared norms and values mediate individual responses to leadership and shape collective patterns of behaviour over time (Buenechea-Elberdin, 2024).

Concept of Leadership Style

Kuhnert and Lewis (2019) states that leadership style is that kind of direction, which a person can give to a group of people under him in such a way that these will influence the behavior of another individual, or group. Laohavichien et al. (2018) perceives leadership to be a reciprocal process of social influence, in which leaders and subordinates influence each other in order to achieve organizational goals. According to Al Mazrouei (2024) Leadership style is the pattern of behaviors, attitudes, and approaches adopted by leaders to influence, guide, and motivate employees toward achieving organizational goals. Bhargavi & Yaseen (2017) explain that the Leadership style shapes decision-making, employee behavior, and organizational outcomes, particularly in relation to innovation and performance. Leadership style is the patterns of behaviors that leaders use to influence and guide their followers (Abudaqa et al., 2020). Different leadership styles can shape organizational environments and employee behavior in various ways.

Dimensions of leadership styles

This study specifically focuses on transformational, transactional and situational leadership styles as conceptualized. According to Hollis (2014), these three (transformational, transactional and situational) leadership styles are significantly related which subsequently stimulates employees' engagement in innovative work behaviours.

Transformational leadership style

Transformational leadership is a leadership approach that motivates followers by appealing to higher ideals and moral values, inspiring employees to exceed expected performance levels while promoting both individual and organizational transformation (Bhargavi & Yaseen, 2017). This leadership style is characterized by four key dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1994). According to Zaitoun and Taib (2024), leaders who demonstrate transformational behaviours tend to encourage followers to perform their tasks using a promotion-focused approach, thereby aligning with individuals who prefer promotional self-regulation strategies. Similarly, Nguyen et al. (2018) describe transformational leaders as facilitators who emphasize dialogue and collaboration among key stakeholders rather than relying solely on directive decision-making or strategic planning. These leaders are typically guided by strong values and a clear sense of mission. As a result, transformational leaders are often characterized as charismatic, enthusiastic, optimistic, passionate, and visionary.

Transactional leadership style

Transactional leadership refers to a leadership approach in which leaders recognize the needs and aspirations of their followers and clearly outline how these needs can be satisfied in exchange for the followers' performance (Abudaqa et al., 2020). In this style of leadership, relationships between leaders and subordinates are primarily based on structured exchanges and agreed expectations. According to Al Mazrouei (2024), effective transactional leaders address the interests of their subordinates by offering contingent rewards, recognition, or promises to those who successfully meet the goals or commitments established by the leader or the organization. Similarly, Zervas and David (2013) emphasize that transactional leaders motivate employees through contingent rewards as well as the possibility of negative consequences when performance expectations are not achieved. Their primary focus is on establishing clear goals and defining the relationship between performance and rewards. Likewise, Bass & Avolio (1994) describes transactional leadership as a system in which organizations compensate employees for their efforts and compliance, while leaders retain the authority to impose sanctions when performance fails to meet required standards.

Situational leadership style

The concept of situational leadership is derived from two key leadership behaviors: task behavior and relationship behavior. According to Paul Hersey, Kenneth H. Blanchard, and Gates (1976), task behavior refers to the extent to which leaders engage in direct communication with subordinates to explain tasks and clarify how they should be performed. In contrast, relationship behavior reflects the degree to which leaders engage in two-way communication to provide socio-emotional support and maintain positive interactions with followers. Situational leadership is therefore viewed as a flexible leadership approach in which leaders adjust their behavior based on employees' competence, commitment, and the demands of the situation (Del Pino-Marchito, 2025). This adaptability makes the approach particularly relevant in environments characterized by changing operational conditions and complex challenges (Panigrahy & Pradhan, 2015). In practice, different situations and tasks may require leaders to apply varying leadership styles to achieve organizational objectives. Effective situational leaders therefore provide clear, concise, and direct guidance to ensure that followers fully understand the instructions required to complete their tasks.

Innovative work behaviour

Innovative work behavior refers to employees' deliberate efforts to generate, promote, and implement new ideas, processes, or methods that enhance organizational effectiveness (Gharama et al., 2020). In today's rapidly evolving economic and social environment, innovative work behavior is widely regarded as a critical factor for the long-term sustainability and competitiveness of organizations (Bass & Avolio, 1994). Previous research has identified innovativeness as a valuable organizational capability that enables firms to establish and sustain a competitive advantage over their competitors (Gharama et al., 2020). Furthermore, studies by Nazarian et al. (2024) emphasize that innovative work behavior is not limited to innovation-driven roles or organizations; rather, it is essential for employees across the entire workforce, as it contributes broadly to organizational development and performance.

Innovation culture

Innovation culture refers to shared organizational values, norms, and practices that support creativity, knowledge sharing, experimentation, and openness to change (Sena, 2024). An innovation culture is characterized by openness to new ideas, tolerance for risk, and support for creativity, creating a fertile environment for adaptive capabilities and fostering an agile organizational response to market shifts (Bogale, 2024; Sena, 2024). When an organization cultivates an innovation-oriented culture, it develops a conducive environment for enhancing adaptive capabilities and service innovation (Bogale, 2024).

Hypothesis development

In leadership and innovation research, hypotheses are typically grounded in established theory and supported by empirical evidence to ensure logical consistency and methodological rigor. Based on the literature reviewed in the preceding sections, this study develops hypotheses to examine both the direct relationships between leadership styles and innovative work behavior and the indirect (mediated) relationships through innovation culture.

Leadership styles and innovative work behavior

Previous studies indicate that leaders play a crucial role in promoting and encouraging innovation among employees and work teams by fostering a supportive and inspiring environment for innovation within organizations (Newman et al., 2018). The literature widely recognizes the influence of leadership on shaping employee behaviors, including innovative work behavior (Bagheri et al., 2022). Leaders who adopt entrepreneurial and transformational approaches often create compelling visions by identifying and exploiting new opportunities, which can motivate followers to contribute creatively. When employees share a clear organizational vision, they are more likely to collaborate effectively and engage in creative activities (Preller et al., 2020). In particular, leadership style encourages employees to achieve higher levels of performance and organizational goals by identifying, developing, and leveraging entrepreneurial opportunities through their creative contributions (Lin et al., 2020). Such leadership behaviors can therefore stimulate employees' willingness to generate, promote, and implement new ideas within the workplace. Therefore, this leads to the first hypothesis:

Hypothesis 1: Leadership styles has a positive and significant effect on innovative work behavior.

Transformational leadership has consistently been identified as a key driver of innovative work behavior due to its emphasis on vision, intellectual stimulation, and individualized consideration. Leaders who adopt transformational behaviors encourage employees to challenge existing assumptions, explore new ideas, and engage in problem-solving beyond routine job requirements. Empirical evidence indicates that transformational leadership positively influences employees' willingness to generate, promote, and implement innovative ideas by enhancing motivation and psychological safety (Buenechea-Elberdin, 2024; Zaitoun & Taib, 2024). In public-sector, transformational leadership has been shown to support innovation-related outcomes by aligning employee behavior with organizational goals and modernization initiatives (Calciolari et al., 2023).

Transformational leadership focuses on inspiring and motivating employees to exceed expectations by promoting creativity, vision, and intellectual stimulation. Transformational leaders encourage employees to think beyond routine tasks and explore new ideas. As a result, this leadership style is expected to positively influence innovative work behavior by fostering creativity and experimentation among employees. Accordingly, the following hypothesis is proposed:

Hypothesis 1a: Transformational leadership has a positive and significant effect on innovative work behavior.

Transactional leadership, characterized by contingent reward and performance monitoring, plays an important role in formal and rule-based organizations such as police forces. While transactional leadership is often viewed as less conducive to creativity, recent empirical studies suggest that it can positively influence innovative work behavior when performance expectations are clear and rewards are perceived as fair. Transactional leadership

may support IWB by providing structure, clarity, and legitimacy for innovation-related efforts, particularly during the implementation phase of innovation (Wahyuni, 2024). In public-sector organizations, transactional mechanisms can reduce uncertainty and encourage employees to engage in improvement initiatives aligned with organizational priorities (Calciolari et al., 2023). Transactional leadership emphasizes structured supervision, clear expectations, and performance-based rewards. Leaders using this style motivate employees through incentives and recognition for achieving specific goals. In the context of innovation, transactional leadership may encourage innovative behavior by rewarding employees for generating and implementing new ideas. Therefore, the following hypothesis is proposed:

Hypothesis 1b: Transactional leadership has a positive and significant effect on innovative work behavior.

Situational leadership emphasizes leaders' ability to adapt their behavior to contextual demands and employee readiness. This adaptive approach is particularly relevant in policing organizations, where operational conditions vary significantly and employees differ in experience and competence. Recent research highlights that leadership adaptability enhances employee engagement and discretionary behaviors by aligning leadership responses with situational needs (Filstad et al., 2024). By adjusting levels of direction and support, situational leaders may encourage innovative work behavior by providing guidance when needed and autonomy when employees are capable of innovation. Situational leadership suggests that leaders adapt their leadership style according to the needs, competence, and maturity of employees. By adjusting leadership behaviors to fit different situations, leaders can provide appropriate guidance, support, and autonomy. This flexibility can encourage employees to engage in innovative activities when the environment supports experimentation and learning. Consequently, the following hypothesis is proposed:

Hypothesis 1c: Situational leadership has a positive and significant effect on innovative work behavior.

Leadership styles and innovation culture

As employees generate and drive creativity in organizations, their perception of leadership is essential for organizations' processes (Alblooshi et al. 2020). The way leaders behave with their followers has an impact on them. This behavior can be represented by attitudes such as providing autonomy, rewards, and behaving informally with subordinates, which may affect relationships, team spirit, and union with other members of the organization. Individual consideration can also be necessary for employees to feel like part of the company (Eckardt et al. 2021). Leadership is context-based, since the relationship between the leader and the followers depends on the way the leaders transmit their mission and support and interact with the followers (Bass and Avolio 1994). Both innovation and creativity rely heavily on the leader's support and direction so that change happens (Barnová et al. 2022). Moreover, interpersonal relationships and the degree of openness plays a crucial role in the success of innovation, creativity and knowledge sharing (Khassawneh et al. 2022). It is known that different leadership styles affect innovation and performance differently (Barnová et al. 2022), as supportive and intimate leaders behave differently than directive and frustrated leaders, as the outcomes are dependent on the influence of their interpersonal relationships. Furthermore, it is expected that firms with higher levels of knowledge sharing, creativity and innovation-led organizational practices have leadership styles conducive to better innovative outcomes. Therefore, this leads to the second hypothesis:

Hypothesis 2: Leadership styles has a positive and significant effect on innovative work behavior.

Innovation culture and innovative work behavior

Innovation culture and innovative work behavior are strongly and positively related. A workplace culture that supports creativity, collaboration, and risk-taking encourages employees to generate, promote, and implement new ideas (Sena, 2024). Empirical studies consistently show that innovation culture stimulates IWB directly and indirectly through mechanisms such as innovation self-efficacy, intrinsic motivation, and organizational identity (Bogale, 2024; Sena, 2024). Consequently, organizations seeking higher innovation performance must cultivate a strong innovation-oriented culture. Consequently, the following hypothesis is proposed:

Hypothesis 3: Innovation culture has a positive and significant effect on innovative work behavior.

The mediating role of innovation culture

Transformational leadership is theoretically and empirically linked to the development of innovation-supportive cultures. By articulating a compelling vision and fostering intellectual stimulation, transformational leaders promote shared values that legitimize innovation and continuous improvement. Empirical studies show that innovation culture mediates the relationship between transformational leadership and innovative behavior, indicating that leadership effects are transmitted through collective norms and expectations (Buenechea-Elberdin, 2024). Hierarchical structures may constrain innovation, a strong innovation culture can legitimize innovative behavior and reduce perceived risk. Therefore, the following mediation hypothesis is proposed:

Transactional leadership can also influence innovation culture by establishing formal systems, reward structures, and performance expectations that shape shared understandings of acceptable behavior. When transactional leadership reinforces innovation-related goals and recognizes improvement efforts, it can contribute to a culture that supports structured innovation. Recent empirical evidence suggests that innovation culture can act as an intervening mechanism linking transactional leadership to innovation outcomes, particularly in public-sector organizations where formal controls are prominent (Calciolari et al., 2023). Accordingly, the following hypothesis is proposed:

Situational leadership contributes to innovation culture by promoting flexibility, learning, and responsiveness to changing conditions. Leaders who adapt their behaviors to situational demands help establish cultural norms that value problem-solving, collaboration, and continuous learning. Recent leadership research emphasizes that adaptive leadership behaviors foster environments conducive to innovation by encouraging employees to adjust practices and experiment within defined boundaries (Filstad et al., 2024). In policing organizations, situational leadership may therefore strengthen innovation culture, which in turn enhances innovative work behavior. Based on this reasoning, the following hypothesis is proposed:

Hypothesis 4: Innovation culture mediates the relationship between leadership styles and innovative work behavior.

The Proposed Framework

The proposed framework of this study is developed to explain the mechanisms through which leadership styles influence innovative work behavior with innovation culture positioned as a mediating variable. Conceptual frameworks serve a critical role in empirical research by integrating theory, prior empirical evidence, and research objectives into a coherent model that specifies hypothesized relationships among constructs. In organizational and leadership research, conceptual frameworks are particularly valuable for clarifying causal assumptions and for guiding hypothesis development and empirical testing using quantitative methods such as structural equation modeling (Kline, 2023).

The proposed framework therefore proposes both direct and indirect relationships between leadership styles and innovative work behavior. Direct paths are included to account for the possibility that leadership behaviors influence innovative work behavior through immediate leader–employee interactions. Indirect paths through innovation culture are included to capture the more durable and collective mechanisms through which leadership shapes shared norms and sustained innovative behavior. This dual-path approach is consistent with recent public-sector leadership research, which emphasizes that leadership influences innovation through a combination of interpersonal and organizational-level processes (Vu et al., 2025). Figure 1 presents the proposed framework of the study, illustrating the hypothesized relationships among leadership styles, innovation culture, and innovative work behavior.

The proposed model assumes that:

1. Leadership styles shape the organizational environment.
2. A supportive innovation culture emerges from effective leadership.
3. Innovation culture encourages employees to develop and implement new ideas.

4. Consequently, employees demonstrate higher levels of innovative work behavior.

In short, leadership influences innovation not only directly but also by building a culture that supports creativity and experimentation within the organization.

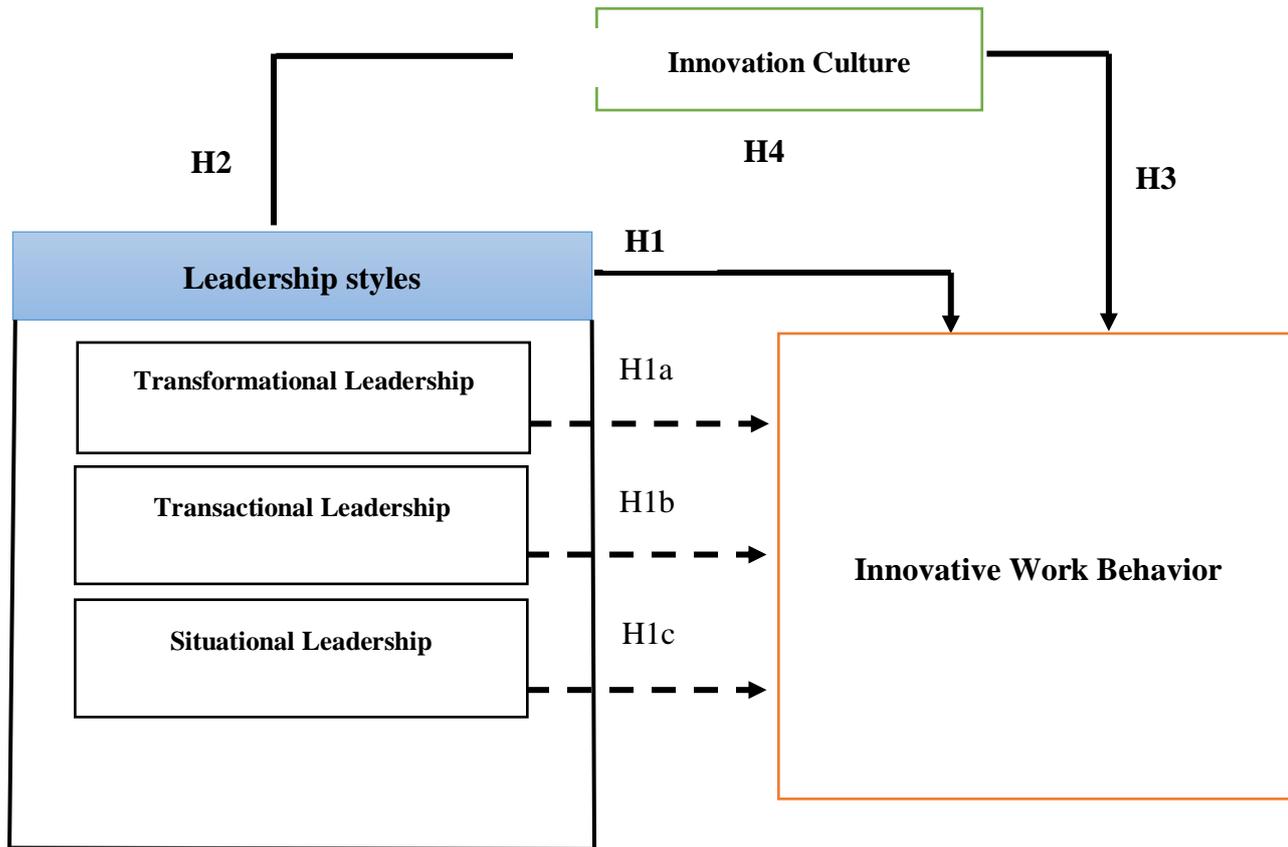


Figure 1. Proposed Framework

DISCUSSION

The development of the proposed framework is grounded in an extensive review of leadership, innovation culture, and innovative work behavior literature. Prior research consistently indicates that leadership styles are among the most influential contextual factors shaping employee behavior, particularly discretionary behaviors such as innovation-related activities (Buenechea-Elberdin, 2024). However, contemporary scholarship emphasizes that leadership effects on employee outcomes are rarely direct or uniform; instead, they are often transmitted through organizational-level mechanisms such as culture and climate, which shape shared norms, expectations, and interpretations of leadership signals (Vu et al., 2025). Accordingly, this study conceptualizes innovation culture as a key explanatory pathway linking leadership styles to IWB.

The independent variables in proposed framework are leadership styles, operationalized through transformational leadership, transactional leadership, and situational leadership. These leadership styles were selected because they represent complementary approaches that are highly relevant to hierarchical, rule-based, and security-focused organizations. Transformational leadership emphasizes vision, inspiration, and intellectual stimulation, which have been linked to innovation and employee engagement across sectors (Zaitoun & Taib, 2024). Transactional leadership emphasizes structure, contingent reward, and performance monitoring, which are central to maintaining discipline and accountability in organizations (Saifan, 2025). Situational leadership emphasizes behavioral flexibility and adaptation to contextual and follower needs, which is increasingly recognized as essential in dynamic and uncertain operational environments (Filstad et al., 2024). Together, these styles provide a comprehensive representation of leadership practices.

Innovative work behavior is positioned as the dependent variable in the proposed framework. IWB reflects employees' intentional engagement in behaviors related to idea generation, idea promotion, and idea

implementation aimed at improving work processes and organizational outcomes. Contemporary research treats IWB as a multidimensional behavioral construct that captures the full innovation process at the employee level rather than isolated acts of creativity (Buenechea-Elberdin, 2024). In public-sector, IWB is particularly important because innovation often emerges incrementally from frontline insights and operational experience rather than from top-down mandates (Calciolari et al., 2023).

Innovation culture is conceptualized as the mediating variable that explains how leadership styles translate into IWB. Innovation culture refers to shared values, norms, and practices that support learning, openness, experimentation, and constructive change within an organization. Theoretical and empirical studies suggest that leadership behaviors shape innovation culture by signaling what behaviors are valued, tolerated, and rewarded, which in turn influences whether employees feel psychologically safe and motivated to engage in innovative behaviors (Ekmekcioglu et al., 2024). In this framework, leadership styles are expected to influence IWB indirectly by shaping an organizational culture that legitimizes and supports innovation.

CONCLUSION

Innovation is essential for organizational survival and competitiveness. Leadership plays a crucial role in shaping employee innovative behavior by influencing organizational culture. Innovation culture and innovative work behavior are strongly and positively related. A workplace culture that supports creativity, collaboration, and risk-taking encourages employees to generate, promote, and implement new ideas. Empirical studies consistently show that innovation culture stimulates IWB directly and indirectly through mechanisms such as innovation self-efficacy, intrinsic motivation, and organizational identity. Consequently, organizations seeking higher innovation performance must cultivate a strong innovation-oriented culture. This conceptual paper proposes a framework that examines how leadership style affects innovative work behaviour through innovation culture. Future empirical research can test this framework to provide deeper insights into the mechanisms through which leadership fosters innovation within organizations.

Limitations And Future Research

Although this conceptual study provides valuable insights into the relationship between leadership style, innovation culture, and innovative work behaviour, several limitations should be acknowledged.

First, the proposed framework is conceptual in nature and lacks empirical validation. The relationships among leadership style, innovation culture, and innovative work behaviour have been theoretically discussed but have not yet been tested with real-world data. Future empirical studies are required to validate the proposed model and examine the strength of these relationships. Second, this study focuses primarily on selected leadership styles, such as transformational, transactional, and servant leadership. However, other leadership approaches, including authentic leadership, ethical leadership, and inclusive leadership, may also influence innovation-related outcomes. Limiting the scope to a few leadership styles may not fully capture the complexity of leadership influence within organizations. Third, the proposed framework assumes innovation culture as the primary mediating variable, but other organizational factors may also influence innovative work behaviour. Variables such as organizational support, psychological empowerment, employee engagement, and knowledge sharing could play mediating or moderating roles in the relationship between leadership and innovation. Fourth, the framework does not consider contextual differences across industries, cultures, and organizational sizes. The influence of leadership and innovation culture may vary depending on organizational context, such as public versus private sector organizations or technology-driven versus traditional industries. Finally, if future studies rely on cross-sectional survey data, there may be limitations related to common method bias and the inability to establish causal relationships among variables.

Future research can extend this study in several important ways.

First, researchers should conduct empirical studies to test the proposed conceptual framework using quantitative methods such as Structural Equation Modeling (SEM) or Partial Least Squares SEM (PLS-SEM). Empirical validation would provide stronger evidence regarding the relationships among leadership style, innovation culture, and innovative work behaviour. Second, future research could examine additional leadership styles to

provide a more comprehensive understanding of leadership influence on innovation. For example, authentic leadership, ethical leadership, and inclusive leadership may also play significant roles in fostering innovative environments. Third, scholars could investigate additional mediating and moderating variables that may influence innovative work behaviour. Factors such as psychological safety, employee empowerment, organizational learning, and knowledge sharing may strengthen or weaken the relationship between leadership and innovation outcomes. Fourth, future studies could adopt longitudinal research designs to better examine causal relationships and observe how leadership practices gradually shape innovation culture and employee behaviour over time. Fifth, cross-cultural and cross-industry research would help determine whether the proposed relationships remain consistent across different organizational contexts and national cultures. Comparative studies could provide valuable insights into how cultural differences affect leadership and innovation. Finally, qualitative or mixed-method approaches could provide deeper insights into the mechanisms through which leadership fosters innovation culture and innovative work behaviour, offering a richer understanding beyond quantitative analysis.

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REFERENCES

1. Abbas G. (2017). Impacts of leadership styles on personal and job outcomes among teaching faculty of public sector universities. *International Islamic University Islamabad*.
2. Abbas G., Iqbal J., Waheed A., Naveed Riaz M. (2012). Relationship between transformational leadership style and innovative work behavior in educational institutions. *Journal of Behavioural Sciences*, 22(3), 112–122.
3. Abudaqa, A., Faiz, M., Dahalan, N., & AlMujaini, S. (2020). The role of leadership styles in encouraging and improving team performance in one of the biggest oil & gas group of companies in Abu Dhabi, UAE. *International Journal of Economics, Business and Accounting Research (IJEBAR)*, 4(2), 75–87.
4. Al Mazrouei, M. R. A. B. (2024). The role of leadership in promoting organizational safety culture in the government sector of Abu Dhabi, the UAE.
5. Alblooshi, M., Shamsuzzaman, M., & Haridy, S. (2021). The relationship between leadership styles and organisational innovation: A systematic literature review and narrative synthesis. *European Journal of Innovation Management*, 24(2), 338-370.
6. Barnová, S., Trel'ová, S., Krásna, S., Beňová, E., Hasajová, L., & Gabrhelová, G. (2022). Leadership styles, organizational climate, and school climate openness from the perspective of Slovak vocational school teachers. *Societies*, 12(6), 192.
7. Bass, B. M., & Avolio, B. J. (1994). *Improving organizational effectiveness through transformational leadership*. Sage Publications.
8. Bhargavi, S., & Yaseen, A. (2017). Leadership styles and organizational performance. *Strategic Management Quarterly*, 4(1), 87–117.
9. Bogale, S. A. (2024). Organizational culture and innovation performance: A systematic review and future research agenda. *Journal of Innovation & Knowledge*, 9(1), 100422.
10. Buenechea-Elberdin, M. (2024). Innovation culture, employee innovative behavior, and performance: A multilevel analysis. *European Management Review*, 21(1), 45–62.
11. Calciolari, S., Cristofoli, D., Frosini, F., & Lippi, A. (2023). Public sector innovation: The role of organizational culture and leadership. *Public Management Review*, 25(4), 566–588.
12. Del Pino-Marchito, M. (2025). Adaptive leadership and situational decision-making in complex organizations. *Leadership Quarterly*, 36(1), 101742.
13. developing? (Online: <http://www.leadershipadvantage.com/leadership.html>).
14. Eckardt, R., Tsai, C. Y., Dionne, S. D., Dunne, D., Spain, S. M., Park, J. W., ... & Kim, E. I. (2021). Human capital resource emergence and leadership. *Journal of Organizational Behavior*, 42(2), 269-295.

15. Ekmekcioglu, E. B., Ayhan, E., & Akdogan, A. A. (2024). Servant leadership and innovative organizational culture: The mediating role of psychological safety. *Leadership & Organization Development Journal*, 45(2), 210–226.
16. Filstad, C., Karp, T., & Rød, M. (2024). What is police leadership? A systematic review of police leadership research. *Policing and Society*, 34(2), 145–162.
17. Gates, P. E., Blanchard, K. H., & Hersey, P. (1976). Diagnosing Educational Leadership Problems: A Situational Approach. *Educational Leadership*, 33(5), 348.
18. Gharama, A. N. A., Khalifa, G. S., & Al-Shibami, A. H. (2020). UAE police administrative employee innovative behavior: The integration of knowledge sharing and leadership. *International Journal of Psychosocial Rehabilitation*, 24(3), 1930–1948.
19. Hollis, E. T. (2014). Leadership styles: a phenomenological study of transformational, transactional, and situational leadership styles employed by CIOs at military combatant commands. Capella University.
20. Jia X., Chen J., Mei L., Wu Q. (2018). How leadership matters in organizational innovation: A perspective of openness. *Management Decision*, 56(1), 6–25.
21. Khan I. U. (2018). The role of organizational justice and culture in relationships between leadership styles and employees' performance. Dera Ismail Khan, Gomal University.
22. Khassawneh, O., Mohammad, T., & Ben-Abdallah, R. (2022). The impact of leadership on boosting employee creativity: The role of knowledge sharing as a mediator. *Administrative Sciences*, 12(4), 175.
23. Kline, R. B. (2023). Principles and practice of structural equation modelling (5th ed.). Guilford Press.
24. Kuhnert, R., and Lewis, P. (2019). Transactional and Transformational Leadership: A Constructive/Developmental Analysis. *Academy of Management Review*.
25. Laohavichien, T., Fredendall, L. & Cantrell, R. (2009). The effects of transformational and transactional leadership on quality improvement, *The Quality Management Journal*.
26. Nazarian, A., Atkinson, P., & Foroudi, P. (2024). Influence of national culture and organizational culture on innovation capability. *International Journal of Human Resource Management*, 35(3), 505–529.
27. Nguyen, T. T., Mia, L., Winata, L., & Chong, V. K. (2018). Effect of transformational leadership style and management control system on managerial performance. *Journal of Business Research*, 70, 202–213.
28. Panigrahy, N. P., & Pradhan, R. K. (2015, March). Creativity and innovation: Exploring the role of HR practices at workplace. In Presentation of Paper at National Conference organized by Ravenshaw B-School, Cuttack.
29. Ryu, S. (2022). Leadership, organizational climate, and innovation performance: A mediated relationship. *Journal of Organizational Change Management*, 35(6), 1004–1021.
30. Saifan, S. (2025). Senior leadership traits and their impact on leadership effectiveness in the United Arab Emirates Police. *Journal of Police and Legal Sciences*, 16(1), 2.
31. Sena, V. (2024). Innovation culture and firm performance: Evidence from organizational learning systems. *Research Policy*, 53(1), 104618.
32. Simmou, W., Shehadeh, M., Ed-Dafali, S., Hussainey, K., & Nandy, M. (2025). From culture to green innovation: The interplay of social capital, entrepreneurial leadership, and green knowledge sharing in Moroccan agricultural SMEs. *Business Strategy and the Environment*, 34(5), 6264-6282.
33. Sott, K., Stoker, J. I., Van der Vegt, G. S., & McNamara, P. (2025). Leading under uncertainty: A review of adaptive leadership in crisis contexts. *Academy of Management Annals*, 19(1), 1–38.
34. Teixeira Fernandes, L. (2024). Leadership in innovation management.
35. Vu, M. C., Plimmer, G., Berman, E., & Sabharwal, M. (2025). Leadership, innovation climate, and innovative behavior in public organizations. *Public Administration Review*, 85(1), 89–104.
36. Wahyuni, S. (2024). Transactional leadership, innovative work behavior, and employee performance: Evidence from public organizations. *International Journal of Productivity and Performance Management*, 73(4), 1012–1030.
37. Zaitoun, A. A. M. R., & Taib, R. M. (2024). The contribution of transformational leadership and innovation practices in fostering policemen performance of Abu Dhabi Police. *International Journal of Business and Technology Management*, 6(S4), 218–231.
38. Zervas, C. and David, L. (2019). Leadership Style: Is there “one Best”, or is Flexibility worth.