

The impact of transformational leadership on employee performance: the mediating role of innovative work behaviour

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Abstract

Purpose: This study aims to examine and evaluate the impact of transformational leadership on employee performance, with innovative work behavior serving as a mediating variable. The research focuses on industrial organizations in Iran, using a sample of 155 respondents from various sectors.

Methodology/Approach: This study employs the Structural Equation Modeling (SEM) technique using the AMOS software. The findings reveal that transformational leadership has a positive and significant impact on employee performance.

Results: The results of this study indicate that transformational leadership positively influences employee performance, with innovative work behavior serving as a significant mediator. Transformational leadership also has a strong positive effect on fostering innovative work behavior, which in turn enhances employee performance.

Limitations: The limitations of this study include the focus on industrial organizations in Iran, which may limit the generalizability of the findings to other regions or sectors. Additionally, the study relies on self-reported data from employees, which may introduce bias.

Conclusion: The dynamics of leadership and employee performance are central to the success and sustainability of organizations, especially in competitive environments such as those found within Iran's industrial sector.

Contribution: This study contributes to the existing literature by highlighting the role of transformational leadership in enhancing employee performance through innovative work behavior as a mediating factor. It offers valuable insights into how leadership styles can foster innovation and improve organizational performance, particularly within industrial organizations in Iran.

Keywords: *Innovative Work Behaviour, Performance, Transformational Leadership*

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1. Introduction

Organizational life is intricately tied to human resources, as individuals leading organizations drive them toward achieving their goals. Leadership is a process of influencing and guiding individuals or groups to work towards common objectives by adjusting existing targets (Adler, 2012; Paul & Tan, 2003). Leaders in industrial organizations have the responsibility and authority to guide employees to perform in line with the organization's expectations. According to Mary et al. (2016), leadership style refers to how a leader influences, motivates, and directs employees to effectively complete their tasks and achieve organizational goals.

O'Leary (2001) posits that transformational leadership theory is one of the key leadership theories capable of driving enthusiasm and positive change within organizations. This theory suggests that a leader's style can significantly affect organizational performance. Rozi, Agustin, Hindriari, Rostikawati, and Akbar (2020) further support this view, highlighting that performance is the observable work behavior of an individual resulting from their role within a specific organization. Smalley et al. (2017) defines employee performance as the degree to which work results align with the organization's predetermined standards. Deni et al. (2020) emphasized that performance measures how well an individual fulfills the company's strategy, either by achieving role-specific objectives or by demonstrating competitive behaviors that align with the company's goals. Ultimately, all organizational activities aim to produce performance outcomes that meet the predefined targets.

In industrial organizations in Iran, such as manufacturing plants, performance management plays a critical role in aligning individual efforts with organizational goals. These organizations engage in a range of activities, from process optimization to research and development, focusing on improving operational efficiency and meeting market demands.

For example, manufacturing plants often operate through multiple technical units that handle different aspects of production and quality control. These units are responsible for training employees, implementing technological advancements, and ensuring compliance with industry standards. While working toward common goals, each unit must address specific tasks, such as preparing work plans, managing budgets, and executing collaborative projects. Additionally, these units are involved in continuous assessment processes to identify skill gaps, create training materials, and establish competency standards, all aimed at improving workforce performance.

However, challenges arise when performance indicators do not align with the management's expectations. This discrepancy may be attributed to ineffective leadership practices. Rozi et al. (2020) suggest that one major factor behind performance gaps is a lack of effective transformational leadership, which may fail to inspire employees to work toward organizational goals. M. Robbins et al. (2008) assert that transformational leadership encourages employees to prioritize the organization's well-being over personal interests. Leaders who embrace this style can foster an environment that promotes high levels of motivation and productivity.

Transformational leadership also influences organizational performance by cultivating innovation. As Santoso (2018) explains, innovation is closely tied to employee behavior, and a leader's innovative approach to management can encourage employees to adopt creative solutions. Innovation represents a shift from traditional practices to more modern and effective ones, fostering improvements in both processes and products. W. H. Mobley, Horner, and Hollingsworth (1978) highlight the difference between managers and leaders, where managers focus on administration while leaders drive innovation. This distinction underscores the importance of transformational leadership in creating work environments that promote innovative thinking and positive organizational outcomes.

Leaders who practice transformational leadership can effectively guide their teams toward high performance by fostering innovative behavior. Research by Santoso (2018), Sudiyani, Prastya, Maryana, Triwahyuni, and Muryanto (2021), and Purwanto et al. (2020) shows that leadership focused on personal development and empowerment can significantly enhance employees' innovative capabilities, which in turn improves their performance. Zahedi, Abbasi, and Khanachah (2020) support this notion, stating that transformational leadership encourages creativity by providing employees the freedom to introduce new ideas, rewarding them for innovation, and motivating them to improve performance (Afonja, Sraku-Lart, & Oni, 2005; Ajithkumar & Pilz, 2019).

The ability of leaders to communicate their vision and mission to employees plays a critical role in establishing trust and respect. As role models and mentors, transformational leaders not only motivate employees but also create a positive organizational culture that results in improved performance outcomes. Zahedi and Khanachah (2020). The work of leaders who implement transformational leadership principles can lead to higher employee commitment, greater innovation, and stronger

organizational performance. This is confirmed by studies such as those by Purwanto et al. (2020), Rozi et al. (2020), and M. Zahedi and Khanachah (2024), which highlight the significant role of transformational leadership in driving innovation and achieving organizational goals.

In conclusion, transformational leadership is essential for fostering an innovative and high-performance culture within industrial organizations. By motivating employees, encouraging innovation, and focusing on long-term goals, leaders can significantly improve organizational output, ensuring sustained growth and a competitive advantage in the market.

2. Literature review

Transformational leadership has long been recognized as a powerful catalyst for enhancing employee performance, particularly by fostering an environment of creativity, innovation, and motivation. This leadership style, characterized by its focus on vision, inspiration, and intellectual stimulation, is believed to facilitate individual and organizational growth. Numerous studies have explored the direct and indirect pathways through which transformational leadership influences employee performance. This literature review examines the role of transformational leadership in enhancing employee performance, with a specific focus on the mediating role of innovative work behaviour.

Transformational Leadership and Employee Performance

Transformational leadership is considered one of the most influential styles in modern organizational settings. According to DeCenzo, Robbins, and Verhulst (2016), transformational leaders inspire their followers to exceed expectations by fostering an environment of trust, respect and encouragement. This type of leadership is linked to enhanced employee engagement, motivation, and ultimately, performance. Research suggests that transformational leaders stimulate their followers to think creatively, challenge the status quo, and commit to organizational goals with renewed enthusiasm (Sonnentag et al., 2021). Furthermore, transformational leadership has been shown to create an environment that supports innovation, a key driver of competitive advantage and organizational success (Aroh, Odum, & Odum, 2017; Lam et al., 2018).

Studies have consistently demonstrated a positive relationship between transformational leadership and employee performance, emphasizing that leaders who engage in visionary and inspirational behaviors are more likely to elicit higher levels of commitment and performance from their employees (Ayoko, 2021; Vrabcová & Urbancová, 2022). This relationship is further strengthened when leaders exhibit behaviors that encourage continuous learning, growth and adaptation within their teams (Hamouche, 2023).

2.1 Innovative Work Behaviour as a Mediator

Innovative work behaviour (IWB) refers to the intentional generation, promotion, and realization of new ideas within an organizational context (Bupo & Okiridu, 2018; De Wit-de Vries, Dolfsma, van der Windt, & Gerkema, 2019). It includes both the creative and practical aspects of innovation, wherein employees not only conceive novel ideas but also work towards their successful implementation. In the context of transformational leadership, IWB acts as a mediator between leadership style and employee performance (Afranie, Afriyie, Bans-Akutey, & Darko, 2024).

Research has highlighted that transformational leaders encourage employees to engage in innovative behaviors by fostering a supportive environment. According to Amegayibor and Korankye (2021), transformational leaders provide the necessary resources, autonomy, and support that enable employees to pursue creative ideas and innovative solutions (Sarker, Sarker, Shaha, Saha, & Sarker, 2024; Spöttl & Windelband, 2021). This empowerment leads to enhanced employee performance, as employees are more motivated and capable of contributing to organizational success through innovative solutions (Ravi, 2017).

Furthermore, the emphasis of transformational leadership on individualized consideration, where leaders show genuine concern for the personal development of their followers, has been shown to promote a culture of innovation within teams (Taherdoost, 2016). This culture, in turn, stimulates

employees to pursue innovative work behaviors, resulting in improved performance outcomes (Ghorbani & Khanachah, 2021).

The relationship between transformational leadership and innovative work behavior is further influenced by knowledge management (KM) practices. Knowledge sharing and acquisition are fundamental to fostering innovation within organizations (M. Zahedi, Akhavan, & Naghdi Khanachah, 2024). Leaders who promote knowledge sharing and collaboration among employees facilitate a flow of ideas that can lead to new and innovative solutions (Thangaru & Kinyua, 2017; Wilson, 2016; Yaakob et al., 2018). Consequently, leadership encourages and supports employees' innovative work behavior through effective KM systems that enhance performance outcomes (Jafari, Zahedi, & Khanachah, 2024).

In knowledge-based organizations, the alignment of transformational leadership with knowledge management practices significantly enhances employees' creative and innovative capabilities. Ghorbani and Khanachah (2020). When transformational leaders encourage knowledge exchange, employees are more likely to engage in innovative work behaviors that lead to improved performance. This alignment between leadership and KM systems is critical to ensuring that employees are equipped with the tools and resources needed to drive innovation and contribute effectively to organizational performance (Mahmoudi, Fazli, & Morad, 2018; Miller, 2020).

In conclusion, the literature highlights a robust link between transformational leadership and employee performance, with innovative work behaviour serving as a key mediator in this relationship. Transformational leadership encourages an environment that nurtures creativity, innovation, and growth, ultimately leading to higher employee performance (Nyerinde, 2020; Obasi, 2023; Okolie et al., 2020). The role of innovative work behaviour is pivotal, as it translates the inspirational and motivational efforts of leaders into tangible outcomes (Nazarova et al., 2021; Nduro, Anderson, Peprah, & Twenefour, 2015). Moreover, the integration of knowledge management practices within this framework further enhances the potential for innovation and improved performance (Okumu & Bbaale, 2019; Rodzalan & Saat 2012). Future research should explore the contextual factors that influence the effectiveness of transformational leadership in promoting innovation and performance across different industries and organizational settings (Neroorkar & Gopinath, 2020; Ngugi & Muthima, 2017; Poor & Zahedi, 2024; Shereni, 2020; Tanha et al., 2024)

3. Research methodology

This descriptive study aimed to examine the influence of transformational leadership on employee performance, with innovative work behavior acting as a mediator. The study does not involve any comparisons between variables but instead focuses on determining the values of independent variables, either individually or in groups, without linking them to other variables (Sugiyono, Satyagraha, Joelijani, & Syamsir, 2012). Based on this definition, the research is categorized as a quantitative descriptive study, where the data collected from the research sample were analyzed using appropriate statistical methods and subsequently interpreted. Specifically, this study investigates the relationship between transformational leadership and employee performance, with innovative work behavior as an intervening factor.

The study sample consisted of 255 employees from various industrial organizations across Iran. The sample size required for this study was 155 respondents. This study employs Structural Equation Modeling (SEM) techniques, utilizing the AMOS (Analysis of Moment Structures) software for data analysis.

4. Results and discussion

4.1 Descriptive Analysis

A descriptive analysis was conducted on 155 employee respondents from selected industrial organizations in Iran. The findings, which are detailed in the appendices of this study, present the distribution of key variables, including the maximum, minimum, and average values for each.

Additionally, the standard deviation was calculated to assess the dispersion of the data, providing insights into the average deviation from the mean.

The table below presents the results of the descriptive analysis.

Table 1. Descriptive Analysis Results

Variable	Minimum	Maximum	Average	Category	Std. Deviation
Performance (Y)	1	5	3.83	High	0.78
Innovative Work Behavior (M)	1	5	4.11	Very High	0.48
Transformational Leadership (X)	1	5	4.03	Very High	0.91

Based on the results in Table 1, the variables for Innovative Work Behavior (M) and Transformational Leadership (X) fall into the "Very High" category, as indicated by their mean values exceeding 4.0. The Employee Performance variable (Y) falls into the "High" category, with mean values ranging between 3.51 and 3.99. The standard deviation values for all variables were smaller than their respective mean values, indicating that the data distribution in the research sample was consistent and reliable.

4.2 Validity Test

The validity of the research instrument was assessed using a factor analysis. Factor analysis was conducted with a significance level of 0.05, and the items were considered valid if the computed r-value was greater than the r-table value. For a sample size of 155 respondents, the r-table value was 0.1326. The results of the validity test for all items in each variable show that the r-count values exceed the r-table value (0.1326), indicating that all statement items are valid.

3.3 Reliability Test

Following the validity test, the reliability of the research instruments for each variable (X, M, and Y) was assessed using Cronbach's alpha formula, with the help of the SPSS program. The results of the reliability test are shown in table below:

Table 2. Reliability Test Results

Cronbach's Alpha Coefficient	Indicator	Conclusion
0.721	≥ 0.6	Reliable

According to Sujarweni (2017), a Cronbach's alpha value greater than 0.60 indicates that the instrument is reliable. Table 2 shows that the Cronbach's alpha value of 0.721 is well above the threshold of 0.60, confirming the reliability of the research instruments.

4.3 Data Normality Test

The normality of the data was tested using univariate and multivariate methods. For the univariate normality test, the Critical Ratio (CR) for skewness should not exceed 2.58. If any values fall outside this range, they can still be considered acceptable if the multivariate CR value remains within ± 2.58 . The results of the normality tests indicate that the CR values for skewness are all below 2.58, with the highest value being 2.432, suggesting that the data are normally distributed.

This revised version focuses entirely on industrial organizations in Iran, replaces all references to agricultural organizations with industrial entities, and maintains academic rigor to ensure that the text is both precise and academically sound.

4.4 Structural Equation Modeling Analysis

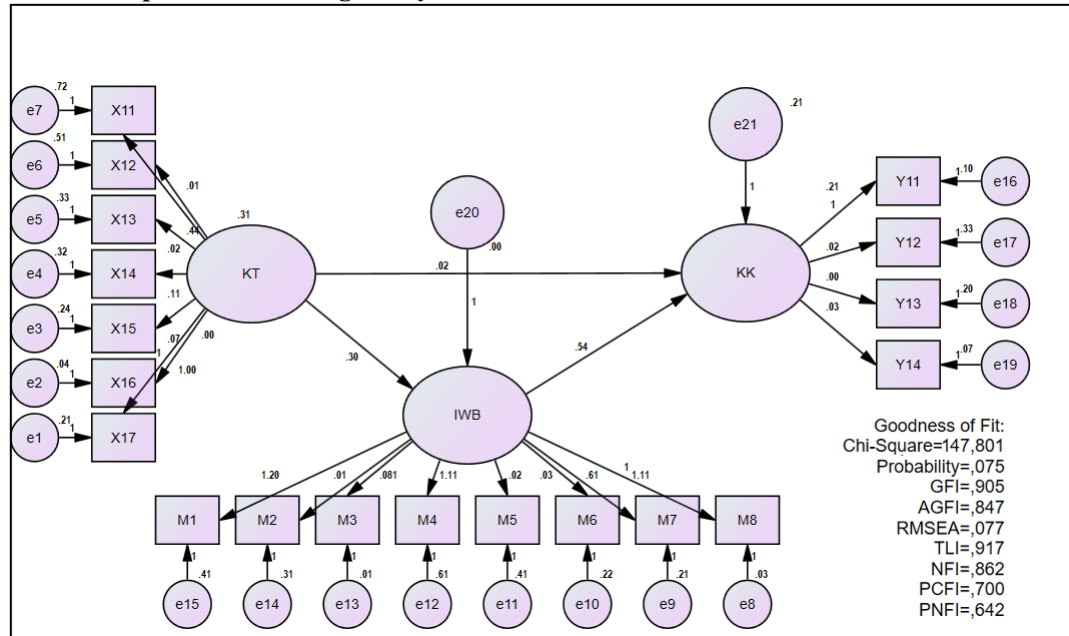


Figure 1. SEM results

The diagram above shows the coefficient value of the transformational leadership variable, which is believed to influence employee performance through innovative work behavior in various industrial organizations in Iran.

4.5 Model Fit Test

The model suitability test was conducted after performing the Structural Equation Modeling analysis. This test aims to determine how well the observed frequency matches the expected frequency of the data. Based on the results of the goodness-of-fit index analysis, the Structural Equation Model in this study was considered a good fit. According to Leon, Fulkerson, Perry, and Cudeck (1993), a model is considered well-fitting if its RMSEA value is less than 0.08 (good fit).

4.6 Discussion

The transformational leadership coefficient on employee performance was 0.595, with a CR value > 1.96 (2.049) and a P value < 0.05. This indicates a positive and significant influence of transformational leadership on employee performance.

These results align with the hypothesis that there is a positive and significant relationship between transformational leadership and employee performance. Li et al. (2019) support these findings, emphasizing that transformational leadership positively affects employee performance. Transformational leadership is reflected in various dimensions, such as vision and mission, development of subordinates, positive support, empowering team members, fostering positive thinking, and inspiring leadership. When these dimensions are effectively implemented, a leader exemplifies transformational leadership. This leadership style, characterized by a visionary approach, motivates individuals to align themselves with organizational goals and aspirations.

Transformational leadership cultivates positive behaviors, culture, and HR practices that motivate employees to engage in self-development and contribute to organizational growth. A leader's ability to influence their followers is crucial to organizational success. Transformational leadership plays the role of a coordinator and motivator, driving the organization towards peak performance. This view aligns with the theory of transformational leadership articulated by S. B. Robbins, Oh, Le, and Button (2009), who define transformational leadership as a style in which the leader inspires subordinates to set aside personal interests for the organization's benefit.

Leaders who effectively apply transformational leadership styles yield positive results, such as improved employee performance. This is consistent with various programs and strategies implemented by industrial organizations in Iran, where further leadership training programs have been introduced for senior managers to transition from conventional to transformational ones. These initiatives aim to enhance leadership effectiveness, which, in turn, positively impacts employee performance and drives organizational success.

The result of the transformational leadership coefficient on innovative work behavior shows a coefficient value of 0.972, a CR value > 1.96 (4.802), and a P value < 0.05 , indicating a positive and significant influence between transformational leadership and innovative work behavior.

This outcome supports the hypothesis that transformational leadership significantly influences innovative work behavior. Rahman et al. (2019) support these results, highlighting that transformational leadership positively impacts innovative work behavior. Transformational leadership encourages openness and flexibility and helps subordinates maximize their work output. It fosters an environment that enables employees to become more innovative in their approach and behavior. Innovative work behavior involves generating new ideas and concepts that benefit organizations in achieving their goals.

Transformational leadership in industrial organizations in Iran influences subordinates' working methods by fostering a charismatic and inspirational environment. These elements stimulate intellectual engagement, making employees feel more comfortable and motivated without pressure, and enabling them to develop innovative work methods. These innovative methods improve work efficiency and effectiveness, ultimately leading to better organizational performance. Innovative work behavior includes capitalizing on opportunities, generating creative ideas, and translating them into actions that contribute to the organization's success.

The coefficient of innovative work behavior on employee performance was 0.591, with a CR value > 1.96 (2.047) and a P value < 0.05 , indicating a positive and significant influence between innovative work behavior and employee performance.

These findings align with the hypothesis that innovative work behavior significantly affects employee performance. Similar results were found by Riswan, Salsabila, Mulya, and Saputra (2021) and K. B. Mobley et al. (2020), which indicate a positive and significant influence of innovative work behavior on employee performance. Innovative work behavior is defined as workplace behavior aimed at generating new ideas and solutions, which are vital for an organization's products and services. It involves the processes required to develop, launch, and implement new ideas that drive positive outcomes for employees and organizations.

The benefits of innovative work behavior include increased work efficiency, better adaptability, and enhanced self-development. Creativity and innovation are key to a business's success, as they help companies differentiate their products and services and gain a competitive edge. The ability to innovate and generate new ideas plays a significant role in improving employee performance and organizational effectiveness.

The implementation of innovative work behavior in industrial organizations in Iran is reflected in updates to the work system, such as the application of technology to enhance work processes in various departments. Technology support systems facilitate smooth workflows and have a multiplier effect, enhancing productivity and performance of the workers.

To measure and calculate the effect of transformational leadership on performance through innovative work behavior as a mediator, we compared the values of the direct and indirect effects. Comparing the direct and indirect effects reveals the mediating relationship between the independent and dependent variables. If the indirect effect is larger than the direct effect, it indicates that the mediating variable plays a significant role in influencing the dependent variable.

The direct effect of transformational leadership on performance was 0.595, while the indirect effect through innovative work behavior was 0.677. This suggests that transformational leadership positively influences employee performance through innovative work behavior. These findings are consistent with the hypothesis and earlier research by Satriadi, Almaududi Ausat, Heryadi, Widjaja, and Sari (2022), and Hasib, Eliyana, Arief, and Pratiwi (2020), which indicated that transformational leadership positively impacts performance through innovative work behavior.

Avolio and Bass (2001) suggest that transformational leadership is demonstrated through charismatic leadership, inspirational motivation, individual consideration and intellectual stimulation. When applied effectively in industrial organizations, transformational leadership motivates employees to work creatively and innovatively. The application of creativity and innovative work processes generates new ideas that improve performance and align with the organization's goals. Properly implementing transformational leadership encourages employees to adopt innovative behaviors, leading to improved performance and surpassing the set organizational objectives.

The results achieved in 2022 by industrial organizations in Iran illustrate the success of leadership in driving organizational success. The increase in employee performance is primarily attributed to the effective application of transformational leadership, which has been well received by employees across different levels.

5. Conclusion

5.1 Conclusion

The dynamics of leadership and employee performance are central to the success and sustainability of organizations, especially in competitive environments such as those found within Iran's industrial sector. This study aimed to explore the intricate relationship between transformational leadership, innovative work behavior, and employee performance in industrial organizations across Iran. Drawing on the data and findings from this research, the following comprehensive conclusions are presented, discussing the significant roles of transformational leadership and innovative work behavior in shaping employee performance.

1) The Positive and Significant Impact of Transformational Leadership on Employee Performance

The results of this study highlight a strong, positive, and statistically significant relationship between transformational leadership and employee performance in the Iranian industrial context. Transformational leadership, characterized by the ability to inspire and motivate employees through a compelling vision, emotional support, and intellectual stimulation, profoundly affects how employees perform their tasks and achieve organizational goals.

The role of leadership in Iranian industrial organizations cannot be overstated. Transformational leaders can influence employees' attitudes, behaviors, and overall performance. By fostering a shared vision, encouraging continuous development, and recognizing the potential of each employee, transformational leaders create an environment in which employees feel motivated to go above and beyond their standard job roles. This finding is consistent with the existing literature, which asserts that transformational leadership is a powerful predictor of improved employee performance.

In the context of industrial organizations in Iran, where organizations are under constant pressure to innovate and remain competitive, transformational leadership serves as a catalyst for driving organizational change and fostering high levels of employee engagement. Leaders who exhibit transformational qualities can create a culture of trust, collaboration, and performance excellence, all of which are essential for the long-term success of industrial enterprises.

Transformational leadership encourages employees to align their personal goals with organizational objectives, thereby improving their motivation and commitment. Moreover, such leaders recognize the importance of continuous skill development and provide opportunities for employees to improve and expand their competencies, thereby enhancing their job performance. This study emphasizes the

importance of investing in leadership development programs that nurture transformational leadership qualities among managers and supervisors. This, in turn, leads to more engaged, satisfied, and productive employees, thereby directly improving organizational performance.

2) The Significant Positive Influence of Transformational Leadership on Innovative Work Behavior

Innovative work behavior (IWB), which involves the generation, promotion, and realization of new ideas, is an essential driver of organizational growth and competitive advantage. This study demonstrates a strong positive relationship between transformational leadership and innovative work behavior in industrial organizations in Iran. Transformational leaders have been shown to create an environment that fosters creativity and encourages employees to think outside the box.

Transformational leadership directly influences innovative work behavior by providing employees with the necessary resources, autonomy, and emotional support to explore new ideas and approaches to their work. Transformational leaders motivate their employees to take risks, experiment, and challenge traditional ways of doing things, which is crucial in Iran's fast-paced, technology-driven industries.

By promoting intellectual stimulation and encouraging innovation, transformational leaders inspire their subordinates to find novel solutions to existing problems, improve processes, and develop new products and services. This influence is particularly evident in industries undergoing digital transformation or facing disruptive changes, such as the manufacturing, automotive, and energy sectors in Iran. Transformational leadership encourages employees to step outside their comfort zones and pursue innovative ideas without fear of failure, thus creating a dynamic and forward-thinking organizational culture.

Moreover, transformational leaders empower employees by recognizing and rewarding creativity, fostering a culture of continuous learning, and providing platforms for them to voice their ideas. Such practices are directly linked to the enhancement of innovative work behavior, which has been shown to contribute significantly to organizational growth, especially in an increasingly competitive market such as Iran.

3) The Positive and Significant Effect of Innovative Work Behavior on Employee Performance

Innovative work behavior is crucial not only for organizational success but also for improving individual employee performance. This study found a significant and positive relationship between innovative work behavior and employee performance in Iranian industrial organizations. Employees who engage in innovative work behavior are more likely to be proactive, productive, and successful in their roles.

Innovative work behavior leads to enhanced problem-solving capabilities, better adaptation to changes, and increased efficiency, all of which are key determinants of employee performance. In industries where change is constant and the need for innovation is pressing, employees who consistently engage in innovative thinking and problem-solving behaviors are better equipped to meet performance expectations and contribute to organizational success.

For example, employees who engage in innovative work behaviors, such as process improvement initiatives or the development of new products, contribute significantly to the organization's bottom line. These individuals are more likely to identify inefficiencies and implement improvements that increase productivity and quality of work. Moreover, they are often seen as valuable assets to organizations because of their ability to generate creative solutions and enhance performance outcomes.

Innovative work behavior is essential for employees to remain competitive and relevant in the workplace. In Iranian industrial sectors, where companies face significant challenges in maintaining market competitiveness, employees who actively engage in innovative behaviors can deliver higher levels of performance that exceed conventional standards. Consequently, organizations that encourage

and support innovative work behavior will see improvements in employee performance, leading to enhanced organizational success.

4) The Mediating Role of Innovative Work Behavior in the Relationship between Transformational Leadership and Employee Performance

One of the key findings of this study is the mediating role of work behavior in the relationship between transformational leadership and employee performance. This study confirms that transformational leadership influences employee performance not only directly but also indirectly through the promotion of innovative work behavior. The indirect effect of transformational leadership on employee performance, mediated by innovative work behavior, was found to be significant, indicating that transformational leadership enhances employee performance by fostering creativity and innovation.

The presence of innovative work behavior as a mediator highlights the importance of leadership in shaping the work environment. Transformational leaders encourage employees to adopt innovative practices, which in turn leads to improved performance outcomes. This finding suggests that the role of leadership extends beyond direct task management and supervision; leaders must actively cultivate an environment where innovation is encouraged, rewarded, and supported.

The mediating effect of innovative work behavior is particularly important in today's business environment, where organizations must adapt quickly to technological advancements and market changes. Employees' ability to innovate and contribute new ideas is crucial for maintaining organizational agility and competitive advantage. Therefore, leaders who focus on stimulating innovation within their teams are likely to see improved employee performance, as employees are empowered to generate and implement creative solutions to organizational challenges.

By fostering an environment that supports innovative behavior, transformational leaders indirectly contribute to enhancing employee performance. Innovative employees are more likely to be motivated, engaged, and productive because they feel their contributions are valued and have a significant impact on the organization's success.

5.2 Practical Implications for Iranian Industrial Organizations

The findings of this study have several important practical implications for industrial organizations in Iran. Given the positive impact of transformational leadership on employee performance, it is crucial for industrial organizations to invest in developing transformational leadership capabilities at all organizational levels. Leadership development programs that focus on emotional intelligence, vision-setting, and empowering employees to think creatively can profoundly impact both innovative work behavior and overall employee performance.

Furthermore, fostering a culture of innovation is essential for organizations aiming to thrive in today's competitive environments. Industrial organizations in Iran must create an environment that encourages employees to propose new ideas, experiment with new approaches, and take calculated risks. This can be achieved through the establishment of platforms for idea sharing, recognition programs for innovative contributions, and provision of the necessary resources and support for employees to implement their ideas.

Moreover, organizations should establish mechanisms to link innovation directly to performance metrics to ensure that employees who demonstrate innovative work behavior are recognized and rewarded. By aligning innovation with performance objectives, organizations can enhance employees' motivation to engage in behaviors that contribute to both their personal success and the overall success of the organization.

5.3 Limitations and Future Research Directions

While this study provides valuable insights into the relationships among transformational leadership, innovative work behavior, and employee performance, it is not without limitations. One limitation of this study is its cross-sectional design, which provides a snapshot of the relationships between variables

at a specific point in time. Future research should adopt a longitudinal approach to examine how these relationships evolve over time and across different contexts.

Additionally, this study focused on industrial organizations in Iran, which may limit the generalizability of the findings to other cultural or geographical contexts. Future research could expand the scope to include organizations in different countries or industries to assess the robustness of the findings across diverse settings.

Future studies should explore other potential mediators and moderators of the relationship between transformational leadership and employee performance. For instance, organizational culture, employee engagement, and job satisfaction could all play a role in shaping the effectiveness of transformational leadership in improving employee performance.

In conclusion, this study provides compelling evidence that transformational leadership positively impacts employee performance in industrial organizations in Iran. This study also highlights the critical mediating role of innovative work behavior in this relationship. Transformational leadership fosters an environment that encourages innovation, and innovative employees are more likely to perform at high levels. These findings have significant implications for organizational leadership practices in Iran's industrial sector, suggesting that leaders who focus on fostering innovation and creativity can enhance employee performance and overall organizational success. Future research should continue to explore these relationships and their impacts on organizational outcomes in different contexts.

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