

The Effect of Transformational Leadership on Managerial Performance Mediated Psychological Empowerment and Innovative Work Behavior

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Abstract

Managerial performance is a critical factor in ensuring organizational effectiveness in contemporary management contexts. This study examines the effect of transformational leadership on managerial performance, with psychological empowerment and innovative work behavior as mediating variables, grounded in Goal Setting Theory. Data were collected from 182 junior high school principals in North Sumatra, Indonesia, and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that transformational leadership has a significant positive effect on managerial performance, psychological empowerment, and innovative work behavior. Furthermore, psychological empowerment and innovative work behavior partially and complementarily mediate the relationship between transformational leadership and managerial performance. These findings extend Goal Setting Theory by highlighting the dual mediating mechanisms through which leadership enhances managerial outcomes. Practically, the study underscores the importance of transformational leadership in fostering empowerment and innovation within public-sector organizations.

Keywords: Innovative Work Behavior; Leadership and Managerial; Managerial Performance; Psychological Empowerment; Transformational Leadership

Introduction

Managerial performance plays a pivotal role in determining organizational effectiveness and sustainability, particularly in environments characterized by rapid change and increasing performance demands. In contemporary organizational contexts, effective managerial performance is no longer driven solely by formal authority or administrative routines, but increasingly depends on leadership approaches that foster empowerment, innovation, and adaptive work behavior. As organizations face growing complexity, leaders are expected to mobilize human resources strategically to achieve organizational goals through motivation, engagement, and continuous improvement (Nguyen et al., 2023; Bakker et al., 2022).

Transformational leadership has been widely recognized as an influential leadership style that enhances managerial effectiveness by inspiring subordinates, stimulating intellectual engagement, and encouraging commitment to organizational objectives. Transformational leaders articulate a compelling vision, provide individualized support, and challenge existing assumptions, enabling managers and employees to perform beyond standard expectations. Prior studies have demonstrated that transformational leadership positively influences performance outcomes across various organizational settings, including public and service-oriented institutions. However, empirical findings on the direct effect of transformational leadership on managerial performance remain inconsistent, suggesting the need to explore underlying mechanisms that explain how leadership translates into improved managerial outcomes (Alessa, 2021; Kılıç & Uludağ, 2021).

Goal Setting Theory provides a robust theoretical foundation for understanding the relationship between leadership and performance. The theory posits that clear, challenging, and meaningful goals direct individual attention, enhance effort, and sustain persistence toward task accomplishment. Within this framework, leadership plays a crucial role in shaping goal clarity, reinforcing commitment, and aligning individual behavior with organizational objectives. Transformational leaders, in particular, influence how goals are interpreted and internalized by subordinates, thereby affecting motivation and performance-related behavior. Nevertheless, goal attainment is not determined solely by leadership direction; psychological and behavioral processes within individuals also play a critical role (Jeong et al., 2021; Urhahne & Wijnia, 2023).

Psychological empowerment represents an intrinsic motivational state reflecting individuals' perceptions of meaning, competence, self-determination, and impact in their work roles. Empowered managers are more likely to take initiative, exercise discretion, and demonstrate responsibility in achieving organizational goals. Transformational leadership has been identified as a key antecedent of psychological empowerment, as it encourages autonomy, enhances confidence, and fosters a sense of purpose. When managers perceive themselves as empowered, they are better positioned to translate organizational goals into effective managerial actions and performance outcomes (Saeed et al., 2019; Xu et al., 2024).

In addition to empowerment, innovative work behavior has emerged as an essential behavioral mechanism linking leadership to performance in modern organizations. Innovative work behavior encompasses the generation, promotion, and implementation of novel ideas aimed at improving work processes, services, or organizational effectiveness. Transformational leaders stimulate innovative behavior by encouraging intellectual exploration, tolerating calculated risk-taking, and supporting creative problem-solving. In managerial roles, innovative work behavior enables individuals to adapt strategies, optimize resources, and respond proactively to environmental challenges, thereby enhancing managerial performance (Shafi et al., 2020; Karimi et al., 2023).

Despite the growing body of literature on transformational leadership, psychological empowerment, and innovative work behavior, limited empirical research has simultaneously examined the mediating roles of psychological empowerment and innovative work behavior in the relationship between transformational leadership and managerial performance, particularly within public-sector organizational contexts. Existing studies often focus on single mediators or emphasize employee-level outcomes, leaving a gap in understanding how leadership influences managerial performance through multiple internal and behavioral mechanisms.

Addressing this gap, the present study investigates the effect of transformational leadership on managerial performance, with psychological empowerment and innovative work behavior as mediating variables, grounded in Goal Setting Theory. Using empirical data collected from junior high school principals as public-sector managers, this study seeks to provide a more comprehensive explanation of how transformational leadership enhances managerial performance through complementary psychological and behavioral pathways. The findings are expected to contribute theoretically by extending Goal Setting Theory through a dual mediation perspective and practically by offering insights into leadership practices that promote empowerment, innovation, and effective managerial performance in public-sector organizations (Darman et al., 2025).

Theoretical Perspective and Hypothesis

This literature review covers many studies that analyze the dynamic relationship between transformational leadership and managerial performance. This section aims to provide a comprehensive understanding of the theoretical foundation by reviewing the main insights of goal setting theory (Nguyen et al., 2023). In addition, this section also outlines the hypotheses formulated to explore the role of psychological empowerment and innovative work behavior on the relationship between transformational leadership and managerial performance.

Theoretical Background

Goal Setting Theory

Goal Setting Theory explains how specific and challenging goals influence individual motivation and performance. The theory posits that individuals who clearly understand organizational goals are more likely to direct their attention, effort, and persistence toward achieving those goals. Clear goals serve as cognitive reference points that guide behavior, encourage strategic action, and enhance performance outcomes. In organizational settings, goal clarity and commitment are essential mechanisms through which leadership influences managerial behavior and effectiveness.

Within the managerial context, Goal Setting Theory emphasizes that leaders play a central role in defining, communicating, and reinforcing goals. Transformational leaders, in particular, shape how goals are interpreted by providing vision, inspiration, and intellectual stimulation. By aligning individual goals with organizational objectives, transformational leadership enhances motivation and fosters proactive managerial behavior. However, the achievement of managerial goals is not driven solely by leadership direction; psychological and behavioral processes within managers also determine how goals are translated into performance.

Accordingly, this study adopts Goal Setting Theory as a foundational framework to explain how transformational leadership influences managerial performance through psychological empowerment and innovative work behavior. Psychological empowerment represents an internal motivational mechanism, while innovative work behavior reflects a behavioral mechanism through which goal-directed leadership translates into effective managerial outcomes (Jeong et al., 2021; Provitera & Sayyadi, 2023).

Hypothesis Development

Transformational Leadership and Managerial Performance

Managerial performance refers to the effectiveness with which managers carry out planning, organizing, leading, and controlling functions to achieve organizational goals. In public-sector organizations, managerial performance is increasingly associated with adaptability, decision-making quality, and the ability to mobilize human resources effectively. Transformational leadership has been widely acknowledged as a leadership style that enhances managerial performance by inspiring commitment, encouraging responsibility, and fostering goal-oriented behavior.

Transformational leaders motivate managers to exceed formal role expectations by articulating a compelling vision, providing individualized consideration, and stimulating intellectual engagement. Through these mechanisms, transformational leadership enhances managers' intrinsic motivation and commitment to organizational objectives. Previous empirical studies have reported positive associations between transformational leadership and performance-related outcomes across diverse organizational contexts (Alessa, 2021; Nguyen et al., 2023). Based on Goal Setting Theory, transformational leadership clarifies performance expectations and strengthens goal commitment, thereby improving managerial performance.

H1: Transformational leadership has a significant positive effect on managerial performance.

Transformational Leadership and Psychological Empowerment

Psychological empowerment reflects an individual's perception of meaning, competence, self-determination, and impact in their work role. Empowered managers perceive their work as meaningful, believe in their capability to perform effectively, experience autonomy in decision-making, and recognize their influence on organizational

outcomes. Such perceptions enhance intrinsic motivation and goal-directed behavior.

Transformational leadership has been identified as a critical antecedent of psychological empowerment. By encouraging participation, recognizing individual contributions, and fostering confidence, transformational leaders strengthen managers' perceptions of empowerment. From a Goal Setting Theory perspective, empowered individuals are more likely to internalize organizational goals and demonstrate sustained effort toward goal achievement. Therefore, transformational leadership is expected to enhance psychological empowerment among managers (Saeed et al., 2019; Meirinhos et al., 2023).

H2: Transformational leadership has a significant positive effect on psychological empowerment.

Transformational Leadership and Innovative Work Behavior

Innovative work behavior refers to the generation, promotion, and implementation of new ideas aimed at improving organizational processes and outcomes. In contemporary organizations, innovative behavior is essential for responding to environmental changes and enhancing managerial effectiveness. Managers who engage in innovative work behavior are more capable of adapting strategies, optimizing resources, and achieving organizational goals.

Transformational leadership plays a pivotal role in stimulating innovative work behavior by promoting intellectual stimulation and encouraging creative problem-solving. Leaders who challenge existing assumptions and support experimentation create an environment conducive to innovation. Within the Goal Setting Theory framework, transformational leadership motivates managers to pursue challenging goals through innovative approaches, thereby fostering innovative work behavior (Shafi et al., 2020; Karimi et al., 2023).

H3: Transformational leadership has a significant positive effect on innovative work behavior.

Psychological Empowerment and Managerial Performance

Psychological empowerment enhances managerial performance by strengthening intrinsic motivation and goal commitment. Managers who perceive themselves as empowered are more likely to take initiative, exercise responsibility, and persist in achieving organizational objectives. Empowered managers also demonstrate greater confidence in decision-making and problem-solving, which contributes to effective managerial performance.

Consistent with Goal Setting Theory, empowered individuals are better equipped to translate organizational goals into concrete actions. As a result, psychological empowerment is expected to have a direct and positive influence on managerial performance (Sarwar et al., 2024; Nwanzu & Babalola, 2024).

H4: Psychological empowerment has a significant positive effect on managerial performance.

Innovative Work Behavior and Managerial Performance

Innovative work behavior contributes to managerial performance by enabling managers to develop novel solutions, improve work processes, and respond proactively to organizational challenges. Managers who engage in innovative behavior are better positioned to align operational strategies with organizational goals, thereby enhancing performance outcomes. From a goal-oriented perspective, innovative behavior allows managers to pursue organizational objectives more effectively by adopting creative and adaptive approaches. Consequently, innovative work behavior is expected to positively influence managerial performance (Choi et al., 2021; Halawa et al., 2023).

H5: Innovative work behavior has a significant positive effect on managerial performance.

The Mediating Role of Psychological Empowerment

Psychological empowerment functions as an internal motivational mechanism through which transformational leadership influences managerial performance. Transformational leaders enhance managers' perceptions of meaning, autonomy, and competence, which in turn strengthens goal commitment and performance-oriented behavior. Within the Goal Setting Theory framework, empowered managers are more capable of translating leadership-driven goals into effective managerial actions. Therefore, psychological empowerment is expected to mediate the relationship between transformational leadership and managerial performance (Saeed et al., 2019; Llorente-Alonso et al., 2023).

H6: Psychological empowerment mediates the relationship between transformational leadership and managerial performance.

The Mediating Role of Innovative Work Behavior

Innovative work behavior serves as a behavioral mechanism linking transformational leadership to managerial performance. By fostering creativity and encouraging the exploration of new ideas, transformational leadership stimulates innovative behavior that supports goal attainment. Managers who engage in innovative work behavior are more likely to achieve organizational goals through adaptive and effective managerial practices.

Accordingly, innovative work behavior is expected to mediate the relationship between transformational leadership and managerial performance (Saeed et al., 2019; Yang et al., 2025).

H7: Innovative work behavior mediates the relationship between transformational leadership and managerial performance.

Materials and Methods

Research Design

This study employed a quantitative research design with an explanatory approach to examine the relationships among transformational leadership, psychological empowerment, innovative work behavior, and managerial performance. The explanatory design was selected to test the proposed hypotheses and to analyze both direct and indirect effects among the variables. A cross-sectional survey method was used to collect data at a single point in time, which is appropriate for investigating causal relationships within organizational research.

Population and Sample

The population of this study consisted of principals of junior high schools in Deli Serdang Regency, Indonesia, totaling 333 schools, comprising 63 public and 270 private junior high schools. The sample size was determined using

the Slovin formula with a 5 percent margin of error, resulting in a total of 182 respondents. A proportional stratified sampling technique was applied to ensure representative participation from both public and private schools. Accordingly, the final sample included 148 principals from public junior high schools and 34 principals from private junior high schools.

Demographic Profile of Respondents

This section presents the demographic characteristics of the respondents involved in the study. A total of 182 principals participated in the survey. The demographic information includes gender, age, educational background, and work experience, which provides an overview of the respondents' profiles and supports the representativeness of the sample. The detailed distribution of respondents' demographic characteristics is presented in Table 1.

Table 1. Demographic profile of respondents (N = 182)

Item Demographic	Frequency	Percetile
Gender :		
Male	121	66.48
Female	61	33.52
Age (Year):		
31- 40	19	10.44
41 – 50	41	22.53
50 and above	122	67.03
Education Level		
Graduate	106	58.24
Post Graduate	70	38.46
Others	6	3.30
Work Experience (Year):		
6 – 10	8	4.40
11 – 15	39	21.43
16 -20	57	31.32
20 and above	78	42.86

Measurement Instruments

Data were collected using a structured questionnaire consisting of previously validated measurement scales. Transformational leadership was measured using fifteen items reflecting five dimensions: vision, inspirational communication, intellectual stimulation, supportive leadership, and personal recognition. Psychological empowerment was assessed using twelve items covering four dimensions: meaning, competence, self-determination, and impact. Innovative work behavior was measured using ten items representing idea exploration, idea generation, idea championing, and idea implementation. Managerial performance was measured using seventeen items related to core managerial functions, including planning, organizing, leading, and evaluating.

All items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The use of established instruments ensured the reliability and validity of the measurements.

Research Model

This study proposes a research model that examines the direct effect of transformational leadership on managerial performance, as well as the indirect effects through psychological empowerment and innovative work behavior. Psychological empowerment and innovative work behavior function as mediating variables in the relationship between transformational leadership and managerial performance.

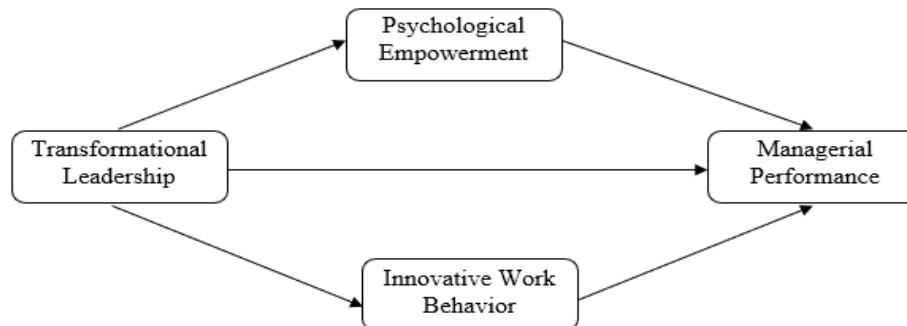


Figure 1. Conceptual framework of study

Data Collection Procedure and Ethical Considerations

The data were collected through an online survey using Google Forms. The questionnaire link was distributed to respondents through official communication channels. Participation in the study was voluntary, and respondents were informed about the purpose of the research prior to completing the questionnaire. Anonymity and confidentiality of responses were guaranteed, and informed consent was obtained from all participants. The collected data were used solely for academic research purposes.

Data Analysis Technique

The collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS version 3.2.9. PLS-SEM was selected due to its suitability for complex research models involving

mediation effects and its robustness in handling non-normal data distributions and moderate sample sizes. The analysis followed a two-step procedure. First, the measurement model was evaluated by assessing convergent validity, discriminant validity, and internal consistency reliability using factor loadings, Cronbach's alpha, composite reliability, and average variance extracted (AVE). Second, the structural model was assessed to examine the proposed hypotheses and mediation effects using bootstrapping with 5,000 resamples.

Result

Measurement Model Assessmen

The measurement model was evaluated to assess the reliability and validity of the constructs used in this study. Convergent validity was examined using factor loadings and average variance extracted (AVE), while internal consistency reliability was assessed using Cronbach's alpha and composite reliability (CR).

The results show that all indicator loadings exceeded the recommended threshold of 0.70. In addition, Cronbach's alpha and composite reliability values for all constructs were above 0.70, indicating satisfactory internal consistency. The AVE values also exceeded the minimum criterion of 0.50, confirming adequate convergent validity. These results indicate that all constructs were measured reliably and validly.

Tabel 2. Measurement model result

Variables	Item	Item	Loadings	Cronbach Alpha	Composite reliability	AVE
Transformational Leadership	Vision (V)	V1 V2 V3	0.929 0.922 0.889	0.956	0.961	0.592
	Inspiraional Communication (IC)	IC1 IC2 IC3	0.896 0.920 0.888			
	Intellectual Stimulation (IS)	IS1 IS2 IS3	0.822 0.799 0.824			
	Supportive Leadership (SL)	SL1 SL2 SL3	0.856 0.912 0.804			
	Personal Recognition (PR)	PR1 PR2 PR3	0.866 0.841 0.779			
Psychological Empowerment	Meaning (M)	M1 M2 M3	0.795 0.841 0.804	0.868	0.894	0.524
	Competence (C)	C1 C2 C3	0.809 0.884 0.804			
	Self Determination (SD)	SD1 SD2 SD3	0.646 0.868 0.811			
	Impact (I)	I1 I2 I3	0.874 0.858 0.457			
Innovative Work Behavior	Idea Exploration (IE)	IE1 IE2 IE3	0.878 0.855 0.814	0.932	0.943	0.622
	Idea Generation (IG)	IG1 IG2	0.936 0.930			
	Idea Championing (Ich)	Ich1 Ich2	0.920 0.908			
	Idea Implementation (II)	II1 II2 II3	0.824 0.881 0.865			
Managerial Performance	Planning (P)	P1 P2 P3 P4 P5 P6	0.830 0.869 0.841 0.843 0.863 0.842	0.956	0.961	0.592
	Organizing (O)	O1 O2 O3	0.899 0.927 0.896			
	Evaluation (E)	E1 E2 E3 E4 E5	0.677 0.743 0.854 0.871 0.831			
	Leading (L)	L1 L2 L3	0.872 0.884 0.843			

Discriminant validity was evaluated using the Heterotrait–Monotrait (HTMT) ratio. The HTMT values for all construct pairs were below the recommended threshold of 0.85, indicating that each construct is empirically distinct from the others. Therefore, discriminant validity was successfully established.

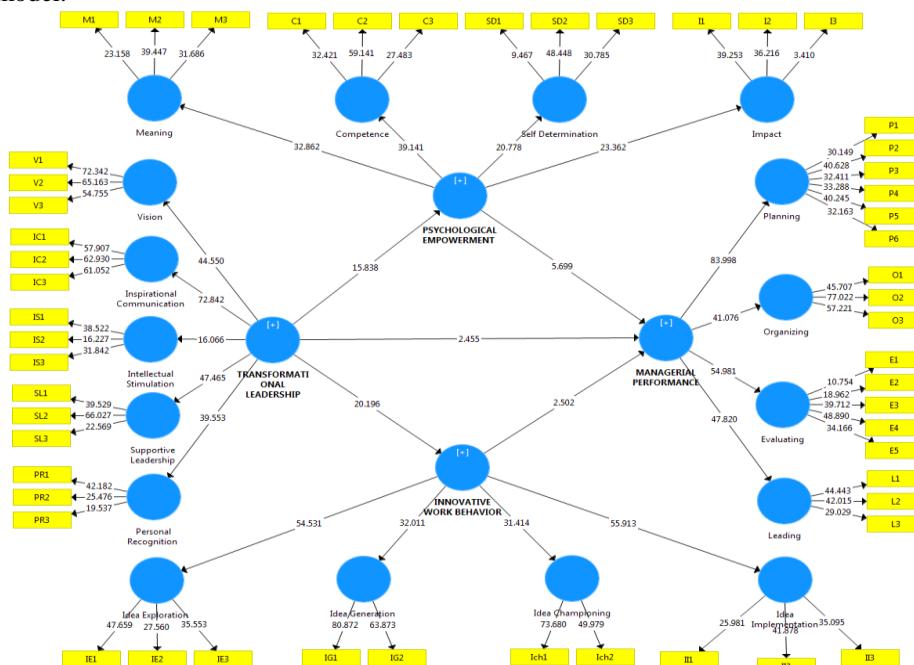
Table 3. Discriminant validity assessment (HTMT)

	MP	IWB	PE	TL
MP				
IWB	0.812			
PE	0.864	0.740		
TL	0.838	0.856	0.797	

Structural Model Assessment

After establishing the adequacy of the measurement model, the structural model was evaluated to test the proposed hypotheses. The significance of the path coefficients was assessed using the bootstrapping procedure with 5,000 resamples. Path coefficients, t-values, and p-values were used to determine the strength and significance of the relationships among the constructs.

The results indicate that transformational leadership has a significant positive effect on managerial performance. Transformational leadership also significantly influences psychological empowerment and innovative work behavior. Furthermore, psychological empowerment and innovative work behavior were found to have significant positive effects on managerial performance. Overall, the findings support the proposed direct relationships in the research model.


Figure 2. Bootstrapping results of the structural model
Table 4. Path analysis results (structural model)

Hyphothesis	Regression path	Effect Type	β -value	T-value	P-value	Remark
H1	TL \rightarrow MP	Direct	0.281	2.455	0.014	Supported
H2	TL \rightarrow PE	Direct	0.718	15.838	0.000	Supported
H3	TL \rightarrow IWB	Direct	0.806	20.196	0.000	Supported
H4	PE \rightarrow MP	Direct	0.420	5.699	0.000	Supported
H5	IWB \rightarrow MP	Direct	0.262	2.502	0.013	Supported
H6	TL \rightarrow PE \rightarrow MP	Indirect	0.302	5.879	0.000	Supported
H7	TL \rightarrow IWB \rightarrow MP	Indirect	0.211	2.487	0.013	Supported

As presented in Table 4, transformational leadership has a significant positive effect on managerial performance ($\beta > 0$, $p < 0.05$), supporting H1. Transformational leadership also shows a significant positive influence on psychological empowerment ($\beta > 0$, $p < 0.001$) and innovative work behavior ($\beta > 0$, $p < 0.001$), thus supporting H2 and H3. Furthermore, psychological empowerment has a significant positive effect on managerial performance ($\beta > 0$, $p < 0.001$), supporting H4. Similarly, innovative work behavior significantly influences managerial performance ($\beta > 0$, $p < 0.05$), supporting H5.

Overall, the results indicate that all proposed direct relationships in the structural model are statistically significant. These findings suggest that transformational leadership plays a critical role in enhancing managerial performance, both directly and indirectly through psychological empowerment and innovative work behavior.

Discussion

This study examined the effect of transformational leadership on managerial performance, as well as the mediating roles of psychological empowerment and innovative work behavior. The findings provide empirical support for the proposed research model and demonstrate the importance of leadership practices in shaping managerial outcomes. These results reinforce the growing body of literature emphasizing transformational leadership as a critical driver of performance in organizational contexts (Alessa, 2021; Nguyen et al., 2023).

The results indicate that transformational leadership has a significant positive effect on managerial performance. This finding suggests that leaders who articulate a clear vision, provide inspiration, and encourage intellectual engagement are more likely to enhance managers' effectiveness in performing managerial functions. Consistent with Goal Setting Theory, transformational leadership clarifies performance expectations and strengthens goal commitment, which in turn improves performance outcomes (Jeong et al., 2021; Urhahne & Wijnia, 2023).

Furthermore, transformational leadership was found to have a significant positive effect on psychological empowerment. This result implies that transformational leaders foster managers' perceptions of meaning, competence, autonomy, and impact in their work. Empowered managers are more likely to internalize organizational goals and demonstrate proactive behavior, which aligns with prior empirical findings highlighting empowerment as a key psychological mechanism linking leadership and performance (Saeed et al., 2019; Meirinhos et al., 2023).

The findings also reveal a significant positive relationship between transformational leadership and innovative work behavior. This suggests that transformational leaders create an environment that encourages creativity, experimentation, and the implementation of new ideas. By promoting intellectual stimulation and providing support for innovation, leaders enable managers to pursue organizational goals through adaptive and innovative approaches (Shafi et al., 2020; Karimi et al., 2023).

In addition, psychological empowerment was found to significantly enhance managerial performance. Managers who perceive higher levels of empowerment tend to demonstrate greater initiative, confidence, and responsibility in decision-making processes. This finding supports previous research indicating that empowerment strengthens intrinsic motivation and contributes to improved performance outcomes (Sarwar et al., 2024; Nwanzu & Babalola, 2024).

Similarly, innovative work behavior was shown to have a significant positive effect on managerial performance. Managers who actively generate and implement new ideas are better equipped to respond to organizational challenges and improve work processes. This result is consistent with prior studies that emphasize innovation as a key factor in enhancing managerial and organizational effectiveness (Choi et al., 2021; Halawa et al., 2023).

Importantly, the mediation analysis demonstrates that psychological empowerment and innovative work behavior partially mediate the relationship between transformational leadership and managerial performance. The presence of partial complementary mediation indicates that transformational leadership influences managerial performance both directly and indirectly through psychological and behavioral mechanisms. This finding aligns with previous studies suggesting that leadership effectiveness is strengthened when empowerment and innovation act as pathways translating leadership-driven goals into performance outcomes (Saeed et al., 2019; Llorente-Alonso et al., 2023).

Conclusion

This study examined the effect of transformational leadership on managerial performance, as well as the mediating roles of psychological empowerment and innovative work behavior. The findings demonstrate that transformational leadership has a significant positive effect on managerial performance, both directly and indirectly. Psychological empowerment and innovative work behavior were also found to significantly enhance managerial performance and partially mediate the relationship between transformational leadership and managerial performance. These results indicate that transformational leadership plays a critical role in shaping managerial effectiveness by fostering positive psychological states and encouraging innovative behavior. By integrating Goal Setting Theory, this study provides empirical evidence that leadership-driven goal clarity and motivation are strengthened when managers feel empowered and engage in innovative work behavior. The findings contribute to the leadership and management literature by offering a more comprehensive explanation of how transformational leadership translates into improved managerial performance through psychological and behavioral mechanisms.

From a practical perspective, the results suggest that organizations should emphasize transformational leadership development to enhance managerial performance. Leaders are encouraged to clearly communicate goals, provide autonomy, and support innovative initiatives among managers. Creating an environment that promotes empowerment and innovation may help organizations improve managerial effectiveness, particularly in dynamic and competitive contexts. Despite its contributions, this study has several limitations. The use of a cross-sectional research design limits causal inference, and the reliance on self-reported data may introduce common method bias. In addition, the focus on a specific organizational context may limit the generalizability of the findings. Future research is encouraged to employ longitudinal designs, incorporate multiple data sources, and examine additional variables that may further explain the relationship between leadership and managerial performance across different organizational settings.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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