

The Role of Knowledge Sharing between Transformational Leadership, Innovative Work Behavior, and Employee Performance

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Abstract

Purpose: This study examines the effects of Transformational Leadership on Innovative Work Behavior and Employee Performance through the mediating role of Knowledge Sharing among employees of the Ministry of State Secretariat.

Research Methodology: A quantitative approach was employed using data collected from 200 employees through a structured questionnaire. The data were analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS).

Results: Transformational Leadership positively and significantly affects Knowledge Sharing, Innovative Work Behavior, and Employee Performance. Knowledge Sharing also positively influences Innovative Work Behavior and Employee Performance and significantly mediates the relationship between Transformational Leadership and both outcomes. Among all predictors, Knowledge Sharing exhibits the strongest effect on employee innovation and performance.

Conclusions: Knowledge Sharing emerged as the strongest predictor of employee innovation and performance and served as a significant mediator between Transformational Leadership and both outcomes. This finding underscores the importance of fostering collaborative learning and knowledge exchange to maximize the effectiveness of transformational leadership.

Limitations: This research focused on a single public institution and used a cross-sectional design.

Contributions: This study contributes to the organizational behavior and public sector management literature by providing evidence of the mediating role of Knowledge Sharing in linking Transformational Leadership with employee innovation and performance within a government institution undergoing bureaucratic reform.

Keywords: *Employee Performance, Innovative Work Behavior, Knowledge Sharing, Transformational Leadership.*

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1. Introduction

The increasing complexity of organizational environments in the digital era has compelled organizations to become more adaptive, innovative, and collaborative in managing human resources. This challenge is particularly relevant for public sector organizations, which are expected not only to maintain administrative stability but also to improve organizational effectiveness and public service quality through innovation and continuous learning (Afsar, Masood, & Umrani, 2019). In this context, Innovative Work Behavior (IWB) has become an important organizational capability because

employees are required to generate new ideas, improve work processes, and respond adaptively to increasingly complex organizational challenges ([Kmieciak, 2020](#)). Organizations with employees who demonstrate strong innovative behavior tend to achieve better organizational flexibility, higher service quality, and stronger organizational performance ([S.-H. Han, Oh, & Kang, 2020](#)). Moreover, innovation-oriented organizations are generally more capable of sustaining performance amid uncertainty and rapid environmental change ([M. Nguyen & Sharma, 2024](#)).

Within organizational behavior literature, Transformational Leadership is widely recognized as an important driver of Innovative Work Behavior and Employee Performance. Transformational leaders inspire employees, communicate a clear vision, and encourage them to challenge conventional work practices through intellectual stimulation and motivation ([M. Nguyen & Sharma, 2024](#)). Previous studies have shown that Transformational Leadership promotes innovative work behavior by fostering creativity, learning, and openness to new ideas ([Afsar & Umrani, 2019](#)). ([S.-H. Han et al., 2020](#)) further found that transformational leaders strengthen employees' intrinsic motivation and organizational commitment, which support innovation-oriented behavior. In addition, Transformational Leadership has been shown to enhance employee performance by improving collaboration, engagement, and adaptability in the workplace ([Saira, Mansoor, & Ali, 2020](#)).

Recent studies suggest that the influence of Transformational Leadership on employee outcomes often occurs through organizational learning mechanisms, particularly Knowledge Sharing. Knowledge Sharing refers to the exchange of information, expertise, and experiences that support collective learning and organizational effectiveness ([Lin, 2007](#)). Organizations with strong knowledge-sharing practices tend to demonstrate higher innovation capability and adaptability ([Le & Lei, 2019](#)). [Son, Phong, and Loan \(2020\)](#) found that knowledge sharing improves collaboration and problem-solving effectiveness among employees. [Kmieciak \(2020\)](#) further reported that knowledge sharing enhances employees' ability to develop creative solutions and innovative ideas. Previous research also shows that Transformational Leadership promotes Knowledge Sharing by fostering trust, communication, and collaboration among employees ([Afsar et al., 2019](#)).

Despite growing interest in the relationships among Transformational Leadership, Knowledge Sharing, Innovative Work Behavior, and Employee Performance, important gaps remain in the literature. Most prior studies have been conducted in private-sector, educational, or local government contexts, leaving limited evidence from strategic central government institutions ([Afsar & Umrani, 2019](#)). Furthermore, the mediating role of Knowledge Sharing remains inconsistent. [Piri and Abdi \(2025\)](#) examined the effects of transformational leadership on employee outcomes without incorporating Knowledge Sharing as a mediating mechanism. Conversely, [Sirait, Dewi, and Rumengan \(2023\)](#) found that Knowledge Sharing did not significantly mediate the relationship between transformational leadership and innovative work behavior. These contextual and empirical gaps suggest the need to re-examine the mediating role of Knowledge Sharing in explaining how Transformational Leadership influences Innovative Work Behavior and Employee Performance within strategic public-sector organizations.

The identified research gaps are particularly relevant to the Ministry of State Secretariat of the Republic of Indonesia. As a strategic central government institution responsible for providing administrative, technical, and policy support to the President and Vice President, the Ministry operates in an environment characterized by bureaucratic reform, digital transformation, rapid policy changes, and intensive coordination demands. These conditions require employees not only to perform their duties effectively but also to demonstrate innovation, adaptability, and collaborative learning capabilities to support effective governance processes ([Turner, Prasajo, & Sumarwono, 2022](#)). Consequently, Knowledge Sharing and Innovative Work Behavior have become increasingly important for enhancing organizational effectiveness in this context ([M. Nguyen & Sharma, 2024](#)).

Against this background, this study examines the influence of Transformational Leadership on Innovative Work Behavior and Employee Performance through the mediating role of Knowledge Sharing among employees of the Ministry of State Secretariat. By addressing the limited evidence from strategic central government institutions and clarifying the mediating role of Knowledge Sharing, this

study contributes to the organizational behavior and public sector management literature. The findings are also expected to provide practical insights for strengthening organizational learning, innovation, and employee performance within government institutions undergoing bureaucratic reform and digital transformation.

2. Literature Review and Hypothesis Development

2.1. Literature Review

2.1.1 Transformational Leadership

Transformational Leadership (TFL) refers to a leadership approach through which leaders inspire employees to achieve organizational goals beyond expected performance levels by fostering a shared vision, encouraging creativity, and supporting individual development. Transformational leaders motivate employees to embrace organizational change, enhance their capabilities, and contribute proactively to organizational improvement (Yu & Xiang, 2025). In contemporary organizations, transformational leadership is increasingly recognized as an effective leadership style for promoting adaptability, innovation, and organizational effectiveness in dynamic environments (M. Nguyen & Sharma, 2024). Furthermore, transformational leadership facilitates employee engagement and commitment by creating trust-based relationships and empowering employees to participate in organizational development processes (Lee, Lin, Srinivasan, & Carr, 2024).

2.1.2 Knowledge Sharing

Knowledge Sharing (KS) refers to the process through which employees exchange information, expertise, experiences, and skills to facilitate learning and improve organizational effectiveness. As an essential component of organizational learning, knowledge sharing enables individuals and groups to create, disseminate, and utilize knowledge for solving problems and improving work processes (Yeboah, 2023). Knowledge sharing also contributes to the development of collective knowledge, which supports organizational adaptability and continuous improvement in increasingly complex organizational environments (Le & Lei, 2019).

2.1.3 Innovative Work Behavior

Innovative Work Behavior (IWB) refers to employees' intentional efforts to generate, promote, and implement new ideas that contribute to organizational improvement and effectiveness. Innovative work behavior reflects employees' willingness to seek better ways of performing tasks, solving problems, and creating value within the organization (Rafique et al., 2022). In increasingly dynamic organizational environments, innovative work behavior is considered an important capability because it enables employees to respond to change, improve work processes, and support organizational performance and competitiveness (M. Nguyen & Sharma, 2024).

2.1.4 Employee Performance

Employee Performance (EP) refers to the extent to which employees effectively accomplish work responsibilities and contribute to organizational objectives. Employee performance reflects employees' effectiveness in completing assigned tasks, achieving expected work outcomes, and supporting organizational goals (Hochwarter, Kiewitz, Gundlach, & Stoner, 2004). In organizational settings, employee performance is widely recognized as a key indicator of organizational effectiveness because employees' work outcomes directly influence productivity, service quality, and overall organizational performance (Qalati, Zafar, Fan, Sánchez Limón, & Khaskheli, 2022).

2.2 Hypotheses Development

This study develops hypotheses concerning the relationships among Transformational Leadership, Knowledge Sharing, Innovative Work Behavior, and Employee Performance. Transformational Leadership is expected to influence employee outcomes directly and indirectly through Knowledge Sharing. Based on the proposed theoretical framework, the following hypotheses are formulated.

2.2.1. Transformational Leadership and Innovative Work Behavior

Transformational Leadership plays an important role in fostering Innovative Work Behavior by encouraging creativity, supporting new ideas, and creating a collaborative work environment. Previous

studies consistently report a positive relationship between Transformational Leadership and Innovative Work Behavior. [Afsar et al. \(2019\)](#) found that transformational leadership encourages employees to think creatively and contribute to organizational improvement. [Lim and Moon \(2021\)](#) demonstrated that transformational leadership strengthens employees' willingness to engage in innovative activities. More recently, [Rafique et al. \(2022\)](#) and [M. Nguyen and Sharma \(2024\)](#) confirmed that transformational leadership enhances innovative work behavior through greater motivation, empowerment, and commitment. Therefore, the following hypothesis is proposed:

H₁: Transformational Leadership (TFL) positively affects Innovative Work Behavior (IWB).

2.2.2 Transformational Leadership and Employee Performance

Transformational Leadership is an important determinant of Employee Performance because it motivates employees to exceed expected standards and contribute more effectively to organizational goals. Previous studies consistently demonstrate its positive effect on performance. [T. T. Nguyen, Mia, Winata, and Chong \(2017\)](#) reported that transformational leadership enhances work effectiveness and productive behavior. [Buil, Martínez, and Matute \(2019\)](#) found that it improves performance through work engagement. Similarly, [Qalati et al. \(2022\)](#) confirmed its positive influence through organizational commitment and organizational citizenship behavior. Therefore, the following hypothesis is proposed:

H₂: Transformational Leadership (TFL) positively affects Employee Performance (EP).

2.2.3 Transformational Leadership and Knowledge Sharing

Transformational Leadership plays an important role in fostering Knowledge Sharing by creating a work environment characterized by trust, collaboration, and learning. Employees are more willing to exchange knowledge and experiences when leaders encourage open communication and supportive relationships ([Le & Lei, 2019](#)). Previous studies consistently show that transformational leadership enhances knowledge-sharing behavior through collaborative organizational climates and learning-oriented cultures ([Kim & Park, 2020](#)). In addition, transformational leadership has been found to positively influence knowledge-sharing processes by fostering employee interaction, communication, and collective learning within organizations ([Son et al., 2020](#)). Therefore, the following hypothesis is proposed:

H₃: Transformational Leadership (TFL) positively affects Knowledge Sharing (KS).

2.2.4 Knowledge Sharing and Innovative Work Behavior

Knowledge Sharing is an important mechanism for fostering Innovative Work Behavior because it enables employees to exchange knowledge, experiences, and expertise that support learning and problem-solving. Through knowledge exchange, employees gain access to diverse perspectives that facilitate the generation and implementation of innovative ideas. Previous studies consistently report a positive relationship between Knowledge Sharing and Innovative Work Behavior. [Le and Lei \(2019\)](#) found that knowledge sharing enhances innovation capability through knowledge transfer and integration. [Rafique et al. \(2022\)](#) demonstrated that knowledge sharing facilitates the development and implementation of innovative ideas in the workplace. Similarly, [Kmieciak \(2020\)](#) confirmed that active knowledge exchange encourages employees to engage in innovative work behavior. Therefore, the following hypothesis is proposed:

H₄: Knowledge Sharing (KS) positively affects Innovative Work Behavior (IWB).

2.2.5 Knowledge Sharing and Employee Performance

Knowledge Sharing is an important mechanism for improving Employee Performance because it enables employees to access relevant knowledge and expertise that support effective task completion. Previous studies consistently report a positive relationship between Knowledge Sharing and Employee Performance. [Le and Lei \(2019\)](#) found that knowledge sharing enhances organizational effectiveness by facilitating knowledge transfer and integration. [Muhammed and Zaim \(2020\)](#) demonstrated that knowledge-sharing practices improve both individual and organizational performance through the effective creation, exchange, and application of knowledge. [Meher and Mishra \(2021\)](#) further confirmed that knowledge sharing positively influences employee performance through organizational learning processes. Therefore, the following hypothesis is proposed:

H₅: Knowledge Sharing (KS) positively affects Employee Performance (EP).

2.2.6 The Mediating Role of Knowledge Sharing in the Relationship between Transformational Leadership and Innovative Work Behavior

Knowledge Sharing is an important mechanism through which Transformational Leadership fosters Innovative Work Behavior. Transformational leaders encourage employees to exchange knowledge, experiences, and expertise, thereby supporting the development of innovative ideas and problem-solving capabilities. [Afsar et al. \(2019\)](#) found that transformational leadership promotes innovative work behavior through knowledge-sharing practices. [Rafique et al. \(2022\)](#) demonstrated that knowledge sharing helps employees maintain innovative behavior by facilitating access to valuable information and learning resources. [Sudibjo and Prameswari \(2021\)](#) further reported that collaborative cultures fostered by transformational leadership strengthen knowledge exchange and innovation. More recently, [Almassri and Aris \(2024\)](#) confirmed that Knowledge Sharing significantly mediates the relationship between Transformational Leadership and Innovative Work Behavior. Therefore, the following hypothesis is proposed:

H₆: Transformational Leadership (TFL) positively affects Innovative Work Behavior (IWB) through Knowledge Sharing (KS).

2.2.7 The Mediating Role of Knowledge Sharing in the Relationship between Transformational Leadership and Employee Performance

Knowledge Sharing is an important mechanism through which Transformational Leadership enhances Employee Performance. Transformational leaders encourage employees to exchange knowledge and expertise, enabling them to perform their tasks more effectively. [Le and Lei \(2019\)](#) found that transformational leadership promotes knowledge-sharing behavior, which subsequently improves individual and organizational effectiveness. [Henttonen, Kianto, and Ritala \(2016\)](#) demonstrated that knowledge sharing positively influences employee performance by facilitating access to relevant knowledge and best practices. Furthermore, [Muhammed and Zaim \(2020\)](#) reported that leadership support strengthens knowledge-sharing practices, which contribute to improved performance outcomes. These findings suggest that Knowledge Sharing plays a significant mediating role in the relationship between Transformational Leadership and Employee Performance. Therefore, the following hypothesis is proposed:

H₇: Transformational Leadership (TFL) positively affects Employee Performance (EP) through Knowledge Sharing (KS).

3. Methodology

This study employed a quantitative approach with an explanatory research design to examine the effects of Transformational Leadership on Innovative Work Behavior and Employee Performance through Knowledge Sharing among employees of the Ministry of State Secretariat. A quantitative approach was selected because it enables the objective examination of relationships among variables through statistical analysis, while the explanatory design facilitates the testing of causal relationships proposed in the research framework ([Creswell, 2018](#); [Neuman, 2014](#)). The study was conducted from a positivist perspective, emphasizing empirical observation, hypothesis testing, and objective measurement of organizational phenomena.

The unit of analysis comprised employees of the Ministry of State Secretariat who are involved in administrative, public service, and organizational support functions. A total of 200 valid responses were collected using purposive sampling. The sample size was considered adequate for SEM-PLS analysis because sample adequacy in SEM depends on model complexity and the number of estimated parameters rather than a fixed minimum requirement ([Kline, 2016](#)). Given the moderate complexity of the proposed model, the sample was deemed sufficient to represent the population of 2,949 employees.

Data were collected through online and offline questionnaires. The measurement instrument was adapted from previously validated studies and assessed using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Prior to the main survey, a pilot study involving 30 respondents was conducted using SPSS version 27 to evaluate instrument validity and reliability ([Creswell, 2018](#)). The study examined four variables: Transformational Leadership (TFL), Knowledge Sharing (KS),

Innovative Work Behavior (IWB), and Employee Performance (EP). Transformational Leadership was measured using nine indicators adapted from (Saif et al., 2024). Knowledge Sharing was measured using eight indicators adapted from (van den Hooff & de Ridder, 2004). Innovative Work Behavior was measured using six indicators adapted from (Rafique et al., 2022). Employee Performance was measured using twelve indicators adapted from (Hochwarter et al., 2004).

Data analysis was conducted using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS 4.0. SEM-PLS was selected because it is suitable for analyzing complex models involving multiple latent constructs and mediation relationships while imposing minimal distributional assumptions (Hair, Matthews, Matthews, & Sarstedt, 2017). The analysis consisted of measurement model evaluation and structural model evaluation. The measurement model was assessed through convergent validity, discriminant validity, and reliability tests. The structural model was evaluated using path coefficients, coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and bootstrapping procedures with a significance level of 5% ($p < 0.05$).

As this study employed a cross-sectional design, the findings reflect relationships observed at a single point in time and should therefore be interpreted as associative rather than definitive causal relationships. Future studies may apply longitudinal designs to capture changes in employee behavior and organizational dynamics over time.

4. Results and Discussions

4.1. Respondent Characteristics

The respondents in this study were employees of the Ministry of State Secretariat. A total of 200 valid responses were collected through questionnaire distribution. The sample was considered adequate for SEM-PLS analysis because sample size requirements depend on model complexity and the number of estimated parameters rather than a fixed minimum threshold (Kline, 2016). Demographic analysis based on gender, age, educational attainment, length of service, and job position was conducted to describe respondent characteristics and support the interpretation of the findings.

4.2. Descriptive Statistics

Descriptive statistical analysis was conducted to illustrate respondents' perceptions of the variables examined in this study. The results indicate that all constructs produced minimum and maximum scores ranging from 1 to 5, showing that respondents utilized the full range of the measurement scale provided. This finding suggests that the responses demonstrate sufficient variability and that the data are considered suitable for further inferential statistical analysis.

Table 1. Descriptive statistics of research variables

Construct	Minimum	Maximum	Mean	Std. Deviation
Transformational Leadership	1.00	5.00	3.956	0.780
Knowledge Sharing	1.00	5.00	4.178	0.582
Innovative Work Behavior	1.00	5.00	3.865	0.653
Employee Performance	1.00	5.00	4.181	0.542

As presented in Table 1, the mean values of all variables are relatively high, indicating positive perceptions toward Transformational Leadership (TFL), Knowledge Sharing (KS), Innovative Work Behavior (IWB), and Employee Performance (EP) among employees of the Ministry of State Secretariat. Employee Performance demonstrates the highest mean value (4.181), suggesting a high level of employee performance, followed by Knowledge Sharing (4.178), which reflects active information and knowledge exchange among employees. Transformational Leadership (3.956) and Innovative Work Behavior (3.865) also indicate favorable perceptions regarding leadership practices and employees' innovative behavior within the organization. The relatively low standard deviation values across variables (0.542–0.780) indicate consistent respondent answers. Employee Performance shows the lowest standard deviation, suggesting more homogeneous perceptions, whereas

Transformational Leadership exhibits greater variability in respondents' views regarding leadership implementation. Overall, the descriptive statistics indicate that the data are sufficiently consistent and suitable for further SEM-PLS analysis.

4.3. Measurement Model Evaluation

The measurement model was assessed to verify that all constructs satisfied the established validity and reliability requirements. This stage is considered essential in SEM-PLS analysis because the quality of the measurement model influences the robustness and credibility of the structural model outcomes.

4.3.1. Convergent Validity & Construct Reliability

The evaluation of construct adequacy emphasized convergent validity and reliability testing. Convergent validity was examined using outer loading values and Average Variance Extracted (AVE), whereas construct reliability was evaluated through Cronbach's Alpha and Composite Reliability indicators.

Table 2. Convergent validity and construct reliability results

Variabel	Indicator	Outer Loading	AVE	Cronbach's Alpha	Composite Reliability
Innovative Work Behavior (IWB)	IWB1	0.871	0.719	0.921	0.939
	IWB2	0.892			
	IWB3	0.847			
	IWB4	0.896			
	IWB5	0.778			
	IWB6	0.795			
Employee Performance (EP)	EP1	0.791	0.584	0.935	0.944
	EP2	0.794			
	EP3	0.796			
	EP4	0.719			
	EP5	0.719			
	EP6	0.790			
	EP7	0.745			
	EP8	0.750			
	EP9	0.748			
	EP10	0.782			
	EP11	0.718			
	EP12	0.813			
Transformational Leadership (TFL)	TFL1	0.878	0.742	0.957	0.936
	TFL2	0.847			
	TFL3	0.875			
	TFL4	0.875			
	TFL5	0.836			
	TFL6	0.842			
	TFL7	0.858			
	TFL8	0.872			
	TFL9	0.872			

Knowledge Sharing (KS)	KS1	0.796	0.601	0.905	0.936
	KS2	0.840			
	KS3	0.809			
	KS4	0.729			
	KS5	0.772			
	KS6	0.728			
	KS7	0.736			
	KS8	0.787			

As shown in Table 2, the results of the measurement model assessment indicate that all constructs meet the recommended requirements for convergent validity and reliability. All indicator outer loading values are above the recommended cutoff value of 0.70, suggesting that each indicator adequately reflects its corresponding latent construct (Hair et al., 2017). The Innovative Work Behavior (IWB) construct demonstrates outer loading values ranging from 0.778 to 0.896, indicating that the six indicators strongly capture the dimensions of employees' innovative behavior. Likewise, the Employee Performance (EP) construct presents loading values between 0.718 and 0.813, confirming that the twelve indicators consistently represent employee performance dimensions within the organizational setting.

The Transformational Leadership (TFL) construct also shows strong indicator consistency, with outer loading values ranging from 0.836 to 0.878. These findings suggest that the nine indicators effectively measure transformational leadership dimensions, including inspirational motivation, intellectual stimulation, individualized consideration, and idealized influence. Similarly, the Knowledge Sharing (KS) construct demonstrates acceptable outer loading values ranging from 0.728 to 0.840, indicating that the indicators appropriately reflect employees' knowledge-sharing behavior.

Moreover, all constructs produced Average Variance Extracted (AVE) values above the recommended threshold of 0.50, demonstrating adequate convergent validity. The AVE values obtained were 0.719 for Innovative Work Behavior, 0.584 for Employee Performance, 0.742 for Transformational Leadership, and 0.601 for Knowledge Sharing. These results imply that each construct explains more than half of the variance of its indicators, confirming that the indicators possess substantial shared variance in measuring the same latent construct.

The reliability assessment also demonstrates strong internal consistency across all variables. Cronbach's Alpha values range from 0.905 to 0.957, while Composite Reliability values range from 0.936 to 0.944, all of which exceed the recommended threshold of 0.70. Among the constructs, Transformational Leadership shows the highest Cronbach's Alpha value (0.957), indicating very high consistency among its indicators. Meanwhile, Employee Performance demonstrates the highest Composite Reliability value (0.944), suggesting that the construct possesses excellent measurement reliability. Overall, these results confirm that all constructs and indicators used in this study are valid and reliable, and therefore suitable for further analysis using SEM-PLS.

4.3.2. Discriminant Validity

Discriminant validity testing was performed to verify that each construct within the model represented a concept that was empirically different from the other constructs. The assessment employed three methods, namely the Heterotrait–Monotrait Ratio (HTMT), the Fornell–Larcker criterion, and cross-loading analysis, in accordance with the guidelines suggested by (Hair et al., 2017).

Table 3. HTMT results

Construct	EP	IWB	KS	TFL
Employee Performance (EP)				

Innovative Work Behavior (IWB)	0.746			
Knowledge Sharing (KS)	0.655	0.619		
Transformational Leadership (TFL)	0.454	0.456	0.345	

As shown in Table 3, all HTMT values were found to be lower than the recommended cutoff value of 0.90, suggesting that each construct was sufficiently differentiated from the others and did not indicate multicollinearity problems. Because HTMT is widely recognized as a reliable method for evaluating discriminant validity, these findings confirm that the constructs are empirically distinct and properly represented within the research model.

Table 4. Fornell-Larcker criterion results

Construct	EP	IWB	KS	TFL
Employee Performance (EP)	0.764			
Innovative Work Behavior (IWB)	0.693	0.848		
Knowledge Sharing (KS)	0.624	0.576	0.776	
Transformational Leadership (TFL)	0.435	0.434	0.331	0.862

The results presented in Table 4 show that all constructs achieved square root AVE values higher than their correlations with other constructs. These results indicate that each construct explains more variance in its own indicators than in the indicators of other constructs, thereby demonstrating satisfactory discriminant validity within the model.

Table 5. Cross Loading Results

	EP	IWB	KS	TFL
EP1	0.791	0.456	0.542	0.261
EP2	0.794	0.509	0.521	0.353
EP3	0.796	0.507	0.504	0.325
EP4	0.719	0.458	0.375	0.247
EP5	0.719	0.560	0.455	0.299
EP6	0.790	0.536	0.486	0.327
EP7	0.745	0.488	0.618	0.284
EP8	0.750	0.571	0.483	0.406
EP9	0.748	0.497	0.432	0.327
EP10	0.782	0.625	0.414	0.342
EP11	0.718	0.601	0.414	0.342
EP12	0.813	0.579	0.493	0.438
IWB1	0.564	0.871	0.431	0.343
IWB2	0.657	0.892	0.519	0.380
IWB3	0.616	0.847	0.456	0.338
IWB4	0.676	0.896	0.572	0.444
IWB5	0.483	0.778	0.507	0.330
IWB6	0.506	0.795	0.417	0.354
KS1	0.498	0.485	0.796	0.267
KS2	0.486	0.460	0.840	0.228
KS3	0.540	0.468	0.809	0.271

KS4	0.499	0.529	0.729	0.308
KS5	0.464	0.348	0.772	0.241
KS6	0.389	0.406	0.728	0.262
KS7	0.470	0.366	0.736	0.175
KS8	0.506	0.470	0.787	0.280
TFL1	0.466	0.413	0.337	0.878
TFL2	0.383	0.385	0.362	0.847
TFL3	0.380	0.393	0.306	0.875
TFL4	0.342	0.334	0.290	0.875
TFL5	0.396	0.363	0.247	0.836
TFL6	0.312	0.333	0.179	0.842
TFL7	0.301	0.370	0.229	0.858
TFL8	0.384	0.397	0.335	0.872
TFL9	0.371	0.355	0.231	0.872

As shown in Table 5, the cross-loading evaluation further supports these findings, as each indicator demonstrated a stronger loading on its corresponding construct compared to the other constructs in the model. This result indicates that all indicators are appropriately associated with their intended latent variables and do not exhibit problematic cross-loading patterns. Overall, the outcomes of the HTMT assessment, Fornell–Larcker criterion, and cross-loading analysis consistently verify that all constructs in this research are empirically distinguishable and represent separate conceptual dimensions. Accordingly, the measurement model can be considered to have satisfied the discriminant validity requirements and is suitable for further structural model evaluation.

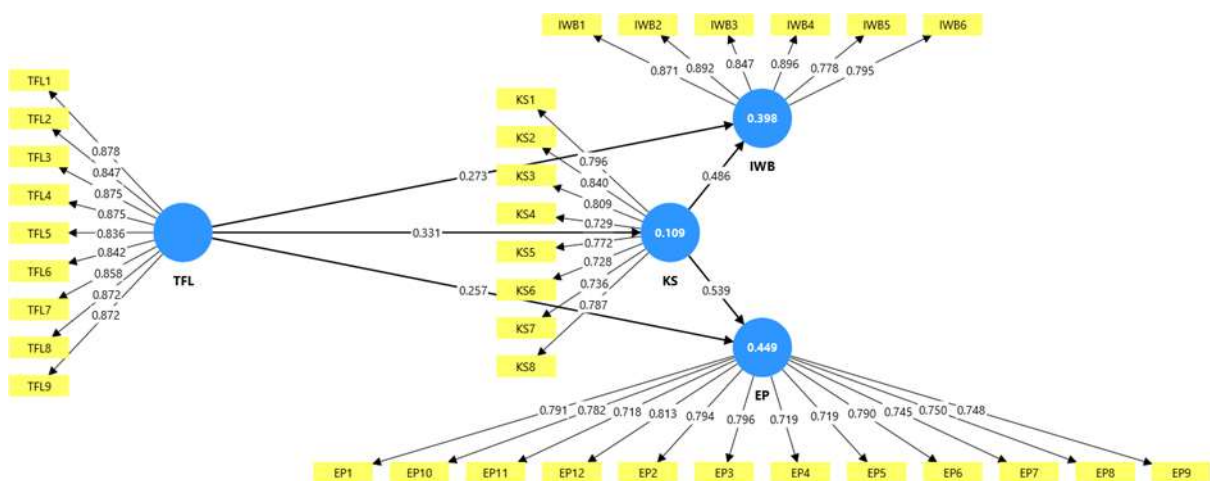


Figure 1. SEM-PLS structural model results

Figure 1 presents the SEM-PLS structural model used to examine the relationships among Transformational Leadership, Knowledge Sharing, Innovative Work Behavior, and Employee Performance. The model indicates that Transformational Leadership exerts positive effects on Knowledge Sharing, Innovative Work Behavior, and Employee Performance. Furthermore, Knowledge Sharing exhibits relatively stronger path coefficients toward Innovative Work Behavior and Employee Performance, highlighting its important mediating function within the research framework. The R^2 values also suggest that the model provides a moderate level of explanatory power for Employee Performance and Innovative Work Behavior, whereas the explanatory contribution for Knowledge Sharing is comparatively lower.

4.4. Structural Model Evaluation

After the measurement model satisfied the required validity criteria, the structural model was evaluated to examine the relationships among the latent constructs and to test the proposed hypotheses.

4.4.1. Coefficient of Determination (R^2)

Following the confirmation that the measurement model met the required validity standards, the structural model was subsequently assessed to analyze the relationships among the latent variables and evaluate the proposed hypotheses.

Table 6. R^2 results

Endogenous Variables	<i>R Square</i> (R^2)	Category
Employee Performance (EP)	0.449	Moderate
Innovative Work Behavior (IWB)	0.398	Moderate
Knowledge Sharing (KS)	0.109	Weak

As presented in Table 6., the findings indicate that Employee Performance (EP) and Innovative Work Behavior (IWB) are moderately explained by the exogenous constructs, with R^2 values of 0.449 and 0.398, respectively. These results imply that Transformational Leadership and Knowledge Sharing jointly contribute to enhancing employees' innovative behavior and work performance within the Ministry of State Secretariat. The moderate explanatory level of Employee Performance further suggests that employee performance is influenced not only by leadership and knowledge-sharing practices but also by additional organizational and individual factors beyond the scope of the present model. In contrast, Knowledge Sharing (KS) shows a relatively weak explanatory value ($R^2 = 0.109$), indicating that Transformational Leadership accounts for only a limited proportion of employees' knowledge-sharing behavior. This result suggests that knowledge-sharing practices may also be influenced by other elements, such as organizational culture, trust, communication patterns, and technological support systems that were not incorporated into this study.

More importantly, the stronger explanatory power observed for Employee Performance compared to Knowledge Sharing indicates that leadership and innovation-related behavior contribute more substantially to improving employee performance than to directly stimulating knowledge-sharing behavior. This finding demonstrates that employee performance outcomes are more closely associated with motivational and behavioral aspects within the organization.

4.4.2. Hypothesis Testing (Path Coefficients)

The proposed hypotheses were examined using the bootstrapping procedure to determine the significance of the relationships among the variables included in the model.

Table 7. Hypotheses testing results (path coefficients)

Hypothesis		Path Coefficients	T-values	p-values	Conclusion
H_1	TFL \rightarrow IWB	0.273	3.507	0.000	Significant
H_2	TFL \rightarrow EP	0.275	4.828	0.000	Significant
H_3	TFL \rightarrow KS	0.331	4.187	0.000	Significant
H_4	KS \rightarrow IWB	0.486	7.568	0.000	Significant
H_5	KS \rightarrow EP	0.539	9.039	0.000	Significant
H_6	TFL \rightarrow KS \rightarrow IWB	0.161	3.470	0.001	Significant
H_7	TFL \rightarrow KS \rightarrow EP	0.178	3.145	0.002	Significant

As presented in Table 7., the results indicate that Transformational Leadership (TFL) has a significant influence on employees' Innovative Work Behavior (IWB), Knowledge Sharing (KS), and Employee Performance (EP) within the Ministry of State Secretariat. The positive relationships identified between TFL and IWB ($\beta = 0.273$), EP ($\beta = 0.275$), and KS ($\beta = 0.331$) suggest that transformational leaders are capable of motivating employees to exchange knowledge, generate innovative ideas, and improve their work performance through inspiration, encouragement, and organizational support. These findings imply that leadership functions not only as an administrative mechanism but also as an important behavioral factor that strengthens employee creativity and organizational involvement.

The findings further reveal that Knowledge Sharing acts as the strongest predictor of both Innovative Work Behavior and Employee Performance, with path coefficients of 0.486 and 0.539, respectively. This indicates that employees who actively share information, knowledge, and work experiences are more likely to demonstrate innovative behavior and achieve better performance outcomes. Such results highlight the importance of collaborative learning and knowledge exchange as strategic organizational resources that support creativity and work effectiveness. The mediation analysis also confirms that Knowledge Sharing significantly mediates the relationship between Transformational Leadership and both Innovative Work Behavior ($\beta = 0.161$) and Employee Performance ($\beta = 0.178$). This suggests that transformational leadership indirectly strengthens employee innovation and performance by promoting a culture of knowledge exchange within the organization. In other words, leadership effectiveness becomes more substantial when leaders successfully create organizational environments that encourage collaboration, communication, and collective learning among employees. Overall, the findings demonstrate that innovative behavior and employee performance are shaped not only by leadership practices directly but also by employees' participation in knowledge-sharing activities. These results reinforce the view that organizational effectiveness is strongly associated with collaborative and knowledge-oriented work environments.

4.4.3. Effect Size (f^2)

Effect size (f^2) analysis was conducted to evaluate the extent to which each exogenous variable contributes to the endogenous variables within the model. Based on the guidelines proposed by [Hair et al. \(2017\)](#), f^2 values are interpreted into three categories, namely small (0.02), medium (0.15), and large (0.35), which indicate the relative strength of each predictor's influence in the structural model.

Table 8. Effect Size (f^2)

Variabel	EP	IWB	KS	TFL
Employee Performance (EP)	-	-	-	-
Innovative Work Behavior (IWB)	-	-	-	-
Knowledge Sharing (KS)	0.470	0.349	-	-
Transformational Leadership (TFL)	0.107	0.110	0.123	-

As presented in Table 8, the effect size analysis highlights the relative importance of each predictor in the model. Knowledge Sharing demonstrates the strongest effect on Employee Performance ($f^2 = 0.470$) and a moderate effect on Innovative Work Behavior ($f^2 = 0.349$), indicating its substantial practical contribution to employee outcomes. In contrast, Transformational Leadership shows relatively small effect sizes on Knowledge Sharing ($f^2 = 0.123$), Innovative Work Behavior ($f^2 = 0.110$), and Employee Performance ($f^2 = 0.107$). Although these relationships are statistically significant, the findings suggest that Knowledge Sharing is a more influential driver of innovation and performance. From a practical perspective, strengthening knowledge-sharing practices may yield greater organizational benefits than relying solely on leadership interventions.

4.5. Discussion

The findings of this study indicate that Transformational Leadership (TFL) has a significant positive effect on Innovative Work Behavior (IWB) among employees of the Ministry of State Secretariat. This finding suggests that leaders who provide inspiration, intellectual stimulation, and individualized

consideration are able to encourage employees to generate innovative ideas and contribute to organizational improvement. These results are consistent with the findings of [Afsar and Umrani \(2019\)](#), who demonstrated that transformational leadership strengthens innovative work behavior through learning motivation and the development of an innovation climate. Similarly, [Choi, Kim, Ullah, and Kang \(2016\)](#) found that transformational leadership promotes innovative behavior by strengthening employees' intrinsic motivation and creating supportive organizational environments. [Afsar et al. \(2019\)](#) also emphasized that transformational leadership increases employees' creative self-efficacy and trust in supervisors, which subsequently encourages innovative behavior. The alignment of these findings with previous studies reflects the growing importance of transformational leadership in organizations operating in dynamic and knowledge-intensive environments. Both public and private organizations increasingly require employees who are adaptive, creative, and capable of responding quickly to organizational challenges. Within the Ministry of State Secretariat, employees are expected to support presidential governance through responsive and high-quality administrative and policy services. Under these conditions, transformational leadership becomes highly relevant because it creates a work climate that encourages employees to think innovatively and contribute proactively to organizational improvement.

However, this finding contrasts with [Sudibjo and Prameswari \(2021\)](#), who found that transformational leadership did not directly influence innovative work behavior significantly and instead required mediating variables such as knowledge sharing and person–organization fit. This inconsistency indicates that the influence of transformational leadership on innovative behavior is highly context-dependent. Educational organizations generally operate within more structured and standardized systems, whereas the Ministry of State Secretariat functions within a highly dynamic governmental environment characterized by rapid policy changes, inter-unit coordination, and high public service demands. Consequently, transformational leadership in this institution appears to have a more direct role in stimulating employee innovation.

The findings also reveal that Transformational Leadership significantly influences Employee Performance (EP), indicating that leadership practices play an important role in improving employee effectiveness and productivity. This result supports [Qalati et al. \(2022\)](#), who found that transformational leadership improves employee performance through employee engagement and organizational citizenship behavior. Likewise, [Hughes, Lee, Tian, Newman, and Legood \(2018\)](#) argued that transformational leadership contributes to organizational performance because transformational leaders create work environments that support employee involvement, creativity, and innovation. [Bos-Nehles, Bondarouk, and Nijenhuis \(2017\)](#) also highlighted that supportive leadership practices in public organizations strengthen employee capability and work effectiveness through collaborative and innovation-oriented work environments. In addition, findings from [Hidayat \(2025\)](#) further demonstrated that transformational leadership significantly improves employee performance and organizational citizenship behavior within public sector institutions, particularly in organizations requiring high levels of coordination and public service quality. These findings collectively indicate that transformational leadership becomes increasingly important in organizations that rely heavily on coordination, service quality, and organizational adaptability. Employees in the Ministry of State Secretariat are not only responsible for completing administrative tasks efficiently but are also expected to maintain responsiveness and coordination quality in supporting the President and Vice President. Consequently, transformational leadership contributes directly to stronger employee motivation, organizational commitment, and work effectiveness.

However, this finding differs from [Eliyana, Ma'arif, and Muzakki \(2019\)](#), who reported that transformational leadership did not always significantly improve employee performance when organizational culture and employee motivation were weak. Another contrasting finding was reported by [Khan, Mubarik, and Islam \(2020\)](#), who found that transformational leadership had only an indirect influence on employee performance through psychological empowerment mechanisms. These inconsistencies suggest that the effectiveness of transformational leadership may vary depending on organizational culture, employee readiness, and institutional characteristics. In organizations with weak collaborative systems, leadership inspiration alone may not be sufficient to improve performance. In

contrast, the Ministry of State Secretariat operates in a work environment where coordination, responsibility, and institutional accountability are strongly emphasized, making transformational leadership more influential in shaping employee performance outcomes.

This study further demonstrates that Transformational Leadership significantly affects Knowledge Sharing (KS), indicating that leaders have an important role in encouraging collaborative learning and information exchange within organizations. These findings are in line with [S. H. Han, Seo, Yoon, and Yoon \(2016\)](#), who found that transformational leadership strengthens knowledge-sharing behavior through empowerment and organizational commitment. [Kim and Park \(2020\)](#) also demonstrated that transformational leadership supports the development of organizational learning and collaborative knowledge-sharing cultures. In addition, [Le and Lei \(2019\)](#) explained that transformational leadership facilitates knowledge sharing by building trust and encouraging open communication among employees. Such findings are highly relevant in bureaucratic institutions such as the Ministry of State Secretariat, where organizational knowledge is dispersed across different units and coordination among employees becomes essential for effective governance support. Leaders who encourage trust and open communication create an environment in which employees feel more comfortable exchanging information, experiences, and expertise.

Nevertheless, this finding contrasts with [Bock, Zmud, Kim, and Lee \(2005\)](#), who argued that employees in hierarchical organizations often tend to withhold knowledge because of concerns related to organizational politics, competition, and lack of trust. A more recent study by [Yeboah \(2023\)](#) also emphasized that knowledge-sharing practices frequently fail when organizations lack leadership support, collaborative culture, and strategic alignment. These differences imply that organizational culture and institutional reform strongly determine whether transformational leadership can effectively encourage knowledge-sharing behavior. The stronger relationship identified in this study may indicate that bureaucratic reform and digital transformation within the Ministry of State Secretariat have gradually fostered a more collaborative and learning-oriented organizational culture.

The results also show that Knowledge Sharing significantly influences Innovative Work Behavior, indicating that employees who actively exchange information and expertise are more likely to generate innovative ideas and contribute to organizational innovation. This finding supports [Islam, Zahra, Rehman, and Jamil \(2022\)](#), who found that knowledge sharing strengthens innovative work behavior through occupational self-efficacy mechanisms. [Lin \(2007\)](#) similarly argued that knowledge sharing improves organizational innovation capability because employees are able to utilize broader organizational knowledge resources to develop new ideas and work improvements. [Razmerita, Kirchner, and Nielsen \(2016\)](#) also emphasized that collaborative communication and social interaction positively influence employees' willingness to share knowledge, which subsequently strengthens innovation capability within organizations. These findings illustrate that innovation is strongly influenced by the quality of organizational learning and communication processes. In organizations characterized by high coordination demands and complex work processes, employees require access to diverse information and experiences to develop effective solutions and innovative ideas. Within the Ministry of State Secretariat, employees frequently coordinate across units in responding to policy and administrative issues, making knowledge-sharing practices highly important for supporting creativity and organizational innovation.

However, this result differs from [Liu and Phillips \(2011\)](#), who found that knowledge sharing does not necessarily improve innovative behavior when organizations lack collaborative climate and team support. [Liao, Fei, and Chen \(2007\)](#) also argued that knowledge sharing alone cannot encourage innovation unless organizations provide sufficient autonomy and innovation-supportive environments. These inconsistencies indicate that knowledge sharing becomes effective only when organizations simultaneously create collaborative cultures, supportive leadership, and opportunities for employees to implement innovative ideas. In the Ministry of State Secretariat, employees work in an environment that continuously requires coordination, adaptation, and collaborative problem solving, enabling shared knowledge to be transformed more effectively into innovative work behavior.

Furthermore, the findings reveal that Knowledge Sharing significantly affects Employee Performance, indicating that collaborative learning and information exchange contribute directly to improving employee effectiveness and productivity. This result is consistent with [Henttonen et al. \(2016\)](#), who found that knowledge sharing positively influences individual work performance because employees can access broader organizational knowledge resources. [Tangaraja, Mohd Rasdi, Abu Samah, and Ismail \(2016\)](#) also emphasized that knowledge-sharing practices improve employee effectiveness by facilitating collaborative problem solving and knowledge transfer. Likewise, [Abubakar, Elrehail, Alatailat, and Elçi \(2019\)](#) found that knowledge management and collaborative decision-making contribute positively to organizational performance improvement. The influence of knowledge sharing on employee performance becomes increasingly important in organizations where employees are required to handle complex and interconnected tasks. In the Ministry of State Secretariat, employees regularly work within collaborative systems that require coordination, accuracy, and rapid information exchange. Employees who actively participate in knowledge-sharing activities tend to possess stronger competencies, better problem-solving abilities, and higher work efficiency, which ultimately contribute to improved employee performance.

However, this finding contrasts with [Wang and Wang \(2012\)](#), who found that knowledge sharing does not always improve performance directly when organizations fail to integrate shared knowledge into operational processes. [Cabrera and Cabrera \(2005\)](#) similarly suggested that employees may perceive knowledge sharing as an additional burden rather than a productive activity when organizations lack supportive systems and incentives. These inconsistencies indicate that the effectiveness of knowledge sharing depends heavily on how organizations integrate collective knowledge into work systems and decision-making processes. In the Ministry of State Secretariat, the high dependence on coordination and rapid information exchange makes knowledge sharing more functional and directly related to employee performance improvement.

Finally, the mediation analysis confirms that Knowledge Sharing significantly mediates the relationship between Transformational Leadership and both Innovative Work Behavior and Employee Performance. This finding indicates that transformational leadership becomes more effective when leaders are able to create organizational environments that encourage collaboration and information exchange among employees. These results support [Afsar et al. \(2019\)](#), who found that transformational leadership indirectly improves innovative work behavior through knowledge sharing and job crafting mechanisms. Similarly, [Le and Lei \(2019\)](#) demonstrated that transformational leadership enhances organizational innovation capability through knowledge-sharing processes and organizational support. [Choi et al. \(2016\)](#) also emphasized that transformational leadership and knowledge sharing jointly contribute to innovation-oriented employee behavior. The mediating role of knowledge sharing highlights that leadership alone is insufficient to maximize employee innovation and performance outcomes. Employees are more likely to demonstrate innovative behavior and achieve higher performance when organizational environments support collaboration, communication, and collective learning. In the Ministry of State Secretariat, where employees are responsible for supporting presidential governance processes, knowledge sharing becomes a strategic mechanism that strengthens the effectiveness of transformational leadership in improving employee innovation, adaptability, and performance.

However, this finding contrasts with [Donate and Sánchez de Pablo \(2015\)](#), who found that knowledge management practices do not always mediate the relationship between leadership and innovation performance effectively, particularly in organizations with weak innovation orientation and limited knowledge utilization processes. [Yeboah \(2023\)](#) also argued that knowledge-sharing systems frequently fail to produce meaningful organizational outcomes when communication structures and collaborative culture are fragmented. These inconsistencies indicate that the mediating role of knowledge sharing is highly dependent on organizational culture, institutional support, and communication intensity. In contrast to organizations with rigid and fragmented structures, the Ministry of State Secretariat operates within an interconnected governance system that requires continuous coordination and collective problem solving, making knowledge sharing a more strategic mechanism in strengthening the impact of transformational leadership on employee innovation and performance.

5. Conclusions

5.1. Conclusions

This study examined the influence of Transformational Leadership on Innovative Work Behavior and Employee Performance through the mediating role of Knowledge Sharing among employees of the Ministry of State Secretariat. The findings reveal that all proposed hypotheses were supported. Transformational Leadership positively and significantly influences Knowledge Sharing, Innovative Work Behavior, and Employee Performance. Knowledge Sharing also positively affects Innovative Work Behavior and Employee Performance, confirming its important role in fostering employee innovation and effectiveness within public-sector organizations.

The most important finding of this study is that Knowledge Sharing emerged as the strongest predictor of both Innovative Work Behavior and Employee Performance and served as a significant mediating mechanism between Transformational Leadership and these outcomes. This finding suggests that leadership alone is insufficient to maximize employee innovation and performance unless it is accompanied by a work environment that encourages knowledge exchange, collaboration, and collective learning. Employees who actively share knowledge are better able to generate innovative ideas, solve work-related problems, and achieve higher levels of performance. The findings further indicate that Transformational Leadership enhances organizational outcomes both directly and indirectly through Knowledge Sharing. Leaders who inspire employees, provide intellectual stimulation, and support employee development are more likely to create a collaborative culture that facilitates learning and innovation. Consequently, leadership effectiveness is strengthened when leaders actively promote communication, cooperation, and knowledge-sharing practices across organizational units.

Overall, this study demonstrates that improving employee innovation and performance in public-sector organizations requires not only effective leadership but also a strong organizational culture that supports knowledge sharing and continuous learning. These findings are particularly relevant for government institutions undergoing bureaucratic reform and digital transformation, where innovation, adaptability, and collaboration are essential for achieving organizational effectiveness.

5.2. Theoretical Implications

This study contributes to the organizational behavior and public sector management literature by providing empirical evidence that Knowledge Sharing serves as a key mechanism linking Transformational Leadership with Innovative Work Behavior and Employee Performance. The findings extend previous studies by confirming the mediating role of Knowledge Sharing within a strategic government institution and highlight the importance of integrating leadership and organizational learning perspectives in explaining employee outcomes.

5.3. Practical Implications

From a managerial perspective, the findings suggest that public-sector organizations should strengthen both transformational leadership practices and knowledge-sharing mechanisms to improve innovation and performance. Since Knowledge Sharing was found to be the strongest driver of employee outcomes, managers should encourage cross-unit collaboration, open communication, and continuous learning. One actionable recommendation is to establish structured knowledge-sharing forums or communities of practice that enable employees to regularly exchange experiences, best practices, and solutions to organizational challenges. Such initiatives can strengthen organizational learning, improve employee capability, and support ongoing bureaucratic reform and digital transformation efforts.

5.4. Research Limitations

This study has several limitations that should be considered. First, the research relied on self-reported questionnaire data, which may create response bias and may not fully represent actual employee behavior related to Knowledge Sharing, Innovative Work Behavior, and Employee Performance. Respondents may also have provided socially desirable answers because the variables examined are closely linked to leadership and organizational performance.

Second, the study was conducted within a single government institution involving 200 employees, which may limit the generalizability of the findings to other public sector organizations or institutional settings. Differences in organizational culture, leadership practices, and knowledge-sharing environments across institutions may influence the relationships among Transformational Leadership, Knowledge Sharing, Innovative Work Behavior, and Employee Performance.

Third, the cross-sectional design restricts the ability to observe changes in employee behavior and organizational dynamics over time. The findings reflect conditions at one specific period and may not fully capture the long-term effects of leadership and knowledge-sharing practices on innovation and performance. Future studies using longitudinal approaches may provide deeper insights into the development of these relationships over time.

Finally, this study adopted a quantitative SEM-PLS approach, which may not fully explain broader organizational and contextual factors affecting employee behavior. Variables such as organizational culture, psychological safety, digital transformation, work environment, and employee engagement were not included in the model, although they may also influence innovation and performance. Therefore, future research is recommended to apply mixed-method or qualitative approaches to better understand organizational dynamics in public sector institutions.

5.5. Suggestions and Directions for Future Research

Future research is recommended to apply mixed-method or qualitative approaches to obtain deeper insights into the organizational dynamics underlying Transformational Leadership, Knowledge Sharing, Innovative Work Behavior, and Employee Performance. Expanding the research scope to different public sector institutions and employing longitudinal designs are also suggested to enhance the generalizability of findings and observe behavioral changes over time. Additionally, incorporating variables such as organizational culture, employee engagement, psychological safety, and digital transformation may provide a more comprehensive understanding of innovation and performance in public sector organizations.

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Author Contributions

All authors made substantial contributions to this research. The first author led the study by formulating the research concept, designing the methodology, conducting data collection, and preparing the initial manuscript. The second author contributed to the development of the theoretical framework, data analysis, interpretation of findings, and refinement of the manuscript. All authors have reviewed, approved, and agreed to the final version of the manuscript for publication.

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