

RESEARCH ARTICLE

Leadership and work performance in the public sector: Exploring the mediating role of employee engagement through a causal mechanism perspective

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ABSTRACT

This study investigates the causal mechanism by which leadership influences work performance, with a focus on the mediating role of employee engagement, a topic that remains underexplored in bureaucratic contexts. The research objectives are: (1) to examine the causal mechanism through which leadership affects public sector work performance, and (2) to explore the mediating role of employee engagement. Data were collected from 359 civil servants and government employees in tax administration agencies using a five-point rating scale questionnaire with rigorously validated measurement properties. Partial Least Squares Structural Equation Modeling (PLS-SEM) and a 5,000-sample bootstrap procedure were used to examine both direct and indirect effects as hypothesized. The results show that the structural model explains 61.8% of the variance in employee engagement and 64.4% of the variance in work performance, demonstrating strong explanatory power. Leadership has significant positive direct and indirect effects on work performance through employee engagement, with a high total effect. Employee engagement also has a significant positive impact on work performance. These findings highlight the pivotal role of leadership and participatory mechanisms in enhancing the effectiveness of Thailand's bureaucratic system. The study contributes to both theoretical advancement and practical implications, providing evidence-based insights for leadership development, human resource strategies, and public sector performance improvement.

Keywords: leadership; employee engagement; work performance; public sector; Thailand

1. Introduction

The public sector plays a crucial role in driving national development and delivering public services to citizens. However, the efficiency of the Thai public sector still requires continuous improvement, as indicated by the World Bank's Worldwide Governance Indicators report, which shows that Thailand's Government Effectiveness score remains lower than that of developed countries and several Southeast Asian nations^[1]. Furthermore, survey results on public satisfaction with government services highlight the need to enhance the efficiency and quality of these services. Various factors influence such efficiency, with

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leadership being widely recognized in academic circles as a key determinant of organizational success. Numerous studies have shown that leadership is positively associated with organizational performance in both the private and public sectors^{[2][3]}. Effective leaders can create a shared vision, motivate others, and develop personnel's potential to achieve organizational goals. However, the abundance of leadership research has focused on the direct relationship between leadership and organizational performance, without examining the mechanisms or processes that mediate this relationship. Over the past decade, scholars have increasingly emphasized the concept of employee engagement, defined as a positive psychological state characterized by enthusiasm, dedication, and commitment to work and organizations^[4]. Employee engagement has been found to be significantly associated with positive organizational outcomes, including job performance and customer satisfaction, and performance^[5]. A meta-analysis of 91 studies conducted by Christian et al. ^[6] found that employee engagement positively influences both task and contextual performance. Furthermore, the study highlighted that leadership plays a crucial role in fostering employee engagement, particularly transformational leadership, which effectively inspires and develops followers' potential^[7].

However, empirical evidence demonstrating the importance of leadership and employee engagement, and studies examining the role of employee engagement as a mediating variable between leadership and job performance, remain limited, particularly in the public sector. Most existing studies have been conducted in the private sector of Western countries^[8], leading to a lack of understanding of the causal mechanisms within the public sector context of Asian societies, especially Thailand, which possesses a unique organizational culture and bureaucratic system, and social values that differ from those of Western societies^[9]. Therefore, this research aims to examine the causal mechanism by which leadership influences performance in the Thai public sector, focusing on employee engagement as an intervening variable. The findings will contribute to the development of theoretical knowledge in organizational behavior and human resource management within the public sector context. Additionally, they can be applied to the formulation of strategies for human resource management and leadership development to enhance work efficiency and improve the quality of public services delivered to citizens.

2. Research objectives

1. To examine the direct and indirect influence of leadership on the efficiency of the Thai public sector.
2. To examine the role of employee engagement as a mediating variable between leadership and the performance of the Thai public sector.

3. Research hypothesis

Hypothesis 1: Leadership positively influences employee engagement in the Thai public sector.

Hypothesis 2: Leadership positively influences the performance of the Thai public sector.

Hypothesis 3: Employee engagement positively influences the performance of the Thai public sector.

Hypothesis 4: Employee engagement mediates the relationship between leadership and the performance of the Thai public sector.

Research conceptual framework

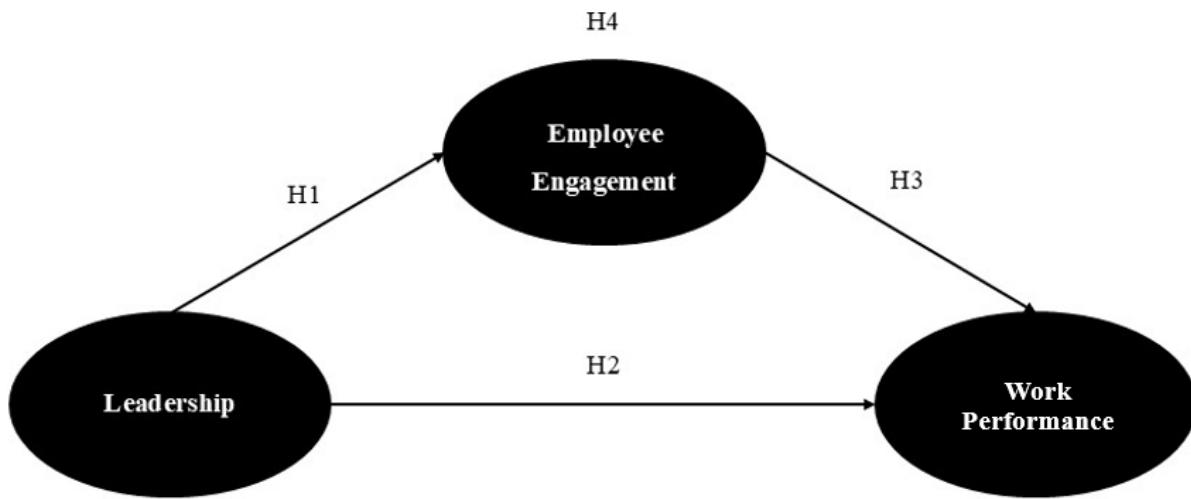


Figure 1. Conceptual Framework.

4. Literature and theoretical

Leadership is a key mechanism that directly and indirectly influences organizational performance, particularly in the public sector, where credibility, cooperation, and clear direction are essential for fulfilling public missions. In this research, leadership refers to executive behaviors that set a positive example for personnel (AU1.1), clearly define organizational values (AU1.2), consistently adhere to established policies (AU1.3), foster commitment to the agency's mission (AU1.4), and streamline work processes to enhance efficiency (AU1.5). All of these characteristics reflect the role of a visionary leader—one who demonstrates consistency between words and actions and is committed to continuous organizational development. This concept aligns with Bass and Riggio's ^[2] Transformational Leadership Theory, which emphasizes inspiration, intellectual stimulation, role modeling, and individualized consideration for followers, as well as Simons' ^[10] concept of behavioral integrity, which highlights credibility and transparency in management. This form of leadership contributes to the development of both employees' task-related and psychological resources, such as trust, a sense of meaning in work, and intrinsic motivation.

This has a significant impact on organizational engagement and performance. Several studies support this assertion. For example, Podsakoff et al. ^[11] found that transformational leadership enhances trust, satisfaction, and pro-organizational behaviors; Fernandez et al. ^[3] demonstrated that integrative leadership improves policy and process effectiveness in government agencies; and Walumbwa et al. ^[12] confirmed that authentic leadership directly influences employee trust and engagement. Employee engagement is a key psychological factor that drives organizational performance. It represents a positive mental state in which employees are enthusiastic, dedicated, and deeply focused on their work^[4]. Highly engaged employees are more committed to achieving organizational goals and are more likely to demonstrate proactive and collaborative team behaviors. In this research, employee engagement is reflected in leadership behaviors and management structures that foster engagement, such as empowering employees to perform their tasks (DU4.1), promoting cooperation and trust (DU4.2), providing opportunities for participation in goal setting and problem solving (DU4.3), and decentralizing authority and information to enable employees to assume leadership roles (DU4.4), and mentoring and job support (DU4.5). These behaviors represent structural and social resources that stimulate employees' internal motivation cycle. According to Bakker and Demerouti's ^[13] Job Demands–Resources (JD–R) theory, the availability of sufficient resources fosters engagement and

leads to positive organizational outcomes. Moreover, providing opportunities for employees to participate in goal setting aligns with Goal Setting Theory^[14], which posits that clear and challenging goals significantly enhance employee motivation and engagement. Saks^[8] found that leadership support and an open organizational climate positively influence engagement. Similarly, Christian et al.^[6] demonstrated that engagement is positively associated with both task and contextual performance, while Harter et al.^[5] confirmed that engagement is linked to key organizational outcomes such as service performance and customer satisfaction. Work performance in the Thai public sector refers to the level of capability to carry out operations and deliver public services efficiently, effectively, and in a manner that meets citizens' needs^[15]. In this research, work performance is reflected through the ability to complete tasks within the specified timeframe (HZ3.1), the development of convenient and efficient work methods (HZ3.2), the provision of fast and accurate services (HZ3.3), a strong understanding of systems and effective work procedures (HZ3.4), and teamwork aimed at achieving organizational goals (HZ3.5). Work performance results from the integration of an effective management system and personnel's work behaviors.

According to Campbell's^[16] Performance Theory, work performance is determined by a combination of knowledge, skills, motivation, and work context. In the public sector context, Boyne's^[15] framework suggests that enhancing performance requires attention to both systemic factors, such as improving internal processes, and individual factors, including employee cooperation and responsibility. Research further supports the significant role of employee engagement in driving performance. For instance, Christian et al.^[6] found that engagement is a strong predictor of productivity and service quality, while Podsakoff et al.^[17] demonstrated that pro-organizational behaviors, such as cooperation and team support, are crucial in enhancing organizational performance.

5. Methods

This study employs a quantitative research design to examine the causal mechanism by which leadership influences the performance of the Thai public sector, with employee engagement as an intervening variable. The sample consisted of 359 civil servants and government employees from tax-collecting organizations nationwide. The sample size was determined according to the principles outlined by Hair et al.^[18], which recommend multiplying the maximum number of arrows pointing to the dependent variable by 10. The adequacy of the sample was further verified using G*Power^[19] with an effect size of 0.15, a statistical power of 0.80, and a significance level of 0.05. The results confirmed that the sample size was sufficient for structural equation modeling (PLS-SEM) analysis. The research instrument was a 5-point Likert scale questionnaire covering variables related to leadership, employee engagement, and the performance of the Thai public sector. The questionnaire's content validity was assessed by three experts, and the results indicated an Index of Item-Objective Congruence (IOC) ranging from 0.80 to 1.00, which is considered satisfactory. Reliability was tested using a pilot sample of 30 participants. The Cronbach's alpha values ranged from 0.82 to 0.90, indicating good internal consistency. Data were collected through both online and paper-based questionnaires between March and May 2025. The data were analyzed using the SmartPLS program, which assessed the model's explanatory power through the R² value of the dependent variable. The causal hypotheses were tested using the Bootstrap method with 5,000 resamples to enhance the precision of parameter estimation and to examine the direct and indirect effects among the three latent variables: leadership, employee engagement, and the performance of the Thai public sector.

6. Results

From the descriptive data analysis, the sample of 415 participants consisted mostly of females, accounting for 258 individuals (62.2%), while males accounted for 157 individuals (37.8%). Regarding age, the largest group was 31–40 years old, comprising 139 individuals (33.5 percent), followed by 41–50 years old, 126 individuals (30.4 percent), and 50+ years old, 84 individuals (20.2 percent). The smallest group was under 20 years old, with only 2 individuals (0.5 percent). In terms of marital status, the majority were married (215 individuals, 51.8 percent), followed by single (167 individuals, 40.2 percent), and divorced, separated, or widowed (33 individuals, 8.0 percent). Regarding education level, most participants held a bachelor's degree (258 individuals, 62.2%), followed by a master's degree (102 individuals, 24.6%), and a degree below a bachelor's degree (55 individuals, 13.3%). Regarding work experience, most respondents had less than 5 years (129 individuals, 31.1 percent), followed by 125 individuals (30.1 percent) with more than 20 years of experience, and 85 individuals (20.5 percent) with 5–10 years of experience. Meanwhile, those with 11–15 years and 16–20 years of experience comprised 45 individuals (10.8 percent) and 31 individuals (7.5 percent), respectively. These findings indicate that the sample group represented diverse demographic characteristics, encompassing various age ranges, education levels, and work experience. Before conducting the structural model analysis, the measurement model was assessed to evaluate the reliability and validity of the latent variables, using Cronbach's alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). The analysis results, presented in Table 1, show that the Cronbach's alpha values of all variables range from 0.770 to 0.907, exceeding the minimum threshold of 0.70. Similarly, the composite reliability (pc) values ranged from 0.853 to 0.931 and exceeded the 0.70 criterion, indicating good internal consistency for each latent variable. Moreover, the AVE values ranged from 0.580 to 0.729, which were higher than the minimum acceptable level of 0.50^[18]. Therefore, it can be concluded that all variables demonstrated adequate convergent validity. To assess discriminant validity, the Heterotrait–Monotrait ratio (HTMT) and the Fornell–Larcker criterion were employed. The analysis results, presented in Table 2, indicated that the HTMT values for all variable pairs ranged from 0.876 to 0.895, which were below the 0.90 threshold^{[20][21]}, demonstrating clear discrimination among the latent variables. Furthermore, the results based on the Fornell–Larcker criterion (Table 3) showed that the square root of each variable's AVE (displayed on the diagonal) exceeded its correlations with other variables. This finding aligns with Fornell and Larcker's^[22] recommendation and confirms that the measurement model exhibits satisfactory discriminant validity overall.

Table 1. Construct reliability and validity.

Latent Variable	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Employee Engagement	0.907	0.909	0.931	0.729
Work Performance	0.770	0.871	0.853	0.580
Leadership	0.865	0.875	0.903	0.654

Table 2. Heterotrait-monotrait ratio (HTMT).

Latent Variable	Employee Engagement	Work Performance	Leadership
Employee Engagement			
Work Performance	0.895		
Leadership	0.883	0.876	

Table 3. Fornell-Larcker criterion.

Latent Variable	Employee Engagement	Work Performance	Leadership
Employee Engagement	0.854		
Work Performance	0.773	0.762	
Leadership	0.786	0.741	0.808

Based on the structural model and the results presented in Table 4, which display the causal path analysis of leadership, employee engagement, and the performance of the Thai public sector, the developed model effectively explained the variance in the dependent variables. The engagement variable had an R^2 of 0.618, indicating that leadership explained 61.8% of the variance in engagement. Meanwhile, the performance variable had an R^2 value of 0.644, suggesting that leadership and engagement together explained 64.4 percent of the variance in the performance of the Thai public sector, considered a relatively high value. These results indicate that the model is appropriate and can clearly explain the causal mechanisms among the variables. The causal path analysis revealed that leadership had a positive and statistically significant influence on employee engagement ($\beta = 0.786$, $p < 0.001$). This high coefficient underscores the critical role of leadership in fostering a work environment that promotes employee engagement within public organizations. With an R^2 value of 0.644, suggesting that leadership and engagement together explained 64.4 percent of the variance in Thai public-sector performance. When leaders demonstrate vision, inspiration, and support for their subordinates, employees feel valued and motivated to actively participate in work processes, thereby increasing engagement and organizational commitment.

In addition, employee engagement had a positive, statistically significant effect on the performance of the Thai public sector ($\beta = 0.501$, $p < 0.001$), indicating a direct effect. This finding indicates that as employee engagement increases, organizational performance improves. Engaged employees tend to demonstrate greater responsibility, collaboration, and commitment, striving collectively to achieve the organization's strategic goals to the fullest extent possible. The coefficient was found to be moderate to relatively high, indicating that employee engagement serves as an important mechanism linking leadership and performance within the Thai bureaucracy. Furthermore, leadership influenced performance both directly and indirectly through the engagement variable, with a direct effect of 0.347 ($p < 0.001$) and an indirect effect of 0.394, yielding a total effect of 0.741, which is considered very high. The 95% confidence interval for the total effect ranged from [0.679, 0.802], confirming the stability of the estimation results. Overall, the analysis clearly demonstrates that leadership plays a crucial dual role: directly enhancing performance and indirectly improving it through the promotion of employee engagement, which functions as a key mediating variable.

Table 4. Results of structural model analysis.

Causal Path	Direct impact	Indirect impacts	Total impact	Confidence intervals [2.5%,97.5%]	P-values
Employee engagement has a positive influence on the performance of the Thai public sector.	0.501**	-	0.501**	[0.402,0.600]	0.000
Leadership positively influences employee engagement.	0.786**	-	0.786**	[0.735,0.837]	0.000
Leadership also has a direct positive influence on the performance of the Thai public sector.	0.347**	0.394**	0.741**	[0.679,0.802]	0.000

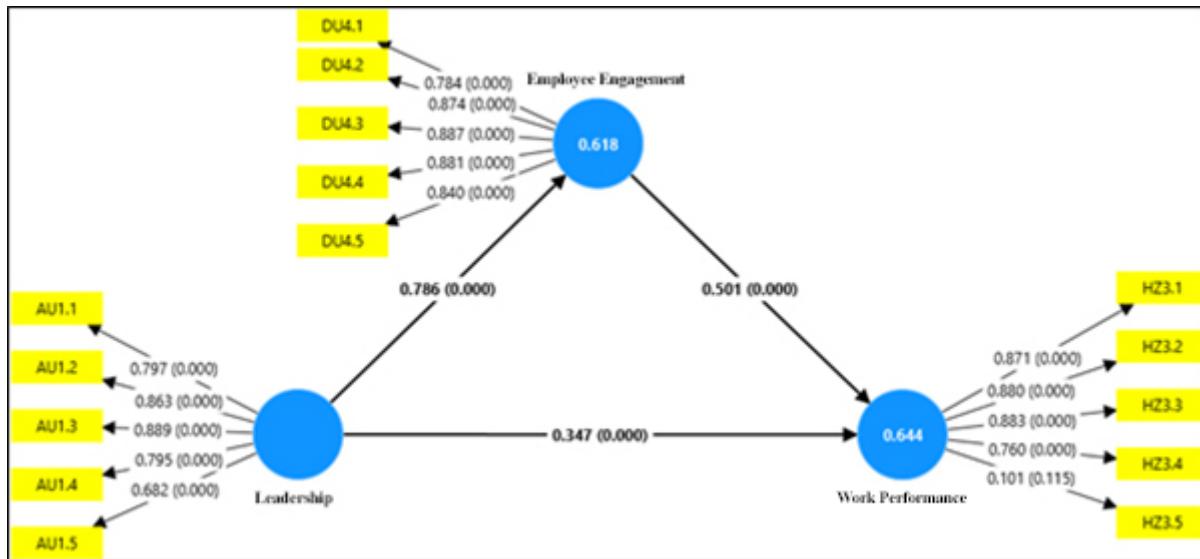


Figure 2. Structural model illustrating the relationships among leadership, employee engagement, and the performance of the Thai public sector.

7. Discussion

Hypothesis 1: The results of the study revealed that leadership has a positive influence on employee engagement in the Thai public sector ($\beta = 0.786$, $p < 0.001$). This finding is consistent with Transformational Leadership Theory, which posits that visionary and inspirational leaders can effectively foster employee motivation and engagement^[2]. It also aligns with recent empirical research emphasizing the critical role of leadership in promoting engagement. For example, Breevaart et al. ^[23] found that transformational leadership enhances engagement through self-efficacy and job autonomy, while Cai et al. ^[24] demonstrated that leadership that provides meaningful work and autonomy strengthens employee engagement in contemporary organizational contexts.

Hypothesis 2: Leadership has a direct positive influence on the performance of the Thai public sector ($\beta = 0.347$, $p < 0.001$). This finding indicates that leaders who can clearly define direction, build trust, and streamline work processes contribute to greater efficiency without relying solely on mediating variables. The result aligns with the findings of Podsakoff et al. ^[11] and Fernandez et al. ^[3], who found that leadership plays a significant role in enhancing public sector policy effectiveness. It is also consistent with more recent research by Karnsomdee and Phongkaew ^[25], who found that transformational leadership influences performance through innovation and human capital mechanisms, and by Buil et al. ^[26], who confirmed that transformational leadership has a significant positive effect on employee performance.

Hypothesis 3: Employee engagement has a positive influence on job performance ($\beta = 0.501$, $p < 0.001$). This finding is consistent with the study by Christian et al. ^[6], which found that engagement was a significant predictor of both task and contextual performance. It also aligns with the Job Demands–Resources (JD–R) theory, which posits that job and psychological resources foster engagement and, in turn, enhance job performance^[13]. Furthermore, this result is supported by more recent research, such as Bailey et al. ^[27], who conducted a systematic synthesis showing a strong positive relationship between engagement and performance outcomes, and Knight et al. ^[28], who confirmed that engagement-promotion programs significantly improve performance across various organizational contexts.

Hypothesis 4: Employee engagement serves as an intervening variable between leadership and public sector performance, with leadership exerting an indirect effect through engagement ($\beta = 0.394$, $p < 0.001$)

and a high total effect when combined with the direct effect ($\beta = 0.741$, $p < 0.001$). These findings highlight the crucial role of engagement in linking organizational resources to performance. This result is consistent with the perspectives of Schaufeli et al. [4] and Saks [8], as well as the more recent study by Kim and Beehr [29], which demonstrated that empowering leadership significantly influences performance through the mediating effects of engagement and organizational commitment.

In conclusion, the research findings provided strong support for all four hypotheses and validated the proposed causal framework, confirming that effective leadership enhances the performance of the Thai public sector both directly and indirectly through the mechanism of employee engagement. This underscores the strategic importance of fostering engagement as a key driver of a high-performing, sustainable Thai public sector.

8. Conclusion

The research findings clearly demonstrate that leadership positively influences the performance of the Thai public sector, both directly and indirectly through employee engagement. Visionary leadership, clear communication, and effective role modeling exert a significant direct influence on performance ($\beta = 0.347$, $p < 0.001$) and an indirect influence through the enhancement of employee engagement ($\beta = 0.394$), resulting in a total effect value of 0.741 ($p < 0.001$), which is considered very high. Furthermore, the results revealed that employee engagement positively influences work performance ($\beta = 0.501$, $p < 0.001$) and is directly affected by high-level leadership ($\beta = 0.786$, $p < 0.001$). This finding reflects that effective leaders can foster a work environment conducive to engagement, thereby enhancing employees' motivation and organizational commitment. Such an environment ultimately leads to a significant improvement in the efficiency and effectiveness of public sector operations.

Overall, the developed structural model explained 61.8% of the variance in employee engagement ($R^2 = 0.618$) and 64.4% of the variance in performance ($R^2 = 0.644$), which are considered high levels. These findings are consistent with Bass and Riggio's [2] Transformational Leadership Theory, which posits that visionary and exemplary leaders can inspire and enhance employee potential. They also align with Bakker and Demerouti's [13] Job Demands–Resources (JD–R) theory, which explains that both task-related and psychological resources provided by leaders stimulate employee engagement and significantly improve organizational performance. The results of this study have both theoretical and practical significance, offering empirical evidence that clarifies the causal mechanisms linking leadership, employee engagement, and performance within the Thai bureaucracy. These findings can serve as policy guidelines for developing effective and sustainable leadership and human resource management strategies in the public sector.

9. Suggestions

9.1. Theoretical suggestions

9.1.1. This research confirms the appropriateness of integrating leadership and human resource management concepts to explain the causal mechanisms linking leadership, employee engagement, and performance in Thai public sector organizations. The empirical investigation within the bureaucratic context broadens the scope of the conceptual framework to encompass the national level, where in-depth research on this topic remains limited.

9.1.2. The research findings reinforce the crucial role of employee engagement as an intervening variable and a key mechanism that transmits the influence of leadership to performance outcomes.

Confirming this mediating role enhances the theoretical understanding of causal relationships within public organizations characterized by centralized structures and limited flexibility.

9.1.3. This research presents a contemporary integrated conceptual framework that can serve as a foundation for future quantitative and mixed-method studies, particularly those seeking to expand the scope of analysis to include contextual factors such as organizational culture, digital systems, and incentive structures. Such extensions would enhance the depth and precision of theoretical models applied to the public sector.

9.2. Practical suggestions

9.2.1. Public administrators should demonstrate leadership by serving as positive role models in their work performance, clearly communicating the organization's vision and core values, and consistently adhering to established policies, regulations, and operational standards. These practices are essential for fostering confidence, trust, and shared understanding among personnel, which in turn supports operations that comply with appropriate systems and procedures, reduces service delivery errors, and ultimately enhances the accuracy and precision of public services.

9.2.2. Public sector organizations should also encourage executives to play an active role in strengthening employee engagement with the organization's mission and objectives through the communication of clear and meaningful work goals. Such efforts can motivate personnel to demonstrate commitment to completing tasks within specified timeframes and to collaborate effectively in achieving organizational goals in an efficient manner.

9.2.3. Public sector organizations should improve and develop work processes to enhance flexibility, eliminate redundant procedures, and increase operational efficiency, while simultaneously strengthening employee engagement through empowerment and tangible support for work performance. This includes providing opportunities for personnel to exercise discretion and apply their competencies in their duties, promoting cooperation and trust among colleagues, and enabling personnel to participate in goal setting and problem-solving in the workplace. Such approaches contribute to the development of more convenient and effective working methods.

9.2.4. Public sector organizations should appropriately decentralize authority and information to enable personnel to demonstrate leadership within their own areas of responsibility, while promoting the role of executives as coaches or mentors who provide ongoing consultation, guidance, and support in work performance. These practices help enhance personnel competencies in delivering timely, high-quality services, strengthen a comprehensive understanding of organizational systems and procedures, and promote teamwork toward achieving organizational objectives.

10. Suggestions for future research

1. Future studies should be extended to include other types of government agencies or regions with differing social, economic, and cultural contexts to test the generalizability of the causal model developed in this research. Comparative studies across groups would provide a deeper understanding of the variations in factors influencing leadership, employee engagement, and performance.

2. A longitudinal study should be conducted to analyze changes over time and to examine the cause-and-effect relationships among leadership, employee engagement, and job performance in greater depth. Since this study employed a cross-sectional data collection method, there may be limitations in fully establishing causal inferences, which a longitudinal approach could help to address more effectively.

3. Future research should consider adopting a mixed-methods approach by integrating quantitative data with qualitative insights obtained from in-depth interviews or field observations. Such an approach would provide a more comprehensive and theoretically meaningful understanding of the context, components, and mechanisms underlying the relationships among the variables.

4. Future research should incorporate additional mediating or moderating variables into the research model to examine more complex causal mechanisms. Factors such as organizational culture, organizational trust, incentive systems, or digital transformation could provide deeper insights and help better explain the variance in job performance.

5. Cross-national studies should be conducted to compare differences in leadership and employee engagement across bureaucracies in countries with varying administrative characteristics. Such comparative research would enhance international understanding and contribute to the development of more universally applicable theories of public sector leadership and engagement.

Conflict of interest

The authors declare no conflicts of interest.

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