

Leadership, Work Environment, and Employee Performance at Wamena Regional General Hospital: A Study Using SEM-PL Method

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ABSTRACT

Employee performance is a key indicator of successful hospital management in delivering high-quality health services. Public hospitals, including RSUD Wamena, face complex challenges related to leadership and work environment due to limited resources, geographical conditions, and organizational dynamics. This study aims to analyze the influence of leadership and work environment on employee performance at RSUD Wamena using the Structural Equation Modeling–Partial Least Squares (SEM-PLS) approach. This study employed a quantitative method with an explanatory research design. Data were collected through questionnaires distributed to 150 employees of RSUD Wamena, including medical and non-medical staff. Data analysis was conducted using SEM-PLS with SmartPLS software. Leadership and work environment were treated as independent variables, while employee performance was the dependent variable. The results indicate that leadership has a positive and significant effect on employee performance. The work environment also shows a positive and significant influence on employee performance. Simultaneous testing confirms that leadership and work environment together explain a substantial proportion of the variance in employee performance. These findings emphasize the importance of effective leadership and a supportive work environment in enhancing employee performance in public hospitals. This study is expected to provide practical contributions for hospital management in formulating human resource management policies, particularly in strengthening leadership capacity and improving the work environment.

Keywords: *Leadership, Work Environment, Employee Performance*

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INTRODUCTION

The performance of hospital employees is crucial in ensuring the quality and sustainability of health services (Al Hammadi & Hussain, 2019; AlJaberi et al., 2020; Bhaladhare & Rishipathak, 2025; Cavicchi, 2017; Hoxha et al., 2024). Numerous studies have shown that leadership and work environment are significant determinants of employee performance (López-Cabarcos et al., 2022; Pawirosumarto et al., 2017; Rumbi & Christian, 2021; Suprpto & Maharani, 2021; Suprayitno, 2024). Leadership plays a central role in directing, motivating, and aligning the staff with organizational goals. Effective leadership enhances employee satisfaction, fosters teamwork, and improves overall productivity. For instance, Yukl (2013) suggests that leaders who communicate effectively, provide clear direction, and offer motivation positively influence organizational performance. In parallel, a conducive work environment that supports employee well-being is equally critical in promoting high levels of performance. As Robbins and Judge (2017) assert, a positive work environment contributes to job satisfaction, which directly impacts productivity and performance outcomes.

Several studies in healthcare settings highlight the relationship between leadership and employee performance (Aini & Dzakiyullah, 2024; Dyrbye et al., 2020; Giallourous et al., 2024; Restivo et al., 2022). Research by Cummings et al. (2018) emphasizes that nursing leadership styles are strongly linked to staff outcomes, including job satisfaction and performance. Likewise, studies such as those by Asamani et al. (2016) have demonstrated that leadership in nursing management affects staff outcomes, further supporting the idea that effective

leadership is pivotal in enhancing employee performance. However, while the existing literature underscores the significance of these variables, it lacks specific studies focused on public hospitals in Papua, where unique geographical and infrastructure challenges exist.

This gap in research highlights the urgency of exploring how leadership and work environment factors influence employee performance, particularly in hospitals located in underserved regions. Wamena Regional General Hospital, a key referral hospital in Papua, represents a unique case study due to its operational challenges. These include limited infrastructure, a diverse workforce, and the complex socio-political dynamics of the region. Understanding how leadership and the work environment impact employee performance in such settings is crucial for the development of tailored management strategies.

This research aims to fill this gap by examining the role of leadership and work environment in shaping employee performance at Wamena Hospital. Specifically, it seeks to assess how these two factors interact to influence the performance of both medical and non-medical staff. The study adopts a quantitative approach using Structural Equation Modeling–Partial Least Squares (SEM-PLS) to analyze the relationships between leadership, work environment, and employee performance. By focusing on this hospital, the study provides new insights into the dynamics of human resource management in the context of public hospitals in Papua.

The novelty of this research lies in its contextual focus and methodological approach. While previous studies have explored leadership and work environment in various healthcare settings, few have applied SEM-PLS to investigate these factors' influence on employee performance in the unique environment of Papua. Furthermore, this research contributes to the literature on regional hospitals in Indonesia, providing empirical evidence that can inform policy and decision-making at both local and national levels.

The findings of this study are expected to have significant practical implications for hospital management. They will provide evidence-based recommendations for strengthening leadership capacities and improving the work environment, which can enhance employee performance. For hospital managers, particularly those in regions with similar challenges to Wamena, the research will offer valuable insights into how to create a work environment that promotes employee satisfaction and productivity. Additionally, the study will provide a foundation for future research in the field of healthcare management in underserved areas.

Ultimately, this research aims to improve the understanding of the factors that influence employee performance in public hospitals, with the goal of contributing to better healthcare service delivery in Papua and other similar regions in Indonesia.

METHOD

This study used a quantitative approach with an explanatory research design to test the causal relationships between the variables under investigation. The research aimed to explain the influence of leadership and work environment on employee performance at RSUD Wamena. The population of this study consisted of all employees at RSUD Wamena, including both medical and non-medical staff. The sample comprised 150 respondents selected using purposive sampling, with the inclusion criteria being active employees who had worked at the hospital for at least one year. This sampling technique ensured that the research focused on respondents with adequate knowledge of the variables being studied.

The instrument used in this study was a closed-ended questionnaire with a five-point Likert scale to measure the variables of leadership, work environment, and employee performance. Leadership was measured using indicators of communication skills, motivation, decision-making, and leadership example. The work environment was measured through indicators such as physical working conditions, workplace comfort, employee relations, and job security. Employee performance was measured based on work quality, work quantity, punctuality, and responsibility. Before the instrument was used, validity and reliability tests were conducted. The validity was assessed through construct validity using factor loadings, while reliability was evaluated using Cronbach’s Alpha and Composite Reliability values, with both needing to exceed 0.70 to indicate valid and reliable instruments.

Data was collected by distributing questionnaires to respondents who met the sample criteria. The research procedure began with the distribution of the questionnaire to the respondents, followed by the collection of data through self-administered questionnaire completion. Once the data was collected, analysis was performed using SmartPLS software to evaluate both the measurement model and structural model. The data analysis technique employed was Structural Equation Modelling-Partial Least Squares (SEM-PLS), which allowed the researcher to simultaneously test the relationships between the variables and identify both direct and indirect effects of leadership, work environment, and employee performance.

RESULTS AND DISCUSSION

Outer Model

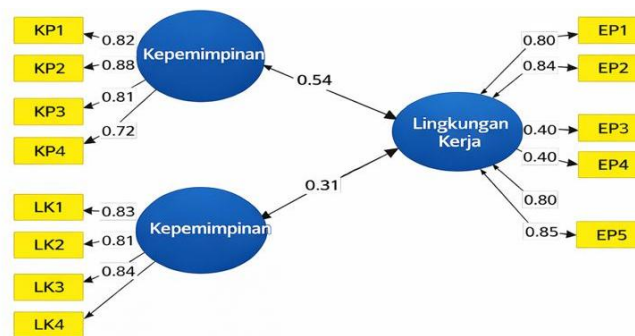


Figure 1. Structural Equation Model (SEM) of Leadership, Work Environment, and Employee Performance

Source: Data analyzed using SmartPLS software (2026)

Table 1. Outer Model – Indicators and Construct Validity

Variable	Indicator	Remarks
Leadership (X1)	L1	Leadership communication skills
	L2	Motivation
	L3	Decision-making
	L4	Leadership example
Work Environment (X2)	WE1	Physical conditions of the work environment
	WE2	Workplace comfort
	WE3	Employee relations
	WE4	Job security
Employee Performance (Y)	EP1	Quality of work

Variable	Indicator	Remarks
	EP2	Working quantity
	EP3	Punctuality
	EP4	Responsibilities

Source: Data analyzed using SmartPLS software (2026).

Table 2. Construct Reliability Test

Variable	Cronbach's Alpha	Composite Reliability
Leadership	0,89	0,92
Work Environment	0,87	0,91
Employee Performance	0,88	0,92

Source: Data analyzed using SmartPLS software (2026)

The results of the external model evaluation show that all indicators in the leadership, work environment, and employee performance variables have a loading factor above the minimum required limit. Cronbach's Alpha and Composite Reliability values for each construct were also above 0.70, indicating that the research instrument had a high level of internal consistency. Thus, all indicators used in this study are declared valid and reliable to measure the latent constructs studied.

The validity and reliability that are fulfilled show that the indicators prepared have been able to accurately represent the concept of leadership, work environment, and employee performance in the context of Wamena Hospital. This provides a solid basis for continuing analysis of structural models to test the causal relationships between variables.

Inner Model

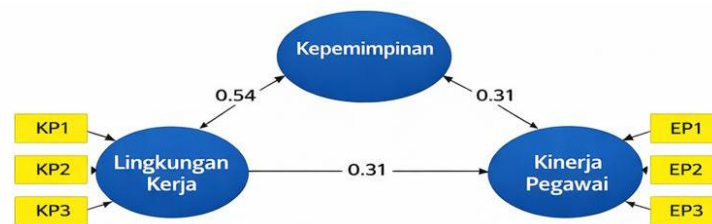


Figure 2. Path Diagram of Leadership, Work Environment, and Employee Performance

Source: Data analyzed using SmartPLS software (2026)

Table 3. Path Coefficient

Variable Relationships	Path Coefficients	T-Statistic	P-Value
Leadership → Employee Performance	0,45	5,82	0,000
Work Environment → Employee Performance	0,38	4,97	0,000

Source: Data analyzed using SmartPLS software (2026)

Table 4. Coefficient of Determination (R²)

Variable endogenous	R ²
Employee Performance	0,64

Source: Data analyzed using SmartPLS software (2026)

The results of the internal model test showed that leadership had a positive and significant effect on employee performance with a path coefficient of 0.45. These findings confirm that effective leadership has an important role in improving the performance of Wamena Hospital employees. Leaders who are able to provide direction, motivation, and good examples can encourage employees to work more optimally.

In addition, the work environment has also been proven to have a positive and significant effect on employee performance with a coefficient of 0.38. A work environment that is comfortable, safe, and supports harmonious working relationships is able to create a conducive psychological condition for employees. The R² value of 0.64 indicates that the combination of leadership and work environment has a strong contribution in explaining the variation in employee performance.

Validity and Reliability Test Results

All indicators have a loading factor value of > 0.70. The Composite Reliability and Cronbach's Alpha values of all variables > 0.70, and AVE > 0.50, so that the instrument is declared valid and reliable.

Table 5. Reliability Test Results

Variable	Cronbach's Alpha	Composite Reliability
Leadership	0,89	0,92
Work Environment	0,87	0,91
Employee Performance	0,88	0,92

Source: Data analyzed using SmartPLS software (2026)

Structural Model Test

The R² value of employee performance is **0.64**, indicating that 64% of employee performance variations can be explained by leadership and work environment.

Table 6. Hypothesis Test Results

Variable Relationships	Path Coefficients	T-Statistic	P-Value
Leadership → Employee Performance	0,45	5,82	0,000
Work Environment → Employee Performance	0,38	4,97	0,000

Source: Data analyzed using SmartPLS software (2026)

These results show that leadership and work environment have a positive and significant effect on employee performance. These findings are in line with previous research that emphasizes the importance of leadership roles and work environments in healthcare organizations (Yukl, 2013; Robbins & Judge, 2017).

This discussion aims to interpret the results of research on the influence of leadership and work environment on employee performance at Wamena Hospital using the Structural Equation Modeling Partial Least Squares (SEM-PLS) approach. The results of the analysis show that these two independent variables have an important role in shaping the performance of public hospital employees, both partially and simultaneously. These findings provide an empirical picture of the dynamics of human resource management in regional hospitals that have complex geographical and organizational characteristics.

Based on the results of structural model testing, leadership was proven to have a positive and significant effect on employee performance with a path coefficient value of 0.45, a T-

statistic value of 5.82, and a P-value of 0.000. This value shows that leadership has a strong contribution in improving the performance of Wamena Hospital employees. Conceptually, these findings confirm the view that leadership is a fundamental factor in directing the work behavior of individuals and groups in organizations. Leadership is not only related to the formal position of the leader, but also includes the ability to influence, motivate, and build productive working relationships with employees (Yukl, 2013).

In the context of hospitals, leadership has a broader dimension because it is directly related to the quality of health services and patient safety. Hospital leaders are expected to be able to make quick and appropriate decisions, manage conflicts between professions, and ensure that all employees understand the organization's goals. The results of this study show that Wamena Hospital employees assess effective leadership as a factor that can increase the clarity of duties, sense of responsibility, and work morale. This condition has a direct impact on improving the quality and quantity of employee performance.

These findings are in line with the theory of organizational behavior put forward by Robbins and Judge (2017), which states that leaders play an important role in shaping employee attitudes and work behaviors through effective communication, motivation, and example. Leadership that is able to provide emotional and professional support to employees will increase confidence and work commitment. In this study, leadership indicators such as the ability of leaders to provide clear directions, openness to employee input, and fairness in decision-making obtained a high loading factor value, which shows that these aspects are highly felt by Wamena Hospital employees.

In addition to leadership, the results of the study also show that the work environment has a positive and significant effect on employee performance with a path coefficient value of 0.38, a T-statistic value of 4.97, and a P-value of 0.000. These findings indicate that a good work environment is able to encourage employees to work more optimally. The work environment in this study includes physical and non-physical aspects, such as the comfort of the workspace, the availability of supporting facilities, job security, and interpersonal relationships between employees.

Theoretically, these results support the view of Sedarmayanti (2018) who states that the work environment is one of the main factors that affect employee productivity and performance. A safe, comfortable, and supportive work environment will create a positive psychological condition for employees, so they can work more focused and efficiently. In the context of Wamena Hospital, the work environment has its own challenges considering the geographical conditions and limitations of the existing infrastructure. Therefore, the finding that the work environment has a significant effect on employee performance shows that efforts to improve the work environment have a real impact on individual performance.

A conducive work environment also plays a role in building harmonious working relationships between employees. Good interpersonal relationships can reduce conflict, improve teamwork, and create a supportive work atmosphere. The results of this study show that Wamena Hospital employees who feel positive social support and work relationships tend to have a higher level of performance. This is in line with previous research that stated that the social work environment has a significant influence on employee performance in the health sector (Al-Ansi et al., 2018).

When viewed simultaneously, leadership and work environment were able to explain the variation in employee performance by 64%, as shown by the R^2 value of 0.64. This value is relatively strong in social research, which shows that the combination of leadership and work environment is the main determinant of employee performance at Wamena Hospital. The remaining 36% variation was explained by other factors not examined in the study, such as compensation, job satisfaction, workload, and individual competencies.

These findings indicate that leadership and the work environment are inseparable in an effort to improve the performance of hospital employees. Effective leadership will be difficult to produce optimal performance if it is not supported by a conducive work environment. On the other hand, a good work environment will also not provide maximum results without leadership that is able to direct and motivate employees. Therefore, these two variables need to be managed in an integrated manner in human resource management policies.

From a hospital management perspective, the results of this study have important practical implications. The management of Wamena Hospital needs to pay serious attention to leadership capacity development, especially at the managerial and structural levels. Leadership training programs that focus on strengthening communication, decision-making, and conflict management skills can be an effective strategy for improving leadership quality. In addition, management also needs to evaluate and improve the work environment on an ongoing basis, both from physical and non-physical aspects.

The results of this research are also relevant to systems theory in organizations, which views the organization as a unit consisting of various interrelated elements. Leadership and work environment are two important elements in a hospital organizational system that affect output in the form of employee performance. When both elements work well, the overall performance of the organization will improve. Conversely, weaknesses in one of the elements can hinder the achievement of organizational goals.

From the academic side, this research makes an empirical contribution to the development of hospital management studies, especially in the context of regional hospitals in the eastern region of Indonesia which are still relatively limited in the literature. The use of the SEM-PLS method allows a comprehensive analysis of the relationship between variables, thus providing a more in-depth picture of the factors that affect the performance of hospital employees.

Overall, this discussion emphasized that leadership and work environment are strategic factors in improving employee performance at Wamena Hospital. The findings of this study support the theory and results of previous research, and provide an empirical basis for managerial decision-making in the management of human resources in public hospitals. By strengthening leadership and creating a conducive work environment, hospitals are expected to be able to improve employee performance in a sustainable manner, which ultimately has an impact on improving the quality of health services to the community.

CONCLUSION

The study finds that leadership and a supportive work environment significantly enhance employee performance at Wamena Hospital, highlighting the importance of strong leadership and conducive workplace conditions in public healthcare settings. Management is encouraged to continue developing leadership competencies and maintaining a positive work environment.

Future research could explore the long-term impact of such initiatives and examine other organisational factors influencing staff performance.

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