

The Effect of Physical Work Environment, Non-Physical Work Environment, and Motivation on Employee Performance at BAPPENDA of West Nusa Tenggara Province

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ABSTRACT

The study purpose was to analyze the effect of physical work environment, non-physical work environment, and motivation on employee performance at the Regional Revenue Management Agency (BAPPENDA) of West Nusa Tenggara Province. The study was conducted based on the importance of a conducive work environment and adequate employee motivation in supporting the achievement of organizational performance.

Materials and methods. This study employed a quantitative approach. The population consisted of 134 employees of BAPPENDA of West Nusa Tenggara Province, with 100 respondents selected as the research sample. Data were collected through questionnaires and analyzed using multiple linear regression. The analysis included partial significance testing (t-test), simultaneous significance testing (F-test), and the coefficient of determination (R^2).

Results. The results showed that the physical work environment had a positive and significant effect on employee performance, with a t-value of 6.512 and a significance value of less than 0.001. The non-physical work environment did not have a significant effect on employee performance, with a t-value of -0.960 and a significance value of 0.339. Meanwhile, motivation had a positive and significant effect on employee performance, with a t-value of 2.528 and a significance value of 0.013. Simultaneously, physical work environment, non-physical work environment, and motivation had a significant effect on employee performance, as indicated by an F-value of 20.091 and a significance value of less than 0.001. The adjusted coefficient of determination was 0.366, indicating that the three independent variables explained 36.6% of the variation in employee performance.

Conclusions. Physical work environment and motivation significantly contributed to employee performance, whereas non-physical work environment did not show a significant partial effect. Simultaneously, the three variables significantly affected employee performance at BAPPENDA of West Nusa Tenggara Province.

Keywords: Physical Work Environment, Non-Physical Work Environment, Motivation, Employee Performance, BAPPENDA

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INTRODUCTION

Human resources are an important element in achieving organizational objectives because employee performance determines the extent to which organizational tasks and responsibilities can be accomplished effectively. Employee performance is reflected in the quality and quantity of work, timeliness, and the ability of employees to carry out their responsibilities. Therefore, organizations need to create conditions that can support employees in performing their duties optimally.

One of the factors associated with employee performance is the work environment. The work environment includes physical conditions surrounding employees as well as non-physical conditions involving social relationships and interactions within the organization. A supportive physical work environment can provide employees with comfort in carrying out their activities. Adequate facilities, comfortable workspace, lighting, air circulation, cleanliness, and workplace safety are among the

conditions that can support employees in completing their tasks. In addition, a non-physical work environment, including relationships among employees and relationships between employees and supervisors, can shape employees' experiences while working.

Another factor that is relevant to employee performance is motivation. Motivation represents the internal and external encouragement that stimulates employees to carry out their duties and achieve organizational goals. Employees with stronger work motivation are expected to demonstrate greater enthusiasm, responsibility, and willingness to complete their assigned tasks.

This study was conducted at the Regional Revenue Management Agency (BAPPENDA) of West Nusa Tenggara Province. The empirical condition identified in the research indicates that employee performance remains an important issue to be examined in relation to the physical work environment, non-physical work environment, and motivation. The following table presents an overview of the performance-related indicators identified in the research.

Table 1. Overview of Employee Performance Indicators at BAPPENDA of West Nusa Tenggara Province

No.	Performance Indicator	Description
1	Quality of Work	The extent to which employees complete work according to the required standards
2	Quantity of Work	The ability of employees to complete the expected amount of work
3	Timeliness	The ability of employees to complete tasks within the specified time.
4	Responsibility	The ability of employees to carry out assigned duties and responsibilities

Source: Research data, 2026.

The table indicates that employee performance can be viewed through several aspects, including quality, quantity, timeliness, and responsibility. These aspects provide an empirical basis for examining factors that may be associated with employee performance at BAPPENDA of West Nusa Tenggara Province. In this context, the physical and non-physical work environment as well as employee motivation become relevant factors to be examined simultaneously. Previous studies have reported different findings regarding the relationship between work environment and employee performance. The differences indicate that the effect of a particular work environment may depend on organizational characteristics and other factors included in the research model. Therefore, further empirical examination is needed in the context of BAPPENDA of West Nusa Tenggara Province.

Based on this background, this study aims to analyze the effect of physical work environment, non-physical work environment, and motivation on employee performance at BAPPENDA of West Nusa Tenggara Province, both partially and simultaneously. The results are expected to provide empirical information regarding factors associated with employee performance and to serve as consideration for efforts to improve employee performance within the organization.

METHOD

This research uses a quantitative approach with an associative research design to examine the relationship between the independent variables and the dependent variable. Data were collected through a survey by distributing questionnaires to employees who were the respondents of the study. The independent variables in this research consist of physical work environment, non-physical work environment, and motivation, while employee performance is the dependent variable.

The research was conducted at the Regional Revenue Management Agency (BAPPENDA) of West Nusa Tenggara Province. The population in this study consisted of 134 employees. The sample consisted of 100 respondents, determined using the Slovin formula and selected through a random sampling technique. Primary data were collected using questionnaires designed based on the indicators of each research variable. The questionnaire used a Likert scale to measure respondents' perceptions of the variables examined.

The data were analyzed using multiple linear regression to determine the effect of physical work environment, non-physical work environment, and motivation on employee performance. The analysis included hypothesis testing through the partial significance test (t-test) to determine the effect of each independent variable on employee performance, the simultaneous significance test (F-test) to determine the joint effect of the independent variables, and the coefficient of determination (R^2) to determine the proportion of variation in employee performance explained by the research model. The research model was formulated to examine both the individual and simultaneous effects of physical work environment, non-physical work environment, and motivation on employee performance. The analysis was conducted using statistical software, with a significance level of 5%.

FINDING AND DISCUSSION

Descriptive Analysis

The descriptive analysis was conducted to provide an overview of respondents' perceptions of the physical work environment, non-physical work environment, motivation, and employee performance. The results are presented based on the mean scores obtained from the questionnaire responses.

Table 1. Descriptive Statistics of Research Variables

Variable	Mean	Category
Physical Work Environment	3.62	Good
Non-Physical Work Environment	3.99	Good
Motivation	4.00	High
Employee Performance	3.97	Good

Source: Primary data, 2026.

The descriptive results show that the physical work environment obtained a mean score of 3.62, categorized as good. The non-physical work environment obtained a mean score of 3.99, also categorized as good. Meanwhile, motivation obtained the highest mean score of 4.00, categorized as high, while employee performance obtained a mean score of 3.97, categorized as good. These results indicate that respondents generally perceived the conditions of the work environment, motivation, and employee performance positively.

Validity Test

The validity test was conducted to determine whether each questionnaire item was capable of measuring the intended variable. With 100 respondents, the degrees of freedom were 98, resulting in an r-table value of 0.196 at a 5% significance level. An item is considered valid when the calculated correlation value exceeds the r-table value.

Table 2. Validity Test Results

Variable	Item	r-count	Description
Physical Work Environment (X1)	X1.1	0.581	Valid
	X1.2	0.638	Valid
	X1.3	0.715	Valid
	X1.4	0.570	Valid
	X1.5	0.541	Valid
	X1.6	0.486	Valid
	X1.7	0.414	Valid
	X1.8	0.588	Valid
	X1.9	0.475	Valid
	X1.10	0.489	Valid
Non-Physical Work Environment (X2)	X2.1	0.416	Valid
	X2.2	0.391	Valid

	X2.3	0.732	Valid
	X2.4	0.708	Valid
	X2.5	0.538	Valid
	X2.6	0.776	Valid
	X2.7	0.712	Valid
	X2.8	0.340	Valid
Motivation (X3)	X3.1	0.476	Valid
	X3.2	0.371	Valid
	X3.3	0.668	Valid
	X3.4	0.665	Valid
	X3.5	0.580	Valid
	X3.6	0.755	Valid
	X3.7	0.730	Valid
	X3.8	0.347	Valid
Employee Performance (Y)	Y1	0.830	Valid
	Y2	0.797	Valid
	Y3	0.618	Valid
	Y4	0.819	Valid
	Y5	0.825	Valid
	Y6	0.839	Valid
	Y7	0.797	Valid
	Y8	0.682	Valid

Source: Primary data, 2026.

All questionnaire items have r-count values greater than 0.196. Therefore, all items for physical work environment, non-physical work environment, motivation, and employee performance are declared valid and suitable for further analysis.

Reliability Test

The reliability test was conducted using Cronbach's Alpha. An instrument is considered reliable when the Cronbach's Alpha value exceeds 0.70.

Table 3. Reliability Test Results

Variable	Cronbach's Alpha	Standard	Description
Physical Work Environment (X1)	0.745	0.70	Reliable
Non-Physical Work Environment (X2)	0.713	0.70	Reliable
Motivation (X3)	0.713	0.70	Reliable
Employee Performance (Y)	0.902	0.70	Reliable

Source: Primary data, 2026.

The results show that all variables have Cronbach's Alpha values above 0.70. Therefore, all research instruments are reliable and can be used for subsequent statistical analysis.

Classical Assumption Tests

Normality Test

Table 4. Normality Test

Test	Asymp. Sig. (2-tailed)	Description
Kolmogorov-Smirnov	0.123	Normally Distributed

Source: Primary data, 2026.

The Kolmogorov-Smirnov test produced an Asymp. Sig. value of 0.123, which is greater than 0.05. Therefore, the residual data are normally distributed.

Heteroscedasticity Test

Table 5. Heteroscedasticity Test

Variable	Sig.	Description
Physical Work Environment	0.213	No Heteroscedasticity
Non-Physical Work Environment	0.308	No Heteroscedasticity
Motivation	0.605	No Heteroscedasticity

Source: Primary data, 2026.

All significance values are greater than 0.05, indicating that the regression model does not show symptoms of heteroscedasticity.

Multicollinearity Test

Table 6. Multicollinearity Test

Variable	Tolerance	VIF	Description
Physical Work Environment	0.978	1.023	No Multicollinearity
Non-Physical Work Environment	0.299	3.340	No Multicollinearity
Motivation	0.298	3.356	No Multicollinearity

Source: Primary data, 2026.

All tolerance values exceed 0.10 and all VIF values are below 10. Thus, the regression model is free from multicollinearity.

Multiple Linear Regression Analysis

Table 7. Multiple Linear Regression Results

Variable	B	Std. Error	Beta	t	Sig.
Constant	3.224	4.402	—	0.732	0.466
Physical Work Environment (X1)	0.509	0.078	0.527	6.512	0.001
Non-Physical Work Environment (X2)	-0.199	0.207	-0.140	-0.960	0.339
Motivation (X3)	0.516	0.204	0.370	2.528	0.013

Source: Primary data, 2026.

Based on Table 7, the multiple linear regression equation is:

$$Y = 3.224 + 0.509X_1 - 0.199X_2 + 0.516X_3$$

The physical work environment has a positive regression coefficient of 0.509, indicating that an increase in the physical work environment is associated with an increase in employee performance, assuming the other variables remain constant. The non-physical work environment has a negative coefficient of -0.199, although its effect is not statistically significant. Motivation has a positive coefficient of 0.516, indicating a positive relationship with employee performance.

Simultaneous Test

Table 8. Simultaneous Test (F-Test)

F-count	Sig.	Description
20.091	0.001	Significant

Source: Primary data, 2026.

The F-test shows an F-count of 20.091 with a significance value of 0.001, which is below 0.05. Thus, physical work environment, non-physical work environment, and motivation simultaneously have a significant effect on employee performance.

Partial Test

Table 9. Partial Test (t-Test)

Hypothesis	Variable	t-count	t-table	Sig.	Result
H1	Physical Work Environment → Employee Performance	6.512	1.985	0.001	Accepted
H2	Non-Physical Work Environment → Employee Performance	-0.960	1.985	0.339	Rejected
H3	Motivation → Employee Performance	2.528	1.985	0.013	Accepted

Source: Primary data, 2026.

The partial test shows that physical work environment has a significant effect on employee performance because the t-count of 6.512 exceeds the t-table of 1.985 and its significance value is below 0.05. The non-physical work environment does not have a significant effect because its t-count is -0.960 with a significance value of 0.339. Meanwhile, motivation has a significant effect because its t-count of 2.528 exceeds the t-table of 1.985, with a significance value of 0.013.

Coefficient of Determination

Table 10. Coefficient of Determination

R	R Square	Adjusted R Square
0.621	0.386	0.366

Source: Primary data, 2026.

The model produces an R Square of 0.386, while the Adjusted R Square is 0.366. This means that the three independent variables explain 36.6% of the variation in employee performance, while the remaining 63.4% is associated with other factors outside the research model.

Discussion

1. The Effect of Physical Work Environment on Employee Performance

The results demonstrate a positive and significant effect of the physical work environment on employee performance. The regression coefficient is 0.509, with a t-value of 6.512 and a significance value of 0.001. The finding indicates that better physical working conditions are associated with higher employee performance. The descriptive results also show that the physical work environment has a mean score of 3.62, categorized as good. The highest-rated item was X1.10 with a mean of 4.14, while the lowest was X1.2 with a mean of 3.08.

2. The Effect of Non-Physical Work Environment on Employee Performance

The non-physical work environment does not have a significant effect on employee performance. The regression coefficient is -0.199, with a t-value of -0.960 and a significance value of 0.339. Although the descriptive analysis shows that the non-physical work environment is perceived

as good, with a mean score of 3.99, the statistical test does not demonstrate a significant direct effect on employee performance.

3. The Effect of Motivation on Employee Performance

Motivation has a positive and significant effect on employee performance. The regression coefficient is 0.516, with a t-value of 2.528 and a significance value of 0.013. The descriptive analysis shows a mean motivation score of 4.00, indicating a high level of motivation among respondents. The highest-rated motivation item was X3.2 with a mean of 4.12, while the lowest was X3.5 with a mean of 3.79.

4. The Simultaneous Effect of Physical Work Environment, Non-Physical Work Environment, and Motivation on Employee Performance

The F-test demonstrates that physical work environment, non-physical work environment, and motivation simultaneously have a significant effect on employee performance, with an F-value of 20.091 and a significance value of 0.001. The Adjusted R Square of 0.366 indicates that the three variables collectively explain 36.6% of the variation in employee performance. The remaining 63.4% is related to other factors outside the model.

CONCLUSIONS

This study was conducted to examine the effects of physical work environment, non-physical work environment, and motivation on employee performance at the Regional Revenue Management Agency (BAPPENDA) of West Nusa Tenggara Province. Based on the results of the data analysis and hypothesis testing, the study provides several important conclusions. First, the physical work environment has a positive and significant effect on employee performance. This finding indicates that the physical conditions in which employees perform their duties are associated with their ability to achieve better performance. A work environment that provides adequate physical conditions can support employees in completing their tasks and responsibilities more effectively. The result emphasizes the relevance of maintaining appropriate physical workplace conditions as part of efforts to support employee performance.

Second, the non-physical work environment does not have a significant effect on employee performance. Although respondents generally perceived the non-physical work environment positively, the statistical test did not demonstrate a significant partial relationship between the non-physical work environment and employee performance. This finding indicates that positive interpersonal and social conditions within the workplace did not independently explain differences in employee performance in this research context. Therefore, the contribution of the non-physical work environment to employee performance needs to be understood together with other organizational and individual factors.

Third, motivation has a positive and significant effect on employee performance. The finding indicates that employees with stronger work motivation tend to demonstrate better performance in carrying out their duties and responsibilities. Motivation therefore represents an important individual factor associated with employee performance at BAPPENDA of West Nusa Tenggara Province. Efforts to maintain and strengthen employee motivation may consequently support employees in achieving organizational work targets.

Fourth, physical work environment, non-physical work environment, and motivation simultaneously have a significant effect on employee performance. The simultaneous result demonstrates that employee performance cannot be understood solely from one factor but is related to the combination of workplace conditions and employee motivation. The coefficient of determination further shows an Adjusted R Square value of 0.366, meaning that physical work environment, non-physical work environment, and motivation collectively explain 36.6% of the variation in employee performance, while the remaining 63.4% is associated with other factors outside the research model.

Overall, the findings provide empirical evidence that physical work environment and motivation are significant factors associated with employee performance, whereas the non-physical work environment does not demonstrate a significant partial effect in this study. The results may provide useful empirical information for BAPPENDA of West Nusa Tenggara Province in

understanding factors related to employee performance, particularly in maintaining appropriate physical working conditions and supporting employee motivation. At the same time, the proportion of unexplained variation indicates that further research can consider other factors outside the current model to obtain a broader understanding of employee performance.

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