

## The Influence of Work Environment and Leadership Style on Employee Productivity



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**ABSTRACT:** The productivity of human resources needs to be continuously improved through various sustainable efforts. The work environment is one of the important efforts to increase teacher productivity. Schools need to pay attention to the work environment so that teacher productivity increases, both physical and non-physical environments. This research will be carried out at the Adiguna Maritim Polytechnic, which will be held in March 2019. The results of this study show. (1) It can be seen that the adjusted value of the R square is 0.501 or 50.1%. This shows that the Work Environment Variable (X1) and the Leadership Style Variable (X2) can explain the Work Productivity Variable (Y) by 50.1%, the rest 49.9% (100% - 50.1%) is true by other variables outside the research model. (2) The results of the t test (partial) show that  $t(2.528) > t \text{ table}(1.697)$ , as well as the significance value of  $0.017 < 0.05$ , it can reject the first hypothesis accepted, meaning that the Work Environment Variable (X1) affects the Work Productivity (Y) is accepted. (3) The results of the t test (partial) show that  $t \text{ count}(4.269) > t \text{ table}(1.697)$ , and a significance value of  $0.000 < 0.05$ , it can be rejected that the second hypothesis is accepted, meaning that the leadership style variable (X2) affects the work productivity variable. (Y). (4) The results of the simultaneous test (F) can be seen that  $F \text{ count}(16,585) > F \text{ table}(3,295)$ , and a significance value of  $0.000 < 0.05$ , it can be rejected for the third acceptance, meaning that the Work Environment Variable (X1), the Leadership Style Variable (X2) influence jointly (simultaneously) on the Work Productivity Variable (Y).

**KEYWORDS:** Work Environment, Leadership Style and Work Productivity

### INTRODUCTION

Human resources are increasingly recognized as a vital and central organizational resource. Human resources are always attached to every resource of any organization, as a determining factor for its existence and role in contributing to the achievement of organizational goals. Of all the resources available in an organization, both public and private, human resources are the most important and very decisive, because without good human resources the organization will not work. Human resources are the only resources that have reason, feelings, desires, abilities, skills, knowledge, encouragement, power and work. The only resource that has ratio, taste and intention. All of these human resource potentials affect the organization's efforts to achieve goals. Human resources are an important element in an organization. Included in the world of education, the human element determines the success of the learning process.

The productivity of human resources needs to be continuously improved through various sustainable efforts. The work environment is one of the important efforts to increase teacher productivity. Schools need to pay attention to the work environment so that teacher productivity increases, both physical and non-physical environments. This is a strategic step to encourage teachers to work more productively. Fulfillment of needs in accordance with teacher expectations, especially a good work environment needs to be provided to teachers, in order to allow teachers to be more focused and comfortable with their work. With a high level of focus and work comfort, work productivity will automatically increase, so that the learning process is more effective and efficient. Therefore, providing a good work environment for every teacher in working and developing competence and career is absolutely necessary.

According to Maurits (2010) productivity means a mental attitude which always holds the view that the quality of life today must be better than yesterday and tomorrow must be better than today. According to Diana Khairani Sofyan (2013: 20), "The work environment is everything around the employee that affects him in carrying out and completing the tasks assigned to him in an area." The work environment in a school is important to pay attention to in order to create a comfortable work

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atmosphere. A comfortable work environment for teachers can improve teacher performance. On the other hand, an uncomfortable work environment will reduce morale and ultimately reduce teacher work productivity.

Leadership style, contains the meaning as a manifestation of the behavior of a leader, which concerns his ability to lead his subordinates. The embodiment usually forms a certain pattern or shape. Meanwhile, according to (Miftah Thoha, 2010: 49) leadership style is "the norm of behavior used by a person when that person influences others".

In addition, the level of employee work productivity cannot be separated from the leadership quality of the head of the campus. A head of campus as a leader or a driving machine so that employees can help improve the quality of education. Employee work productivity is one of the employee work attitudes that need to be created on campus so that employees can work with high morale. According to Maurits (2010) productivity means a mental attitude which always holds the view that the quality of life today must be better than yesterday and tomorrow must be better than today. Siagian work productivity in Agustin (2014) is the ability to produce goods or services from various resources and capabilities possessed by each worker or employee. In general, productivity can be interpreted as the ability to improve employee work results in terms of the resources owned by each individual. According to Jackson, in Agustin (2014) Productivity is defined as an increase in work output which is influenced by the ability of employees (input) and to produce a good or service (output).

Based on the description of thoughts supported by some of the expert opinions above, it is clear how important employee productivity is to improve the quality of the employee's performance concerned. However, based on the preliminary study, namely the pre-observation in PerPegawaian Inti Nusantara Tebing Tinggi, symptoms that cause low employee productivity are still found, including: (1) Often there are employees who carry out multiple jobs but are only paid for one activity only; (2) There is still a work environment that is not conducive, such as less supportive colleagues; (3) Lack of managerial ability of the head of the campus; (4) Inadequate conditions of facilities and infrastructure; (5) There is a teaching atmosphere that is not pleasant; and (6) There are still employees who are often absent or late at teaching hours.

Employee work productivity will be shown by their attitude that works optimally when teaching. If the employee is satisfied with the situation, the employee will feel happy with the condition of the campus and establish good interpersonal communication.

Of course there are many factors that make an institution or agency strive to provide solutions to existing deficiencies. One of them is by providing an inspiring work environment and leadership style, to motivate employee work productivity which has not been in accordance with what was expected.

### Research purposes

The aim of this research is:

1. To find out how the influence of the Work Environment on Work Productivity of Maritime Adiguna Polytechnic.
2. To find out how the influence of Leadership Style on Work Productivity of Maritime Adiguna Polytechnic.
3. To find out how the influence of the Work Environment and Leadership Style on Work Productivity of Maritime Adiguna Polytechnic Employees.

### THEORETICAL BASIS

#### 1. Work environment

The work environment is one of the external factors that is very influential in supporting maximum work results in every job. If the work environment is not conducive, it will cause the worker's performance to decline. This is due to a lack of work motivation that comes from within the workforce to work well. The work environment is an inseparable part of the type and location of work where individual employees are located and have activities. Employee productivity from work depends on the place and environment in which individual employees work. Therefore, the work environment needs very serious and primary attention because it is the second home after residence. The work environment is related to spatial planning, natural light and the influence of sound which affects the concentration of an employee while working (Zainuddin et al, 2012). Facilities owned by the organization are part of the work environment that must be realized to support organizational activities. A work environment that is not conducive and does not support the implementation of work activities of employees will affect the level of success of employees towards their work. Likewise, the lack of facilities will affect the effectiveness and efficiency of working time.

#### 2. Leadership Style

Leadership style, contains the meaning as a manifestation of the behavior of a leader, which concerns his ability to lead his subordinates. The embodiment usually forms a certain pattern or shape. Meanwhile, according to (Miftah Thoha, 2010: 49) leadership style is "the norm of behavior used by a person when that person influences others".

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These styles can vary based on motivation, power or orientation to a particular task or person. Among several leadership styles, there are positive and negative leaders, where the differences are based on how and their efforts to motivate their subordinates. If the approach to giving motivation emphasizes rewards (both economic and non-economic), it means that a positive leadership style has been used. Conversely, if his approach emphasizes punishment or punishment, it means that he applies a negative leadership style. This second approach can yield an acceptable achievement in many situations, but has a human disadvantage.

### 3. Work productivity

Work productivity comes from the English language, product: result, outcome develops into the word productive, which means to produce, and productivity: having the ability to make or create, creative. The word is used in Indonesian as productivity, which means strength or ability to produce something, because it is in the organization. The work that will be produced is the realization of its goal. In terms of productivity psychology, it shows behavior as the output of a process with various psychological components behind it. According to Maurits (2010) productivity means a mental attitude which always holds the view that the quality of life today must be better than yesterday and tomorrow must be better than today.

## RESEARCH METHODS

### 1. Location and Time of Research

This research will be carried out at the Adiguna Maritim Polytechnic, which will be held in March 2019.

### 2. Types and sources of data

The type of data used in this research is quantitative data, namely data that is measured by numbers. Primary Data Is data obtained from direct interviews with employees at the company about history, organizational structure, other information about what activities are carried out.

Data collection technique

The data collection methods used in this study are:

#### a. Interview

The technique of collecting data by interview is a technique of collecting data by using oral questions to the research subjects. This is done to get an overview of the problems that usually occur due to special reasons that cannot be explained by a questionnaire.

#### b. Questionnaire

The data collection technique using a questionnaire is a data collection technique by providing a list of questions to the respondent, with the hope that the respondent will respond to the questions in the questionnaire. In this questionnaire, a closed question model will be used, namely the form of questions that have been accompanied by alternative answers beforehand, so that respondents can choose one of the alternative answers.

## RESULTS AND DISCUSSION

### 1. Classic assumption test

The testing of classical assumptions with the SPSS 23 for windows program carried out in this study includes:

#### a. Normality Test

The normality test aims to test whether in the regression model, confounding or residual variables have a normal distribution (Ghozali, 2016). Data normality testing can be done using two methods, graphs and statistics. The normality test of the graph method uses a normal probability plot, while the normality test of the statistical method uses the one sample Kolmogorov Smirnov Test. The test results using SPSS 23 for windows are as follows:

**Table 1. One Sample Kolmogorov Smirnov Test**

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		32
Normal Parameters <sup>a,b</sup>	Mean	0E-7
	Std. Deviation	.98133907
Most Extreme Differences	Absolute	.144
	Positive	.080
	Negative	-.144

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Kolmogorov-Smirnov Z			.816
Asymp. Sig. (2-tailed)			.518
	Sig.		.688 <sup>c</sup>
Monte Carlo Sig. (2-tailed)		Lower Bound	.476
	99% Confidence Interval	Upper Bound	.899

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Based on 32 sampled tables with starting seed 2000000.

From the output in table 1. It can be seen that the significance value (Monte Carlo Sig. Lower Bound) of all variables is 0.476. If the significance is more than 0.05, then the residual value is normal, so it can be concluded that all variables are normally distributed.

The normality test using the graphic method can be seen in the following figure:

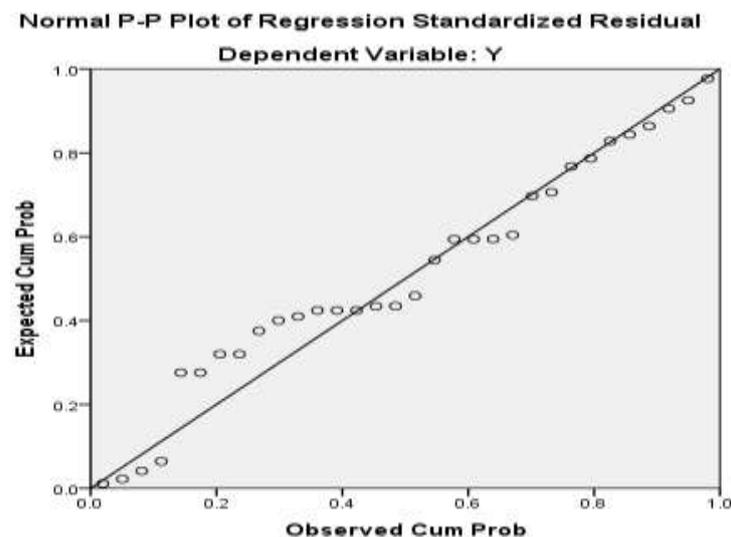


Figure 1. Normal P Plot

Data that is normally distributed will form a straight diagonal line and plotting the residual data will be compared with the diagonal line, if the distribution of the residual data is normal, the line describing the real data will follow the diagonal line (Ghozali, 2016).

### b. Multicollinearity Test

The multicollinearity test aims to determine whether in the regression model there is a correlation between the independent variables. The multicollinearity test in this study is seen from the tolerance or variance inflation factor (VIF) value. The calculation of tolerance or VIF values with the SPSS 23 for windows program can be seen in Table 2 below:

Table 2. Multicollinearity Test Results  
Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
1	(Constant)	3.787	2.305	1.643	.111		
	X1	.218	.086	.334	.017	.923	1.084
	X2	.717	.168	.564	.000	.923	1.084

a. Dependent Variable: Y

Based on table 2, it can be seen that the tolerance value of the Work Environment Variable (X1) is 0.923, the Leadership Style Variable (X2) is 0.923, where everything is greater than 0.10, while the VIF value of the Work Environment Variable (X1) is 1.084, the Style Variable Leadership (X2) is 1.084, where all of them are less than 10. Based on the results of the above calculation,

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it can be seen that the tolerance value for all independent variables is greater than 0.10 and the VIF value of all independent variables is also less than 10 so that there is no symptom of correlation. on the independent variable. So it can be concluded that there are no symptoms of multicollinearity between independent variables in the regression model.

### c. Heteroscedasticity Test

The heteroscedasticity test aims to test whether from the regression model there is an inequality of variance from one residual observation to another. A good regression model is one that is homoscedastic or does not occur heteroscedasticity. One way to detect the presence or absence of heteroscedasticity is the Scatterplot. Based on the results of data processing, the heteroscedasticity test in this study is shown in Figure 2 below:

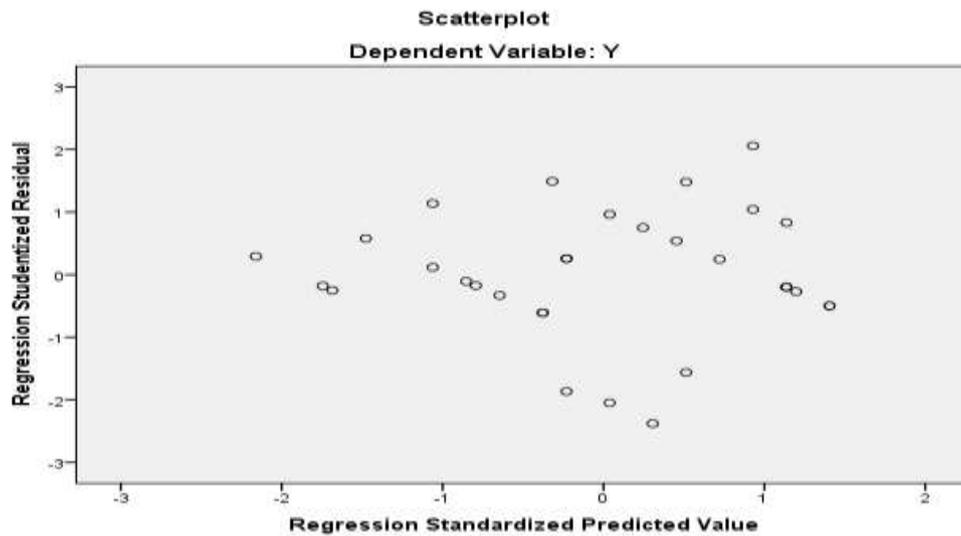


Figure 2. Scatterplot

Based on Figure 2, it can be seen if the data pattern is perfectly spread, some are above the zero point and some are spread below the zero point. Because of this, it can be concluded that there are no symptoms of heteroscedasticity in the regression model.

## 2. Multiple Linear Regression Testing

Multiple linear regression testing explains the role of Work Environment Variable (X1), Leadership Style Variable (X2) on Work Productivity Variable (Y). Analysis of the data in this study using multiple linear regression analysis using SPSS 23 for windows. The analysis of each variable is described in the following description:

Table 3. Multiple Linear Regression Results

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
1	(Constant)	3.787	2.305	1.643	.111		
	X1	.218	.086	.334	.017	.923	1.084
	X2	.717	.168	.564	.000	.923	1.084

a. Dependent Variable: Y

Based on these results, the multiple linear regression equation has the formulation:  $Y = a + b_1X_1 + b_2X_2 + \epsilon$ , so that the equation is:  $Y = 3,787 + 0.218X_1 + 0.717X_2$

The description of the multiple linear regression equation above is as follows:

- The constant value (a) of 3.787 indicates the magnitude of the Work Productivity Variable (Y) if the Work Environment Variable (X1), the Leadership Style variable (X2) is equal to zero.
- The regression coefficient value of the Work Environment Variable (X1) (b1) of (0.218) indicates the magnitude of the role of the Work Environment Variable (X1) on the Work Productivity Variable (Y) assuming that the

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Leadership Style Variable (X2) is constant. This means that if the Work Environment Variable (X1) factor increases by 1 unit of value, it is predicted that the Work Productivity Variable (Y) will increase by (0.218) a unit value assuming the Leadership Style Variable (X2) is constant.

- c. The regression coefficient value of the Leadership Style Variable (X2) (b2) of (0.717) indicates the role of the Leadership Style Variable (X2) on the Work Productivity Variable (Y) assuming that the Leadership Style Variable (X2) is constant. This means that if the Leadership Style Variable (X2) factor increases by 1 unit of value, it is predicted that the Work Productivity Variable (Y) will increase by (0.717) a unit value assuming the Leadership Style Variable (X2) is constant.

### 3. Coefficient of Determination (R2)

The coefficient of determination is used to see how much the independent variable contributes to the dependent variable. In other words, the determinant coefficient value is used to measure the magnitude of the contribution of the variable under study X and Y as the dependent variable.

The greater the coefficient of determination, the better the ability of variable X to explain variable Y. If determination (R2) is greater (close to 1), then it can be said that the influence of variable X is large on variable Y. The formula for the coefficient of determination is as follows:

This shows that the model used is getting stronger to explain the effect of variable X on variable Y. Conversely, if the determination (R2) is getting smaller (close to zero), it can be said that the effect of variable X on variable Y is getting smaller. This shows that the model used is not strong enough to explain the effect of variable X on variable Y.

The value used in looking at the coefficient of determination in this study is in the adjusted R square column. This is because the adjusted R square value is not susceptible to the addition of independent variables. The coefficient of determination can be seen in Table 4 below:

**Table 4. The coefficient of determination**

#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.730 <sup>a</sup>	.534	.501	1.01461	.534	16.585	2	29	.000

a. Predictors: (Constant), X2, X1

b. Dependent Variable: Y

Based on table 4. it can be seen that the adjusted R square value is 0.501 or 50.1% This shows that the Work Environment Variable (X1) and the Leadership Style Variable (X2) can explain the Work Productivity Variable (Y) by 50.1%, the rest 49.9% (100% - 50.1%) is explained by other variables outside this research model.

### 4. Hypothesis Testing

#### a. t test (partial)

The t statistical test is also known as the individual significance test. This test shows how far the influence of the independent variable partially on the dependent variable. In this study, a partial hypothesis test was carried out on each independent variable as in Table 5 below:

**Table 5. Partial Test (t)**

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.787	2.305		1.643	.111		
	X1	.218	.086	.334	2.528	.017	.923	1.084
	X2	.717	.168	.564	4.269	.000	.923	1.084

a. Dependent Variable: Y

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### 5. Hypothesis Testing The Effect of Work Environment Variables (X1) on Productivity Variables (Y)

The form of hypothesis testing based on statistics and curves can be described as follows:

Decision Making Criteria:

- Accept  $H_0$  if  $t_{count} < t_{table}$  or  $-t_{hitung} > -t_{table}$  or Sig.  $> 0.05$
- Reject  $H_0$  if  $t_{count} \geq t_{table}$  or  $-t_{hitung} \leq -t_{table}$  or Sig.  $< 0.05$

From table 4.12 it is obtained that the t-count value is 2.528 With  $\alpha = 5\%$ , t table (5%;  $32-2 = 30$ ) obtained a t-table value of 1.697. The significance is  $0.017 < 0.05$ , it can be concluded that the first hypothesis is accepted, meaning that the Work Environment Variable (X1) affects the Work Productivity Variable (Y) is accepted.

### 6. Hypothesis Testing The Effect of Work Environment Variables (X2) on Work Productivity Variables (Y),

The form of hypothesis testing based on statistics and curves can be described as follows:

Decision Making Criteria:

- Accept, if  $t_{count} > t_{table}$  or  $-t_{hitung} > -t_{table}$  or Sig.  $< 0.05$
- Reject, if  $t_{count} < t_{table}$  or  $-t_{hitung} < -t_{table}$  or Sig.  $> 0.05$

From table 4.10, it is obtained that the tcount value is 4.269 With  $\alpha = 5\%$ , t table (5%;  $n_k = 30$ ), the t table value is 1.697. 0.05, it can be concluded that the second hypothesis is accepted, meaning that the leadership style variable (X2) affects the work productivity variable (Y).

### 7. F Test (Simultaneous)

This test basically shows whether all the independent variables included in this model have a joint influence on the dependent variable. The results of the F test can be seen in table 6. below:

**Table 6. Simultaneous Test Results (F)**

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.146	2	17.073	16.585	.000 <sup>b</sup>
	Residual	29.854	29	1.029		
	Total	64.000	31			

a. Dependent Variable: Y

b. Predictors: (Constant), X2, X1

Source: Data processed from attachment 4 (2019)

The form of hypothesis testing based on statistics and curves can be described as follows:

Decision Making Criteria:

- If the calculated F value  $> F$  table or Sig.  $< 0.05$ , then  $H_a$  is accepted and  $H_0$  is rejected.
- If the value of F count  $< F$  table or Sig.  $> 0.05$  then  $H_a$  is rejected and  $H_0$  is accepted.

From table 4. it is obtained that the Fcount value is 16.585 With  $\alpha = 5\%$ , dk numerator: 3, dk denominator:  $32-2-1$  (5%; 2; 29) obtained Ftable value of 3.328.  $> F$ table (3.295), and a significance value of  $0.000 < 0.05$ , it can be concluded that the third hypothesis is accepted, meaning that the Work Environment Variable (X1), the Leadership Style Variable (X2) simultaneously influence the Work Productivity Variable (Y).

## CONCLUSION

Based on the results of research and discussion in the previous chapter, it can be concluded as follows:

- It can be seen that the adjusted R square value is 0.501 or 50.1% This shows that the Work Environment Variable (X1) and the Leadership Style Variable (X2) can explain the Work Productivity Variable (Y) by 50.1%, the rest is 49, 9% (100% - 50.1%) is explained by other variables outside this research model.
- The results of the t test (partial) show that  $t(2.528) > t$  table (1.697), as well as the significance value of  $0.017 < 0.05$ , it can be concluded that the first hypothesis is accepted, meaning that the Work Environment Variable (X1) affects the Productivity Variable Work (Y) accepted ..
- The results of the t test (partial), it can be seen that tcount (4.269)  $> t$  table (1.697), and a significance value of  $0.000 < 0.05$ , it can be concluded that the second hypothesis is accepted, meaning that the Leadership Style Variable (X2) affects the Work Productivity Variable (Y).

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4. The simultaneous test results (F) can be seen that  $F_{count} (16.585) > F_{table} (3.295)$ , and a significance value of  $0.000 < 0.05$ , it can be concluded that the third hypothesis is accepted, meaning that the Work Environment Variable (X1), the Leadership Style Variable (X2 ) influence jointly (simultaneously) on the Work Productivity Variable (Y).

### Acknowledgment

On this occasion, the authors would like to thank the parties involved in the implementation of this research, especially the leadership of the Maritime Adiguna Polytechnic, which provided the facilities and infrastructure needed by the writer for the productivity of human resources that need to be constantly improved through various sustainable efforts. The work environment is one of the important efforts to increase employee productivity.

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