

# THE EFFECT OF WORK ENVIRONMENT AND SUPERVISION ON EMPLOYEE WORK DISCIPLINE (A STUDY AT THE EDUCATION OFFICE OF NORTH MINAHASA REGENCY 2022)

**Arie Supriati**

*Email: ariesupriati@unima.ac.id*

*Pancasila and Civic Education Study Program, Faculty of Social Science and Law  
Universitas Negeri Manado*

## **ABSTRACT**

The research objectives are: 1. To analyze the influence of the work environment on the work discipline of employees at the North Minahasa Regency Education Office. 2. Analyzing the effect of supervision on employee work discipline at the North Minahasa Regency Education Office. 3. Analyze the effect of the work environment and simultaneous supervision on the work discipline of employees at the North Minahasa Regency Education Office in 2022. This study used quantitative methods, with sampling techniques using Saturated Sampling techniques with a total of 10 employees as respondents. The research instrument used was a questionnaire with an assessment using a Likert Scale. Work environment (X1) and supervision (X2) are independent variables that will be tested simultaneously for their effect on employee work discipline (Y) as the dependent variable. In addition, a partial test of the work environment (X1) was carried out on employee work discipline (Y) and also supervision (X2) on employee work discipline (Y). The primary data obtained was then processed quantitatively descriptively using the IBM SPSS version 26 program. Prior to the study, the questionnaire had gone through a prerequisite test in the form of a validity test and a reliability test. Then proceed with testing the research hypothesis with multiple linear regression analysis tools using the F test and t test which were previously preceded by the classic assumption test in the form of a normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test. The results of the study stated that the work environment (X1) had a significant positive effect on employee work discipline (Y) and supervision (X2) had a significant positive effect on employee work discipline (Y). Then, simultaneously the work environment (X1) and supervision (X2) have a positive and significant effect on employee work discipline (Y).

**Keywords :** *Work Environment, Supervision, Employee Work Discipline.*

## **INTRODUCTION**

The government continues to strive to discipline the State Civil Apparatus as stated in Government Regulation no. 53 of 2010 concerning Civil Servant Discipline. In Chapter I, Article 1, paragraph 1, it is stated that Civil Servant Discipline is the ability of Civil Servants to comply with obligations and avoid prohibitions specified in statutory regulations and/or official regulations which, if not complied with or violated, are subject to disciplinary punishment [1]. This is in line with the code of ethics and behavior of government employees regulated in Law no. 5 of 2014 concerning the State Civil Apparatus. In Article 5 paragraph 2

point b it is stated that employees of the state civil apparatus carry out their duties with care and discipline [2].

In essence, discipline is an important part of human resource management because the better the discipline of an employee, the higher the effectiveness of the employee's work. Without good discipline from employees, it will be difficult for an organization to achieve maximum results. Good discipline is a reflection of an employee with integrity and responsibility. This encourages enthusiasm and work productivity, so that organizational goals can be realized. Because discipline is one of the main keys for an organization to succeed in achieving the goals set, Siswanto (2019) argues that work discipline can be defined as an attitude of respect, respect, obedience, and obedience to applicable regulations, both written and unwritten, and able to carry it out and not avoid accepting the sanctions if he violates the duties and authority given to him. Discipline is the awareness and willingness of employees to comply with all applicable rules and social norms [3].

The work environment has an important role in shaping employee work discipline so that the organization can achieve its goals and objectives. A good work environment can arise if the elements in the work environment are fulfilled, namely the physical and non-physical work environment. According to Handoko (2014), the physical work environment is a physical condition around the workplace that can directly or indirectly affect employees. While the non-physical work environment is a condition related to work relations, both relations with superiors and subordinates, as well as relationships with fellow co-workers [4].

In addition to the work environment, supervision is an important element in efforts to enforce employee discipline. Supervision functions to evaluate whether a policy and rules that have been made by the leadership have been implemented properly by all employees. So that all forms of irregularities in the implementation of rules and policies can be controlled and evaluated effectively. In order to supervise the running of regional government, the government has issued Government Regulation of the Republic of Indonesia No. 12 of 2017 concerning the Development and Supervision of Regional Government Administration. In article 1 paragraph 2 it is stated that Supervision of the Implementation of Regional Government is efforts, actions and activities aimed at guaranteeing the implementation of Regional Government run efficiently and effectively in accordance with the provisions of laws and regulations [5].

Based on the results of the author's observations at the North Minahasa Regency education office, North Sulawesi province, problems were found regarding employee discipline. Among them is that there are still employees who are late to the office in the morning. In addition, there are employees who are not in the office during office hours. Some employees were seen using their cellphones while working. And the worst thing is that there are employees who skip work without any explanation. The author assumes that this is caused by work environment and supervision factors that are still not optimal so that the level of employee discipline is not as expected.

Based on this problem, the authors conducted research with the aim of analyzing 1) whether there is an effect of the work environment on employee work discipline, 2) whether there is an influence of supervision on employee work discipline, and 3) whether there is an effect of the work environment and simultaneous supervision on employee work discipline, with the hope that it can provide practical benefits in efforts to improve discipline in the education office of North Minahasa Regency.

## **THEORETICAL REVIEW**

### **Employee Work Discipline**

According to Wursanto (2011) "Discipline is an employee's obedience to a rule or provision that applies in the company on the basis of an awareness or conviction, not an element of coercion"[6]. Meanwhile, according to Hasibuan (2017), "Discipline is a person's awareness

and willingness to obey all company regulations and applicable social norms"[7]. In addition, Sutrisno (2013) states "Discipline shows a condition or attitude of respect that exists in employees towards company rules and regulations"[8].

Civil Servant Discipline is the ability of Civil Servants to comply with obligations and avoid prohibitions specified in statutory regulations and/or official regulations which, if not complied with or violated, are subject to disciplinary punishment [1].

According to Sutrisno (2017) there are 7 indicators to measure the level of discipline of workers in an organization, namely 1) The size of compensation, 2) Whether there are exemplary leaders in the organization, 3) Whether there are definite rules that can be used as a guide, 4) The courage of leaders in take action, 5) Is there leadership motivation, 6) Is there attention to workers, 7) Create habits that support the upholding of discipline [9].

### **Work Environment**

The work environment according to Mujib (2016) is a situation that exists in the workplace that can affect directly or indirectly on employees. In addition, the work environment is a community where people gather in diversity and in changing situations and conditions that can affect employee work discipline [10]. The work environment has an important role in shaping employee work discipline so that the organization can achieve its goals and objectives. A good work environment can arise if the elements in the work environment are fulfilled, namely the physical and non-physical work environment. According to Handoko (2003), the physical work environment is a physical condition around the workplace that can directly or indirectly affect employees. While the non-physical work environment is a condition related to work relations, both relations with superiors and subordinates, as well as relationships with fellow co-workers"[11].

According to (Sedarmayanti & Rahadian, 2018) there are 10 important indicators that are factors that can affect working environment conditions, namely: 1) Lighting / Light in the Workplace; 2) Temperature at Work; 3) Humidity at Work; 4) Air Circulation in the Workplace; 5) Noise at Work; 6) Odors in the Workplace; 7) Color Management in the Workplace; 8) Decoration at Work; 9) Music at Work; and 10) Safety at Work [12]. Other indicators explained by Mangkunegara (2013), that there are indicators that affect the work environment, namely: 1) Collaboration, every employee will interact and cooperate with various conditions contained in the work environment 2) Availability of work facilities, each office must seek appropriate facilities and infrastructure comfortable and well cared for so that it has a positive influence on employee morale 3) Work Atmosphere, namely the working relationship that exists within the organization is the working relationship between employees and employees and between employees and superiors [13].

### **Supervision**

Supervision is an important element in efforts to enforce employee discipline. Supervision functions to evaluate whether a policy and rules that have been made by the leadership have been implemented properly by all employees. So that all forms of irregularities in the implementation of rules and policies can be controlled and evaluated effectively. In order to supervise the running of regional government, the government has issued Government Regulation of the Republic of Indonesia No. 12 of 2017 concerning the Development and Supervision of Regional Government Administration. In Article 1 paragraph 2 it is stated that Supervision of the Implementation of Regional Government is efforts, actions and activities aimed at ensuring that the implementation of Regional Government runs efficiently and effectively in accordance with the provisions of laws and regulations [5].

Supervision is the process of observing all activities in the office to ensure that all these activities run as expected. Furthermore, according to Persada and Siagian (2020) Supervision is one of the organic functions of administration and management. It is said that supervision is an organic function of administration and management. If this function is not carried out, sooner or later it will result in the death/destruction of an organization. the supervisory function brings the expected results [14].

According to Handoko (2003), there are 4 important indicators in supervision, namely: 1) Standard setting, 2) Work measurement, 3) Performance appraisal, 4) Corrective action [11]. In addition to these indicators, according to Robbins and Coulter (2016) there are 4 other indicators to measure supervision, namely: 1) Setting Standards, namely setting benchmarks (targets) or desired results, to be carried out as a comparison of results during organizational activities. Standards are also limits on what must be done in carrying out an activity to achieve organizational goals and targets. 2) Measurement, namely a process that is carried out repeatedly and continuously and correctly, both in terms of intensity in the form of daily, weekly or monthly measurements so that what is measured can be seen between the quality and the number of results. 3) Comparing is comparing the results achieved with the targets or standards that have been set, maybe the performance is higher or lower or the same as the standard. 4) Taking action is a decision to take corrective or corrective action. If there has been a deviation between the standards and the realization, it is necessary to carry out follow-up actions in the form of correcting the deviations that have occurred [15].

## RESEARCH METHODS

This research uses quantitative research methods. According to Sugiyono (2015) the quantitative research method is a research method that is based on positivistic (concrete data), research data is in the form of numbers that will be measured using statistics as a counting test tool, related to the problem under study to produce a conclusion [16].

The sampling technique used is a non-uniform stratified population sampling technique where the authors extract the number of samples from each number of sub-populations by making adjustments to the number of samples based on the number of members in each sub-population or it is called Proportional stratified random sampling. The number of samples taken was 10 North Minahasa Education Office staff and used a representative sample.

Data collection techniques in this study used questionnaires distributed to 10 sample people as respondents. The questionnaire in question is in the form of questions and statements totaling 15 questions per each variable tested with an assessment weight using a Likert scale. Before being processed, the primary data obtained from the survey used a questionnaire, then validity and reliability tests were carried out so that it actually produced valid data for further research.

To process this quantitative data, the authors use the IBM SPSS 26 application as an analysis tool. After the questionnaire data is valid and reliable, then proceed with testing the research hypothesis with multiple linear regression analysis using the F test and t test which were previously preceded by the classic assumption test in the form of a normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test. The research hypothesis to be tested is that 1) the work environment (X1) has a positive and significant effect on employee work discipline (Y), 2) supervision (X2) has a positive and significant effect on employee work discipline (Y), and 3) Together -the work environment (X1) and supervision (X2) have a positive and significant effect on employee work discipline (Y).

## RESULTS AND DISCUSSION

### Validity and Reliability Test

The primary data obtained through the research questionnaire was first tested for validity and reliability with the aim of ensuring that the data is valid, reliable and suitable for use by researchers to explain the purpose of this study, namely to explain the effect of the independent variables on the dependent variable. Furthermore, the results of the validity and reliability tests can be seen in the following table. Data testing uses the IBM SPSS 26 application which produces the following output data.

**Table 1.** Results of The Validity and Reliability Test

Reliability Statistics					Reliability Statistics					Reliability Statistics				
Cronbach's Alpha		N of Items			Cronbach's Alpha		N of Items			Cronbach's Alpha		N of Items		
.987		15			.986		15			.993		15		

Item-Total Statistics						Item-Total Statistics						Item-Total Statistics					
Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted			Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted			Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted		
X1.1	53.00	310.444	.857	.987	VALID	X2.1	55.00	271.556	.850	.985	VALID	Y.1	59.00	295.556	.952	.993	VALID
X1.2	52.40	311.600	.835	.987	VALID	X2.2	55.50	269.167	.929	.984	VALID	Y.2	58.90	293.656	.981	.993	VALID
X1.3	52.90	316.544	.917	.986	VALID	X2.3	55.60	269.156	.971	.984	VALID	Y.3	59.00	296.444	.929	.993	VALID
X1.4	52.80	313.067	.926	.986	VALID	X2.4	55.50	270.056	.984	.984	VALID	Y.4	59.50	293.389	.862	.994	VALID
X1.5	52.30	316.678	.953	.985	VALID	X2.5	55.30	268.678	.888	.985	VALID	Y.5	59.30	290.900	.896	.994	VALID
X1.6	52.30	316.678	.953	.985	VALID	X2.6	55.90	268.544	.814	.986	VALID	Y.6	58.60	296.044	.911	.993	VALID
X1.7	52.40	319.822	.924	.986	VALID	X2.7	55.90	267.211	.899	.985	VALID	Y.7	59.00	294.222	.985	.992	VALID
X1.8	52.80	313.067	.926	.986	VALID	X2.8	55.30	271.344	.886	.985	VALID	Y.8	59.00	292.000	.968	.993	VALID
X1.9	52.70	310.011	.935	.986	VALID	X2.9	55.20	269.956	.904	.984	VALID	Y.9	58.90	293.656	.981	.993	VALID
X1.10	52.30	316.678	.953	.985	VALID	X2.10	55.70	268.011	.904	.984	VALID	Y.10	58.90	294.544	.958	.993	VALID
X1.11	52.40	315.156	.964	.985	VALID	X2.11	55.70	268.011	.904	.984	VALID	Y.11	59.00	294.222	.985	.992	VALID
X1.12	52.40	314.933	.908	.986	VALID	X2.12	55.80	266.622	.866	.985	VALID	Y.12	59.10	292.544	.979	.993	VALID
X1.13	52.30	316.900	.885	.986	VALID	X2.13	55.40	271.378	.910	.984	VALID	Y.13	58.90	293.656	.981	.993	VALID
X1.14	51.90	321.211	.873	.986	VALID	X2.14	55.40	271.378	.910	.984	VALID	Y.14	58.80	294.844	.940	.993	VALID
X1.15	51.90	321.211	.873	.986	VALID	X2.15	55.80	267.067	.912	.984	VALID	Y.15	58.90	293.656	.981	.993	VALID

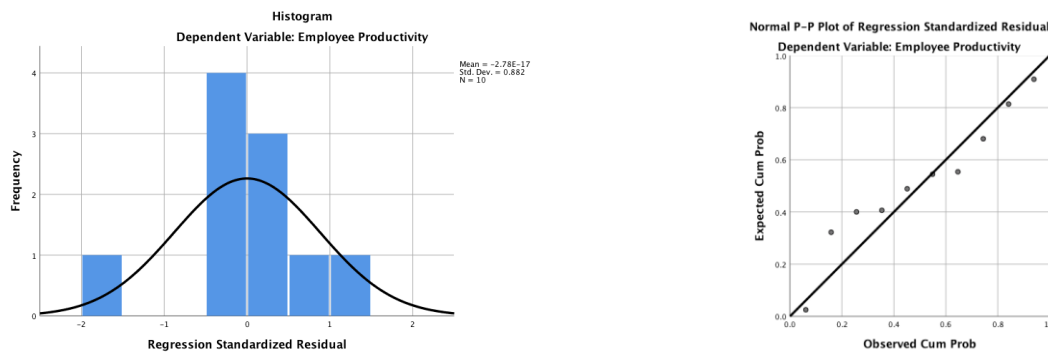
Based on the data above, it can be concluded that the research instrument data used in each variable is valid and reliable. This data is valid as indicated by the calculated r value for each item obtained (see table for the Corrected Item Total Correlation section) which is more than the r table value, which is 0.632. Meanwhile, this data is said to be reliable because the Cronbach's Alpha value obtained is more than 0.60. According to Ghozali (2016), the instrument is declared reliable if the Cronbach Alpha value is greater than 0.60 [17].

After the data is valid and reliable, the authors then proceed with the classic assumption test in the form of a normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test before testing the research hypothesis..

### Normality Test

To test the normality of the authors using Histogram, P-Plot and One Sample Kolmogorov-Smirnov Test.

**Figure 1.** Results of Normality Test with P-Plot and Histogram Test



The results in the histogram normality test (left) can be seen to produce a mountain-shaped curve, so it can be concluded that the pattern is normally distributed. While the results of the normality test using the P-Plot (right) produce a diagonal line, it can be concluded that the pattern is normally distributed.

**Table 2.** Results of One-Sample Kolmogorov-Smirnov Test

**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		10
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	14.72127842
Most Extreme Differences	Absolute	.200
	Positive	.139
	Negative	-.200
Test Statistic		.200
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.

Next, the One Sample Kolmogorov-Smirnov test was carried out. If indigo Asymp. Sig. greater than 0.05, it can be concluded that the residuals are normally distributed. From the results of the normality test using the Kolmogorov-Smirnov method above, the result is 0.200, where the result is greater than 0.05, it can be concluded that the data meets the requirements because it is normally distributed.

**Multicollinearity Test**

After the data meets the normality test requirements, then a multicollinearity test is performed. The multicollinearity test aims to test whether the regression model has a correlation between the independent variables.

Condition:

1. If the tolerance value is greater than 0.10, it means that multicollinearity does not occur.
2. If the VIF value is less than 10, it means that multicollinearity does not occur.

**Table 3.** Results of Multicollinearity Test

		Coefficients <sup>a</sup>				Collinearity Statistics		
Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.	Tolerance	VIF
	B			Beta				
1	(Constant)	122.245	30.594		3.996	.005		
	Work Environment	.516	.308	.535	5.677	.038	.902	1.109
	Supervision	.505	.333	.483	2.514	.044	.902	1.109

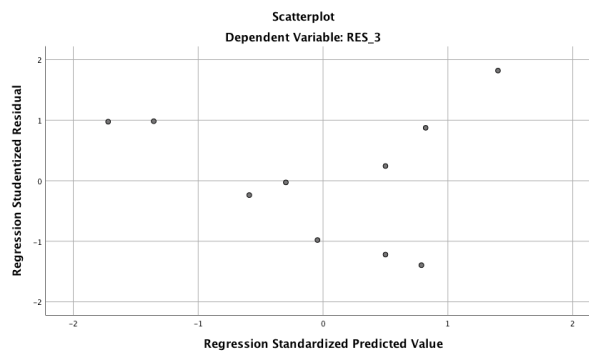
a. Dependent Variable: Employee Discipline

Based on the data above, the results of the multicollinearity test show that the tolerance value is 0.902 and the VIF value is 1.109. Because the tolerance value is  $0.902 > 0.10$  and the VIF value is  $1.109 < 10$ , it can be concluded that both of them show no multicollinearity. Thus the data meets the multicollinearity test requirements and can proceed to the next test.

**Heteroscedasticity Test**

After the data meets the requirements of the Multicollinearity test, then a Heteroscedasticity test is performed. The heteroscedasticity test aims to test whether the regression model has an inequality of variance from one residual observation to another.

**Figure 2.** Results of Heteroscedasticity Test



The results of the heteroscedasticity test on the scatterplot graph above show that the points spread randomly and are scattered, both above and below the number 0 on the Y axis. This means that there is no heteroscedasticity in the regression model so that the regression model is feasible to use.

**Autocorrelation Test**

Autocorrelation Test After fulfilling the heteroscedasticity test requirements, then proceed with the autocorrelation test. The autocorrelation test aims to test whether the regression model has a correlation between the confounding errors in period t and the confounding errors in the t-1 period.

**Table 4.** Results of Autocorrelation Test Using Durbin Watson

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.598 <sup>a</sup>	.357	.174	16.692	1.557

a. Predictors: (Constant), Performance Allowance, Work Environment

b. Dependent Variable: Employee Productivity

**Tabel Durbin-Watson (DW),  $\alpha = 5\%$**

n	k=1		k=2		k=3		dL
	dL	dU	dL	dU	dL	dU	
6	0.6102	1.4002					
7	0.6996	1.3564	0.4672	1.8964			
8	0.7629	1.3324	0.5591	1.7771	0.3674	2.2866	
9	0.8243	1.3199	0.6291	1.6993	0.4548	2.1282	0.2957
10	0.8791	1.3197	0.6972	1.6413	0.5253	2.0163	0.3760

Condition:

1. If d is less than dL or greater than (4-dU), it means that there is autocorrelation
2. If d lies between dL and (4-dU), it means that there is no autocorrelation
3. If d lies between dL and dU or between (4-dU) and (4-dL) then it does not produce a definite conclusion.

K = 2 (Total of Independent Variables: X1 and X2)

N = 10 (Total Respondents)

dU = 1.6413

4-dU = 4 - 1.6413 = 2,359

d = 1.557 (see Model Summary table b)

dL = 0.6972

The autocorrelation test uses the Durbin Watson test with alpha ( $\alpha$ ) = 0.05 (5%). Based on the Durbin Watson table, it is known that dL = 0.6972 and dU = 1.6413.

Based on the comparison table for the values of dU = 1.6413 and (4-dU) = 2.359, the value of d = 1.557 lies between 0.6972 and 2.359 (or the equivalent  $0.6972 < 1.557 < 2.359$ ), it can be concluded that there is no autocorrelation because the data d is between the values dL and (4-dU).

Seeing the results of the classic assumption test above, it can be concluded that the data meets the requirements and can be used for further statistical testing, namely testing the research hypothesis.

### Hypothesis Testing

As for in this study the hypothesis to be tested is as follows:

1. H1 : The work environment (X1) has a positive and significant influence on employee work discipline (Y)
2. H2 : Supervision (X2) has a positive and significant influence on employee work discipline (Y)
3. H3 : Work environment (X1) and supervision (X2) simultaneously have a positive and significant influence on employee work discipline (Y).



Based on the data output using IBM SPSS 26, the following results are obtained:

**Table 5.** Results of Multiple Linear Regression X1, X2 and Y

		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	122.245	30.594		3.996	.005
	Work Environment	.516	.308	.535	5.677	.038
	Supervision	.505	.333	.483	2.514	.044

a. Dependent Variable: Employee Discipline

## Multiple Linear Regression Analysis

The formula for the multiple linear regression equation is  $Y = a + b_1X_1 + b_2X_2$

Based on the IBM SPSS 26 output data above, the results of the multiple linear regression equation for work environment variables (X1), supervision (X2) and employee discipline (Y) are  $Y = 122.2 + 0.516X_1 + 0.505X_2$ .

If variable X1 increases by 1 unit, then variable Y will increase by 0.516, so if variable X2 increases by 1 unit then variable Y will increase by 0.505. therefore it can be concluded that there is a positive relationship between the independent variable and the dependent variable.

Because the data shows a positive relationship, then the hypothesis test will be carried out next t test (Partial) and F test (Simultaneous) to measure the level of significance of the effect between the variables studied using a significance level of 0.05 (5%).

### Effect of Work Environment (X1) on Employee Discipline (Y)

The basis for making a decision is if the  $t_{count} > t_{table}$  and the Sig.  $< 0.05$ , then the first hypothesis (H1) is accepted, namely variable X has a significant positive effect on variable Y. On the other hand, the first hypothesis is rejected if the value of  $t_{count} < t_{table}$  and Sig.  $> 0.05$ , there is no significant effect of variable X on Y.

Based on the data above, the value of  $t_{count} > t_{table}$  ( $5,677 > 2,365$ ) and Sig.  $< 0.05$  ( $0.038 < 0.05$ ). Therefore, it can be concluded that the work environment (X1) has a significant positive effect on employee discipline (Y). Thus the first hypothesis test (H1) is accepted.

### Effect of Supervision (X2) on Employee Discipline (Y)

The basis for making a decision is if the  $t_{count} > t_{table}$  and the Sig.  $< 0.05$ , then the first hypothesis (H2) is accepted, namely variable X has a significant positive effect on variable Y. On the other hand, the second hypothesis is rejected if the  $t_{count} < t_{table}$  and Sig.  $> 0.05$ , there is no significant effect of variable X on Y.

Based on the data above, the value of  $t_{count} > t_{table}$  ( $2,514 > 2,365$ ) and Sig.  $< 0.05$  ( $0.044 < 0.05$ ). Therefore, it can be concluded that supervision (X2) has a significant positive effect on employee discipline (Y). thus the second hypothesis test (H2) is accepted.

### Effect of Work Environment (X1) and Supervision (X2) on Employee Discipline (Y)

Then the third hypothesis test (H3) is carried out with the F test. The basis for decision making for the F test is if the calculated  $F_{count} > F_{table}$  and the Sig.  $< 0.05$ , then the third hypothesis (H3)

is accepted, namely variable X has a significant positive effect on variable Y. On the other hand, the third hypothesis is rejected if the value of  $F_{count} < F_{table}$  and  $Sig. > 0.05$ , there is no significant effect of variable X on Y.

**Table 6. Results of ANOVA Test**

		ANOVA <sup>a</sup>				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1085.156	2	542.578	9.947	.001 <sup>b</sup>
	Residual	1950.444	7	278.635		
	Total	3035.600	9			

a. Dependent Variable: Employee Discipline

b. Predictors: (Constant), Supervision, Work Environment

Based on the data above, the calculated  $F_{count} > F_{table}$  ( $9,947 > 4.74$ ) and the  $Sig. < 0.05$  ( $0.001 < 0.05$ ). Therefore, it can be concluded that the work environment variable (X1) and supervision (X2) simultaneously have a significant positive effect on employee discipline (Y). thus the third hypothesis test (H3) is accepted.

**Coefficient of Determination (R<sup>2</sup>)**

**Table 7. Coefficient of Determination Results**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.598 <sup>a</sup>	.357	.174	16.692	1.557

a. Predictors: (Constant), Performance Allowance, Work Environment

b. Dependent Variable: Employee Productivity

Based on the output data above, the coefficient of determination (R<sup>2</sup>) is 0.357 or 35.7%. Thus it can be concluded that the work environment (X1) and supervision (X2) simultaneously have an influence of 35.7% on employee discipline. Meanwhile, the remaining 64.3% is influenced by other factors not examined in this study.

**DISCUSSION**

**Effect of Work Environment (X1) on Employee Discipline (Y)**

Based on the results of the research described above, it was found that the work environment (X1) has a significant positive effect on employee work discipline (Y) in the North Minahasa Regency Education Office. This is in line with the concept conveyed by Mujib (2016) that the work environment is the conditions that exist in the workplace which can directly or indirectly affect employees. In addition, the work environment is a community where people gather in diversity and in changing situations and conditions that can affect employee work discipline [10]. In order to build a good working environment, it is necessary to pay attention to these indicators, namely: 1) Lighting/Light in the Workplace; 2) Temperature at Work; 3) Humidity at Work; 4) Air Circulation in the Workplace; 5) Noise at Work; 6) Odors in the Workplace; 7) Color Management in the Workplace; 8) Decoration at Work; 9) Music at Work; and 10) Safety at Work [12]. Other indicators explained by Mangkunegara (2013), that there are indicators that affect the work environment, namely: 1) Collaboration, every employee will

interact and cooperate with various conditions contained in the work environment, 2) Availability of work facilities, each office must seek appropriate facilities and infrastructure comfortable and well cared for so that it has a positive influence on employee morale, 3) Work Atmosphere, namely the working relationship that exists within the organization is the working relationship between employees and employees and between employees and superiors [13].

This is supported by the results of previous research by Andriani (2010). The results of his research show that the work environment has a positive and significant effect on employee discipline. Andriani said that companies must be able to create a conducive, comfortable, enjoyable and exciting work environment so that they can increase employee morale and work discipline [18]. The research results from Sihombing (2018) show that the work environment has a very large influence on work discipline [19]. Even so, there are other research results which say that the work environment does not have a significant influence on employee work discipline. According to Wiryawan, Risqon and Noncik (2020), the work environment has a positive effect on work motivation but the work environment has no effect on work discipline [20].

### **Effect of Supervision (X2) on Employee Discipline (Y)**

Based on the results of the research described above, it was found that supervision (X2) had a significant positive effect on employee work discipline (Y) at the North Minahasa Regency Education Office. Supervision is an important element in efforts to enforce employee discipline. Supervision functions to evaluate whether a policy and rules that have been made by the leadership have been implemented properly by all employees. So that all forms of irregularities in the implementation of rules and policies can be controlled and evaluated effectively. In the Government Regulation of the Republic of Indonesia No. 12 of 2017 concerning the Guidance and Supervision of the Implementation of Regional Government, article 1 paragraph 2, states that the Supervision of the Implementation of Regional Government is a business, action and activity aimed at ensuring the implementation of Regional Government runs efficiently and effectively in accordance with the provisions of laws and regulations [5]. To create a good supervisory system, according to Handoko (2003), there are 4 important indicators in supervision, namely: 1) Standard setting, 2) Work measurement, 3) Performance appraisal, 4) Corrective action [11]. In addition to these indicators, according to Robbins and Coulter (2016) there are 4 other indicators to measure supervision, namely: 1) Setting Standards, namely setting benchmarks (targets) or desired results, to be carried out as a comparison of results during organizational activities. Standards are also limits on what must be done in carrying out an activity to achieve organizational goals and targets. 2) Measurement, namely a process that is carried out repeatedly and continuously and correctly, both in terms of intensity in the form of daily, weekly or monthly measurements so that what is measured can be seen between the quality and the number of results. 3) Comparing is comparing the results achieved with the targets or standards that have been set, maybe the performance is higher or lower or the same as the standard. 4) Taking action is a decision to take corrective or corrective action. If there has been a deviation between the standards and the realization, it is necessary to carry out follow-up actions in the form of correcting the deviations that have occurred [15].

The results of this study were supported by Nurbudiwati who conducted research at the Garut Regency Environmental Service. Nurbudiwati (2019) states that supervision has a major influence on employee discipline at the Garut Regency Environmental Service [21]. Likewise with the research results of Qomariah (2021), he said that the supervision variable had a

positive and significant effect on the work discipline of employees of the Samarinda Seberang Regency Office, Samarinda City [22].

### **Effect of Work Environment (X1) and Supervision (X2) on Employee Discipline (Y)**

According to Sutrisno (2017) there are 7 indicators to measure the level of discipline of workers in an organization, namely 1) The size of compensation, 2) Whether there are exemplary leaders in the organization, 3) Whether there are definite rules that can be used as a guide, 4) The courage of leaders in take action, 5) Is there leadership motivation, 6) Is there attention to workers, 7) Create habits that support the upholding of discipline [9].

Based on the results of the research described above, it was found that the work environment (X1) and supervision (X2) together had a significant positive effect on employee work discipline (Y) at the North Minahasa Regency Education Office. Simultaneously, the two independent variables have an influence on the dependent variable of 35.7%. This is in line with research by Samura, Nuryanti and Rama (2017). The results of his research show that supervision and the work environment have a positive and significant effect on the discipline of employees of the Rokan Hulu regency environmental agency office [23]. Likewise with the research of Marpaung and Agustin (2013). He said that the work environment and supervision simultaneously had a significant positive influence on the work discipline of the Riau High Court employees by 40.1% [24].

## **CONCLUSION**

Based on the results of the research and discussion above, it can be concluded that all hypothesis tests raised in this study are acceptable. Testing the first hypothesis (H1) was accepted because based on the results of the study it showed that the work environment had a significant positive effect on the work discipline of the employees of the Minahasa Regency Education Office, North Sulawesi Province. Furthermore, testing the second hypothesis (H2) is accepted because the research data shows that supervision has a positive and significant influence on employee work discipline. Likewise with testing the third hypothesis (H3), the results of the study show that the work environment (X1) and supervision (X2) simultaneously have a positive and significant influence on employee work discipline in the Education Office of North Minahasa Regency, North Sulawesi Province with a correlation coefficient ( $R^2$ ) or influence of 35.7%. The remaining 64.3% is influenced by other factors not examined in this study.

This research is expected to provide input data to the government at the North Minahasa Regency Education Office in order to improve employee work discipline. Building a good work environment can affect the level of employee discipline. Likewise with supervision. Building an effective and efficient supervisory system can have a major influence on improving employee work discipline. By developing the level of employee discipline, it will certainly affect the productivity and performance of employees at the Minahasa Regency Education Office, North Sulawesi Province.

## **REFERENCES**

- [1] P. N. R. Indonesia, "Peraturan Pemerintah Republik Indonesia No. 53 Tahun 2010 tentang Disiplin Pegawai Negeri Sipil." Pemerintah Negara Republik Indonesia, Jakarta, 2010.
- [2] P. N. R. Indonesia, "Undang-Undang Nomor 5 tahun 2014 tentang Aparatur Sipil Negara." Pemerintah Negara Republik Indonesia, Jakarta, 2014.
- [3] B. Siswanto, "Pengaruh Motivasi Kerja Dan Disiplin Kerja Terhadap Kinerja Karyawan," *JIMS*, vol. 7, no. 2, 2019.
- [4] T. H. Handoko, *Manajemen, Edisi Kedua, Cetakan Keduapuluhenam*. Yogyakarta, 2014.

- [5] P. N. R. Indonesia, "Peraturan Pemerintah Republik Indonesia No. 12 Tahun 2017 Tentang Pembinaan dan Pengawasan Penyelenggaraan Pemerintahan Daerah." Jakarta, 2017.
- [6] I. Wursanto, *Penilaian Kinerja dan Pengembangan Karyawan*. Yogyakarta, 2011.
- [7] A. N. Hasibuan, "Pengaruh Disiplin Kerja dan Motivasi Terhadap Kinerja Pegawai Di Puskesmas Marancar Udik Kabupaten Tapanuli Selatan," *Al-Masharif J. Ilmu Ekon. dan Keislam.*, vol. 5, no. 1, pp. 42–54, 2017.
- [8] S. Sutrisno, "Pengaruh disiplin kerja dan motivasi kerja terhadap kinerja pegawai negeri sipil (studi di kantor dinas sosial provinsi jawa tengah)," *J. Ilm. Din. Ekon. dan bisnis*, vol. 1, no. 1, p. 25040, 2013.
- [9] T. Sutrisno, "Upaya Meningkatkan Kedisiplinan Mahasiswa Semester III Pendidikan Guru Sekolah Dasar Universitas Bangun Nusantara Sukoharjo Dalam Mengikuti Pembelajaran Mata Kuliah Kesamaptaaan Melalui Reinforcement (Penguatan)," *J. Bid. Pendidik. Dasar*, vol. 1, no. 2, pp. 1–8, 2017.
- [10] M. Mujib, "Pengaruh Lingkungan kerja dan komitmen terhadap Disiplin kerja (Studi pada pegawai badan kepegawaian daerah DIY)," *J. Manaj. Bisnis Indones.*, vol. 5, no. 2, pp. 187–198, 2016.
- [11] T. H. Handoko, *Manajemen edisi kedua*. Yogyakarta, 2003.
- [12] S. Sedarmayanti and N. Rahadian, "Hubungan Budaya Kerja dan Lingkungan Kerja Terhadap Peningkatan Kinerja Pegawai Pada Lembaga Pendidikan Tinggi," *J. Ilmu Adm. Media Pengemb. Ilmu Dan Prakt. Adm.*, vol. 15, no. 1, pp. 63–77, 2018.
- [13] A. P. Mangkunegara, *Manajemen Sumber Daya Manusia: Cetakan Kesebelas*. Bandung, 2013.
- [14] P. Persada and A. O. Siagian, "DASAR-DASAR MANAJEMEN Teori, Fungsi dan Konsep," Center for Open Science, 2020.
- [15] S. P. Robbins, D. A. De Cenzo, and M. Coulter, *Fundamentals of Management: Management Myths Debunked!*, eBook, Global Edition. Pearson Education, 2016. [Online]. Available: <https://books.google.co.id/books?id=UTO5CwAAQBAJ>
- [16] D. Sugiyono, *Metode penelitian pendidikan pendekatan kuantitatif, kualitatif dan R&D*, Cetakan Ke. Bandung: Alfabeta, 2015.
- [17] I. Ghozali, "Aplikasi analisis multivariate IBM SPSS 23," *Badan Penerbit Univ. Diponegoro, Semarang*, 2016.
- [18] D. Andriani, "Pengaruh Lingkungan Kerja terhadap Disiplin Kerja Karyawan PT Hassco Multi Kimindo Sidoarjo," *J. Apl. Manaj.*, vol. 8, no. 4, pp. 971–983, 2010.
- [19] T. P. J. Sihombing, "Pengaruh Motivasi Kerja Dan Lingkungan Kerja Terhadap Disiplin Kerja (Studi Kasus PNPM Mandiri Perdesaan Pertanian Di Provinsi Papua dan Provinsi Papua Barat)," *J. Oper. Excell. J. Appl. Ind. Eng.*, vol. 6, no. 2, p. 268875, 2018.
- [20] T. Wiryawan, R. Risqon, and N. Noncik, "Pengaruh Lingkungan Kerja Terhadap Motivasi Dan Disiplin Serta Dampaknya Pada Kinerja," *EKOMABIS J. Ekon. Manaj. Bisnis*, vol. 1, no. 01, pp. 59–78, 2020.
- [21] N. Nurbudiwati, "Pengaruh Pengawasan terhadap Disiplin Kerja Pegawai di Dinas Lingkungan Hidup Kabupaten Garut," *J. Knowl. Manag.*, vol. 12, no. 01, pp. 30–38, 2019.
- [22] S. Qomariah, "Pengaruh Pengawasan Terhadap Disiplin Kerja Pegawai Kantor Kecamatan Samarinda Seberang Kota Samarinda," *Adm. PUBLIK*, vol. 1, no. 2, pp. 1633–1647, 2021.
- [23] I. S. Samura, N. Nuryanti, and R. Rama, "Pengaruh Pengawasan dan Lingkungan Kerja Terhadap Disiplin Kerja Pegawai Kantor Badan Lingkungan Hidup Kabupaten Rokan Hulu." Riau University, 2017.
- [24] R. Marpaung and T. D. Agustin, "Pengaruh pengawasan dan disiplin kerja terhadap kinerja pegawai kejaksaan tinggi riau," *J. Sos. Ekon. Pembang.*, vol. 3, no. 8, pp. 141–164, 2013.