

Effect of Work Environment and Work Motivation on Employee Performance in Faculty of Forestry University North Sumatra

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Abstract

Research with the title "The Effect of Work Environment and Work Motivation on Employee Performance at the Faculty of Forestry, University of North Sumatra" This study aims to explain the effect of working environment variables and work motivation simultaneously and partially on employee performance at the Faculty of Forestry, University of North Sumatra. The research method used is a quantitative model, using a questionnaire as a means of collecting data which is distributed to 45 employees at the Faculty of Forestry, University of North Sumatra. Analysis of the data in this study using multiple linear regression analysis assisted by a computer program SPSS for Windows. The results showed that simultaneously the F test resulted in an Fcount of 1339.803 with a significant level of 0.00. Because Fcount 1339.803 > Ftable 3.22 and the significant probability is much smaller than 0.05, namely 0.00 < 0.05, the regression model can be said that the work environment and work motivation simultaneously have a positive and significant effect on employee performance. . The results showed that partially the work environment tcount 1.259 < ttable 1.681 with a significant 0.215 > 0.05, meaning that partially work environment variables did not have a positive and significant effect on employee performance. The results showed that work motivation tcount 13.831 > ttable 1.681 with a significant 0.000 < 0.050, meaning that partially the work motivation variable has a positive and significant effect on employee performance. Based on the amount of the adjusted R square of 0.984, this means that 98.4% of the variation in work performance can be explained by the independent variable of work discipline and work environment while the rest (100% - 97.2% = 1.6%) can be explained by independent variables. others who were not included in this study such as the variables of work stress, work discipline and others.

Keywords: Work Environment, Work Motivation and Performance.

INTRODUCTION

Human Resources Management is needed to organize and organize every employee in each field. One of these tasks is carried out by the personnel field where they are assigned to manage employees in certain fields and organize them. In the era of globalization, the field of personnel has begun to play a wider role in selecting, training, placing or promoting employees. This is possible to provide maximum output from the potential of

employees' human resources. In the present, employee performance is one of the motors in moving activities within the organization. This becomes important because every company has competitors, so that each company will try to improve the performance of its employees so that it does not fall behind its competitors.

According to Hasibuan performance is a result of work achieved by a person in carrying out his duties on skills, effort and opportunity (Hasibuan, 2012. p.160). Based on the above explanation, performance is a result achieved by a person in carrying out tasks based on skills, experience and seriousness and time according to predetermined standards and criteria. When the employee's performance meets the standards of his duties, he will make the company run well. This must be balanced with supervision by superiors so that employees carry out according to what has become their responsibility. The quality of work comfort that is obtained through the work environment determines the level of employee performance. Employee performance will not be optimal if the working environment conditions are not pleasant. The conditions of the work environment can be said to be good or appropriate if humans can carry out activities in an optimal, healthy, safe and comfortable manner. Unfavorable work environments can demand more labor and time and do not support the design of an efficient work system (Sedarmayanti, 2011. p.12).

From some of the above definitions it can be concluded that according to Kasmir there are factors that affect employee performance, namely: abilities and expertise, knowledge, work design, personality, work motivation, leadership, leadership style, organizational culture, job satisfaction, work environment, loyalty, commitment, and work discipline (Kasmir, 2018. p.189).

The work environment is everything that is around the employee at work, whether physical or non-physical, directly or indirectly, which can affect himself and his job while working. Apart from the work environment, motivation also affects employee performance. Motivation is an important determinant of individual achievement. Motivation is a concept that describes the forces that exist in employees who initiate and direct behavior (Donnelly dkk., 1996. p.94).

A good work environment is characterized by adequate work equipment or facilities, a conducive work atmosphere and a conducive workplace environment that really helps make employees feel at home to work with the working conditions described above, employees are expected to improve their performance in order to achieve organizational goals. has been outlined and predetermined. This is in accordance with the opinion of Sarwoto who argues that there are various factors that affect the work environment where activities are carried out, namely equipment and facilities, work atmosphere (non-physical working environment) and work environment (physical working environment) (Sarwoto, 2014. p.131).

Based on interviews conducted at the Faculty of Forestry, University of North Sumatra with 10 employee representatives, work environment and motivation are important variables that affect employee performance. The work environment at the Faculty of Forestry, University of North Sumatra is less conducive to supporting employee performance in achieving organizational goals. This can be seen from the facilities and infrastructure such as computers, printers, chairs, desks that are not suitable for use, poor

internet connection, less functioning air conditioners in some rooms. In addition, there are some rooms that are still stuffy due to lack of ventilation, causing odors. It is feared that inadequate working conditions like this will have an impact on the comfort of employees at work so that it will affect the performance of employees at the Faculty of Forestry, University of North Sumatera.

The relationship between co-workers is also good enough, proven by being familiar with each other at work. In one period, employees at the Faculty of Forestry, University of North Sumatra usually hold a joint Outbound event which functions to build intimacy and cooperation between employees. Apart from that, the outbound function also serves to close relations between employees and superiors at the Faculty of Forestry, University of North Sumatra.

According to Sahlan states that when a person is young, he is very creative, but after old age his ability and creativity decline due to age. This is due to a loss of effort and being satisfied with the success it has achieved (Sahlan & Teguh, 2012. p. 124).

Some employees at an unproductive age even before retirement, one of which is having difficulty using the latest technology based on computers and the internet. Employees of the Faculty of Forestry, University of North Sumatra who are entering retirement age have limitations in the management of information technology. Even though most activities have used computers.

According to the results of interviews with several employees of the Faculty of Forestry, University of North Sumatra, the desire for achievement is manifested through good work in implementing the work programs that have been determined. This good work will later be assessed through Employee Work Targets for promotion purposes. The desire of employees of the Faculty of Forestry, University of North Sumatra to be affiliated with other people is reflected in good cooperation when they are assigned out of town and work on teamwork programs such as other programs that require collaboration between employees. If seen in the SKP, employees who have good motivation and achievement are employees who have high enough salaries and benefits and have lived long enough.

The motivation of the employees of the Faculty of Forestry, University of North Sumatra is also seen in the desire of employees to move up the ranks. Employment rank itself is a way for employees to be able to prove their authority and influence over other employees. The need for promotion proves that every employee has a need for power.

Based on the description above, the researcher is interested in conducting a study entitled *"The Effect of Work Environment and Work Motivation on Employee Performance at the Faculty of Forestry, University of North Sumatra"*.

METHOD

The method used in this research is descriptive research with a quantitative approach that aims to reveal what it is. According to Arikunto, he revealed that descriptive research was not intended to test certain hypotheses, but only described what it is about a variable (Arikunto, 2005. p. 26). According to Arikunto, with quantitative research, many are required to use numbers, starting from data collection, interpretation of the data, and the appearance of the results. So it can be concluded that quantitative descriptive research in

this research is to see, review and describe in numbers about the object under study as it is and draw conclusions about it according to the phenomena that appear at the time the research was conducted. (Arikunto, 2006. p. 12).

According to Rusiadi, Subiantoro and Hidayat. Associative / quantitative research is a study that aims to determine the degree of relationship and the pattern / form of influence between two or more variables, where this research will build a theory that functions to explain, predict and control a symptom "(Rusiadi dkk., 2016. p. 12).

RESULTS AND DISCUSSION

Employee Performance

Definition of Employee Performance

According to Mangkunegara the term performance comes from the word job performance or Actual Performance (work performance or actual achievement someone has achieved). The definition of performance is the quality and quantity of work achieved by an employee in carrying out his duties in accordance with the responsibilities given to him (Mangkunegara, 2013. p.67).

In general, performance can be defined as the entire work process of an individual whose results can be used as a basis for determining whether the individual's job is good or vice versa (Roziqin, 2012. p.41).

Performance is a reflection of their abilities and skills in certain jobs which will have an impact on the rewards of the company. According to Sutrisno (2016: 48), performance is a person's success in carrying out tasks, work results that can be achieved by a person or group of people in an organization according to their respective authority and responsibility or about how someone is expected to function and behave in accordance with the task. that has been charged to him and the quantity, quality and time spent in carrying out the task. Meanwhile, according to Kasmir performance is the result of work and work behavior that has been achieved in completing the tasks and responsibilities given in a certain period (Kasmir, 2018. p.182).

Based on the opinion of these experts, the definition of performance as a result of work achieved by individuals that is tailored to the role or task of the individual in an organization which is associated with a certain value measure or standard of the organization where the individual works.

Performance Dimensions

According to Edison et al. the performance dimensions consist of:

- 1) Target
- 2) Quality
- 3) Time of completion
- 4) Obey the principles (Edison dkk., 2016. p.195)

Factors Affecting Performance

The factors that affect the performance of both results and work behavior according to

cashmere are as follows:

- 1) Abilities and Skills
- 2) Knowledge
- 3) Work Design
- 4) Personality
- 5) Work Motivation
- 6) Leadership
- 7) Leadership Style
- 8) Organizational Culture
- 9) Job Satisfaction
- 10) Work Environment
- 11) Loyalty
- 12) Commitment
- 13) Work Discipline (Kasmir, 2018. p. 191)

Performance assessment

Employee assessment is a systematic evaluation of the work of employees and the potential that Mangkunegara can develop (2016: 77). Furthermore, according to Wirawan (2012: 148) defines "performance evaluation as a process of appraisal - officials who carry out an appraisal (appraiser) collect information about valued performance - appraised employees which are formally documented to assess valuable performance by comparing it with performance standards periodically. to assist HR management decision making.

Performance Appraisal Objectives

"The purpose of performance evaluation is to improve or enhance organizational performance through improving the performance of organizational "HR" (Mangkunegara, 2013. p.98). More specifically, the objectives of performance evaluation as stated by Sunyoto are:

- 1) Increase mutual understanding between employees about performance requirements.
- 2) Recording and acknowledging the work results of an employee, so that they are motivated to do better, or at least have the same achievement as their previous achievements.
- 3) Provide opportunities for employees to discuss their wants and aspirations and increase awareness of their careers or their current jobs.
- 4) Defining or reformulating future goals, so that employees are motivated to achieve according to their potential.
- 5) Checking the implementation and development plan according to the training needs, specifically the training plan, and then approving the plan if there are no things that need to be changed (Sunyoto, 2015. p.71).

Many organizations strive to achieve the goal of the best and most trusted position in their field. For that, it really depends on the implementation, namely the employees so that they achieve the goals set by the organization in its corporate planning.

Employee Performance Indicators

The explanation of each of the dimensions above is as follows:

- 1) Quality (quality)
- 2) Quantity (amount)
- 3) Time (period)
- 4) Cost Emphasis
- 5) Supervision
- 6) Relationships between employees

This opinion states that to get optimal employee performance which is the goal of the organization, it must pay attention to aspects of job quality, timeliness, initiative, ability and communication.

Work environment

Definition of Work Environment

As we know that the enthusiasm and enthusiasm of employees in carrying out their duties is influenced by several factors. Factors that can affect these include conditions or circumstances in the work environment, proper placement, training, future security, transfers, promotions and many other factors.

According to Sunyoto the work environment is a very important component when employees carry out work activities. By paying attention to a good work environment or creating working conditions that are able to provide motivation to work, it will have an influence on employee performance at work (Sunyoto, 2015. p.38).

Based on the above understanding, it can be concluded that the work environment is a tooling tool that is around employees, for example in the form of desks, chairs, laptops, temperature, etc. This will affect the performance performed by employees. If the conditions of the work environment are good and conducive, employees can produce good performance and increased productivity, and vice versa.

Work Environment Factors

According to Sedarmayanti several factors can influence the formation of a work environment related to human / employee abilities, including:

- 1) Lighting / lighting at work
- 2) Temperature / temperature at work
- 3) Humidity at work
- 4) Air circulation in the workplace
- 5) Noise at work
- 6) Mechanical vibration at work
- 7) Odors at work
- 8) Color arrangement at work
- 9) Decoration at work
- 10) Music at work
- 11) Safety at work (Sedarmayanti, 2011. p.85)

Types of Work Environment

1) Physical Work Environment

Physical work environment can be defined as all the conditions that exist around the workplace, which can affect employee performance. According to Rahmawanti (2014: 142) what is meant by a physical work environment is all physical conditions that exist around the workplace which can affect the work of employees either directly or indirectly.

2) Non-Physical Work Environment

According to Rahmawanti (2014: 143) non-physical work environments are all situations that occur related to work relationships, both with superiors and colleagues, or with subordinates.

Work Environment Indicators

The indicators of the physical work environment according to Sedarmayanti are as follows:

- 1) Air Circulation
- 2) Lighting in the work space
- 3) Noise
- 4) Use of Color
- 5) Air humidity
- 6) Facilities (Sedarmayanti, 2011. p. 26)

The factors that affect the non-physical work environment according to Sedarmayanti are:

- 1) The leadership's attention and support.
- 2) Cooperation between groups.
- 3) Smooth communication (Sedarmayanti, 2011. p. 27)

Work motivation

Definition of Work Motivation

According to Robbins & Judge work motivation is a person's attitude towards his job in order to create a sense of satisfaction with his performance. The theory developed by Herzberg is known as the two-factor theory, namely motivational factors and hygiene or maintenance factors. Motivational factors are intrinsic impulses for achievement, which means that they come from within a person, while hygiene or maintenance factors are extrinsic factors which mean they come from outside a person (Robbins & Judge, 2013. p. 74). Then Sutrisno states that motivation is "something that causes work impulses." (Sutrisno, 2016. p. 110)

Based on the description above, it can be concluded that the definition of work motivation is the condition or energy that moves employees who are directed or aimed at achieving the goals of the company organization, and this energy creates enthusiasm or encouragement to work.

Aspects of Work Motivation

According to Anoraga (2014: 63) aspects of employee work motivation, namely:

- 1) There is discipline from employees
- 2) High imagination and combination power
- 3) Self-confidence
- 4) Resistance to pressure
- 5) Responsibility in carrying out work (Anoraga, 2014. p.63)

Robbins and Judge, state that the aspects of work motivation are:

- 1) Has an aggressive nature
- 2) Creative in carrying out work,
- 3) The quality of work increases day by day,
- 4) Comply with working hours
- 5) The task given can be completed with the ability,
- 6) High work initiatives can encourage work performance, loyalty and honesty, establish work relationships between employees and leaders, achieve individual and organizational goals, and produce accurate and precise information (Robbins & Judge, 2013. p. 76).

Based on the description above, it can be concluded that the aspects of employee motivation are employee discipline, high imagination and combination power, self-confidence, resistance to pressure, responsibility in carrying out work, being aggressive, creative in carrying out work, improving work quality. from day to day, adhere to working hours, assigned tasks can be completed with ability, high work initiative can encourage work performance,

Factors Affecting Work Motivation

Winardi states that the factors that affect an employee's work motivation come from 2 factors, namely internal and external factors.

- 1) Internal factors.

Internal factors are factors that come from within an employee. Internal factors consist of self-perception, self-esteem, achievement, expectations, needs, individual traits, educational level, and past experiences.

- 2) External factors.

External factors are factors that come from outside the employee. This factor consists of work environment, leader and leadership style, demands for organizational development, and encouragement from superiors (Winardi, 2011. p.36-54).

Based on the description above, it can be concluded that the factors that influence work motivation are internal and external factors. In this study, researchers used self-esteem factors contained in internal factors, as factors that affect work motivation. The choice of self-esteem factor is based on the idea that self-esteem is an important thing that every individual must have.

Work Motivation Indicators

According to this achievement theory, there are three basic components that can be used to motivate people to work, namely the need for:

- 1) Need for a commitment.
- 2) Need for affiliation.
- 3) Need for power.

Statistic test

Validity Test and Reliability Test

Validity test

The validity test is to determine the feasibility of each questionnaire that has been given to the respondent, so a validity test is needed to measure whether a questionnaire is valid or not. If each question has a value of > 0.30 then the question is declared valid (valid). Based on the Validity Test Result Table, the product correlation coefficient value, the product moment score for each question item with the total of all question items, can be seen in the corrected item total correlation column. From the data obtained all coefficient values exceeding 0.30, this can be stated that all questions and the scores obtained are valid (valid).

Reliability Test

Reliability test (reliability) to determine the stability and consistency of the respondent in answering the items related to the constructs of the questions arranged in a questionnaire form. The reliability of a variable construct is said to be good if it has a Cronbach's Alpha value > 0.60 .

Based on the Table of Reliability Test Results, there is a cronbach's alpha of $0.981 > 0.60$ so it can be concluded that the construct of questions that have been presented to respondents consists of 30 items, both in the work discipline variable (X1), and the work environment (X2). variable Y, namely: Job performance is reliable or reliable.

Multicollinearity Test

The cut off value used to indicate the presence or absence of multicollinearity is:

VIF < 10 = multicollinearity

Tolerance < 10 = no multicollinearity

Multicollinearity Test Results Table

Coefficients ^a		Collinearity Statistics	
Model		Tolerance	VIF
1	(Constant)		
	WORK ENVIRONMENT (X1)	,084	11,847
	WORK MOTIVATION (X2)	,084	11,847

a. Dependent Variable: EMPLOYEE PERFORMANCE (Y)

Based on the Table of Multicollinearity Test Results, the VIF number of work environment variables (X1) and work motivation (X2) is 11.847 which means less than 10 and the tolerance value for work environment (X1), and work motivation (X2) is 0.084 less than 10 , it can be concluded that the regression model is free of multicollinearity disorders or does not occur multicol.

Multiple Linear Regression Equation

Regression analysis is a data analysis technique in statistics that is often used to examine the relationship between several variables and predict a variable..

Multiple Linear Regression Equation Table
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	3,066	,507	
	WORK ENVIRONMENT (X1)	,079	,063	,083
	WORK MOTIVATION (X2)	,841	,061	,913

a. Dependent Variable: EMPLOYEE PERFORMANCE (Y)

Source of SPSS processing version 20.00, Year 2020

Based on the table above, the regression equation is $Y = 3.066 + 0.079 X1 + 0.841 X2$. A constant of 3.066 states that if there is no independent variable (worth 0) then the dependent variable remains diversification of the work environment (X1) of 0.079, and work motivation (X3) of 0.841, it can be concluded that hypothesis 1 is accepted.

Simultaneous Influence Test (simultant)

The purpose of the F test is to show whether all the independent variables included in the model have a joint influence (simultaneously) the independent variable (X) on the dependent variable (Y).

Tabel Hasil Uji F

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	3976,254	2	1988,127	1339,803	,000^b
	Residual	62,324	42	1,484		
	Total	4038,578	44			
a. Dependent Variable: EMPLOYEE PERFORMANCE (Y)						
b. Predictors: (Constant), WORK MOTIVATION (X2), WORK ENVIRONMENT (X1)						

Based on the F Test Results Table, that the F test results in the Fcount of 1339.803 with a significant level of 0.00. Because Fcount 1339.803 > Ftable 3.22 and the significant probability is much smaller than 0.05, namely 0.00 < 0.05, the regression model can be said that the work environment and work motivation simultaneously have a positive and significant effect on employee performance.

Partial Effect Test

The test results for the influence of work environment variables, and work motivation on employee performance at the Faculty of Forestry, University of North Sumatra are in the following table:

**Table of t-test results
Coefficients^a**

Model		t	Sig.
1	(Constant)	6,050	,000
	WORK ENVIRONMENT (X1)	1,259	,215
	WORK MOTIVATION (X2)	13,831	,000

a. Dependent Variable: EMPLOYEE PERFORMANCE (Y)

The test uses the following steps:

1) Test the influence of the work environment on employee performance

Based on the t-test results table, it can be seen that the work environment tcount 1.259 < ttable 1.681 with a significant 0.215 > 0.05, meaning that partially the work environment variable does not have a positive and significant effect on employee performance.

2) Test the effect of work motivation on employee performance

Based on the table t-test results, it can be seen that the work motivation tcount $13.831 > t_{table} 1.681$ with a significant $0.000 < 0.050$, meaning that partially the work motivation variable has a positive and significant effect on employee performance.

Coefficient of Determination

The results of the determination test (R^2) can be seen from the coefficient of determination in the following table:

Table of Determination Test Results
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,992 ^a	,985	,984	1,218

a. Predictors: (Constant), WORK ENVIRONMENT (X2), WORK DISCIPLINE (X1)

b. Dependent Variable: WORK PERFORMANCE (Y)

Based on the table above, the adjusted R square is 0.984, this means that 98.4% of the variation in work performance can be explained by the independent variables of work discipline and work environment while the rest ($100\% - 97.2\% = 1.6\%$) can explained by other independent variables that were not included in this study such as work stress, work discipline and others

CONCLUSION

Based on the analysis and discussion carried out on the research data obtained, the following conclusions can be drawn:

1. The results showed that simultaneously the F test resulted in an Fcount of 1339.803 with a significant level of 0.00. Because Fcount $1339.803 > F_{table} 3.22$ and the significant probability is much smaller than 0.05, namely $0.00 < 0.05$, the regression model can be said that the work environment and work motivation simultaneously have a positive and significant effect on employee performance. .
2. The results showed that partially the work environment tcount $1.259 < t_{table} 1.681$ with a significant $0.215 > 0.05$, meaning that partially work environment variables did not have a positive and significant effect on employee performance.
3. The results showed that work motivation tcount $13.831 > t_{table} 1.681$ with a significant $0.000 < 0.050$, meaning that partially the work motivation variable has a positive and significant effect on employee performance

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