

EFFECT OF WORK STRESS AND WORK ENVIRONMENT ON EMPLOYEE SATISFACTION IN PT. PLN TARAHAN POWER PLANT IMPLEMENTATION UNIT

Dera Zatiara¹, Kemala Puji², Dr. Maidiana Astuti Handayani³

Universitas Teknokrat Indonesia^{1,2,3}

derazatiara866@gmail.com

ABSTRACT

This study aims to examine the effect of work stress and employee work environment on employee job satisfaction at PT. PLN Tarahan Generating Unit. The object of this research is employees at PT. PLN Tarahan Power Plant Implementation Unit, the non-technical part is 50 employees. This research uses quantitative research and uses multiple regression analysis tools, F test and . The results showed that work stress and work environment had a significant effect on employee job satisfaction at PT. PLN's Tarahan Power Plant Implementing Unit.

key words: work stress, work environment, employee job satisfaction.

INTRODUCTION

Organization or company, the problem of job satisfaction of human resources needs special attention. This shows that human resources is a science and art that regulates the relationship and the role of the workforce to be effective and efficient, in helping the realization of a company and employee goals (Hasibuan, 2010). Therefore, companies are required to pay more attention to the quality of their human resources, by providing needs is needed by employees, in order to optimize employee performance and job satisfaction. In an effort to improve the effectiveness of human resources, within a company there is human resource management that aims to establish effective and efficient employee performance and job satisfaction. The progress of an organization or company is strongly influenced by the performance and job satisfaction of its employees.

Since 1972, in accordance with Government Regulation No. 17, the status of the State Electricity Company (PLN) was determined as a State Electricity Company and as the holder of an Electric Power Business Authority (PKUK) with the task of providing electricity for the public interest. To the private sector, to engage in the electricity supply business, since 1994, the status of PLN has changed from a public company to a company and as a PKUK in providing electricity for the benefit of the general public until now.

As a strategic business entity for the country's economy, the PLN company is required to achieve electricity services for all development sectors including households. Therefore, there needs to be support from professional PLN employees in realizing PLN's success. However, in realizing this sometimes there are problems that occur, for example, such as rotating power outages or power cuts in a slightly longer time than usual, the community will also complain to the PLN company which is required to be perfect in carrying out its duties as electricity provider for

the community and even the State. In several studies, job satisfaction has a significant effect on employee performance. For example, the research conducted by Yul (2013) who took the object of research at PT. Tunas Hijau Samarinda showed significant results on employee job satisfaction, as well as research conducted by Didik (2009) who took an taxi at the Sukoharjo Regional General Hospital also showed that job satisfaction results can affect employee performance, therefore PLN companies provide job satisfaction employees because it will deliver PLN's corporate values to PLN's customers.

According to Martoyo (2000) Job satisfaction is an emotional state of employees that occurs or does not occur at the meeting point between the value of remuneration for employees and the company or organization with the level of remuneration value that is desired by the employee concerned. Meanwhile, according to Furtwengler (2002) in Paramarta (2012), there are several factors that can affect job satisfaction, namely: (1) diversity. (2) opportunities for growth (3) learning (4) participation (5) recognition (6) security (7) employee differences.

In serving consumers, PT. According to Sunyoto (2013) stress is something that involves the interaction between the individual and the environment, namely the interaction between stimulation and response. The increasingly fierce competition between the workforce is getting higher, causing a lot of pressures that must be faced by these individuals in the work environment and between these individuals in completing their work. The existence of this pressure will cause anxiety experienced by the individual concerned.

As for one thing that can have a direct effect on the problem of work stress experienced by employees, namely the work environment. According to Nitisemito (1996) the work environment is something that is around employees that affects him in carrying out the tasks assigned to him. The influence of work stress and work environment has a very large impact on employee job satisfaction. According to Davis & Newstorm (1985) "Job satisfaction is a set of employees' feelings about whether or not their work is enjoyable or not". With the above theory, the conclusion from this is that if employees experience stress in their work and the work environment is less supportive in carrying out their duties, then this will affect the performance and job satisfaction of the employees concerned.

LITERATURE REVIEW

Job Stress

According to Mangkunegara, work stress is a feeling of pressure experienced by employees, in dealing with work. This work stress appears to be symptomatic, including unstable emotions, feeling uneasy, having trouble sleeping, being alone, unable to relax, smoking excessively, being tense, nervous, experiencing digestive disorders and increasing blood pressure. Based on the expert opinion above, it can be concluded that the occurrence of stress is caused by an imbalance between the personality characteristics of employees and the characteristics of aspects of their work, and can occur in all working conditions.

Work Environment

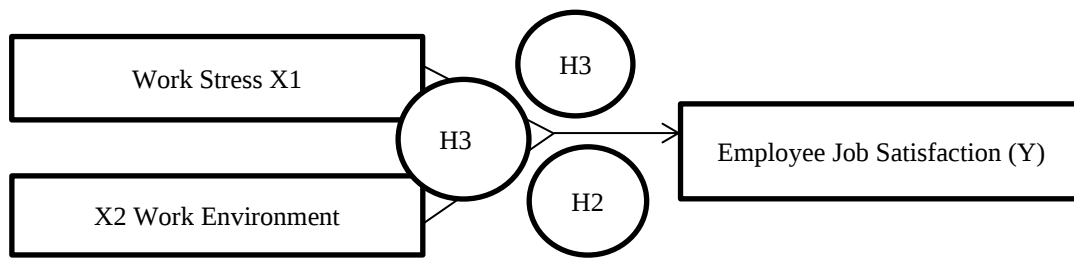
Based on the opinion of Mnagkunegara, employees will be able to achieve maximum performance or job satisfaction if they have high achievement motives. Achievement motives that need to be owned by an employee,

must be generated from within oneself apart from the work environment. This is because the achievement motive that is generated from within will form a self-strength, and if the work environment situation supports it, then the achievement of performance or job satisfaction will be easier. Therefore, develop the motive for self-achievement and take advantage of and create situations that exist in the work environment, in order to achieve maximum performance or job satisfaction.

Satisfaction

According to (Robbins & Judge, 2012) Job satisfaction is described as a positive feeling towards work, which is the result of an evaluation of each job characteristic. Individuals who have a high level of job satisfaction tend to have positive feelings about their work, and vice versa if an individual has a low level of job satisfaction, he will tend to have feelings of stress towards his work.

CONCEPTUAL FRAMEWORK



RESEARCH METHODS

Population and Sample

1. Population

According to Muhammad, population is a group of people or objects that have similarities in one or more things that form the main problem in a study. The population to be studied is 50 employees, the population must be clearly defined before the research is carried out.

2. Sample

Meanwhile, according to Muhammad, the sample is part or a certain number of samples taken from a population and examined in detail. The sample in this study used a population of 50 employees of PT.PLN Tarahan Power Plant Implementing Unit.

Data Collection Techniques

Data Collection Method

1. Observation: Observation in a study is a way to conduct a direct assessment, where the researcher conducts research on the object to be studied. The purpose of the observation itself is to measure the behavior of the individual who will be the subject of the research.

2. Questionnaire (Questionnaire): Questionnaire is a form of data collection in the form of questions that will be answered by the respondents. It is hoped that by spreading the list of questions to each respondent, the research can collect data relevant to the research objective to be valid and reliable

Table of Likert Scale Methods

STATEMENT	SCORE
Very dissatisfied	1
Not satisfied	2
Quite satisfied	3
Satisfied	4
Very satisfied	5

3. Documentation: The research technique using the documentation method is used to collect data in the form of written data and contains information and explanations as well as thoughts about phenomena that are still in accordance with the research problem.

Analysis Method Heteroscedasticity Test

Heteroscedasticity test aims to test the regression model where there is an inequality of variance from the residuals of one observation to another observation. If the residual variance from one observation to another observation remains , it is called homoscedasticity and if it is different it is called heteroscedasticity .

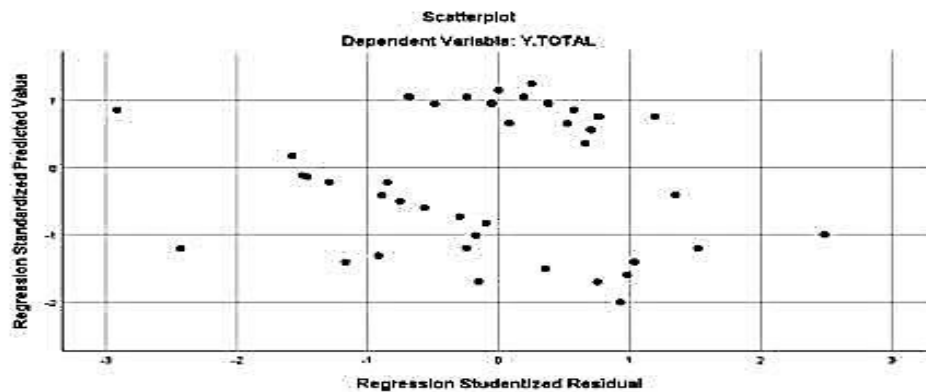


Figure 4.1 Heteroscedasticity Test Results

Based on the picture above, it can be seen that the points spread randomly and are spread both above and below the number 0 on the Y axis. So it can be concluded that the data does not have heteroscedasticity problems.

b. Normality test

As a requirement for hypothesis testing in inferential statistics, tests are carried out on the assumption of a normal distribution. This assumption test determines the type of analytical technique or test statistic to be used. Normality test aims to study whether the distribution of the selected sample comes from a normal or abnormal population distribution. one of the normality tests is by using the Kolmogorov Smirnov. This method test compares a series of data in a sample against the normal distribution of a series of values with the same mean and standard deviation

Table 4.5 Normality Test results with Kolmogorov Smirnov

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		50
Normal Parameters ^{a,b}	mean	.0000000
	Std.	2.28747478
	Deviation	
Most Extreme Differences	Absolute	.097
	Ppositive	.082
	negative	-.097
Test Statistics		.097
asympt. Sig. (2-tailed)		.200 ^{CD}
a. Test distribution is Normal. b. Calculated from data. c. Lilliefors Significance Correction. d. This is a lower bound of the true significance.		

Source: Data Processed 2022

Based on the observations from the Kolmogorov Smirnov test table above, the Kolmogorov Smirnov value is 0.200. From these results it can be concluded that the distribution is normal because it is said to be normal if the Kolmogorov Smirnov value is more than 0.05.

Multicollinearity Test

Table 4.6 Multicollinearity Test Results

Coefficients					
a					
	Unstandardized Coefficients	Standardized Coefficients			Collinearity Statistics

Model	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	-1.252	3,545		-.353	.726		
X1.TOTAL	.428	.102	.437	4.208	.000	.413	2.424
X2.TOTAL	.443	.090	.509	4,903	.000	.413	2.424
a. Dependent Variable: Y.TOTAL							

Source : Data Processed 2022

Based on the Multicollinierity Test in table 4.2, it can be seen from the Tolerance and VIF values for each variable. In the X1 variable, namely the work stress tolerance of 0.413 and the VIF value of 2.424, then on the X2 variable, namely the work environment, the Tolerance value is 0.413 and the VIF value is 2.424. From the results above, it is concluded that there is no multicollinearity between each independent variable so that it can be used to analyze because the tolerance value is < 0.10 and the VIF value is < 10.00 .

Autocorrelation Test

Autocorrelation means that there is a correlation between sample members or observational data sorted by time, so that the emergence of a datum is influenced by the previous datum.

To detect the presence or absence of autocorrelation, the Durbin-Watson test (DW-test) can be used, with the following guidelines:

- a) $0 < d < dl$: no positive autocorrelation (rejected)
- b) $dl < d < du$: no positive autocorrelation (no decision)
- c) $4 - dl < d < 4$: no negative correlation (rejected)
- d) $4 - du < d < 4 - dl$: no negative correlation (no decision)
- e) $du < d < 4 - du$: no positive or negative autocorrelation (no rejected)

Validity and reliability test

It can be concluded that the results of the validity test of each variable are valid because the probability value (sig. 2 tailed) of the correlation results of each score with the total score must be less than 0.05.

Reliability Test

Reliability Statistics		
Cronbach's	Cronbach's Alpha Based on Sstandardized	

Alpha	Items	N of Items
.948	.949	34

Source : Data Processed 2022

It can be seen in table 4.7 that the Cronbach alpha value is 0.949 which is greater than r table 0.632 with a significance level of 5%. This means that the questionnaire can be said to be reliable or can be trusted.

Simple Linear Regression Test

Table 4.8 Simple linear regression test results

Coefficients ^a								
Model		Unstandardized Coefficients		Sstandardized Coefficients	t	Sig.	Collinearity Sstatistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.252	3,545		-.353	.726		
	X1.TOTAL	.428	.102	.437	4.208	.000	.413	2.424
	X2.TOTAL	.443	.090	.509	4,903	.000	.413	2.424
a. Dependent Variable: Y.TOTAL								

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Based on the table above, the sig value on the variable X1 Work stress is 0.000

<0.05, so it can be concluded that the variable (X1) job stress affects the variable (Y) job satisfaction. sig value on variable (X2) work environment is 0.000 < 0.05, then on variable (X2) work environment has an effect on variable (Y) job satisfaction.

Based on T count on variable (X1) work stress worth 4.208 > t table 2010 so that it can be concluded that the X1 variable has an effect on the Y variable. T count (X2) work environment worth 4,903 > t table 2010 then the X2 variable.

h. Hypothesis Test

a. Partial Test (T)

Table 4.9 partial test results (T)

Hypothesis testing on the (t) test is used to determine and see each independent effect on the dependent variable. With the condition that the decision making on the t test is carried out with the criteria in this study, namel If t count > t table and significance value < 0.05 then the hypothesis is accepted and means that the independent variable has a positive and significant effect on the dependent variable.

b. If t count < t table and significance value > 0.05 then the hypothesis is rejected and means that the independent variable has no positive and significant effect.

c. If $t \text{ count} > t \text{ table}$ and significance value > 0.05 , it can be interpreted that the independent variable has an effect on the dependent variable but is not significant. The following are the results of data processing in the table below:

table 4.13 Partial Test Results (T)

Coefficients								
a								
		Unstandardize d Coefficients		STandardize d Coefficients			Collinearity Sstatistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.252	3,545		-.353	.726		
	X1.TOTAL	.428	.102	.437	4.208	.000	.413	2.424
	X2.TOTAL	.443	.090	.509	4.903	.000	.413	2.424
a. Dependent Variable: Y.TOTAL								

Source : Data Processed 2022

i. Simultaneous Test (F)

Table 4.10 Simultaneous Test Results (F)

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	970.105	2	485.053	88,916	.000 ^b
	Residual	256,395	47	5.455		
	Total	1226,500	49			
a. Dependent Variable: Y.TOTAL						
b. Predictors: (Constant), X2.TOTAL, X1.TOTAL						

source : Data Processed 2022

From the table above, it can be concluded that $F \text{ count} = 88,916$ with a significance level $= 0.000$ while $F \text{ table} = 3.19$ ($k; nk$) = (2; 50- 2= 48). It can be concluded that $F \text{ count} (88.916) > F \text{ table} (3.19)$ = then H_3 is accepted because the significance level is $0.00 < 0.05$. This matter shows that there is a significant effect of the independent variable work stress and work environment simultaneously on the dependent variable, namely job satisfaction.

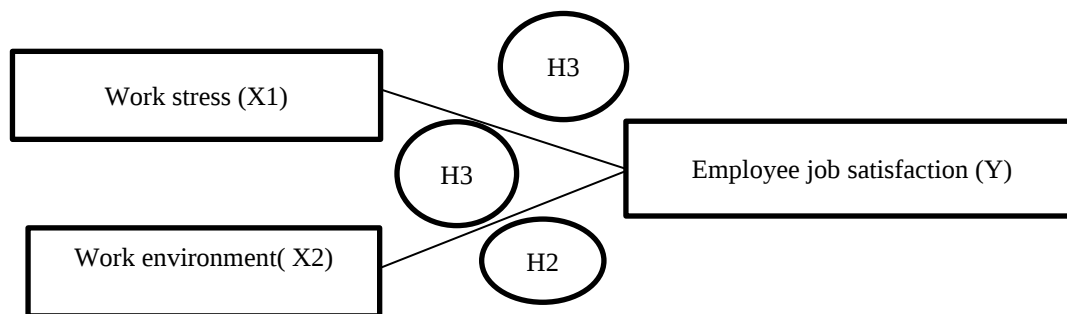
K. Operational Variables

1. Dependent Variable: The dependent variable is a variable that is influenced or that becomes the result, because of other variables which are then referred to as independent variables. The dependent variable used in this study is Employee Job Satisfaction (Variable Y).

2. Independent Variables: Independent variables are variables that affect or cause changes or the emergence of another variable in this case, namely the dependent variable. The independent variables in this study consist of work stress (X1) and work environment (X2).

L.Results and Discussion

Figure 1. Research Hypothesis



Based on the picture above, it can be explained that employee satisfaction of PT. PLN Tarahan Power Plant Implementation Unit is affected by work stress. If employee work stress increases, then employee performance also increases. Employee job satisfaction is also influenced by the work environment. If the work environment increases, job satisfaction also increases. In addition, work stress and work environment together affect employee job satisfaction. If stress and work environment increase, job satisfaction also increases.

a.the effect of work environment on job satisfaction

KaryCloud at PT. PLN Unit Implementing the Tarahan Power Plant

According to Afandi, the work environment is everything that is in the employee's environment, which can affect him in carrying out tasks such as temperature, humidity, adequate lighting, ventilation, and completeness of work equipment. According to Abdurrahmat (2006), job satisfaction is a form of emotional attitude that is pleasant and loves the work he is doing. Job satisfaction in work is job satisfaction that can be enjoyed at work in getting results from achieving work goals, placement, treatment and a good working environment. A comfortable, safe and calm work environment will provide morale to employees, which will have an impact directly on employee performance, and this will also affect employee job satisfaction.

Ho2: There is no significant effect of work environment on employee job satisfaction at PT. PLN Tarahan Power Plant Implementing Unit.

Ho2: There is a significant effect of work environment on employee job satisfaction at PT. PLN Tarahan Power Plant Implementing Unit.

b. The Influence of Work Stress and Work Environment on Performance Employees at PT. PLN Tarahan Power Plant Implementing Unit

stress According to Wijono, work is the absence of a match between the demands of abilities and skills that individuals want to fulfill in their work environment. According to Afandi, the work environment is everything that is in the employee's environment

employees, which can affect themselves in carrying out their duties such as temperature, humidity, adequate lighting, ventilation, and completeness of work equipment. According to Abdurrahmat (2006), job satisfaction is a form of emotional attitude that is pleasant and loves the work he is doing. Job satisfaction in work is job satisfaction that can be enjoyed at work in getting results from achieving work goals, placement, treatment and a good working environment. According to the research above, the following hypotheses can be made:

Ho3: There is no effect between work stress and work environment simultaneously on employee job satisfaction at PT. Tarahan Power Plant Implementing Unit.

Ha3: There is a simultaneous influence between work stress and work environment on employee job satisfaction at PT. PLN Tarahan Power Plant Implementing Unit.

M. Conclusion

A. Conclusion

Based on the results of research on "INFLUENCE OF WORK STRESS AND WORK ENVIRONMENT ON EMPLOYEE SATISFACTION AT PT. PLN UNIT IMPLEMENTATION OF POWER PLANT" using Multiple linear regression analysis technique and validity and reliability test with the help of SPSS Version 22.0 For Windows program, the researcher succeeded in concluding that.

1. In a partial test the results of the analysis of the study can be concluded that work stress (X1) has an influence on variable Y, namely job satisfaction of employees of PT. PLN Tarahan Generator Implementing Unit, as evidenced by T count of 4.208 > T table 2010 with a value of sig. 0.000 < 0.05, it means that there is an effect of work stress on employee performance satisfaction at Pt. PLN Tarahan Generator Implementing Unit.
2. In a partial test the results of the analysis of the research can be concluded that the work environment (X2) has an influence on the Y variable, namely the job satisfaction of PT. PLN Tarahan Generator Implementing Unit, as evidenced by T count of 4.903 > T table 2,010 with a value of sig. 0.000 < 0.05, it means that there is an influence of the work environment on employee performance satisfaction of PT. PLN Tarahan Power Plant Implementing Unit.
3. Simultaneously individual characteristics and work environment have a positive and significant effect on the performance of employees of PT. PLN Tarahan Generator Implementing Unit. This is evidenced and explained from the results of the calculation that f arithmetic is greater than f table, namely 88.916 > 3.19 and the signya level is 0.000 < 0.05 so that it means that work stress and

work environment together have a significant effect on employee performance satisfaction at PT.
.PLN Tarahan Generator Implementing Unit.

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