The Influence of Job Training, Non-Physical Work Environment and Information Technology On Job Satisfaction of PT XY Employees

Sayu Nadhilah[1], Maulidyah Amalina Rizqi[2]

sayunadhilah770@gmail.com[1], maulidyah@umg.ac.id[2]

[1,2]Universitas Muhammadiyah Gresik, Gresik Regency, East Java, Indonesia.

Corresponding Author: Sayu Nadhilah

Abstract. This study aims to test the effect of job training, non-physical work environment, and information technology on job satisfaction of PT XY. The number of samples used in this study was 106 respondents. Analytical techniques to test hypotheses using the Statistical Package for The Social Sciences (SPSS). The results of this study show that partially job training has a significant effect on employee job satisfaction, non-physical work environment has a significant effect on employee job satisfaction, information technology has a significant effect on employee job satisfaction.

Keywords: Job Training, Non-Physical Work Environment, Information Technology, Job Satisfaction

1. Introduction

The era of globalization has changed the business paradigm, with the rapid pace of industry 4.0 entering factories and offices, business competition between companies will increase even more rapidly. Human resources are resources that have an important role in determining the success of an agency, job satisfaction can create quality human resources. Companies in achieving organizational goals must prioritize employee job satisfaction.

According to Hasibuan [14] defines job satisfaction as a person who enjoys and finds meaning in his work. This feeling can be happy, unhappy, or comfortable or vice versa, and this attitude is shown by discipline, work morale, and work performance. According to Hasibuan [17] discipline is one of the factors that influences job satisfaction. The following is data on the percentage of employee tardiness in June – October 2023.

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Table 1. Percentage Of Employee Tardiness PT XY

Month	Number of employees	Number of delays	Percentage of delays
June-July	144	25	18%
July-August	144	34	24%
August-September	144	34	24%
September-October	144	37	26%

Source : PT XX

Based on table 1 above, it can be seen that in June-July 2023 the percentage of delays reached 18%, then in July-August 2023 the percentage of delays increased by 24%, for August-September the percentage of delays was 24%, and in September-October again experienced an increase of 26%. Based on table 1 above, it can be seen that the percentage level of tardiness among PT XY employees, precisely from June-October 2023, has increased. This can be a benchmark for seeing job satisfaction for employees, and can show that the percentage of employee tardiness is higher, resulting in a low level of employee satisfaction.

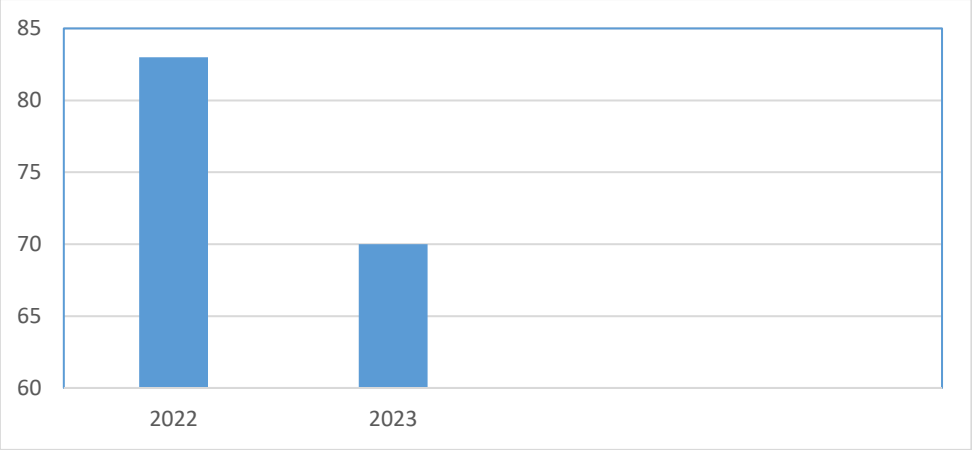
According to Sinambela [28] training provides benefits for increasing job satisfaction. The following is employee job training data for 2022-2023.

Table 2. Realization of Training Program PT XY Year 2022-2023

Year	Target	Realization	Percentage
2022	30 Times	25	83.3%
2023	30 Times	21	70%

Source : PT XY

If the percentage between the target and the realization of the training program in 2022-2023 is depicted, it will form a graph like the following:



Source: data processed by researchers, 2024

Figure 1. Percentage training program PT XY For 2022-2023

From the data above it can be seen that PT X has a training target of 30 times a year However, in 2022-2023 there will be a decrease in training realization where in 2022 PT X will conduct training 25 times with a percentage of 83.3%, Meanwhile, in 2023 PT XY experienced a decrease in training realization, namely 21 times with a percentage of 70%, in 2023 PT XY experienced a decrease in training realization of 21 times with a percentage of 70%.

According to [28] social factors are one of the factors that influence job satisfaction, social factors relate to the relationship with social interaction both between fellow employees, with superiors and with employees of different types of work. Regarding the non-physical work environment at work, A said, "In the execution of the job, everyone helps each other, especially my office friends, not only my friends in the same division but also in different divisions, helping each other in communication is going well but there is also the work pressure from the bosses." In addition, X said "There is the negative side as positive for the negative as the pressure from a boss for a tight job deadline, sometimes there is miss communication between colleagues, make the positive side with superiors and subordinates always support in terms of work, partners who can always be invited to cooperate".

The non-physical working environment in the company is conducive because of the cooperation and support of colleagues and superiors, good interaction between employees creates a comfortable working environment. Seeing from the working environment of PT XY, it can be concluded that a smooth and good working relationship can create a comfortable working atmosphere for employees. However, if the workplace continues to be filled with internal and external pressures, worries about such pressures can cause employees to feel dissatisfied with their work. As a result, the employee's level of job satisfaction may decrease.

According to [18] information technology is one of the factors affecting job satisfaction. Here's the information technology data used by PT XY.

Table 3. Information Technology PT XY

No	Information Technology	Department
1	HSE Information System (SiK3Ling)	K3
2	*Assets Performance Gatner* (APG)	Depository
3	Project System (SIMPRO)	Marketing
4	*Enterprise Resource Planning* (ERP)	Financial

Source : PT XY

As far as information technology is concerned, a said that All employees use information technology, information technology has no significant constraints but the negative is that sometimes the servers are in trouble because of the Internet or electricity networks that are having problems affecting employees can not access the use of such technology.

2. Literature Review

Training

According to [17], work training is a learning process that enables employees to perform jobs that are now in accordance with standards. The training function is:

1. Improve participant performance
2. Prepare staff for promotion to a better position
3. Help staff make better choices
4. Optimize their skills in the field of work to reduce stress and increase their confidence

Non-Physical Work Environments

According to [26] non-physical work environments are all things related to work relationships, whether with superiors, co-workers, or subordinates, work structure, work responsibilities, support and attention of leadership, group cooperation and smooth communication, non-Physical environment is a group of work environment that cannot be ignored.

Information Technology

According to [33] information technology encompasses systems and techniques of data collection, transmission, processing, interpretation, organization, and use. It can be software, use-ware, or hardware.

Job Satisfaction

According to [31] job satisfaction is how an employee views their work, how they work together, the salary they receive, and the physical and psychological aspects of job satisfactions.

Hypotheses

The Relationship Between Job Training and Job Satisfaction

To reveal the link between employment training and job satisfaction, [28] stated that training provides benefits for increasing employment satisfaction.

The Relationship Between the Non-Physical Working Environment and Job Satisfaction

To reveal the link between the non-physical working environment and job satisfaction, [28] stated that inter-employee relationships such as relationships between managers and employees, working conditions, social relationships among employees, suggestions from colleagues, emotions and work situations can affect job satisfactions.

The Relationship Between Information Technology and Job Satisfaction

To reveal the link between information technology and job satisfaction, according to [18] information technology is one of the factors that affect job satisfaction.

A research framework is required if there are two or more variables in the study, [29]. A model of the conceptual framework in the following picture:

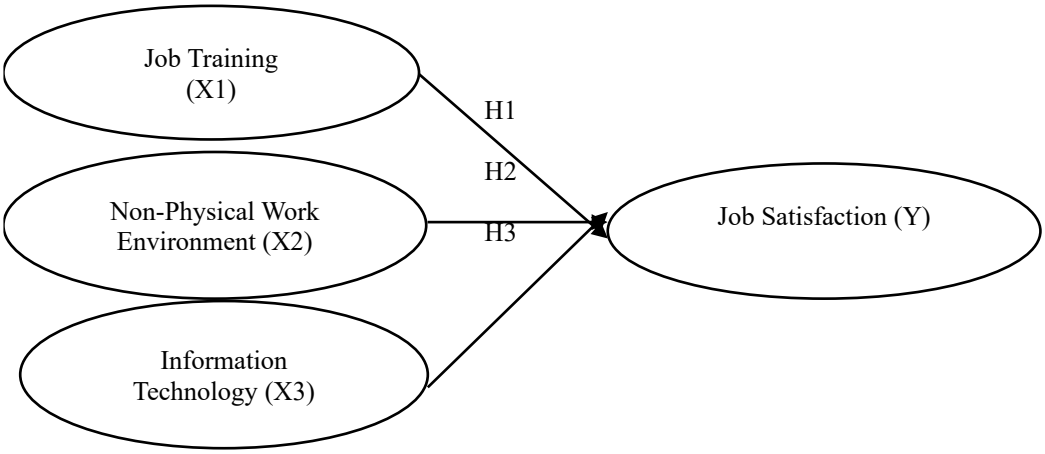


Figure 2. Research Outline

3. Research Method

Type of Research

In this study, the author uses a type of quantitative research. According to [29] quantitative research comes from the philosophy of positivism, used to study a specific population or sample. In this study, the technique of collecting data through questionnaires is used to draw information by asking people to fill in a series of questions, after which it is processed with SPSS 26.

Research Data

This research uses primary data, according to [29] primary data is a source of data that is given directly to the person who collected it. Primary data is data related to the variables Job Training, Non-Physical Work Environment, Information Technology and Employee Job Satisfaction which were obtained directly from respondents through questionnaires.

The data source for this research was obtained from the HR division and respondents' answers were from employees PT XY.

The data collection technique used is by using a questionnaire. A questionnaire is a tool for collecting information by asking people to fill out a series of questions, [29]. Questionnaires were distributed to respondents via Google Form with questions regarding the issues to be discussed, such as Job Training, Non-Physical Work Environment, Information Technology and PT XY Employee Job Satisfaction.

Data analysis techniques were carried out using questionnaires which were filled in by respondents. [29] defines that the Likert scale is used to measure attitudes, opinions and perceptions of a group of people about social phenomena. Variables measured using a Likert scale are converted into indicator variables. This indicator is then used as a reference when creating question items. The response to each indicator using a Likert scale ranges from strongly agree to strongly disagree, which can be expressed in one word [29].

Table 4. Likert Scale Score

Question	Information	Score
SS	Strongly Agree	5
S	Agree	4
RR	Doubtful	3
TS	Don’t Agree	2
STS	Stronglt Disagree	1

Source: data processed by researchers, 2024

Instrument Test

The research was carried out in the following way to ensure the limits of reliability and validity of the variable indicator questionnaire.

The purpose of this validity test is to determine the validity of the questionnaire. Validity can be assessed by comparing the calculated r number with the r table, where degree of freedom (df)=n – 2. To determine whether something is valid or not, the following statistical parameters can be set:

1. If the calculated r value ≤ r table (α=5%) then the resulting data is invalid.
2. If the calculated r value ≥ r table (α=5%) then the resulting data is valid.

Reliability can be measured using a questionnaire as an indicator variable. The following are the requirements for reliability testing:

1. Cronbach Alpha value > 0.70 means the variable is declared reliable.
2. Cronbach Alpha value <0.70 means the variable is declared unreliable.

Classic Assumption Test

An approach to assessing the normality of residuals is to perform a non-parametric Kolmogorov-Sminov (K-S) test. The following are the requirements for normality testing:

1. Ho: If the significant value is > 0.05, the data is normally distributed.
2. Ha: If the significant value is <0.05, the data is not normally distributed.

Multicollinearity is absent when VIF < 10 and tolerance > 0.1, Conversely, if the tolerance is > 0.1, multicollinearity does not exist.

Glacier testing is used to identify signs of heteroscedasticity on the following basis:

1. If the sig value is > 0.05 then there are no symptoms of heteroscedasticity.
2. If the sig value is <0.05 then there are symptoms of heteroscedasticity.

Data Analysis Technique

In this study, researchers want to know how much influence the independent variables, namely job training (X1), non-physical work environment (X2), information technology (X3), have on job satisfaction (Y) by using standardized regression coefficients with the formula:

$$Y = \boldsymbol{\alpha} + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Note :

Y = Job satisfaction

α = Constant

β1-β = Regression coefficient

X1 = Job training variable
X2 = Non-physical work environment variables
X3 = Information technology variable
e = Standard error

Coefficient of Determination Test (R^2)

The following are the requirements for coefficient of determination testing:

1. If the coefficient of determination value is close to 0, then the impact of the dependent variable (Job Satisfaction) is weak.
2. If the coefficient of determination value is close to 1, then the impact of the dependent variable (Job Satisfaction) is strong.

Hypothesis Testing

Hypothesis testing in this research can be carried out in several stages including:

1. Formulate a Statistical Hypothesis
   H0: b1 = 0, meaning that the job training variable (X1) has no effect on employee satisfaction (Y).
   Ha: b1 ≠ 0 meaning that the job training variable (X1) has an effect on employee job satisfaction (Y).
   H0: b2 = 0, meaning that non-physical work environment variables (X2) have no effect on employee job satisfaction (Y).
   Ha: b2 ≠ means that non-physical work environment variables (X2) influence employee job satisfaction (Y).
   H0: b3 = 0, meaning that the information technology variable (X3) has no effect on employee job satisfaction (Y).
   Ha: b3 ≠ means that the information technology variable (X3) influences employee job satisfaction (Y).

2. Determine the Significant Level
   This research uses a significant level (α) of 5% (0.05) with a two-tailed test with degrees of freedom (df) using the following formula:

$$df = n-2$$

   Note :
   df = degree of freedom
   n = number of samples
   2 = Two tail test

3. Determine criteria
   a. If the Sig value is > 0.05 then the independent variable (Job Training, Non-physical work environment, Information Technology) has no effect on the dependent variable (Job Satisfaction).
   b. If the Sig value <0.05 then the independent variable (Job Training, Non-Physical Work Environment, Information Technology) has an effect on the dependent variable (Job Satisfaction).

4. Result and Discussion

Instrument Test Results

Table 5. Validity test results

Variable	Statement	R Count	R Table	Sig	Remark
Work Training (X1)	X1.1	0,841	0,1891	0,00	Valid
	X1.2	0,792	0,1891	0,00	Valid
	X1.3	0,777	0,1891	0,00	Valid
	X1.4	0,758	0,1891	0,00	Valid
	X1.5	0,834	0,1891	0,00	Valid
Non-Physical Work Environment (X2)	X2.1	0,882	0,1891	0,00	Valid
	X2.2	0,772	0,1891	0,00	Valid
	X2.3	0,779	0,1891	0,00	Valid
	X2.4	0,841	0,1891	0,00	Valid
Information Technology (X3)	X3.1	0,833	0,1891	0,00	Valid
	X3.2	0,734	0,1891	0,00	Valid
	X3.3	0,773	0,1891	0,00	Valid
	X3.4	0,815	0,1891	0,00	Valid
Job Satisfaction (Y)	Y.1	0,875	0,1891	0,00	Valid
	Y.2	0,816	0,1891	0,00	Valid
	Y.3	0,756	0,1891	0,00	Valid

Source: primary data processed by researchers, 2024

Based on the results of the validity test in table 5, it can be seen that the calculated r is greater than the r table of 0.1891 and the probability value (Sig) is smaller than 0.05, so it can be said that the variable indicator is valid.

Table 6. Reliability Test Results

Variabel	Cronbach's Alpha value	Alpha Value	Remark
Work Training	0,860	0,70	Reliable
Non-Physical Work Environment	0,814	0,70	Reliable
Information Technology	0,842	0,70	Reliable
job satisfaction	0,750	0,70	Reliable

Source: primary data processed by researchers, 2024

Based on table 6, it is found that each variable has a Cronbach's Alpha > 0.70. So the variables of job training, non-physical work environment, information technology and job satisfaction can be said to be reliable.

Classical Assumption Test Result

Table 7. Kolmogorov-Smirnov Test Results

K-S Value	Sig Value Limit	Description
0,119	0,05	Normally Distributed

Source: primary data processed by researchers, 2024

Based on table 7, the normality test results show a value of 0.119, where this value is greater than 0.05, which can be said that the data is normally distributed.

Table 8. Multicollinearity Test Results

Model		Collinearity Statistics	
		Tolerance	VIF
	X1	0,104	9,618
	X2	0,127	7,850
	X3	0,199	5,018

Source: primary data processed by researchers, 2024

Based on data Table 8, the results of the multicollinearity test, the tolerance value for each independent variable shows a value greater than 0.1 and a VIF value smaller than 10. It can be concluded that between the variables.

Table 9. Heteroscedasticity Test Results

Variable	Sig
Work Training	0,852
Non-Physical Work Environment	0,765
Information Technology	0,949

Source: primary data processed by researchers, 2024

Multiple Linear Regression Test Results

Table 10. Multiple Linear Regression Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-0,078	0,410		-0,191	0,849		
	X1	0,178	0,061	0,285	2,900	0,005	0,104	9,618
	X2	0,277	0,070	0,351	3,945	0,000	0,127	7,850
	X3	0,258	0,053	0,347	4,889	0,000	0,199	5,018

Source: primary data processed by researchers, 2024

$$Y = -0,078 + 0,178\ X1 + 0,277\ X2 + 0,258\ X3 + e$$

From the results of the multiple linear regression analysis equation above, it can be concluded as follows:

1. The constant value of Job Satisfaction (Y) is -0.078, which states that if the variables of job training (X1), non-physical work environment (X2), information technology (X3) are equal to 0 then job satisfaction is -0.078.
2. The job training coefficient (X1) is 0.178, meaning that every time there is an increase in the job training variable (X1) by 1%, job satisfaction increases by 0.178 (17.8%) or vice versa if there is a decrease in the job training variable (X1) by 1% then Job satisfaction decreased by 0.178 (17.8%).
3. The non-physical work environment coefficient (X2) is 0.277, meaning that every time there is an increase in the non-physical work environment variable (X2) by 1%, job satisfaction increases by 0.277 (27.7%) or vice versa if there is a decrease in the non-physical work environment variable (X2) of 1% means job satisfaction decreases by 0.277 (27.7%).
4. The information technology coefficient (X3) is 0.258, meaning that every time there is an increase in the information technology variable (X3) by 1%, job satisfaction increases by 0.258 (25.8%) or vice versa if there is a decrease in the information technology variable (X3) by 1% then Job satisfaction decreased by 0.258 (25.8%).

The constant value is negative -0.078, meaning that the variable score for job training, non-physical work environment and information technology is equal to zero, so the employee's job satisfaction score decreases. Negative constants are not a problem and can be ignored as long as the regression model being tested meets the assumptions (e.g. normality). Negative constants generally occur if the range is quite large between the independent variable (X) and the dependent variable (Y). Because basic regression is used to predict the dependent variable (Y) based on the change value of the independent variable (X), therefore the focus should be on the independent variable (X) rather than its constant value. From the description above, it can be concluded that job training, non-physical work environment, and information technology have a positive relationship with job satisfaction.

Coefficient of Determination Test Results

Table 11. Coefficient of Determination Test Results (r^2)

Model	r	r Square	Adjusted r Square	Std. Error of the Estimate
1	0,947[a]	0,897	0,894	0,62781

Source: primary data processed by researchers, 2024

Based on the results of the analysis of the coefficient of determination (r^2), it is known in table 11 that the R Square value is 0.897 or 89.7%, meaning that the variables of job training, non-physical work environment and information technology are able to explain the job satisfaction variable of 89.7% while the remaining 10.3 % can be explained by other factors.

Hypothesis Test Results

Table 12. Partial Test Results (t Test)

Variable	T-count	T-table	Sig
Work Training	2,900	1,983	0,005
Non-Physical Work Environment	3,945	1,983	0,000
Information Technology	4,889	1,983	0,000

Source: primary data processed by researchers, 2024

5. Conclusion

Based on the results of data analysis and interpretation of the results, this research can draw the following conclusions:

1. There is a positive and significant influence between job training (X1) and employee job satisfaction (Y). This is proven by the t test where the significance value is 0.005 ≤ 0.05. These results state that job training (X1) has a positive and significant effect on the job satisfaction of PT Aneka Jasa Grhadika employees.
2. There is a positive and significant influence between the non-physical work environment (X2) and employee job satisfaction (Y). This is proven by the t test where the significance value is 0.000 ≤ 0.05. These results state that the non-physical work environment (X2) has a positive and significant effect on the job satisfaction of PT Aneka Jasa Grhadika employees.
3. There is a positive and significant influence between information technology (X3) and employee job satisfaction (Y). This is proven by the t test where the significance value is 0.000 ≤ 0.05. These results state that information technology (X3) has a positive and significant effect on employee job satisfaction at PT Aneka Jasa Grhadika.

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