

## THE INFLUENCE OF HUMAN RESOURCE DEVELOPMENT AND WORK ENVIRONMENT ON EMPLOYEE PERFORMANCE AT PT RUPA AESTETIKA TEKNOLOGI AKTUAL

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### Abstract

The purpose of this study is to determine and analyze the influence of human resource development and the work environment together on the performance of employees of PT Rupa Aestetika Teknologi Aktual. This research can be categorized as associative research, aiming to determine the relationship between several variables. It uses primary and secondary data. The sample size is 47 employees or respondents. Data analysis used is data quality testing with validity and reliability tests, followed by classical assumption testing with normality tests, heteroscedasticity tests, and multicollinearity tests. Data analysis techniques include multiple linear regression analysis and the coefficient of determination. Finally, hypothesis testing is performed using the t-test and F-test. The results of this study vThe variables of human resource development and work environment together have a positive and significant influence on the performance of employees of PT Rupa Aestetika Teknologi Aktual, because the F value count of 714.313 where the F value count greater than F table of 714,313 > 3,093.

**Keywords:** Human Resource Development, Work Environment, Employee Performance

### INTRODUCTION

Human resources are a crucial factor in a company, ensuring effective management. Companies are expected to have knowledgeable, skilled, and highly skilled employees who can manage the company optimally and improve its performance. Companies also need human resources, specifically employees. Employees are a crucial resource for a company because they possess the talent, energy, and creativity needed to achieve its goals.

Performance is the achievement of organizational goals, which can take the form of quantitative output, creativity, flexibility, reliability, or other desired outcomes. Performance emphasis can be short-term or long-term, and can be at the individual, group, or organizational level. Performance is the act of carrying out an activity and perfecting it according to one's responsibilities, resulting in the desired results. Good performance can be seen from the results achieved, in accordance with organizational standards. Therefore, without established goals and targets for measurement, it is impossible to determine the performance of an individual or an organization without a benchmark for success.

Below is data regarding the average performance assessment of PT Rupa Aestetika Teknologi Aktual employees in 2022 – 2024.

**Table 1.1**  
**Average Employee Performance Assessment**

| No | Information      | Year |      |      |
|----|------------------|------|------|------|
|    |                  | 2022 | 2023 | 2024 |
| 1  | Quality of Work  | 68   | 72.5 | 67.2 |
| 2  | Quantity of Work | 69.7 | 68.4 | 65   |
| 3  | Punctuality      | 61.4 | 62   | 56.3 |

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Source : PT Rupa Aesthetics Current Technology

**Table 1.2**  
**Performance Implementation Value**

| Category  | Mark   |
|-----------|--------|
| Very good | 86-100 |
| Good      | 76-85  |
| Enough    | 66-75  |
| Less Good | 56-65  |
| Very Poor | 0-55   |

Source : PT Rupa Aesthetics Current Technology

Based on Table 1.1, we can see a phenomenon or trend of declining employee performance from data collected from 2022 to 2024. Work quality in 2024 was 67.2, a decrease from the previous year. Work quantity in 2024 was 65, a decrease from the previous year. Punctuality in 2024 was 56.3, a decrease from the previous year.

Based on initial observations, the employee performance of PT Rupa Aestetika Teknologi Aktual is indicated to be still low, as evidenced by the declining performance implementation value data from 2022-2024. In line with previous research on competence and work environment on performance by Mohamad Efendi, Agus Widarko et al., the results of this study indicate that competence and work environment jointly influence employee performance.

A variable that influences employee performance is human resource development, a term that refers to the periodic process carried out by an organization to improve the knowledge, skills, and competencies of its members. Human resource development helps the organization as a whole in improving the quality of its resources. Human resource development is a key component that determines the success and survival of an organization. For every organization, be it a company, government agency, or educational institution. In an increasingly complex and competitive world, organizations with high-quality human resources will be better able to adapt to change and can produce new innovations.

In line with research conducted by Farida Dwi Rahmawati et al. (2024) in the journal Islamic Education Management, the results of the study are: Based on the results of the discussion that has been reviewed, researchers can conclude that by investing time and resources in developing human resources, organizations can increase productivity and employee loyalty. High-quality human resources will be better able to adapt to technological changes, overcome constantly changing challenges, and can produce new innovations.

Another factor that influences Employee Performance is the work environment, which is a social, psychological, and physical life in a company area that influences employees in carrying out their duties. The work environment in a company is very important for management to pay attention to. Although the work environment does not carry out the production process in a company, the work environment has a direct influence on the employees who carry out the production process. A good work environment can support employee performance. Therefore, efforts should be made to ensure that the work

environment is good and conducive because a good and conducive work environment makes employees feel comfortable in the room and feel happy and enthusiastic to carry out their duties so that job satisfaction will be formed and from this satisfaction, employee performance will increase. Previous research on competence & work environment on performance according to Muhammad Rizky, et al (Journal of Business Administration, Vol. 41 No. 1 December 2016) The results of this study show a significant influence between work environment variables on employee performance variables.

So, basically a good work environment will have an impact on good and optimal employee performance. However, the existing work environment at PT Rupa Aestetika Teknologi Aktual is still not good, indicated by the noise around the workplace which is quite high, resulting in low employee performance. In line with the results of previous research conducted by Noor Eka, Endang Siti and M. Cahyo (2018) at PDAM Malang City entitled "The Effect of the Work Environment on Work Discipline and Employee Morale (Study on PDAM Malang City Employees)" The results of the study showed that there was a significant influence of the work environment on work discipline and work morale.

Based on the problem background above, the researcher conducted this research with the title "**The Influence of Human Resource Development and Work Environment on Employee Performance at PT Rupa Aestetika Teknologi Aktual**".

### **Formulation of Research Problems**

Based on the background that has been described, the formulation of the problem in this research is:

1. Does human resource development affect the performance of PT Rupa Aestetika Teknologi Aktual employees?
2. Does the work environment affect the performance of PT Rupa Aestetika Teknologi Aktual employees?
3. Does human resource development and the work environment have a joint influence on the performance of PT Rupa Aestetika Teknologi Aktual employees?

### **Research purposes**

Based on the formulation of the research problem above, the aim of this research is to find out and analyze:

1. The influence of human resource development on employee performance at PT Rupa Aestetika Teknologi Aktual
2. The influence of the work environment on the performance of employees of PT Rupa Aestetika Teknologi Aktual
3. The influence of human resource development and work environment together on employee performance at PT Rupa Aestetika Teknologi Aktual

### **Benefits of research**

The benefits of research conducted at PT Rupa Aestetika Teknologi Aktual are as follows:

1. Theoretical Benefits
  - a. As a medium for training and thinking scientifically based on the knowledge gained in lectures, especially human resource management.
  - b. To add information and knowledge in further research.
2. Practical Benefits

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As a basis for consideration and input for PT Rupa Aestetika Teknologi Aktual to improve the development of human resources and the work environment in order to achieve company goals more optimally.

## **LITERATURE REVIEW**

### **1. Employee performance**

Human resources are crucial for an organization or company in managing, organizing, and utilizing employees so they can function productively to achieve goals. Human resources are a significant factor of production. Human production involves not only physical labor but also mental effort. Optimizing human resources is a central focus for organizations in improving employee performance. Therefore, it can be said that human resources are a crucial resource or key factor in achieving good performance.

According to Hasibuan (2017, p. 160), performance is a work result achieved by a person in carrying out his/her duties based on skill, effort, and opportunity. Based on the explanation above, performance is a result achieved by a person in carrying out duties based on skill, experience, sincerity, and time according to predetermined standards and criteria.

### **Factors That Influence Employee Performance**

According to Handoko (2018, p. 193), performance factors are also influenced by:

- 1) Motivation
- 2) Job satisfaction
- 3) Stress level
- 4) Physical conditions of work
- 5) Compensation system
- 6) Job design
- 7) Commitment to the organization
- 8) Economic aspects
- 9) Technical and other behaviors.

According to Tiffin and Mc.Cormick (in As'ad 2018, p. 49) there are two types of factors that influence a person's performance, namely:

- 1) Individual Factors
- 2) Situational Factors

According to Bernardin (in Robbins, 2014, p. 260), performance can be said to be good if employees fulfill the following:

- 1) Work quality, measured by employee perceptions of the quality of work produced and the perfection of tasks in relation to employee skills and abilities.
- 2) Quantity, measured by employee perception of the number of assigned activities and their results.
- 3) Production time (production time), measured from employee perceptions of an activity completed from the beginning of time to the end.output.
- 4) Effectiveness, measured from employee perceptions in assessing the use of time in carrying out tasks, the effectiveness of completing tasks is charged to the organization.

- 5) Independence, the degree to which employees can perform their work functions without seeking help or guidance from others, is measured by employees' perceptions of carrying out their respective work functions in accordance with their responsibilities.
- 6) Work commitment, the degree to which employees have a work commitment to the agency and the employee's responsibility towards the office.

### **The Purpose of Performance Management Because**

According to Suyadi Prawirosoentono (2016, p. 235), the objectives of performance management in an organization are various, including the following:

- 1) Translating the organization's vision and mission into clear, easy-to-understand, and measurable goals and results to help the organization achieve its goals.
- 2) Provides information to assess, manage and improve the overall performance success of the organization.
- 3) Changing the paradigm of compliance control orientation into a strategic and sustainable approach to organizational success.
- 4) Provides comprehensive performance management by including measures of quality, cost, timeliness, customer satisfaction/stakeholder and increasing the membership of officers.

### **Employee Performance Dimensions and Indicators**

According to Wirawan (2013, p. 733), employee performance dimensions are grouped into five dimensions, namely:

- 1) Quantity, which can be measured by the following indicators:
  - a) Number of activities
  - b) Work result
- 2) Quality, which can be measured by the following indicators:
  - a) Quality of work
  - b) Accuracy of work
- 3) Implementation of Tasks, which can be measured by the following indicators:
  - a) On time
  - b) There are no work errors
- 4) Presence, which can be measured by the following indicators:
  - a) Go to work every weekday
  - b) Be on time for work
- 5) Ability to work together, which can be measured by the following indicators:
  - a) Ability to cooperate
  - b) Finish the job on time

### **Human Resource Development**

When a company hires employees, they expect the applicants to be of high quality. With superior employees, they expect everything they do to be perfect. They can complete tasks in a short time, complete many tasks, and do so efficiently. Not all employees can meet the desired criteria, and their work doesn't always meet expectations. Sometimes problems arise and hinder performance. Therefore, it is necessary to periodically develop Human Resources or HR. According to Hasibuan (2017), HR development is an effort to



improve the technical, theoretical, conceptual, and moral skills of employees according to the needs of the job or position through education and training.

### **Factors Influencing Human Resource Development**

Veithzal Rivai (2014:240) stated that there are several factors that need to be considered and play a role in training and development, namely:

- 1) Cost-effectiveness(cost effectiveness)
- 2) Required program materials
- 3) Principles of learning
- 4) Accuracy and suitability of facilities
- 5) Training participants' abilities and preferences
- 6) Training instructor abilities and preferences

### **Human Resource Development Objectives**

The objectives of Human Resource development according to Veithzal Rivai (2014:229) are:

- 1) Can increase productivity at work  
Good productivity is essential for every company. Increased productivity leads to increased work output, which in turn leads to increased profits.
- 2) Reducing Product Damage  
For a company, a work error that results in product damage is certainly a major loss. Minor errors can be tolerated, but repeated occurrences can cause major problems. This indicates unreliable or problematic employees.
- 3) Making sure everything runs efficiently  
To ensure that training runs according to plan and efficiently, Grameds must first understand how to properly manage human resources. This is fully discussed in the book "Human Resource Management for Companies."
- 4) Improving leadership attitudes  
In essence, every human being is a leader. At least for themselves. However, in reality, not all employees are capable of leading others. This is especially true if those employees are sensitive or not firm, even though for example he is the superior of another employee.
- 5) Creating Employee or Human Morale  
Good morals are an absolute obligation for an employee. Honesty, humility, and a willingness to work hard are number one. Honesty is important, if employees pretend to have done the task but actually haven't. Honesty is a valuable commodity that must be cultivated by every employee. Many companies are destroyed because of dishonesty. If employee morale is good, a comfortable and conducive work atmosphere can be created. Every employee respects and supports each other, the work atmosphere feels pleasant.
- 6) Raising Rewards  
When human resource development is carried out, the quality of workers improves, and as a result, remuneration efforts are carried out well.

## Human Resource Development Methods

According to Malayu Hasibuan (2010), the indicators measured from the development methods applied include the following:

- 1) Employee Work Performance
- 2) Employee Discipline
- 3) Employee Absence
- 4) Level of damage to production, tools and machines
- 5) Employee accident rate
- 6) The level of waste of raw materials, energy and time
- 7) Level of Cooperation
- 8) Employee Intensive Wage Rate
- 9) Employee Initiative
- 10) Leadership and Managerial Decisions

## Dimensions and Indicators of Human Resource Development

According to Hasan, (in Jusmaliani 2011:100) to advance the quality of human resources there are three dimensions that must be considered, namely:

- 1) Personality Dimensions. Can be measured using the following indicators:
  - a) Attitude
  - b) Behavior
  - c) Ethics
  - d) Morality
- 2) Productivity Dimension. Can be measured using the following indicators:
  - a) Larger numbers
  - b) Better quality
  - c) On time
- 3) Dimensions of Creativity. Can be measured using the following indicators:
  - a) Ability
  - b) Creative
  - c) Create something

## Work environment

A conducive work environment in a company can provide benefits for employees to improve employee performance. Therefore, the work environment around the company must be considered so that employees who work feel comfortable and end up with increased employee performance. Sutrisno (2016, p. 118) states that the work environment can also be interpreted as all the work facilities and infrastructure around employees who are doing work that can affect the implementation of work, this work environment includes the workplace, facilities, and work aids, cleanliness, lighting, tranquility, including work relationships between people in that place.

## Types of Work Environment

According to Sedarmayanti (2013, p. 19), in general, the work environment is divided into 2 types, namely:

- 1) Physical Work Environment

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The physical work environment is all the physical conditions surrounding the workplace that can affect employees, either directly or indirectly. The physical work environment is divided into two categories:

2) Non-Physical Work Environment

The non-physical work environment is all conditions that occur that are related to work relationships, both relationships with superiors, relationships with fellow coworkers, and relationships with subordinates.

**Factors Influencing the Work Environment**

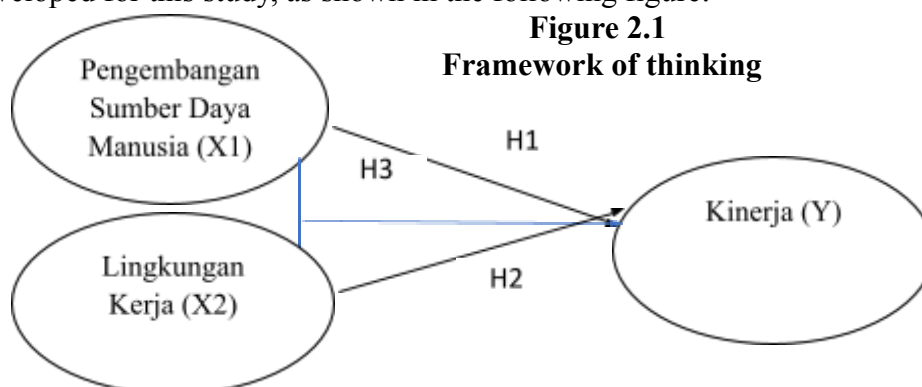
The following are factors that influence the formation of a work environment condition related to employee capabilities according to Sedarmayanti (2013, p. 21), including:

1. Description at Work
2. Temperature at Workplace
3. Humidity in the Workplace
4. Air Circulation in the Workplace
5. Noise in the Workplace
6. Color Scheme in the Workplace
7. Decoration at Workplace
8. Safety in the Workplace

**FRAMEWORK OF THINKING AND HYPOTHESIS**

**Framework of thinking**

Sugiyono (2016) stated that a good conceptual framework will theoretically explain the relationships between the variables being studied. Therefore, a theoretical explanation of the relationship between the independent and dependent variables is necessary. Based on the background of the problem and previous research, a conceptual framework can be developed for this study, as shown in the following figure:



$X_1$  = Independent variable Human Resource Development

$X_2$  = Independent variable Work Environment

$Y$  = Dependent variable Employee performance

$H_1$  = Hypothesis of human resource development variables influencing employee performance.

$H_2$  = Hypothesis: Work Environment variables influence employee performance.



H<sub>3</sub> = Hypothesis: Human resource development and work environment variables jointly influence employee performance.

### Hypothesis

Based on the formulation of the problem and theoretical basis, the author formulates the following hypothesis:

- a. There is an influence of human resource development on the performance of employees of PT Rupa Aestetika Teknologi Aktual.
- b. There is an influence of the work environment on the performance of employees of PT Rupa Aestetika Teknologi Aktual.
- c. There is an influence of human resource development and the work environment together on the performance of employees of PT Rupa Aestetika Teknologi Aktual.

### RESEARCH METHODS

From the explanation above, this research can be categorized as associative research, namely aiming to determine the relationship between several variables. human resource development (X1) and work environment (X2) with the Employee Performance Variable (Y). This research can build a theory that can function to explain, predict, or control a phenomenon.

#### Data source

According to Sutopo (2016, pp. 56-57), data sources are places where data is obtained using certain methods, whether in the form of humans, artifacts or documents.

#### Primary Data

Data was obtained directly from the research agency, through observation and questionnaire distribution. The data collected was quantitative in nature, in the form of data related to human Resource Development (X1), work environment (X2) and employee performance (Y) According to Sugiyono (2013, p. 129) primary data is a data source that directly provides data to data collectors. In this study, the author conducted a field survey using the method questionnaire.

The measurement scale of this questionnaire uses a scale linked. According to Sugiyono (2013, p. 134), the Likert scale is used to determine the attitudes and opinions of an individual or group of individuals regarding social phenomena. Each questionnaire answer is assigned a score.

#### Secondary Data

According to Sugiyono (2019, p. 296), secondary data is a data source that does not directly provide data to the collector. This secondary data is data that supports the needs of primary data, such as books, literature, and reading materials related to and supporting this research. Secondary data usually takes the form of evidence, records, or historical reports compiled in archives. For example, organizational structures, purchasing reports, inventory reports, and sales reports.

#### Population

Population is defined as the entirety of the subjects or objects of research. If a researcher wishes to examine all elements within their research area, then their research constitutes population research (Suharsimi Arikunto, 2014, p. 173). Based on the description above, it can be explained that population is the entirety of the objects or subjects that are the focus

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of the research, taking into account characteristics appropriate to the research. Therefore, the population in this study is 47 people.

### **Sample**

According to Sugiyono (2013, p. 11), a sample is part of the characteristics possessed by a population. The advantages of using samples are: simplifying research, research is more efficient and accurate in data collection. If the population is large, and researchers cannot study everything in the population, for example due to limited funds, manpower, and time, then researchers can use samples taken from that population. What is learned from the sample, the conclusions applied to the population must be truly representative.

### **Interview**

Interviews are used as a data collection method when researchers conduct preliminary studies to identify research problems and also when researchers want to know more in-depth things from respondents and the number of respondents is small. Interviews can be structured (the researcher already knows what information will be obtained) or unstructured (the researcher does not use a systematic and complete interview guide for data collection) and can be done directly (face-to-face) or indirectly (using the telephone).

### **Questionnaire**

A questionnaire is a data collection technique that involves providing respondents with a set of written statements or questions to answer. It's an efficient data collection method if the researcher knows exactly what variables to measure and what to expect from the respondents. Questionnaires are also suitable for large numbers of respondents spread across a wide area.

### **Observation**

Observation is a data collection method that has specific characteristics compared to other methods, such as interviews and questionnaires. This is because observations are not always made with humans but also with other natural objects. Sutrisno Hadi, in Sugiyono (2016, p. 145), states that observation is a process composed of various biological and psychological processes. Two of the most important are observation and memory.

## **DATA ANALYSIS METHOD**

### **Validity Test**

According to Sugiyono (2013), validity is the degree of accuracy between the data that occurs in the research object and the data that can be reported by the researcher. Therefore, valid data is data that does not differ between the data reported by the researcher and the data that actually occurs in the research object.

### **Reliability Test**

Sugiyono (2013) states that reliability is related to the degree of consistency and stability of data or findings. From a quantitative perspective, data is stated reliable if two or

more researchers on the same object produce the same data, or the same researcher at different times produces the same data, or a group of data when divided into two shows data that is not different.

### **Multicollinearity Test**

The multicollinearity test is used to determine whether a regression model detects correlation between independent variables. Multicollinearity is a condition in which one or more independent variables are linearly related to another variable. This means that if the independent variables used are completely uncorrelated with each other, multicollinearity is considered absent.

### **Heteroscedasticity Test**

Heteroscedasticity is a condition in which the variance of the confounding error is not constant for all values of the independent variable. The heteroscedasticity test aims to determine whether in a regression model there is inequality in the variance of the residuals from one observation to another, which is called homoscedasticity. If there is a difference, it is called heteroscedasticity. A good model is homoscedastic and does not occur heteroscedasticity.

### **Normality Test**

The normality test aims to determine whether the dependent variable, the independent variable, or both in a regression model have a normal distribution. A good regression model has a normal data distribution, or statistical data questions on the diagonal axis and a normal distribution graph. The basis for making decisions for the data normality test is as follows:

- 1) If the data is spread around the diagonal line and follows the direction of the diagonal line or the histogram graph does not show a normal distribution, then the regression model meets the normality assumption.
- 2) If the data is spread far from the diagonal or does not follow the direction of the diagonal line or the histogram graph does not show a normal distribution, then the regression model does not meet the normality assumption.

### **Multiple Linear Regression Analysis**

In this study, the analytical method used to test the hypothesis is multiple regression. Multiple regression is a statistical method for examining the relationship between several independent variables and a single dependent variable. Multiple linear regression analysis is used to determine whether there is an influence between independent variables and a dependent variable, or between several independent variables and a single dependent variable.

Multiple linear regression analysis is used to determine whether there is an influence between independent variables and dependent variables. This analytical technique is essential for various decision-making processes, both in management policy formulation and in scientific research. The multiple regression model can be formulated as follows:

To achieve the research objectives, the data obtained needs to be analyzed. This research uses the multiple regression analysis method (regression analysis). This model is used because we want to know about the influence of Human Resource Development ( $X_1$ ),

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Work Environment ( $X_2$ ), on Performance (Y). The multiple regression formula used is as follows:

$$Y = a + b_1X_1 + b_2X_2 + e$$

Information :

Y : Performance

a : Constant (Value of Y when  $X=0$ )

$b_1$  : Coefficient of Variable  $X_1$

$b_2$  : Coefficient of Variable  $X_2$

$X_1$  : Human Resource Development

$X_2$  : Work environment

e : Residual/Interfering variable

### **Coefficient of Determination Test (Adjusted $R^2$ )**

The coefficient of determination test is used to determine the extent of the contribution or influence of independent variables (human resource development, work environment) on the dependent variable (employee performance) by squaring the correlation coefficient. The coefficient of determination has values ranging from zero to one. A value close to one indicates that the independent variable provides nearly all the information needed to produce the dependent variable (Ghozali, 2016, p. 97).

The following is the formula for the coefficient of determination:

$$Kd = r^2 \times 100\%$$

Information :

Kd : Coefficient of Determination

r : Correlation Coefficient

So the coefficient of determination is used to determine what percentage of variable X influences variable Y, and the remainder is made up of other variables examined in this study. The results of the determination analysis can be seen in the table.output Model Summary from the results of multiple linear regression analysis.

### **Partial Significance Test (t-Statistic Test)**

The t-statistic test basically shows how far an independent variable influences the dependent variable by assuming the other independent variables are constant. Hypothesis no: ( $H_0$ ) to be tested is whether a parameter is equal to zero, meaning whether an independent variable is not a significant explanation of the dependent variable. The alternative hypothesis ( $H_a$ ), the parameter of a variable is not equal to zero, or meaning that the variable is a significant explanation of the dependent variable (Ghozali, 2016, p. 98).

## Simultaneous Significance Test (F Test)

This F-test is used to determine whether the independent variables collectively have a significant effect on the dependent variable. The basis for this decision is as follows:

- 1) If the  $F_{\text{count}} < \text{statistics}_{\text{table}}$ , then  $H_0$  is rejected ( $H_a$  is accepted). If the  $F_{\text{count}} > F_{\text{table}}$  statistic, then  $H_0$  is accepted ( $H_a$  is rejected).
- 2)  $H_0$  is accepted (reject  $H_a$ ) if  $\text{sig} > 5\%$ , meaning there is no simultaneous influence of the independent variable on the dependent variable.

## RESEARCH RESULT

### Data Quality Test

Data quality tests include validity tests and reliability tests which are carried out to determine whether the instruments used in this study are valid and reliable.

#### Validity Test

Used to determine the validity of a questionnaire. A model is considered valid if the significance value is below 0.05 or 5%. The testing criteria are: if the calculated  $r > r_{\text{table}}$ , then the instrument or statement items have a significant correlation with the total score (declared valid). The table  $r$  is 0.199.

**Table 4.4**  
**Validity Test of Human Resource Development Instrument ( $X_1$ )**

| Question Items | Calculate r value | Table r Values | Information |
|----------------|-------------------|----------------|-------------|
| Instrument 1   | 353               | 0,199          | Valid       |
| Instrument 2   | 465               | 0,199          | Valid       |
| Instrument 3   | 387               | 0,199          | Valid       |
| Instrument 4   | 371               | 0,199          | Valid       |
| Instrument 5   | 324               | 0,199          | Valid       |
| Instrument 6   | 465               | 0,199          | Valid       |
| Instrument 7   | 594               | 0,199          | Valid       |
| Instrument 8   | 532               | 0,199          | Valid       |
| Instrument 9   | 525               | 0,199          | Valid       |
| Instrument 10  | 344               | 0,199          | Valid       |

Source: SPSS 23 Data Processing Results

Based on the results of table 4.4 by comparing  $r_{\text{count}}$  with  $r_{\text{table}}$  of 0.199, the conclusion obtained is that all human resource development statements are valid because all  $r_{\text{items}}$  greater than  $r_{\text{table}}$ .

**Table 4.5**  
**Validity Test of Work Environment Instrument ( $X_2$ )**

| Question Items | Calculate r value | Table r Values | Information |
|----------------|-------------------|----------------|-------------|
| Instrument 1   | 832               | 0,199          | Valid       |
| Instrument 2   | 260               | 0,199          | Valid       |
| Instrument 3   | 711               | 0,199          | Valid       |
| Instrument 4   | 938               | 0,199          | Valid       |
| Instrument 5   | 866               | 0,199          | Valid       |
| Instrument 6   | 898               | 0,199          | Valid       |

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|              |     |       |       |
|--------------|-----|-------|-------|
| Instrument 7 | 915 | 0,199 | Valid |
|--------------|-----|-------|-------|

Source: SPSS 23 Data Processing Results

Based on the results of table 4.5 by comparing  $r_{\text{count}}$  with  $r_{\text{table}}$  of 0.199, the conclusion obtained is that all work environment questions are valid because all items  $r_{\text{count}}$  greater than  $r_{\text{table}}$ .

**Table 4.6**  
**Performance Instrument Validity Test (Y)**

| Question Items | Calculate r value | Table r Values | Information |
|----------------|-------------------|----------------|-------------|
| Instrument 1   | 935               | 0,199          | Valid       |
| Instrument 2   | 918               | 0,199          | Valid       |
| Instrument 3   | 918               | 0,199          | Valid       |
| Instrument 4   | 867               | 0,199          | Valid       |
| Instrument 5   | 869               | 0,199          | Valid       |
| Instrument 6   | 858               | 0,199          | Valid       |
| Instrument 7   | 441               | 0,199          | Valid       |
| Instrument 8   | 894               | 0,199          | Valid       |
| Instrument 9   | 885               | 0,199          | Valid       |
| Instrument 10  | 860               | 0,199          | Valid       |

Source: SPSS 23 Data Processing Results

Based on the results of table 4.6 by comparing  $r_{\text{count}}$  with  $r_{\text{table}}$  of 0.199, the conclusion obtained is that all performance questions are valid because all items  $r_{\text{count}}$  greater than  $r_{\text{table}}$ .

### Reliability Test

In this study an instrument is stated reliably when the value Cronbach Alpha is above 0,600. When the value Cronbach Alpha of an instrument is below this value, the instrument is declared invalid. In this test, the number of independent variable instruments to be tested is 10 instruments for Human Resource Development, 7 instruments for Work Environment, and 10 instruments for Employee Performance, all of which have been declared valid. The results of the reliability test for each indicator variable in this study can be seen in the following table:

**Table 4.7**  
**Reliability Test Results**

| Variables                  | Cronbach's Alpha | Limitation | Information |
|----------------------------|------------------|------------|-------------|
| Human Resource Development | 675              | 0,600      | Reliable    |
| Work environment           | 783              | 0,600      | Reliable    |
| Performance                | 784              | 0,600      | Reliable    |

Source: SPSS 23 Data Processing Results



Based on the results of table 4.7, it shows that each independent and dependent variable is stated Reliable because it has value Cronbach's Alpha more than 0.600 which means it can be said that the results are acceptable with good values.

### Multicollinearity Test

The multicollinearity test is a test to see if there is a linear relationship between independent variables in a regression model. The test method that can be used is by looking at the value Variance Inflation Factor (VIP) and value Tolerance. If the value Tolerance is greater than 0.10 and  $VIF < 10$ , then the regression model does not have a multicollinearity problem.

**Table 4.8**  
**Multicollinearity Test Results**

| Coefficients <sup>a</sup>  |                             |            |                           |        |      |                         |       |
|----------------------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
| Model                      | Unstandardized Coefficients |            | Standardized Coefficients | T      | Sig. | Collinearity Statistics |       |
|                            | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| 1 (Constant)               | -7.474                      | 1.650      |                           | -4.529 | .000 |                         |       |
| Human Resource Development | .251                        | .074       | .096                      | 3.375  | .001 | .804                    | 1.244 |
| Work environment           | 1.146                       | .036       | .922                      | 32.258 | .000 | .804                    | 1.244 |

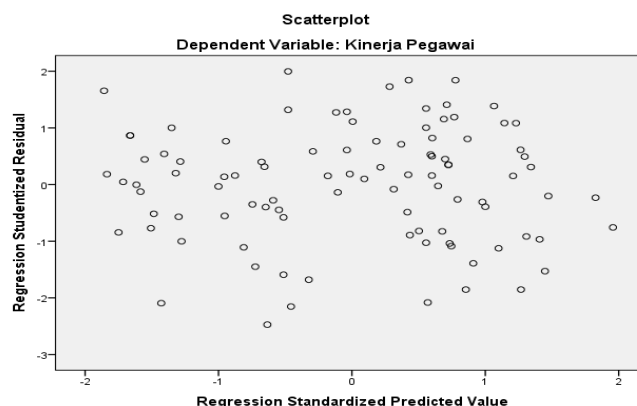
a. Dependent Variable: Employee Performance

Based on table 4.8 above, it shows that the VIF value (Variance Inflation Factor) is  $1.244 < 10$  and the value Tolerance of  $0.804 > 0.10$  across all variables used in the study. This indicates the absence of a perfect or near-perfect linear relationship between the independent variables. Therefore, the regression model in this study did not encounter multicollinearity issues and met the requirements for a good regression model.

### Heteroscedasticity Test

According to Ghazali (2013, pp. 125-126), there are several ways to detect heteroscedasticity, but in this study, a heteroscedasticity test was conducted by looking at the plot graph between the predicted value of the dependent variable ZPRED and its residual SRESID. Detecting the presence or absence of heteroscedasticity can be done by looking at the presence or absence of certain patterns in the graph. scatterplot between SRESID and ZPRED where the X and Y axes have been predicted and the Y axis is the residual (predicted Y – actual Y) which has been student ttithe The results of the heteroscedasticity test in this study can be seen in the following figure:

**Figure 4.1**  
**Heteroscedasticity Test Results**



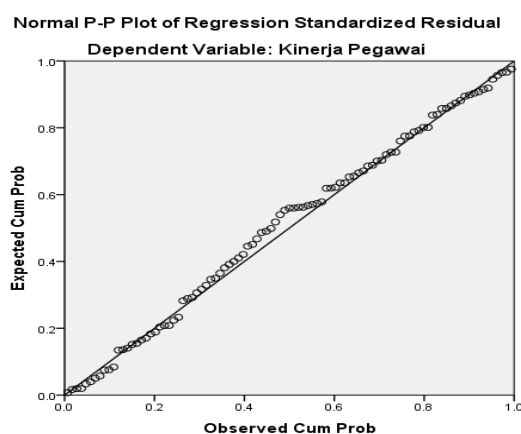
Source: SPSS Data Processing Results

Based on Figure 4.1, the results of the heteroscedasticity test using scatterplotIt can be seen that there is no clear pattern, and the points are spread above and below the number 0 on the Y axis, so it can be concluded that there is no heteroscedasticity in the regression model.

### Normality Test

The aim is to test whether the dependent and independent variables in the regression model are normally distributed. The Kolmogorov-Smirnov test is used to test the normality of the residuals in the research data. If the histogram is normally distributed, the data obtained are considered normal. If the PP plot forms a diagonal line, the data obtained are considered normal.

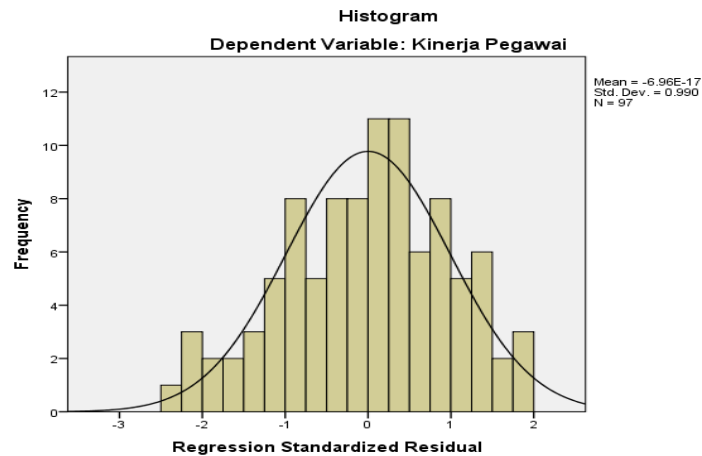
**Figure 4.2**  
**Normality Test Results**  
**Normal Probability Plots**



Source: SPSS 23 Data Processing Results

**Figure 4.3**  
**Normality Test Results**

### Histogram Graph



Source: SPSS Data Processing Results

### Multiple Linear Regression Analysis

This analysis is to determine the influence of an Employee Performance variable (Y) which is linked to the Human Resource Development variable ( $X_1$ ) and the Work Environment variable ( $X_2$ )

**Table 4.9**  
**Multiple Linear Regression Test Results**  
**Coefficients<sup>a</sup>**

| Model                      | Unstandardized Coefficients |            | Standardized Coefficients | t      | Say. |
|----------------------------|-----------------------------|------------|---------------------------|--------|------|
|                            | B                           | Std. Error | Beta                      |        |      |
| 1 (Constant)               | -7.474                      | 1.650      |                           | -4.529 | .000 |
| Human Resource Development | .251                        | .074       | .096                      | 3.375  | .001 |
| Work environment           | 1.146                       | .036       | .922                      | 32.258 | .000 |

a. Dependent Variable: Employee Performance

Based on the results of the SPSS calculations above, a multiple linear regression equation can be prepared as follows:

$$Y = 7.474 + 0.251 X_1 + 1.146 X_2$$

- $X_1$  Value<sub>1</sub> and  $X_2$  shows a positive value, meaning there is a positive influence between  $X_1$  and  $X_2$  against Y. meaning if  $X_1$  and  $X_2$  the value is 0, then the constant Y value is 7.474.
- $X_1$  Value<sub>1</sub> shows a positive value, meaning there is a positive influence between  $X_1$  towards Y in the same direction, the higher X increases<sub>1</sub> the value increases by 1%, then Y will increase by 0.251.
- $X_2$  Value<sub>2</sub> shows a positive value, meaning there is a positive influence between  $X_2$  to Y, the higher X increases<sub>2</sub> then the more Y increases. The regression coefficient of

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variable  $X_2$  is 0.312, meaning that if  $X_2$  experiences an increase of 1%, then Y will experience an increase of 1.146.

### Coefficient of Determination Test (Adjusted $R^2$ )

The coefficient of determination is a tool to determine how much influence the independent variable has, namely human resource development ( $X_1$ ) and Work Environment ( $X_2$ ) on the bound or dependent variable, namely Performance (Y).

**Table 4.10**  
**Results of the Determination Coefficient Test**  
**Model Summary<sup>b</sup>**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1     | .969 <sup>a</sup> | .938     | .937              | 2.987                      | 2.134         |

a. Predictors: (Constant), Work Environment, Human resource development

b. Dependent Variable: Employee Performance

Based on the results of table 4.10, it can be seen that the value of the coefficient of determination ( $R^2$ ) is 0.969 or 96.9%. This indicates that the magnitude of the influence of human resource development and the work environment on employee performance is 3.1% determined by other variables not included in this study, such as Work Discipline, Compensation and other variables.

### Partial Significance Test (t-Test)

The t-statistic test basically shows how far the influence of an explanatory variable individually is in explaining the variation of the dependent or bound variable.

**Table 4.11**  
**t-Test Results**  
**Coefficients<sup>a</sup>**

| Model                      | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|----------------------------|-----------------------------|------------|---------------------------|--------|------|
|                            | B                           | Std. Error | Beta                      |        |      |
| 1 (Constant)               | -7.474                      | 1.650      |                           | -4.529 | .000 |
| Human Resource Development | .251                        | .074       | .096                      | 3.375  | .001 |
| Work environment           | 1.146                       | .036       | .922                      | 32.258 | .000 |

a. Dependent Variable: Employee Performance

a) Human Resource Development on Employee Performance.

From the results of the t test, it can be seen that the t value<sub>count</sub> greater than t<sub>table</sub> with a value of  $3.375 > 2.00$ . In addition, it is known that the value themselves. of 0.000 where the value themselves. less than 0.05 or  $0.000 < 0.05$  then Ho is rejected and Ha is accepted, meaning that Human Resource Development has a significant influence on the performance of PT Rupa Aestetika Teknologi Aktual employees.

b) Work Environment on Employee Performance

From the results of the t test, it can be seen that the t value<sub>count</sub> greater than t<sub>table</sub> with a value of  $32.258 > 2.00$ . In addition, it is known that the value themselves. of 0.000 where the value themselves. smaller than 0.05 or  $0.000 < 0.05$  then Ho is rejected and Ha is accepted, meaning that the Work Environment has a significant effect on the performance of PT Rupa Aestetika Teknologi Aktual employees.

### Simultaneous Significance Test (F Test)

The F statistic test basically shows whether all independent variables included in the model have a joint influence on the dependent or bound variable.

**Table 4.12**  
**F Test Results**  
**ANOVA<sup>a</sup>**

| Model |            | Sum of Squares | df | Mean Square | F       | Say.              |
|-------|------------|----------------|----|-------------|---------|-------------------|
| 1     | Regression | 12749.739      | 2  | 6374.869    | 714.313 | .000 <sup>b</sup> |
|       | Residual   | 838.900        | 94 | 8.924       |         |                   |
|       | Total      | 13588.639      | 96 |             |         |                   |

a. Dependent Variable: Employee Performance

b. Predictors: (Constant), Work Environment, Human Resource Development

Based on the results of the F test above, the F value is known<sub>count</sub> of 714.313 where the F value<sub>count</sub> greater than F<sub>table</sub> or  $714,313 > 3,093$ . In addition, it is known that the value themselves. smaller than 0.05 or  $0.000 < 0.05$ , then Ho is rejected and Ha is accepted, meaning that Human Resource Development and Work Environment together have a significant effect on the performance of PT Rupa Aestetika Teknologi Aktual employees.

### CONCLUSION

Based on the discussion and data analysis that has been carried out, it can be concluded that:

1. The Human Resource Development variable has a positive effect on the performance of PT Rupa Aestetika Teknologi Aktual, this is because the t value<sub>count</sub> of  $3.375 > 2.00$  t value<sub>table</sub> with a significance level of 0.001 less than 0.05 or 5% ( $0.001 < 0.05$ ), it can be concluded that Ho is rejected and Ha is accepted, which means that the human resource development variable has a significant effect on the Employee Performance of PT Rupa Aestetika Teknologi Aktual.

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2. The Work Environment Variable has a positive effect on the Employee Performance of PT Rupa Aestetika Teknologi Aktual, this is because the  $t_{\text{count}}$  of 32.258 > 2.00  $t_{\text{table}}$  with a significance level of 0.000 less than 0.05 or 5% ( $0.000 < 0.05$ ), it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted, which means that the Work Environment variable has a significant effect on the Employee Performance of PT Rupa Aestetika Teknologi Aktual.
3. The variables of Human Resource Development and Work Environment jointly have a positive and significant influence on Employee Performance. Based on the results of the F-test calculation, the F-value is  $F_{\text{count}}$  is 714.313 greater than  $F_{\text{table}}$  namely 3,093 ( $714.313 > 3.093$ ) with a significance of 0.000 smaller than 0.05 or 5% ( $0.000 < 0.05$ ), it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted, which means that the variables of Human Resource Development and Work Environment together have a positive and significant effect on Employee Performance at PT Rupa Aestetika Teknologi Aktual.

### **SUGGESTION**

1. Human Resource Development  
In terms of Human Resource Development, the company must improve and enhance employee work methods and standard skills. This is to enhance PT Rupa Aestetika Teknologi Aktual's performance.
2. Work environment  
In terms of the company's work environment, it is important to pay more attention to several factors, namely the physical work environment and the non-physical work environment, such as improving lighting in the work space, cooling the air temperature, reducing noise in the workplace, minimizing odors in the workplace, and everything related to improving employee performance for the company.
3. Employee performance  
In order for the company's employee performance to be even better, the quality of employee performance must be improved by conducting regular training because from work training will produce good quality work, it can also be done by providing financial rewards, the quantity of work must also be increased by determining clear work targets, employee responsibility in completing tasks with their own initiative accompanied by punctuality and good responsibility in order to achieve company goals.

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