INFLUENCE OF WORK ENVIRONMENT AND EMPLOYEE COMPETENCE ANALYSIS ON EMPLOYEE PERFORMANCE

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ABSTRACT

This study aims to analyze the effect of the work environment and employee competence on employee performance at a seafood processing company in Probolinggo City, East Java. This study uses an associative quantitative method, namely research that examines the causal relationship between the independent variables, namely work environment (X₁) and employee competency (X₂) on the dependent variable, namely employee performance (Y). The data sources used in this study used primary data obtained through observation and the results of questionnaire answers that had been filled out by employees in the production and quality control departments. The number of samples used in this study were 50 employees. Data analysis in this study used SPSS software by conducting hypothesis testing consisting of a coefficient of determination test (R-square) and a partial t test. Based on the results of the calculation analysis of the first hypothesis (H₁), which states that the work environment has a positive and significant effect on employee performance, the t-count value is 19,845 which is greater than the t-table value, which is 1,677 and the significance value obtained is less than 0.05, which means that the work environment has a positive and significant effect on employee performance, the results of the calculation analysis of the second hypothesis (H₂) which states that employee competence has a positive and significant effect on employee performance, the t-count value of 14,471 is greater than the t-table value, which is 1,677 and the significance value obtained is less than 0.05, which means that employee competency has a positive and significant effect on employee performance, while the R-square value obtained is 0.897 which states that the work environment and employee competency variables affect employee performance by 89.70% and the remaining 10.30% is influenced by other variables.

Keywords: work environment; employee competence; employee performance

I. INTRODUCTION

Employees are the main asset in a company (Junaidi, 2021) compared to other resource elements such as capital and technology (Kurniawati, 2020) and key factors that must be maintained in every company (Nugroho et al., 2021) because employees become central figures in the implementation of company policies and operational activities (Inzani and Yuliani, 2022) and the success of a company in achieving its set goals is largely determined by how the company manages and improves the competence of its employees (Almasari, 2016).

Employees are a strategic element (Rohida, 2018) and has a very important role in determining the progress of a company (Wijaya et al., 2021) so that the potential possessed by each employee must be
developed optimally (Anisa and Heru, 2018) because by having quality human resources, every company will be able to carry out business activities better (Christine et al., 2021).

The existence of employees in a company without being matched by good performance will hinder the company in achieving its stated goals (Nugroho et al., 2021) because employee performance is the main factor that influences the progress of a company (Triastuti, 2018) and directly related to the achievement of company goals (Asnawi, 2020). The success of a company in achieving its stated goals and the company's ability to compete with competitors is strongly influenced by the performance of each employee owned by the company (Rahmisyari, 2017), the higher the ability of employees in carrying out their duties and responsibilities, the higher the company's performance (Marzani and Donny, 2017).

Performance is a function of ability and motivation, where ability consists of the skills of each employee needed in carrying out their duties and responsibilities while motivation is described as an inner strength that encourages employees to act on something (Kiruja, 2013) and is an achievement or performance of employees against the tasks assigned to him (Pitaloka et al., 2019) in the form of work in quality and quantity (Worang and Roy, 2019) performed by each employee during a certain period of time (Wahyuni and Budiono, 2022) and is used to evaluate the fulfillment of duties and responsibilities as well as to measure the relative work efficiency of employees (Siagian et al., 2018).

Employee performance in a company is influenced by several factors, including the work environment (Inzani and Yuliani, 2022) which consists of the physical work environment and non-physical work environment that will affect employee performance (Sedarmayanti, 2018). The work environment is a very important component for every employee in carrying out his work activities (Hapitamala, 2018) because it will determine the social, psychological and physical conditions of employees (Ahmad et al., 2022). The work environment is the overall facilities and infrastructure owned by the company which are located around the employee's work location (Sutrisno, 2012) which can have direct or indirect influence on the implementation of employee duties (Putra and Agus, 2013).

A good or conducive work environment will provide motivation for employees to improve their performance (As’ad, 2021) because the formation of a conducive work environment means that the company has shown appreciation to each of its employees (Mudayana and Sri, 2016) and conversely a non-conducive work environment will result in a decrease in employee performance (Ahmadi, 2021) so that by paying attention to a good work environment or creating a conducive work environment, every employee will be more motivated in carrying out every job that is his responsibility (Putra and Bayu, 2020) so that the best performance will be achieved from each employee (Asnawi, 2020).

Another factor that can improve employee performance is competence (Moheriono, 2014) which can be interpreted as the abilities, skills, knowledge and characteristics of employees in carrying out each job effectively, responsibly and professionally (Riyanti and Sudibya, 2013) influenced by work experience and educational background that supports the employee's profession (Riyanda, 2017). Competence is something that must be owned by every employee to be able to carry out every job assigned to him (Kurniawati, 2020). The competence possessed by each employee will greatly affect the level of performance of the employee, where competent employees
will have relatively high performance (Cesilia et al., 2017).

Improving employee performance is highly expected by every company because the company's success in achieving the set goals is largely determined by the performance of each employee. One of the seafood processing companies in Probolinggo City experienced problems with employee performance, especially employees in the production section. Based on production achievement data, in the last one year the production targets set by the company have not been achieved, thus affecting the level of product sales and profits earned by the company.

To find out the factors that affect employee performance, this study will analyze the influence of the work environment and employee competence on employee performance at a seafood processing company in Probolinggo City, East Java. The results of this research will be taken into consideration for companies in managing their employees.

II. RESEARCH METHODS

2.1 Research Design and Sample

The research design used in this study uses an associative quantitative method, namely research that examines causal relationships between the independent variables and the dependent variable (Sugiyono, 2017). The data sources used in this study used primary data obtained through observation and the results of questionnaire answers that had been filled out by employees in the production and quality control departments. The number of samples used in this study were 50 employees. This research was conducted at a seafood processing company in Probolinggo City, East Java.

The independent variables used in this study are work environment (X₁) and employee competence (X₂), while the dependent variable used is employee performance (Y). So by doing this research it can be seen whether the work environment and employee competence affect employee performance, with the hypothesis in this study, namely:

\[
H₁: \text{Allegedly there is a positive and significant influence between the work environment (X₁) on employee performance (Y)}
\]

\[
H₂: \text{Allegedly there is a positive and significant influence between employee competence (X₂) on employee performance (Y)}
\]

2.2 Instrument Test

2.2.1 Validity test

The validity test was carried out to measure the research variables used in the questionnaire valid or not, the questionnaire can be said to be valid if the statements on the questionnaire are able to express something that will be measured by the questionnaire. The validity test is carried out by correlating the statement item scores with the total score, if the value is positive and the r-count value is greater than the r-table value, the statement item can be said to be valid (Arikanto, 2006).

2.2.2 Reliability Test

Reliability test is used to determine the consistency of the measuring instrument used and shows the extent to which the measuring instrument can be trusted and relied upon in conducting research. Measuring the level of reliability of a research variable can be seen from the statistical results of cronbach's alpha (α), a research variable used is said to be reliable if it gives a cronbach's alpha value greater than 0.60 (Sanjaya and Tarigan, 2018).

2.3 Classic Assumption Test

2.3.1 Heteroscedasticity Test
The heteroscedasticity test was carried out to find out whether in a regression model there is an inequality of variance from the residuals from one observation to another (Ghozali, 2011). In this study, the heteroscedasticity test used the scatter plot method, namely by looking at the scatter plot pattern of the regression plot, if the dots on the scatter plot spread in an irregular pattern above and below zero on the Y axis, then there is no heteroscedasticity problem (Harinaldi, 2005).

### 2.4 Hypothesis Test

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

The coefficient of determination test serves to determine the extent to which the entire independent variable can explain the dependent variable. The value of the coefficient of determination is expressed in percentages ranging from $0 < R^2 < 1$, if the $R^2$ value obtained is close to 1, it means that the ability of the independent variables to explain the dependent variable is very strong (Gulo, 2006).

#### 2.4.2 t-Test

The t test is used to determine the effect of the independent variables on the dependent variable partially by comparing the t-test with the t-table with a significance level of 0.05 (Sujarweni, 2015). If the t-count obtained has a value greater than t-table and a significance value of less than 0.05 then it rejects $H_0$ and accepts $H_a$, which means that the independent variable has a positive and significant effect on the dependent variable (Ghozali, 2011).

### III. RESULTS AND DISCUSSION

#### 3.1 Instrument Test Results

##### 3.1.1 Validity Test Results

The validity test was carried out to measure the research variables used in the questionnaire valid or not, the questionnaire can be said to be valid if the statements on the questionnaire are able to express something that will be measured by the questionnaire. The validity test is carried out by correlating the statement item scores with the total score, if the value is positive and the r-count value is greater than the r-table value, the statement item can be said to be valid (Arikanto, 2006).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Inquiry Code</th>
<th>Corrected Item-Total Correlation</th>
<th>r Table</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Environment</td>
<td>$X_{1.1}$</td>
<td>0.760</td>
<td>0.279</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>$X_{1.2}$</td>
<td>0.695</td>
<td>0.279</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>$X_{1.3}$</td>
<td>0.750</td>
<td>0.279</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>$X_{1.4}$</td>
<td>0.686</td>
<td>0.279</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>$X_{1.5}$</td>
<td>0.778</td>
<td>0.279</td>
<td>Valid</td>
</tr>
<tr>
<td>Employee Competency</td>
<td>$X_{2.1}$</td>
<td>0.616</td>
<td>0.279</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>$X_{2.2}$</td>
<td>0.724</td>
<td>0.279</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>$X_{2.3}$</td>
<td>0.614</td>
<td>0.279</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>$X_{2.4}$</td>
<td>0.737</td>
<td>0.279</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>$X_{2.5}$</td>
<td>0.755</td>
<td>0.279</td>
<td>Valid</td>
</tr>
<tr>
<td>Employee Performance</td>
<td>$Y_{1.1}$</td>
<td>0.621</td>
<td>0.279</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>$Y_{1.2}$</td>
<td>0.768</td>
<td>0.279</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>$Y_{1.3}$</td>
<td>0.586</td>
<td>0.279</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>$Y_{1.4}$</td>
<td>0.737</td>
<td>0.279</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>$Y_{1.5}$</td>
<td>0.710</td>
<td>0.279</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Source: Primary data processed, 2023
Based on the table above, it can be seen the results of the validity test of each variable, including the work environment variable with 5 statements having an r-count value between 0.686 to 0.778 which is greater than the r-table value of 0.279, the employee competency variable with 5 statements has the r-count value between 0.614 to 0.755 is greater than the r-table value which is equal to 0.279 and the employee performance variable with 5 statements has an r-count value between 0.586 to 0.768 which is greater than the r-table value which is equal to 0.279. So that all statement items on this research variable can be said to be valid because they have an r-count value greater than the r-table value and all statement items on this research variable can be used.

3.1.2 Reliability Test Results
Reliability test is used to determine the consistency of the measuring instrument used and shows the extent to which the measuring instrument can be trusted and relied upon in conducting research. Measuring the level of reliability of a research variable can be seen from the statistical results of cronbach's alpha (α), a research variable used is said to be reliable if it gives a cronbach's alpha value greater than 0.60 (Sanjaya and Tarigan, 2009).

| Table 2. Reliability Test Results |
|-------------------------------|-----------------|-----------------|----------|
| Variable                      | Cronbach's Alpha | Cronbach's Alpha standard | Decision |
| Work Environment              | 0.782            | 0.60              | Reliable |
| Employee Competency           | 0.755            | 0.60              | Reliable |
| Employee Performance          | 0.759            | 0.60              | Reliable |

Source: Primary data processed, 2023

Based on the table above, it can be seen that the results of the reliability test obtained Cronbach's alpha value for each variable, namely the work environment variable of 0.782, the employee competency variable of 0.755 and the employee performance variable of 0.759. The Cronbach's alpha value obtained from each research variable is greater than the comparative Cronbach's alpha value, which is greater than 0.6, so it can be concluded that all the variables used in this study are declared reliable and have good measurement consistency.

3.2 Classic Assumption Test Results
3.2.1 Heteroscedasticity Test Results

Figure 1. Heteroscedasticity Results

Based on the picture above, it shows that the points on the scatter plot graph spread randomly in an irregular pattern above and below zero on the Y axis. This shows that there is no heteroscedasticity in the regression model.
3.3 Hypothesis Test Results

3.3.1 Coefficient of Determination Test Results ($R^2$)

The coefficient of determination test serves to determine the extent to which the entire independent variable can explain the dependent variable. The value of the coefficient of determination is expressed in percentages ranging from $0 < R^2 < 1$, if the $R^2$ value obtained is close to 1, it means that the ability of the independent variables to explain the dependent variable is very strong (Gulo, 2006).

Table 3. Coefficient of Determination Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R$-Square</th>
<th>Adjusted $R$-Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.947*</td>
<td>0.897</td>
<td>0.893</td>
<td>0.067</td>
</tr>
</tbody>
</table>

Source: Primary data processed, 2023

Based on the table above, the results of the test for the coefficient of determination ($R^2$) obtained an $R$-square value of 0.897 which means that the variability of the independent variables can explain the dependent variable of 89.70% or this value states that the work environment variables and employee competency variables affect employee performance by 89.70% and the remaining 10.30% is influenced by other variables.

3.3.2 t-Test Results

Hypothesis testing with the t test is used to find out which partial hypotheses are accepted. The first hypothesis ($H_1$) in this study states that the work environment has a positive and significant effect on employee performance.

Table 4. The Results of the Hypothesis Test of Work Environment on the Employee Performance.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B Std. Error Beta</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant) 3.177 .095</td>
<td>.955</td>
<td>3.399</td>
<td>.000</td>
</tr>
<tr>
<td>Work Environment (.X1)</td>
<td>.848 .043 .944</td>
<td>19.845</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data processed, 2023

Based on the table above, it can be seen that the results of the first hypothesis test ($H_1$) obtained a t-value of 19.845 greater than the t-table value of 1.677. Thus the first hypothesis proposed can be accepted, namely the work environment has a positive and significant effect on employee performance. This is in accordance with the results of the coefficient of determination ($R^2$) test that has been carried out, where 89.70% of employee performance is influenced by the work environment and employee competence.

The second hypothesis ($H_2$) states that employee competence has a positive and significant effect on employee performance. Based on the table above, it can be seen from the results of the second hypothesis test ($H_2$) that the t-count value is 14.471 which is greater than the t-table value, which is 1.677. Thus, the second hypothesis proposed can be accepted, namely employee competence has
a positive and significant effect on employee performance. This is in accordance with the results of the coefficient of determination ($R^2$) test that has been carried out, where 89.70% of employee performance is influenced by the work environment and employee competence.

### Table 5. The Results of the Hypothesis Test of Employee Competence on the Employee Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.201</td>
<td>.061</td>
<td>3.639</td>
<td>.000</td>
</tr>
<tr>
<td>Employee Competency ($X_2$)</td>
<td>.888</td>
<td>.043</td>
<td>.902</td>
<td>14.471</td>
</tr>
</tbody>
</table>

Source: Primary data processed, 2023

### 3.4 Discussion

#### 3.4.1 The Influence of the Work Environment on Employee Performance

Based on the results of the first hypothesis test ($H_1$), which states that the work environment has a positive and significant effect on employee performance, the t-count value of 19.845 is greater than the t-table value, which is 1.677 and the significance value obtained is 0.000, which is smaller than the significance value of the determination, which is 0.05, so the first hypothesis ($H_1$) in this study can be accepted. Based on primary data obtained when conducting research through observation and the results of questionnaire answers that have been filled out by employees in the production department and quality control section, it is stated that the work environment influences employee performance, because a good or conducive work environment will provide motivation for employees to improve their performance (As’ad, 2021) because the formation of a conducive work environment means that the company has shown appreciation to each of its employees (Mudayana and Sri, 2016), so that company management must evaluate the work environment of employees in order to improve employee performance and production targets that have been set can be achieved.

#### 3.4.2 The Influence of Employee Competence on Employee Performance

Based on the results of the second hypothesis test ($H_2$) which states that employee competency has a positive and significant effect on employee performance, the t-count value is 14.471 which is greater than the t-table value, which is 1.677 and the significance value obtained is 0.000 which is smaller than the significance value of the determination which is equal to 0.05 so that the second hypothesis ($H_2$) in this study can be accepted. Based on primary data obtained when conducting research through observation and the results of questionnaire answers that have been filled out by employees in the production department and quality control department, it is stated that employee competency influences employee performance, because competence is the ability, skill, knowledge and characteristics of employees in carrying out each job effectively, responsibly and professionally (Riyanti and Sudibya, 2013) influenced by work experience and educational background that supports the employee's profession.
(Riyanda, 2017). With the results of this study, the company's management must improve the competence of employees, especially employees in the production section through training in order to improve employee performance and achieve production targets that have been set.

IV. CONCLUSION

The research that has been done aims to analyze the influence of the work environment and employee competence on employee performance. Based on the results of the data analysis that has been done, the following conclusions can be drawn:

1. Based on the results of the data analysis that has been carried out in the first hypothesis (H1), the t-count value is 19.845 which is greater than the t-table value, which is 1.677 and the significance value obtained is less than 0.05 and in the second hypothesis (H2), the t-count value is 14.471 is greater than the t table value of 1.677 and the significance value obtained is less than 0.05 which means that the work environment and employee competence have a positive and significant effect on employee performance.

2. The R-square value obtained is 0.897 which states that the work environment and employee competency variables affect employee performance by 89.70% and the remaining 10.30% is influenced by other variables.

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