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# **The Effect of Human Resources Development and Work Environment towards Employee Performance Improvement PDAM Surya Sembada City of Surabaya**

## **(Study of the Corporate Secretary Sub-Directorate)**

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### **ABSTRACT**

This study aims to analyze the effect of Human Resource Development and Work Environment towards Employee Performance Improvement PDAM Surya Sembada City Of Surabaya (Study of the Corporate Secretary Sub-Directorate) partially and simultaneously. The authors used a saturated sampling technique or also called a census, where all members of the population are sampled, as many as 55 employees in all Sub-Directorate of Corporate Secretary PDAM Surya Sembada City Of Surabaya. Data collection techniques using questionnaires and interview. In calculating scoring, researchers used a Likert scale. Method data analysis used is multiple linear regression analysis. The results of this study show that the variable Human Resource Development (X1) and Work Environment (X2) have a significant effect on Employee Performance Improvement (Y) partially. Human Resource Development (X1) and Environment Variables Work (X2) also have a significant effect on Employee Performance Improvement (Y) simultaneously.

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

### **I. INTRODUCTION**

Competition between employees in the era of globalization is getting sharper. The role of human resources is also felt to be increasingly important for business entities. In order to improve the development of human resources in Indonesia, the constraints faced are quite large, including the number of population that increases every year and even this population explosion increases every year. Various obstacles need to be found for solutions in the development of human resources in order to achieve the right and efficient goals.

In 2014, PDAM Surya Sembada City Of Surabaya was demanded to improve itself to face the Asean Economic Community (MEA) on 2015. As the only provider of drinking water services in the city of Surabaya, PDAM Surya Sembada City Of Surabaya as Regional Owned Enterprises company finally continued to make efforts to improve it not only in the field of service but also with human resources.

According to Mathis (2002), development is an effort to improve current or future management performance by providing knowledge, changing attitudes, or improving skills.

The work environment in a company is very important to pay attention to management. Although the work environment does not carry out the production process in a company, however the work environment has a direct influence on the employees who carry out the production process. As for the

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research, it will be shown that a pleasant work environment is so important to encourage the most productive level of employee performance (Timpe, 1999). After managers know the key elements in the work environment, they must understand the characteristics of a productive work environment.

Follow-up development is an assessment of employee performance by personnel managers and direct supervisors of the employees concerned. The more diverse employees with a flatter organization and increased global competition, development efforts help employees be able to develop their duties, obligations, and greater responsibilities.

In relation to this study with employees in the sub-Directorate of Corporate Secretary PDAM Surya Sembada City Of Surabaya, human resources in the company also needs to be continuously developed for the smooth running of the company's internal activities. Because of Sub-Directorate of Corporate Secretary has duties in managing secretarial and public relations, managing corporate law, and managing the company's internal services.

Based on the title to be studied and the description of the background, the formulation of the problem in this study is as follows:

1. Is there a significant influence between Human Resource Development (X1) and Work Environment (X2) on Employee Performance Improvement (Y) partially study in the Sub-Directorate of Corporate Secretary at PDAM Surya Sembada City Of Surabaya?
2. Is there a significant influence between Human Resource Development (X1) and Work Environment (X2) on Employee Performance Improvement (Y) simultaneously study in the Sub-Directorate of Corporate Secretary at PDAM Surya Sembada City Of Surabaya?

## **II. LITERATURE REVIEW**

### **2.1 Theoretical Framework**

#### **1) Human Resource Development**

According to Marwansyah (2014), Bogardus defines the development of human resources as the functional area of the human resource management body of knowledge concerned with training, development, change, and performance management programs to ensure that individuals with the required knowledge, skills, and abilities are available when needed to accomplish organizational goals.

Methods of human resource development can be done using training and education. Education and training is an effort to develop apparatus resources, especially for increasing professionalism related to administrative skills and management skills (leadership).

The indicators measured from the development methods applied are employee work performance, employee discipline, employee absenteeism, level of damage to production, tools and machines, level employee accidents, the level of waste of raw materials, labor, and time, the level of employee cooperation, the sensitive wage level of employees, employee initiatives, and manager's leadership and decisions.

#### **2) Work Environment**

The work environment is very influential on work performance completing the tasks assigned to him (Sedarmayanti, 1996). A bad work environment is seen by many experts as uneconomical because it is the main cause of the waste of time and other things that result in the work output of employees will decrease.

The indicators of the work environment according to Sedarmayanti (2004) are lighting/workplace lighting, temperature/air temperature in the workplace, air humidity in the workplace, air circulation in the workplace, mechanical vibration/noise in the workplace, bad smell in the place work, color in the workplace, decorations at work, music in the workplace, and security at work.

#### **3) Employee Performance**

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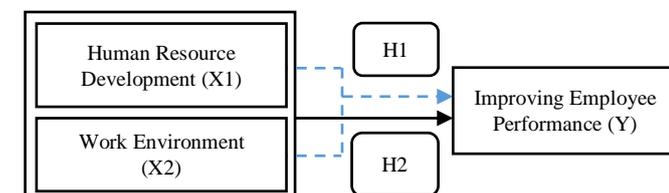
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According to Mangkunegara (2010), defining employee performance (work performance) is the work result in quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him. For a company, performance appraisal has various benefits, among others, evaluation between individuals in the organization, development in each individual, system maintenance, and documentation.

To facilitate the assessment of employee performance. Mitchel in the book Sedarmayanti (2001) entitled Human Resource Management and Work Productivity, suggests performance indicators, namely Quality of Work, Time Determinatioan (Promptness), Initiative, Ability (Capability) and Communication.

## 2.2 Research Conceptual Framework

Based on the research title, namely the Effect of Human Resource Development and Work Environment on Employee Performance Improvement of PDAM Surya Sembada City Of Surabaya (Study in the Sub-Directorate Corporate Secretary), the conceptual framework of this research can be described as follows:



Explanation:

- - - - -> : Partial
- - - - -> : Simultaneous

Source: Researcher (2018)

**Figure 1. Research Conceptual Framework**

## 2.3 Hypothesis

Based on previous research, theory, and the influence between variables that will be used by researchers, the hypothesis can be arranged as follows:

1. Human Resource Development (X1) and Work Environment (X2) have a significant effect on Employee Performance Improvement (Y) partially study in the Sub-Directorate of Corporate Secretary at PDAM Surya Sembada City Of Surabaya.
2. Human Resource Development (X1) and Work Environment (X2) have a significant effect on Employee Performance Improvement (Y) simultaneously study in the Sub-Directorate of Corporate Secretary at PDAM Surya Sembada City Of Surabaya.

## III. RESEARCH METHODS

In this study, the authors used a saturated sampling technique or also called a census, where all members of the population were sampled, that is 55 employees of Sub-Directorate of Corporate Secretary PDAM Surya Sembada City Of Surabaya. Thus the author does not give the same rights to each subject to get the opportunity to be chosen as a sample.

This research will be carried out with a survey method using a descriptive approach. The data sources used are primary data and secondary data. While the data collection techniques used are using questionnaires and interviews. Data processing techniques in this study consisted of quantitative methods and methods of discussion using the SPSS for Windows 20.0 program.

In this study, the author used a Likert scale. Likert scale is used to measure attitudes, opinions, influences, and perceptions of a person or group of people about social phenomena (Sugiyono, 2015). The Likert scale is an interval scale so it can be analyzed using a parametric analysis tool such as regression analysis. According to Ghozali (2010) also the Likert scale can be considered an interval.

The variables used in this study consist of independent variables and dependent variables. The independent variables in this research are Human Resource Development (X1) and Work Environment (X2). While the dependent variable is Employee Performance Improvement (Y).

## IV. RESEARCH RESULTS AND DISCUSSION

The Regional Water Company (PDAM) is one of the regional-owned business units, which is engaged in the distribution of clean water for the general public. PDAM are available in every province, district, and municipality throughout Indonesia. PDAM is a regional company as a means of providing clean water which is monitored and monitored by the regional executive and legislative apparatus. The construction of IPAM (Installation of Drinking Water Development) in the city of Surabaya is located in the Ngagel and Karangpilang areas of Surabaya.

The drinking water service of PDAM Surya Sembada City Of Surabaya to the community is not limited to the administrative area of Surabaya City, but also to the local communities of Pasuruan, Sidoarjo, and Gresik Regencies. In addition, PDAM Surya Sembada City Of Surabaya also supports government programs for clean water services, for example for Housing, Village Improvement Program, Public Faucet for assistance from UNICEF or the Central Government, and Ready to Drink Water Faucet.

### 4.1 Analysis Of Validity And Reliability Test

Test the validity and reliability of the questionnaire based on the results of the test by calculating the Pearson Product Moment correlation coefficient.

#### 1) Validity Test

The results of testing the indicator validity of all the independent variables and the dependent variable are valid, because the value of the corrected item-total correlation (critical) is greater than  $r_{table}$  (0.256), so that all research variables are valid.

#### 2) Reliability Test

From the results of the reliability test, it can be seen that these variables are reliable because all alpha values ( $r_{hit}$ ) are greater than 0.6. Then all research variables are declared reliable.

### 4.2 Classic Assumption Test

#### 1) Normality Test

Based on the Normal P-P Plot test, it can be seen that the points spread close to the diagonal line, both located above and below the line, it can be concluded that this model is normally distributed. Then the assumption of normality is fulfilled.

#### 2) Multicollinearity Test

The calculation of multicollinearity based on VIF values is known that for all variables has a VIF value below the number 10. So the results of multicollinearity test by calculating the correlation matrix and VIF show no multicollinearity between independent variables because the VIF value is below 10.

#### 3) Heteroscedasticity Test

Heteroscedasticity testing proves that the plot does not form a certain pattern so that it can be concluded that heteroscedasticity does not occur.

### 4.3 Result Of Multiple Linear Regression Analysis

Based on the results of the calculation of data processing with the help of the SPSS 20.00 for windows program, the following multiple linear regression equations are obtained in table 1:

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**Table 1. Results of Multiple Linear Regression Analysis**

| Model                      | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. | Correlations |         |      | Collinearity Statistics |       |
|----------------------------|-----------------------------|------------|---------------------------|-------|------|--------------|---------|------|-------------------------|-------|
|                            | B                           | Std. Error | Beta                      |       |      | Zero-order   | Partial | Part | Tolerance               | VIF   |
|                            |                             |            |                           |       |      |              |         |      |                         |       |
| 1 (Constant)               | .345                        | .352       |                           | .982  | .331 |              |         |      |                         |       |
| Human Resource Development | .341                        | .079       | .415                      | 4.334 | .000 | .722         | .515    | .333 | .644                    | 1.552 |
| Work Environment           | .563                        | .105       | .515                      | 5.379 | .000 | .763         | .598    | .414 | .644                    | 1.552 |

a. Dependent Variable: Improving Employee Performance

Source: Appendix of SPSS Processing Results, Processed Data (Author, 2018)

Based on the results of the above calculations, obtained the multiple linear regression equation as follows:

$$Y = 0.345 + 0.341 X_1 + 0.563 X_2 + e_i$$

The interpretation of the regression model above is as follows:

1. The Constant ( $\beta_0$ ) = 0.345 show the magnitude of the variable Employee Performance Improvement (Y) which is not influenced by the variables of Human Resource Development (X1) and Work Environment (X2), or independent variables = 0, the value of Employee Performance Improvement (Y) is 0.345.
2. The coefficient value of Human Resource Development ( $\beta_1$ ) of 0.341 shows that if the Human Resource Development variable (X1) is increased, it will result in an Increase in Employee Performance (Y) of 0.345 assuming other variables are constant.
3. Working Environment coefficient ( $\beta_2$ ) of 0.563 shows that if the Work Environment variable (X2) is increased, it will result in an Employee Performance Increase (Y) of 0.563, assuming other variables are constant.
4.  $e_i$  shows the disturbing factors outside the model studied.

#### 4.4 Analysis Of The Correlation Coefficient And Determination Coefficient

**Table 1. Correlation Coefficients and Determination Coefficients**

| Model        | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |     |     |               | Durbin-Watson |
|--------------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|---------------|
|              |                   |          |                   |                            | R Square Change   | F Change | df1 | df2 | Sig. F Change |               |
|              |                   |          |                   |                            |                   |          |     |     |               |               |
| dimension0 1 | .832 <sup>a</sup> | .693     | .681              | .25264                     | .693              | 58.584   | 2   | 52  | .000          | 2.186         |

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

b. Dependent Variable: Improving Employee Performance

Source: Appendix of SPSS Processing Results, Processed Data (Author, 2018)

The correlation coefficient ( $R$ ) shows how closely the influence between independent variables Human Resource Development (X1) and Work Environment (X2) with non-independent variables Employee Performance Improvement (Y), the value of the correlation coefficient is 0.832. This value indicates that the influence of the Human Resource Development (X1) and Work Environment (X2) variables with the Employee Performance Improvement variable (Y) is having a very close or very strong influence.

The coefficient of determination ( $R^2$ ) is used to measure how far the ability of the model in explaining the variation of non-free variables (Y) is the variable Employee Performance Improvement. The results of the SPSS calculation obtained  $R^2 = 0.681$  which means that 68.1% Employee Performance

Improvement (Y) can be explained by the Human Resource Development (X1) and Work Environment (X2) variables. While the remaining 31.9% is influenced by other variables outside the model studied.

#### 4.5 Hypothesis Testing

##### 1) Partial Testing Of Hypothesis (T-Test)

To test the hypothesis used t-test which shows the partial effect of each independent variable on the dependent variable (not free). At this stage, the effect of independent variables found in the model is formed to determine whether the independent variable (X) in the model partially has a significant effect on the dependent variable (Y).

**Table 2. Result Of Calculation Of T-Test**

| Model                      | Coefficients <sup>a</sup>   |            |                           |       |      |              |         |      |                         |       |
|----------------------------|-----------------------------|------------|---------------------------|-------|------|--------------|---------|------|-------------------------|-------|
|                            | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. | Correlations |         |      | Collinearity Statistics |       |
|                            | B                           | Std. Error | Beta                      |       |      | Zero-order   | Partial | Part | Tolerance               | VIF   |
| 1 (Constant)               | .345                        | .352       |                           | .982  | .331 |              |         |      |                         |       |
| Human Resource Development | .341                        | .079       | .415                      | 4.334 | .000 | .722         | .515    | .333 | .644                    | 1.552 |
| Work Environment           | .563                        | .105       | .515                      | 5.379 | .000 | .763         | .598    | .414 | .644                    | 1.552 |

a. Dependent Variable: Improving Employee Performance

Source: Appendix of SPSS Processing Results, Processed Data (Author, 2018)

##### Partial Test Between Variables of Human Resource Development (X1) Against Employee Performance Improvement (Y)

To test the hypothesis using the t-test which shows the partial effect of the Human Resource Development variable (X1) on the Employee Performance Improvement variable (Y).

Hypothesis:

- (1)  $H_0 : \beta_1 = 0$  This means that the Human Resource Development variable (X1) does not have a significant effect on the Employee Performance Improvement variable (Y).
- (2)  $H_1 : \beta_1 \neq 0$  This means the variable Human Resource Development (X1) has a significant effect on the variable Employee Performance Improvement (Y).
- (3)  $\alpha = 0,05$  with df (n - k - 1) = 52 where  $t_{table} = 1.675$
- (4)  $t_{count} = 4.334$  with a significance level of 0.000
- (5) Conclusion: Based on SPSS version 20.00 output obtained  $t_{count}$  of 4.334 greater than  $t_{table}$  of 1.675 or significant level (0.000 < 0.05) then  $H_0$  is rejected at the 5% significance level so that the conclusions partially Human Resource Development variable (X1) has a significant influence towards Employee Performance Improvement (Y).

##### Partial Test Between Variables of Work Environment (X2) Against Employee Performance Improvement (Y)

To test the hypothesis using the t-test which shows the partial effect of the Work Environment variable (X2) on the Employee Performance Improvement variable (Y).

Hypothesis :

- (1)  $H_0 : \beta_1 = 0$  This means that the Work Environment variable (X2) does not have a significant effect on the Employee Performance Improvement variable (Y).
- (2)  $H_1 : \beta_1 \neq 0$  This means that the Work Environment variable (X2) has a significant influence on the Employee Performance Improvement variable (Y).
- (3)  $\alpha = 0,05$  with df (n - k - 1) = 52 where  $t_{table} = 1.675$
- (4)  $T_{count} = 5.379$  with a significance level of 0.000
- (5) Conclusion: Based on SPSS version 20.00 output obtained  $t_{count}$  of 5.379 greater than  $t_{table}$  of 1.675 or significant level (0.000 < 0.05) then  $H_0$  is rejected at the 5% significance level

so that the conclusions partially Work Environment variable (X2) has a significant effect on Increasing Employee Performance (Y).

Thus the authors conclude that the first hypothesis which states that "Human Resource Development and Work Environment partially influences Employee Performance Improvement" is proven empirically.

**2) Simultaneous Testing Of Hypothesis (F-Test)**

The F-Test shows that all independent variables consisting of Human Resource Development (X1) and Work Environment (X2) have a significant effect on the dependent variable Employee Performance (Y).

**Table 3. Result Of Calculation Of F-Test**

| ANOVA <sup>b</sup> |            |                |    |             |        |                   |
|--------------------|------------|----------------|----|-------------|--------|-------------------|
| Model              |            | Sum of Squares | df | Mean Square | F      | Sig.              |
| 1                  | Regression | 7.478          | 2  | 3.739       | 58.584 | .000 <sup>a</sup> |
|                    | Residual   | 3.319          | 52 | .064        |        |                   |
|                    | Total      | 10.797         | 54 |             |        |                   |

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

b. Dependent Variable: Improving Employee Performance

Source: Appendix of SPSS Processing Results, Processed Data (Author, 2018)

Test steps:

- (1) Hypothesis:
  - a)  $H_0 : b_1 = b_2 = 0$  This means that the independent variables of Human Resource Development (X1) and Work Environment (X2) do not affect the dependent variable Employee Performance Improvement (Y).
  - b)  $H_1 : b_1 \neq b_2 \neq 0$  This means that the independent variables of Human Resource Development (X1) and Work Environment (X2) have an influence on the dependent variable Employee Performance Improvement (Y).
- (2) Amount of value:
 

$F_{table} = Fa (df \text{ regression, residual } df) = Fa (k, n - k - 1)$   
 $F_{table} = F 0.05 (2,52) = 3.18$
- (3) Critical areas or areas of rejection:
 

If  $F_{count} \geq F_{table}$  then  $H_0$  rejected  
 If  $F_{count} < F_{table}$  then  $H_0$  accepted
- (4)  $F_{count} = 58.584$
- (5) Conclusion: Because  $F_{count} > F_{table}$  is  $58.584 > 3.18$  or significance value is  $0.000 < 0.05$ , then  $H_0$  is rejected at the 5% significance level so that it can be concluded that all independent variables are Human Resource Development (X1) and Work Environment (X2) simultaneously affect the dependent variable Employee Performance Improvement (Y).

Thus the second hypothesis which states that "Human Resource Development and Work Environment simultaneously influence the Employee Performance Improvement" empirically proved the truth.

**4.6 Discussion**

Based on the results of calculations with multiple linear regression analysis the model regression equation below is obtained:

|   |
|---|
| $Y = 0.345 + 0.341 X_1 + 0.563 X_2 + e_i$ |
|---|

From the acquisition value of the model regression equation, it is known that the variable development of Human Resources (X1) and Work Environment (X2) shows a positive regression coefficient. This shows a positive direction or influence or unidirectional relationship of Human Resource Development (X1) and Work Environment (X2) variables on Employee Performance Improvement (Y). This can be interpreted that if the Human Resource Development (X1) and Work Environment (X2) increases, then Employee Performance Improvement (Y) will increase. Otherwise if the decline in Human Resource Development (X1) and Work Environment (X2), then Employee Performance Improvement (Y) will decrease.

To estimate the value of  $e$ , it can be searched with the following formulations:

$$e = \text{SEE} \times t_{table}$$

$$e = 0.25264 \times 0.1675$$

$$e = 0.0423$$

Thus the formulation of the regression becomes as follows:

$$Y = 0.345 + 0.341 X_1 + 0.563 X_2 + 0.0423$$

The results of the analysis show that the variables of Human Resource Development (X1) and Work Environment (X2) partially have a significant effect on Employee Performance Improvement (Y). This can be seen from the magnitude of the  $t_{count} > t_{table}$  on each independent variable.

The results of the analysis also show that the Human Resource Development (X1) and Work Environment (X2) variables simultaneously (together) significantly influence Employee Performance Improvement (Y).

This is known from the results of the F Test which shows that the value of  $F_{count} > F_{table}$  is 58.584 > 3.18 and with the probability of error the model being tested is 0,000 which means the probability is smaller than the significance level of 0.05. So that the effect of all independent variables on Human Resource Development (X1) and Work Environment (X2) variables on the dependent variable namely Employee Performance Improvement (Y) is meaningful.

All independent variables (independent variables) have an effect or can explain variations of the dependent variable by 68.1%. This is proven by looking at the value of the coefficient of determination (Adjusted R Square) of 0.681 from the results of multiple linear regression analysis using the statistical program. While the remaining 31.9% is influenced by other factors outside the model.

In the number of the correlation coefficient (R) shows the relationship or influence of attachment between independent variables Human Resource Development variables (X1) and Work Environment (X2) together with Employee Performance Improvement (Y) which is very strong, because it shows a number of 0.832.

Based on the results of the above research, it is expected that PDAM Surya Sembada City Of Surabaya is expected to continue to carry out its human resource development programs as well as maintain its working environment in order to keep running conducive so that the performance of its employees always increases.

## V. CONCLUSION AND RECOMMENDATION

### 5.1 Conclusion

Based on the description and discussion above, conclusions can be drawn as follows:

1. Variables of Human Resource Development (X1) and Work Environment (X2) partially have a significant effect on Employee Performance Improvement (Y) on Sub-Directorate of Corporate Secretary PDAM Surya Sembada City Of Surabaya.
2. Variables of Human Resource Development (X1) and Work Environment (X2) simultaneously have a significant effect on Employee Performance Improvement (Y) on Sub-Directorate of Corporate Secretary PDAM Surya Sembada City Of Surabaya.

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## **5.2 Recommendation**

The suggestions put forward are as follows:

1. Improving the human resource development program to its employees in the future to support the work carried out by employees in the hope of further increasing the sense of responsibility and commitment of employees towards the work they handle so that employee performance increases.
2. Maintaining a work environment that has been built so that employees feel safe and comfortable to carry out their work and maintain a harmonious relationship between employees in work must always be maintained and improved. Also that employees will be happy to help their friends who are feeling difficulties in carrying out their work.

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