

The Impact of Implementing Standard Operating Procedures and Supervision on Employee Performance

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(*Diterima*: 13 February 2021; *direvisi*: 11 April 2021; *dipublikasikan*: 30 April 2021)



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Abstract: This study aims to examine and analyze the effect of implementing standard operating procedures and supervision on employee performance. This study uses primary data involving 84 respondents from the Regional Drinking Water Company (PDAM) employees in the Palu Branch Office. The research data was tested using the classical assumption test in normality assumptions, multicollinearity assumptions, and heteroscedasticity assumptions. Methods of data analysis using descriptive statistical analysis techniques and inferential statistical analysis. The results showed that both partially and simultaneously applying SOPs and supervision had a positive and significant effect on employee performance, so that all proposed hypotheses were accepted.

Keywords: Standard Operating Procedures; Supervision; Employee Performance

INTRODUCTION

Companies need competent and quality human resources, especially in this era of globalization. All business organizations must be ready to adapt and strengthen themselves to compete to be able to answer all challenges in the future. Human resources, in this case, are employees who always play an active and dominant role in every activity of the organization because humans are the planners, actors, and determinants of the realization of goals. Several supporting factors can influence an employee's performance. Among these factors are Standard Operational Operations (SOP) and supervision. The first factor in influencing employee performance is standard operating procedures. According to Sailendra (2015:11) SOP is a guide used to ensure the operational activities of an organization or company run smoothly. Implementing a good SOP will show consistent performance, product, and service processes entirely concerning convenience, service, and a balanced arrangement.

SOPs are work procedures that are made in detail for all employees to carry out their work as well as possible by the mission, vision, and goals of an institution, agency, or institution (Purnamasari, (2015). Ekotama (2015) says that standard operating procedure (SOP) is made to simplify the work process so that the results are optimal but efficient. The second factor that affects employee performance is supervision. Supervision is entirely directed to avoid the possibility of deviation or deviation from the goals to be achieved. Through supervision, it is hoped that it can help implement policies set to achieve the planned goals effectively and efficiently.

Supervision is the essential management function. No matter how good work activities are, without work supervision, it cannot be said to be successful Usman (Effendi, 2014) happened wherein the Regional Water Company (PDAM) Ratulangi Makassar Branch Office where the Standard Operating Procedures (SOP) prepared by the company still did not maximize employee performance because some of the procedures carried out were not by the experience and performance of employees. This standard operating procedure is a vital thing to be obeyed by the rules because it becomes a reference or mechanism within this company.

LITERATURE REVIEW

Standard Operating Procedures

Standard Operating Procedures are guidelines or references for carrying out work tasks by government agencies' functions and performance appraisal tools based on technical, administrative and procedural indicators in accordance with work procedures, work procedures, and work systems in the relevant work unit (Tjipto, 2013). In carrying out the company's operations, the role of employees has a very significant position and function. Therefore, standard operating procedures are needed as a work reference in earnest to become professional, reliable human resources so that they can realize the company's vision and mission (Ariefraf, 2013). Definition of Standard Operating Procedures are guidelines or references for carrying out work tasks by government agencies' functions and performance appraisal tools based on technical, administrative, and procedural indicators by work procedures, work procedures, and work systems in the work unit concerned (Armylookfashion, 2013).

Supervision

According to Sarwoto (1968), supervision is the activity of managers who strive for the work to be carried out according to the plans set and or the desired results. In this Sarwoto definition, it is explicitly stated that the subject who carries out supervision or has a supervisory function, namely the manager as a standard or benchmark, is the plan that is set and or the desired result, the essence of Sarwoto's definition, that the activities of managers who seek to carry out the work by the plan (so it does not have to be only through observation but can also be done in other ways). Furthermore, SP Siagian, (1970) defines supervision as follows: namely, the process of observing rather than implementing all organizational activities to ensure that all work being carried out goes according to a predetermined plan. If people look carefully and thoroughly at his definition, two parts are not compatible. Furthermore, an essential feature of this definition is that this definition can only be applied to the supervision of work in progress. It cannot be applied to works that have been completed. Furthermore, another definition put forward by Soekarno, (1990) is that supervision is a process that determines what must be done, so that what must be done so that what is held is in line with the plan. The definition of supervision from Sarwoto emphasizes the activities of managers who strive for work to be carried out according to the plan. In contrast, the definition of supervision from Soekarno, K. emphasizes that supervision as a process that determines what to do is not much different.

Employee Performance

According to Bernardin and Russell (1993), performance is a record of the results obtained from specific job functions or certain activities over a certain period. According to Maier, (1965) performance is an individual's success in completing his work. Byars and Rue (2004) define performance as the degree of achievement of tasks completed by employees in their work. According to Campbell (1990), performance is defined as behavior to get things done. From the definition, performance is a result that an employee can achieve within a certain period by his duties that lead to an organizational goal.

Based on the problems and research objectives, the hypothesis of this research is as follows:

- H1:** The application of Standard Operating Procedures has a significant positive effect on employee performance at the Regional Water Company (PDAM) Ratulangi Makassar Branch Office.
- H2:** Supervision significantly affects employee performance at the Regional Water Supply (PDAM) Ratulangi Makassar Branch Office.
- H3:** The implementation of Standard Operating Procedures and Supervision has a significant positive effect simultaneously on employee performance at the Regional Water Company (PDAM) Ratulangi Makassar Branch Office.

RESEARCH METHOD

The approach used in this research is a descriptive method, where the data is collected through data from a questionnaire, interview, and observation. The descriptive method is used to take a picture of the facts, characteristics, and relationships of activities, attitudes, views, and ongoing processes and the effects of a phenomenon, or to determine the frequency of distribution of a symptom or the frequency of its occurrence specific relationship between a symptom with other symptoms (Sofar and Widiyono, 2013). Data was collected by distributing a questionnaire containing a draft statement that would be given a score for each answer such as (Strongly Agree = 5, Agree = 4, Disagree = 3, Disagree = 2, Strongly Disagree = 1). In this study, the data were analyzed by descriptive statistical analysis to describe the data in terms of mean, standard deviation, maximum, minimum, sum, range and to measure the distribution of data by skewness and kurtosis. Descriptive statistics describe data into information that is clearer and easier to understand (Ghozali, 2017). This study uses multiple linear regression analysis to study the relationship between the independent (X) and the dependent variable (Y). The test tool used is the SPSS statistical test tool with the following formulation:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$$

- Y : Employee performance
- X1 : Application of Standard Operating Procedures
- X2 : Supervision
- a : constant value
- $\beta_1 - \beta_2$: regression coefficient value

RESULTS AND DISCUSSION

The normality test tests whether the research data carried out has a normal distribution or not (good data is normal data in its distribution). The method used is the Kolmogorov-Smirnov-test normality with the assumption that if the significant value is greater than 0.05, then the data is usually distributed.

**Table 1. Normality test results
One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		84
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.32971587
Most Extreme Differences	Absolute	.073
	Positive	.073
	Negative	-.069
Test Statistic		.073
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Based on table 1, the results of the normality test show that the Asymp. Sig. (2-tailed) Kolmogorov-Smirnov Test of 0.200 the value is more significant than 0.05; Thus it can be concluded that the tested data is usually distributed.

Furthermore, a multicollinearity test is performed to determine in a multiple linear regression model that there is a correlation between variables. A good multiple linear regression model does not experience multicollinearity. One way to test multicollinearity is to look at the Tolerance and variance inflation factor (VIF) values. The Tolerance value must be greater than 0.10, while the VIF value must be less than 10.00.

Table 2. Multicollinearity Test Result Coefficients^a

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
Application of Standard Operating Procedures	.689	1.451
Supervision	.689	1.451

a. Dependent Variable: Employee Performance

Table 2 shows that the tolerance value for the variable application of Standard Operating Procedures (X1) is 0.689 or greater than 0.10, and the VIF value is 1.451 or less than 10.00. Meanwhile, the tolerance value for the Supervision variable (X2) is 0.689 or greater than 0.10, and the VIF value is 1.451 or less than 10.00. So it can be concluded that the tested data does not occur multicollinearity. The next stage is to do a heteroscedasticity test to test whether there is an inequality of variance in the regression model from the residuals of one observation to another observation. A good regression model should not occur heteroscedasticity. If the significant value is greater than 0.05, then there is no heteroscedasticity. The following table shows the results of the heteroscedasticity test:

Table 3. Heteroscedasticity Test Results Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	.710	.220			3.232	.002
Application of Standard Operating Procedures	-.068	.064	-.138		-1.057	.294
Supervision	-.059	.063	-.123		-.948	.346

a. Dependent Variable: Hetero

Based on table 3, it can be seen that the significant value of the variable Application of Standard Operating Procedures is 0.294 or greater than 0.05 and the Supervision variable is 0.346, meaning that there is no heteroscedasticity in the variables of Application of Standard Operating Procedures (X1) and Supervision (X2) so that the data can be tested on the next test.

Table 4. Descriptive statistical results

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
Application of Standard Operating Procedures Prosedur	84	2.44	4.67	3.7187	.44337
Supervision	84	2.50	4.88	3.5811	.45685
Employee performance	84	2.08	4.67	3.7343	.51903
Valid N (listwise)	84				

This study conducts descriptive analysis to analyze the data by describing or describing the data that has been collected as it is without the intention of making generally accepted conclusions. Descriptive statistical analysis was used to describe the demographics of respondents and a description of the variables in the study. The descriptive analysis (mean, mode, median, max, min, average, standard deviation). Table 4 shows the number of sample data as many as 84. Of the 84 samples (minimum), the variables for Application of Standard Operating Procedures are 2.44, Supervision is 2.50, and Employee Performance is 2.08. The total (maximum) variable for the Implementation of Standard Operating Procedures is 4.67, the Supervision variable is 4.88, and the Employee Performance variable is 4.67. Thus, the variable Standard Operating Procedure Implementation has a standard deviation value (0.44337) and the mean value (3.7187), the Supervision variable has a standard deviation value (0.45685) and a mean value (3.5811), and the Employee Performance

variable has a value standard deviation (0.51903) and mean value (3.7343). Thus, it can be concluded that there are no outliers in the data because the standard deviation value is less than the mean value.

In order to test the effect of the Implementation of Standard Operating Procedures and Supervision on Employee Performance at the Regional Water Company (PDAM) Ratulangi Makassar Branch Office, multiple regression analysis was used.

Table 5. Multiple Linear Regression Results

Model	Coefficients ^a				
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	.044	.339		.130	.897
Application of Standard Operating Procedures	.538	.100	.460	5.409	.000
Supervision	.471	.097	.415	4.879	.000

a. Dependent Variable: Employee Performance

Based on table 5, a multiple linear regression equation model is obtained, where the beta value is taken from the Unstandardized coefficients as follows:

$$Y = 0,044 + 0,538x_1 + 0,471x_2 + e$$

The results of multiple linear regression analysis illustrate that the independent variable has a positive and significant relationship to the dependent variable, namely the level of influence shown by the coefficient value of the Implementation of Standard Operating Procedures and Supervision which is positively and significantly related to Employee Performance at Regional Water Company (PDAM) Office Ratulangi Makassar Branch $b_0 = 0.024$ means that if the variable of the application of standard operating procedures and supervision as the independent variable is assumed to be constant, the employee's performance will increase by 0.044. $b_1 = 0.538$ means the coefficient value of the application of standard operating procedures is 0.538. It states that an increase will follow every 1 score increase for applying standard operating procedures in employee performance of .538. $b_2 = 0.471$ means that the supervisory coefficient value shows several 0.471 which states that if there is an increase of 1 score for supervision, it will be followed by an increase in employee performance of 0.471.

This multiple linear regression test also analyzed the magnitude of the coefficient of determination (R^2) as a whole. The coefficient of determination shows how big the percentage of the independent variable Application of Standard Operating Procedures and Supervision together explains the variation of the dependent variable of Employee Performance at the Regional Water Company (PDAM) Ratulangi Makassar Branch Office.

Table 6. Results of the Coefficient of Determination Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.772 ^a	.596	.586	.33376	.596	59.861	2	81	.000	1.683

Table 6 shows that the coefficient of determination (R^2) can be seen in the R Square value of 0.586 or 58.6%. So it can be said that 58.6% of the influence of employee performance is caused by applying standard operating procedures and supervision. In comparison, the remaining 41.4% is caused by other variables not examined in this study. Next is to see the results of the simultaneous test (Statistical F test). The test results can be seen in the following table with a significance level of 5% ($= 0.05$).

Table 7. F Test Results (Simultaneous)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.337	2	6.668	59.861	.000 ^b
	Residual	9.023	81	.111		
	Total	22.360	83			

Based on table 7, the F-count value is 59,861 and the significant value is 0.000; the value of the F-table at the 95% confidence level and the degrees of freedom obtained from (k: nk-1) (2: 84 – 2 – 1 = 81), the F-table value = 3.109. Therefore, the F-count value of 59,861 is greater than the F-table value of 3.109 with a 95% confidence level and a 5% error degree (α = 0.05). on Employee Performance at Regional Water Company (PDAM) Ratulangi Makassar Branch Office. Furthermore, a partial test (t statistical test) was conducted to show how far one independent variable (independent) partially or individually influenced the dependent variable.

Table 8. t-Test Results (Partial)

Model	Coefficients ^a					
	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
	B	Std. Error	Beta			
1 (Constant)	.044	.339			.130	.897
Application of Standard Operating Procedures	.538	.100	.460		5.409	.000
Supervision	.471	.097	.415		4.879	.000

The Effect of Implementation of Standard Operating Procedures on Employee Performance

Based on table 8, the t-count value for the variable application of standard operating procedures is 5.409 and is greater than the t-table, with a value of 1.989 at an error rate of 5%. It means that the proposed hypothesis is accepted or appropriate. The t-count value for the Supervision variable is 4.879 and is greater than the t-table with a value of 1.989, so the error rate is 5%. It means that the proposed hypothesis is declared accepted or appropriate.

Discussion

The Effect of Implementation of Standard Operating Procedures on Employee Performance

The application of Standard Operating Procedures (SOP) is a regulatory guideline that determines the results of the work of employees working in a company, therefore according to the results of research, the application of SOPs affects employee performance at the Regional Drinking Water Company (PDAM) Ratulangi Makassar Branch Office. When the Implementation of Standard Operating Procedures (SOP) is improved or implemented by employees, employee performance will also increase. Increasing the implementation of Standard Operating Procedures (SOP) positively impacts employee performance at the Regional Water Company (PDAM) Ratulangi Makassar Branch Office. This increase will affect the company's production and productivity because one of the factors that affect the company's production is labor or human resources as measured by its performance. This research is in line with research conducted by Gilang Maulana (2019), which states that applying Standard Operating Procedures affects employee performance.

The Effect of Supervision on Employee Performance

Supervision has a role in ensuring that organizational and management objectives are achieved. It relates to ways of making activities as planned. A systematic effort to set performance standards for planning purposes, design feedback information systems, compare actual activities with predetermined standards, determine and measure deviations, and take necessary corrective actions to

ensure that all company resources are used effectively and efficiently to achieve the company's goals. Supervision is also an assessment activity of the organization/activity with the aim that the organization/activity carries out its functions properly and can fulfill the stated objectives. Good supervision by the company against its employees will also increase good performance, which is an increase in employee performance. Thus, the leadership of the PDAM Ratulangi Makassar Branch Office is expected to improve supervision and keep it optimal. Employees can work better by what the company wants to achieve. For the company, supervision will ensure the maintenance of order and the smooth implementation of a job that will consistently increase employee performance. This study is by the results of research conducted by Dwi Puspita Sari (2011) and Anastasya Toding (2016) who also conducted research related to the effect of supervision on employee performance, with the results of research that supervision has a significant effect on employee performance. This research is also by the theory put forward by Mangkunegara, which explains that supervision has an essential role in monitoring implementation standards to achieve planning goals, comparing actual activities with predetermined standards, and finding and measuring deviations to ensure that all company resources are used effectively and efficiently in achieving company goals.

CONCLUSIONS AND SUGGESTIONS

This study aims to determine the effect of applying standard operating procedures and supervision on employee performance at the Regional Water Company (PDAM) Ratulangi Makassar Branch Office. Based on the results of testing and discussion, it can be concluded that the results of the partial analysis (t-test), it turns out that the research results prove that the independent variable, namely the application of standard operating procedures, has a positive and significant effect on employee performance at regional drinking water companies (PDAMs) branch offices. Ratulangi Makassar, it is stated that the first hypothesis is accepted. The application of Standard Operating Procedures (SOP) is a regulatory guideline that determines the results of the work of employees who work in a company, therefore according to the results of research, the application of SOPs affects employee performance at the Regional Drinking Water Company (PDAM) Ratulangi Makassar Branch Office where when the implementation If the Standard Operating Procedure (SOP) is improved or implemented by employees, the level of employee performance will also increase. The results of the partial analysis (t-test), it turns out that the research results prove that the independent variable, namely supervision has an effect on employee performance at the regional drinking water company (PDAM) at the Ratulangi Makassar branch office, it is stated that the second hypothesis is accepted. It shows that supervision is a factor that affects employee performance in doing work. Supervision has a role in ensuring that organizational and management objectives are achieved. It relates to ways of making activities as planned. The results of simultaneous analysis (f-test), it turns out that the research results prove that the independent variables, namely the application of standard operating procedures and supervision, simultaneously have a positive and significant effect on employee performance at the regional drinking water company (PDAM) at the Ratulangi Makassar branch office, the third hypothesis is that submitted accepted. It is in line with research conducted by Ratih Nugraheni, et al. (2010) where the results of his research state that the application of Standard Operating Procedures and Supervision simultaneously has a positive and significant effect on employee performance.

The performance of employees at the Regional Drinking Water Company (PDAM) of the Ratulangi Makassar Branch Office will be even better if the company has a good SOP, by the way the company always improves the SOP according to developments and opens it when there are changes. In this way, it will be easier for new and old employees to make SOPs as a tool to work and achieve the goals set by the company. And then the sales assistant should be given the facility to provide suggestions or findings if they find a discrepancy between the SOP and the field. Supervision based on theory has a direct influence on performance. With the discovery of employees who feel that the supervision carried out by the supervisor is quite good, the company should provide more detailed assessment standards so that the assessment and supervision is more objective. Future researchers are expected to be able to continue and develop this research in the future through more in-depth research by adding other variables to get maximum results.

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