

# **EFFECT OF LEADERSHIP STYLE, JOB SATISFACTION, AND WORK ENVIRONMENT TO EMPLOYEE COMMITMENT IN PT SCOMI OILTOOLS IN JAKARTA, INDONESIA**

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## **Abstract**

*This study aims to determine the effect of leadership style, Job satisfaction, and work environment to employee commitment to PT Scomi Oiltools in Jakarta. This study conducted a quantitative descriptive approach conducted at PT. Scomi Oiltools in Jakarta. The population in this study is all employees of 136 people with. While the sample is taken 102 population. The result of this research are: (1) Partially, leadership style variables positively and significantly affect the commitment of employees of PT. Scomi Oiltools Jakarta, (2) Partially, job satisfaction variables have a positive and significant effect on employee commitment of PT. Scomi Oiltools Jakarta, (3) Partially, the working environment variables do not affect the commitment of employees of PT. Scomi Oiltools Jakarta, (4) Simultaneously, leadership style, job satisfaction and work environment have positive and significant influence to PT. Scomi Oiltools Jakarta, meaning leadership style, job satisfaction and work environment together can increase employee commitment.*

*Keywords: leadership style, job satisfaction, work environment, employee commitment*

## INTRODUCTION

Since 2015 until now in 2017, world oil prices have decreased significantly, forcing oil and gas operators in Indonesia to reduce oil exploitation because the production cost is greater than the selling price, which impact on the decline of the project for oil and gas contractors. In this case one of the oil and gas contracting company is PT Scomi Oiltools having offices in Jakarta.

As a result of the declining project at PT Scomi Oiltools, it will also affect employees who work, such as companies unable to raise salaries, reduced health facilities, and even benefits received by management cut by +/- 25%. While the company desperately needs employees' commitment to the organization in order to maintain the best service for customers, especially the engineers in the field who are dealing directly with customers, because the company must still struggle to maintain even compete for a few projects.

In general, the commitment of PT Scomi Oiltools employees decreased as shown in:

1. Often failed to follow the tender due to administrative error, lack of care in applying the tender conditions.
2. The average employee often arrives late to the office.
3. Employees difficult to be contacted either to meet or by phone.
4. Cooperation teamwork between departments began to be disturbed because the start is often throwing duties and responsibilities.
5. Employees work slower than standard work.

## Formulation of the research problem

Based on the above, then the problems in this study can be formulated as follows:

1. Does the leadership style have a significant effect on the employee's commitment to the company?
2. Does job satisfaction have a significant effect on employee commitment to the company?
3. Does the work environment have a significant effect on the employee's commitment to the company?
4. Does the style of leadership, job satisfaction, and work environment significantly affect the employee's commitment to the company?

## Research objectives

Based on the above problem formulation can be determined the purpose of this study:

1. To know and analyze the influence of leadership style on employee commitment to company.
2. To know and analyze the effect of job satisfaction on employee commitment to the company.

3. To know and analyze the influence of work environment on employee commitment to company.
4. To know and analyze the influence of leadership style, job satisfaction and work environment simultaneously on employees' commitment to the company.

## LITERATURE REVIEW

### Theoretical basis

#### *Leadership Style*

The leader has his own unique traits, habits, temperaments, traits and personalities so that his behavior and style distinguish him from others. Style or style of this life will definitely color the behavior and type of leadership. Leadership is the process of directing and influencing task activities from people in groups. Leadership means involving others, ie subordinates or employees who are led. (Sunarto, 2002).

Winardi (2004) defines a leader as: a person who because of his personal qualities with or without official appointment can influence the group he leads to move the joint effort towards the achievement of certain goals. Similarly, according to Kartono (2010), leadership is no longer based on talent and experience alone, but on planning preparation, training candidates for leaders. Everything is done through planning, investigation, experiments / experiments, analysis, supervision, and systematic training to awaken the qualities of superior leaders to succeed in their duties. According to Siagian (2008), there are 5 (five) leadership style categories that a leader can use:

1. Autocratic type
2. Paternalistic Type.
3. Charismatic Type.
4. Laissez-faire type.
5. Democratic Type.

According Kuswadi (2004) that the leadership style is less fit or less suitable executed leaders to employees can reduce motivation, performance and ultimately job satisfaction. In line with that according Winardi (2004) defines a leader is someone who because of his personal skills with or without official appointment can affect the group he leads to move the business together towards the achievement of certain goals. Broadly speaking, the approach or perspective on leadership consists of:

1. Theory of Nature (Trait Theory)

This theory is more emphasis on aspects of personality such as intellectualization, emotion, physical condition (age, height and weight) and other personal traits.

## 2. Situational Theory (Contingency Theory)

The Situational-Contingency Approach describes that the force used depends on factors such as situations, tasks, organizations and other environmental variables.

## 3. Behavioral Theory

Describes specific behaviors that distinguish leaders and non-leaders.

## 4. Transformational Theory

Leadership theory evolves toward many directions such as transformational leadership. Transformational leadership is the style used depends on factors such as situations, employees, tasks, organizations and other environmental variables.

Table 1 Dimensions and Indicators of Leadership Style

Variable	Operational Definition	Dimensions	Indicators	Scale
Leadership Style (X1)	Leadership style is the behavior or attitude of a leader in influencing the behavior of his subordinates	1.Situational leadership style.  2.Communication between subordinates with superiors.  3.Leadership decisions.  4.Trust to employees  5.Supervision of the work of employees.	1.Supervision of the work. 2.Absolute authority on the leadership.  1.One-way communication. 2.Communication relationship between leadership with subordinates. 3.Leaders give clear direction.  1.Decisions are made by the leadership by deliberating first.  1.Leaders trust employees. 2.Delegation of tasks according to ability and expertise. 3.Leaders involve subordinates in finding solutions to problems.  1.Implement supervision of the task. 2.Placing employees according to skills to work better. 3.Inspection of work every month.	Ordinal

### ***Employee Commitment***

According to Anderson and Weitz (1992: 64) in his research stated that commitment is defined as a desire of activity to establish a stable relationship with sincerity to give sacrifice in order to maintain or maintain that relationship. The expectation of continuity of relationships, the sincerity to invest, the willingness to make sacrifices in order to gain long-term profit is a very important indication to build in a cooperative commitment.

Organizational commitment is defined as an impulse from within the individual to do something in order to support organizational success in accordance with the goals and put the interests of the organization above his personal interests (Wiener in Darlis, 2002: 88). Meanwhile, according to Mowday et al., In Darlis, (2002: 88) organizational commitment shows strong confidence and support to the values and goals the organization wants to achieve. Organizational commitment can grow because the individual has an emotional bond to the organization that includes moral support and accepts the value that is within the organization and the inner determination to serve the organization (Porter et al., In Kartika, 2010: 42).

Relationship marketing services, emphasizing that maintaining a relationship is built on the basis of mutual trust. As with consumers loyal to the brand, is a process that must be passed.

According to Husselid and Day in Ribhan, (2008: 93); employee commitment can reduce the desire to escape from the organization or work unit. Commitment can be defined as the degree of relative involvement of the individual towards the organization (Mowday, Porter and Steers in Ribhan, 2008: 93). The degree of such involvement by them is characterized by three factors, namely:

1. Strong acceptance of organizational goals and values;
2. The ability to direct oneself and his efforts for organizational success;
3. A strong desire to grow with the organization.

According to Imron (2007: 6) organizational commitment is the sense of having employees (organization members) of the organization / company to realize the goals of the organization / company. A high level of commitment either structurally or psychologically formal can encourage closer relationships between members of the organization and the company in which they work.

Commitment declares the highest level of relational attachment, in which commitment creates a particular condition that creates dependence, which, when balanced, will foster a sense of security and a drive to maintain it. Dependency that is at the right time can improve performance, where dependence on choice and needs, provides the foundation on which organizational commitment can be built (Imron, 2007: 6).

Soeratman (2002: 271) states that a commitment in business relationships for salespeople can be built through the creation of satisfaction over the business that includes satisfaction with the product, satisfaction of margin and satisfaction of the relationship with the salesperson.

Table 2 Dimension and Indicators of Employee Commitment

Variable	Operational Definition	Dimensions	Indicators	Scale
Employee Commitment (Y)	Encouragement from within the individual to do something in order to support the success of the organization in accordance with the goals and put the interests of the organization above his personal interests.	1. Job responsibilities	1. The desire to stay in organization. 2. The desire to strive to fit the organization. 3. Loyalty to the organization.	<i>Ordinal</i>

### Previous Research

Previous research conducted by Michael Hendrik Santoso (2014), this study aims to know 'The influence of leadership style on organizational commitment with job satisfaction as intervening variable on employees of PT. Cimalati Partner ". The research method used is quantitative method, and data collection using questionnaire technique with samples using permanent employees in the production and has worked for 1 year, amounting to 159 people. To test the hypothesis is done using anlysis path. After the processing of data obtained from the respondents, the researchers can conclude that leadership style has an influence on organizational commitment with job satisfaction as intervening variable.

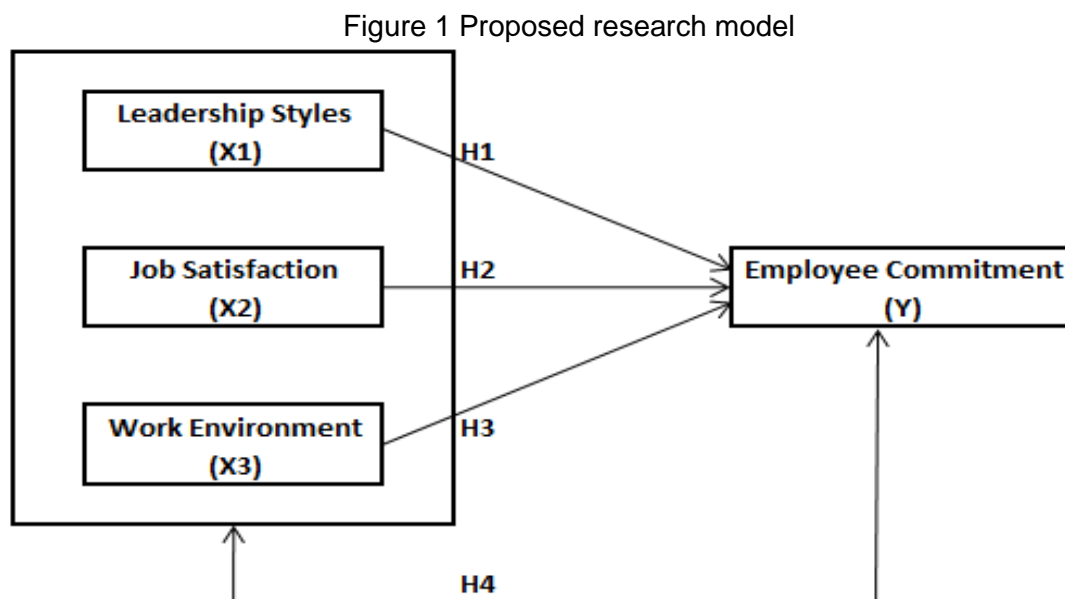
Anastasia Tania (2013) conducted a study to test "The influence of job satisfaction on commitment, organizational employees of PT. DAI KNIFE in Surabaya ". The population in this study amounted to 25 employees of PT. DAI KNIFE. The sample of this study using saturated sampling method, the research sample set as many as 25 employees including all employees of PT. DAI KNIFE. This study uses quantitative approach, the data for this study obtained through a questionnaire of research that has been filled by the respondents who have been determined. Data analysis method used is multiple linier regression analysis method. The results of this study showed that job satisfaction has a positive and significant effect on organizational

commitment of employees. Job satisfaction has a positive and significant impact on organizational commitment.

Angga Primananda Saputra (2012) conducted a study that aims to determine "The influence of the environment and job satisfaction of employees against organizational commitment". This research was conducted at PT. Industri Sandang Nusantara (ISN) Unit Patal Lawang - Malang. The population of this research is all employees of PT. ISN unit Patal Lawang - Malang which has been working for more than one year, with the number of samples of the research as many as 54 employees. Data collected directly from respondents by using research instrument in the form of questionnaire. Data analysis method used is test of validity, reliability test, classical assumption test, multiple linear regression, and hypothesis test. The results of this study indicate that two variables namely work environment and job satisfaction have a significant effect on organizational commitment. This is indicated by the t test results of both variables that have t values of respectively 2.920 and 4.102. While job satisfaction variable is the most dominant variable affect the organizational commitment at PT. ISN unit Patal Lawang - Malang. This is shown from the largest contribution value compared to work environment variables, which amounted to 44.74%.

### Research model

Employees are the main asset for PT Scomi Oiltools company in Jakarta, where leadership style, job satisfaction, and work environment will affect employees' commitment to the company. The framework of research in the form of scheme model the path diagram of the influence of leadership style, job satisfaction and work environment to employee commitment at PT Scomi Oiltools in Jakarta, presented in the following figure:



## Hypothesis Formulation

Based on the theories and frameworks that have been described previously can be formulated research hypothesis, as follows:

1. Suspected leadership style (H1a) has a significant effect on employees' commitment to the company.
2. Suspected leadership style (H10) has no significant effect on employee commitment to the company.
3. Suspected job satisfaction (H2a) has a significant effect on employees' commitment to the company.
4. Suspected job satisfaction (H20) has no significant effect on employee commitment to the company.
5. Suspected work environment (H3a) have a significant effect on employees' commitment to the company.
6. Suspected work environment (H30) has no significant effect on employees' commitment to the company.
7. Suspected leadership style, job satisfaction, and work environment (H4a) have a significant effect simultaneously on the employee's commitment to the company.
8. Suspected leadership style, job satisfaction, and work environment (H40) does not affect simultaneously on employees' commitment to the company.

## RESEARCH METHOD

### Types and Nature of Research

Based on the type of problem studied, the techniques and tools used, the approach used in the study is descriptive quantitative. This research is a type of quantitative descriptive research, because in giving description (description) of an event or symptom, using statistical tool.

The type of research conducted is a case study supported by the survey to collect data on factors related to the research variables. The nature of the research is explanatory research (explanation).

### Location and Time of Study

This research was conducted at PT Scomi Oiltools which is located at Tetra Pak Building. Suite 104, Jalan Buncit Raya Kav. 100, Jakarta 12510, The study was conducted from January 2017 until August 2017.



## Population and Sample

Data on population and samples from employees and management of PT Scomi Oiltools address at Tetra Pak Building. Suite 104, Jalan Buncit Raya Kav. 100, Jakarta 12510. Population in this research is all employees either in the office or in the field of PT Scomi Oiltools which is located in Building Tetra Pak. Suite 104, Jalan Buncit Raya Kav. 100, Jakarta 12510 which amounted to 136 people. According to Umar (2005), to determine the minimum sample required when population size is known, the Slovin formula can be used as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where, n = Number of sample

N = Number of population

e = the level of error in sampling

The population (N) of 136 employees in the office and in the field of PT Scomi Oiltools, assuming the error rate (e) of 5% then the number of samples (n) is: Thus the number of samples in this study as many as 102 employees. Sampling method is done by using purposive sampling method, that is sample determination technique with certain consideration (Sugiyono, 2003). The sample in this research is 102 employees in the office or in the field of PT Scomi Oiltools.

## Data collection technique

1. Questionnaire, which was given to PT Scomi Oiltools employees as research respondents.
2. Interviews conducted with employees or other parties entitled to provide information and data concerning PT Scomi Oiltools.
3. Documentation study conducted by collecting and studying documents supporting this research, in the form of a short history of company establishment, corporate organizational structure and number of employees working in the company.

## Types and Data Sources

1. Primary data obtained from interviews (Interview) and questionnaire (Questionnaire).
2. Secondary data is data supporting primary data obtained from documents through documentation study.

### Validity test

Validity test is done to see the accuracy and accuracy of the instrument in performing its function as a measuring instrument (Azwar, 2003). The validity of research data is determined by an accurate measurement process. A measuring instrument is said to be valid if the instrument measures what should be measured. In other words, the instrument can measure the construct as expected by the researcher.

Instrument validity test in this research is done by comparing Correlated Item-Total Correlation value on each item of question with r value of table. If the value of Correlated Item-Total Correlation ( $r_{calc}$ ) > r value of the table and the value is positive, then the question items on each research variable are declared valid (Ghozali, 2005). To test the validity of the instrument is done by using Statistical Package for Social Science (SPSS) software.

Sugiyono (2009) states items that have a positive correlation with the criteria (total score) and high correlation, indicating that the item has a high validity as well. Usually the minimum requirement to be considered eligible is if  $r = 0.3$ . So if the correlation between grains with a total score of less than 0.3 then the items in the instrument are declared invalid.

### Test of Reliability

True reliability is a tool for measuring a questionnaire that is an indicator of a variable or construct. A questionnaire is said to be reliable or reliable if the answer of the respondent to the question is consistent or stable over time. In order to obtain a reliable instrument, conducted reliability test. The reliability test is intended to see the results of a reliable instrument measurement (Ghozali, 2005).

The technique used to test reliability is Cronbach's Alpha. In this test is considered reliable if greater than 0.6 where the following criteria:

$\alpha > 0.6$  means a reliable instrument

$\alpha < 0.6$  means the instrument is not reliable

### Hypothesis Data Analysis Method

Data analysis model on this research hypothesis is using multiple linear regression analysis with the following formula:

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Where,

Y = Employee Commitment

$b_0$  = Constants

$b_{1,2,3}$  = Regression Coefficient Independent Variable

- $X_1$  = Leadership Style  
 $X_2$  = Job Satisfaction  
 $X_3$  = Work Environment  
 $e$  = *Error of term*

The effect of independent variable on dependent variable is tested with 95% confidence level or  $\alpha = 5\%$ . Further testing of hypotheses based on statistical tests as follows:

### 1. Simultaneous Test (F Test)

Influence of independent variable to dependent variable is tested with confidence interval 95% or  $\alpha = 5\%$ . hypothesis testing criteria for simultaneous test are as follows:

$H_0 : b_1, b_2, b_3 = 0$  (Leadership style, job satisfaction and work environment simultaneously have no significant effect on employee commitment).

$H_0 : b_1, b_2, b_3 \neq 0$  (Leadership style, job satisfaction and work environment simultaneously have a significant effect on employee commitment).

F test is performed to find out whether the independent variables together have a significant influence on the dependent variable. In this case  $F_{\text{Calculate}}$  in comparison with  $F_{\text{Table}}$ . With the following conditions:

1. If  $F_{\text{Calc}} < F_{\text{Table}}$ , then  $H_0$  is accepted and  $H_a$  is rejected.
2. If  $F_{\text{Calc}} > F_{\text{Table}}$ , then  $H_0$  is rejected and  $H_a$  accepted.

### 2. Partial Test (t test)

If the hypothesis is accepted, then proceed with a partial test that is better known as t-test. Test t is used to determine the influence of each independent variable to the dependent variable significant or not. The t test is to test whether the hypothesis used is accepted or rejected, the leadership style, job satisfaction and work environment partially affect the employee commitment, with the confidence interval of 95% or  $\alpha = 5\%$ . Here  $t_{\text{calculate}}$  will be compared with  $t_{\text{table}}$  with the following conditions:

1. If  $t_{\text{Calc}} < t_{\text{Table}}$ , then  $H_0$  is accepted and  $H_a$  is rejected.
2. If  $t_{\text{Calc}} > t_{\text{Table}}$ , then  $H_0$  is rejected and  $H_a$  accepted.

The hypothesis testing criteria for partial test are as follows:

$H_0 : b_i = 0$ . This means that leadership style, job satisfaction and work environment partially does not affect the commitment of employees.

$H_0 : b_i \neq 0$ . This means that leadership style, job satisfaction, work environment partially affect the commitment of employees.

### 3. Coefficient of Determination ( $R^2$ )

Determination Coefficient Test aims to see the ability of independent variables in explaining the dependent variable can be known from the amount of coefficient of determination multiple ( $R^2$ ).

In other words, the coefficient value  $R^2$  is used to measure the contribution of independent variables to the variation of the dependent variable. If  $R^2$  obtained from the calculation of the greater or close to 1 then it can be said that the contribution of the independent variable to the variation of the dependent variable is greater. That means the model used is getting stronger to explain the dependent variable. Conversely, if  $R^2$  is smaller or close to 0 then it can be said that the contribution of the independent variable to the dependent variable variation is smaller. This means that the model used is getting weaker to explain the variation of the dependent variable. In general it can be said that the magnitude of multiple determination coefficient ( $R^2$ ) is between 0 and 1 or  $0 \leq R^2 \leq 1$ .

### **Classic assumption test**

Both hypotheses in this study were also tested using the classical assumption test, i.e:

1. Normality test

Normality test is done by observing the spread of data on the diagonal axis of the graph. The method used is the plot method.

2. Heteroscedasticity Test

Heteroscedasticity occurs because of a change of situation not described in the regression model specification. In this test using residual transmit diagrams.

3. Multicollinearity Test

Multicollinearity test aims to test whether the regression model found correlation between independent variables (independent). A good regression model should not be correlated among the independent variables.

4. Autocorrelation test is a statistical analysis conducted to determine whether there is a correlation of variables that exist in the prediction model with time changes. Therefore, if the autocorrelation assumption occurs in a prediction model, then the disturbance value no longer pairs freely, but paired in autocorrelation.

### **RESEARCH RESULTS**

In this study, the data obtained through questionnaires given to employees of PT. Scomi Oiltools. Questionnaires were distributed to 136 respondents and 102 respondents gave feedback in this survey.

The data collection in this study was conducted for approximately 3 months. Questionnaires are given to employees at the time they are resting and completing their work. Researchers use the time to collect questionnaire data by giving an explanation in advance to the employees about the purpose and how to fill out the questionnaire. Employees are asked

their willingness to provide their feedback through questionnaires on "The Influence of Leadership Style, Job Satisfaction, and Work Environment on Employee Commitment PT. Scomi Oiltools Jakarta".

### **Description of Respondent's Characteristics**

Characteristics of respondents obtained in this study consisted of sex, age, last education, occupation and length of work. The data collected from survey results that have been done simultaneously with the questionnaire data collection of 102 respondents who are employees of PT. Scomi Oiltools in Jakarta.

### **Test Validity and Reliability**

This validity test is obtained by correlating each score indicator with total score indicator variable, then correlation results compared with the critical value at a significant level of 0.05. An instrument is said to be valid if it is able to measure what is desired and the high validity of the instrument indicates the extent to which the data collected does not deviate from the description of the variable in question. Testing instrument validity with the help of SPSS 23 software, validity value can be seen in column Corrected Item-Total Correlation. If the correlation number obtained is greater than the critical number ( $r_{\text{calc}} > r_{\text{table}}$ ) then the instrument is said to be valid. Critical score in this study is  $N-2 = 30-2 = 28$  with 5% significant level then the critic for validity test in the research is 0.3610.

Based on the instrument validity test, the corrected item-total correlation ( $r$ -count) value is positive and above the  $r$  value of 0.3610, which means that all the questions are valid. While the reliability test is intended to determine the consistency of measuring instruments in its use, or in other words the measuring tool has consistent results when used many times at different times.

Instrument reliability testing with the help of SPSS software 23. For reliability test used Cronbach Alpha Technique, where an instrument can be said reliable (reliabel) if have a coefficient of reliability or alpha of 0.6 or more.

In this research, the validity and reliability test is done on the primary data of 30 respondents by internal consistency, that is done by trying the instrument once.

#### *Validity Test*

To test the validity of the instruments in this study, tested through the following stages:

- Calculate the value of  $r_{\text{calc}}$  (obtained from the calculation). In this research the calculation process is done by using SPSS program version 23.

- Determine  $r_{table}$  (obtained from statistical table), with significant level  $\alpha = 5\%$  and degrees of freedom ( $dk$ ) =  $n-2$ . Because the number of respondents ( $n$ ) in this study is 30 people. Then  $dk = 30-2 = 28$  people. The value of  $r_{table}$  with  $dk = 100$  and  $\alpha = 5\%$  is 0.3610  
Compare between  $r_{calc} > r_{table}$ .

If  $r_{calc} > r_{table}$  then the instrument is declared "Valid"

If  $r_{calc} < r_{table}$  then the instrument is declared "Invalid"

The instrument used in the next calculation is a valid instrument.

Here is described the results of validity test instrument in the study:

1. Validity Test of Leadership Style Variable (X1)

Leadership style variables are measured through 12 questions. By using SPSS 23, the validity test results show that the  $r_{calc}$  value of all the questions is shown in the  $r_{calc}$  column is greater than the  $r_{table}$  (0.3610), so it can be stated that the instrument used in the leadership style variable is valid.

2. Validity Test of Job Satisfaction Variable (X2)

Job satisfaction variable is measured through 11 questions. By using SPSS 23, the result of validity test obtained the result that the value of  $r_{hitung}$  from all the items of question indicated on column  $r_{calc}$  is bigger than  $r_{table}$  (0,3610), so it can be stated that instrument used in job satisfaction variable is valid

3. Validity Test of Work Environment Variable (X3)

Work environment variables are measured through 12 questions. By using SPSS 23, the validity test results show that the  $r_{th}$  value of all the questions is shown in the  $r_{calc}$  column is greater than the  $r_{table}$  (0.3610), so it can be stated that the instrument used in the working environment variable is valid.

4. Validity Test of Employee Commitment Variable (Y)

The employee commitment variable is measured through 12 questions. By using SPSS 23, the validity test results show that the  $r_{calc}$  value of all the questions in the  $r_{calc}$  column is greater than the  $r_{table}$  (0.3610), so it can be stated that the instrument used in the employee commitment variable is valid.

### *Reliability Test*

In determining the level of reliability, a research instrument can be accepted or said reliable if it has Alpha Cronbach coefficient  $> 0.60$ . Here are described the results of variable reliability test in the study

Table 3 Results of Reliability Test of Research Variables

Variables	Statement	Coefficient	Description
	Number	Alpha Cronbach	
Leadership Style	12	0,947	Reliable
Job Satisfaction	11	0,929	Reliable
Work Environment	12	0,902	Reliable
Employee Commitment	3	0,788	Reliable

Test results in the table show that all Cronbach Alpha coefficients obtained are greater than 0.60. So that the statement items can be declared reliable. So it can be concluded that the questionnaire created to measure the style of leadership, job satisfaction, work environment and employee commitment declared reliable or reliable to measure all variables in research.

### Classic assumption test

The classical assumption test that will be used in this research includes normality test, heteroscedasticity test and multicollinearity test. Classic Assumption Test is done to determine the condition of existing data in order to determine the most appropriate analysis model used. To obtain an unbiased and efficient regression model.

#### *Normality Test (Data and Residual)*

Basically the normality of a data can be recognized or detected by viewing the spread of data (dots) on the diagonal axis of the graph or by looking at the histogram of its residual.

- Data is said to be normally distributed, if the data spreads around the diagonal line and follows the direction of the diagonal line or the graph of the histogram.
- Conversely the data is said to be not normally distributed, if the data spreads far from the direction of the line or does not follow the diagonal or histogram graph.

Figure 2 Normal P-Plot

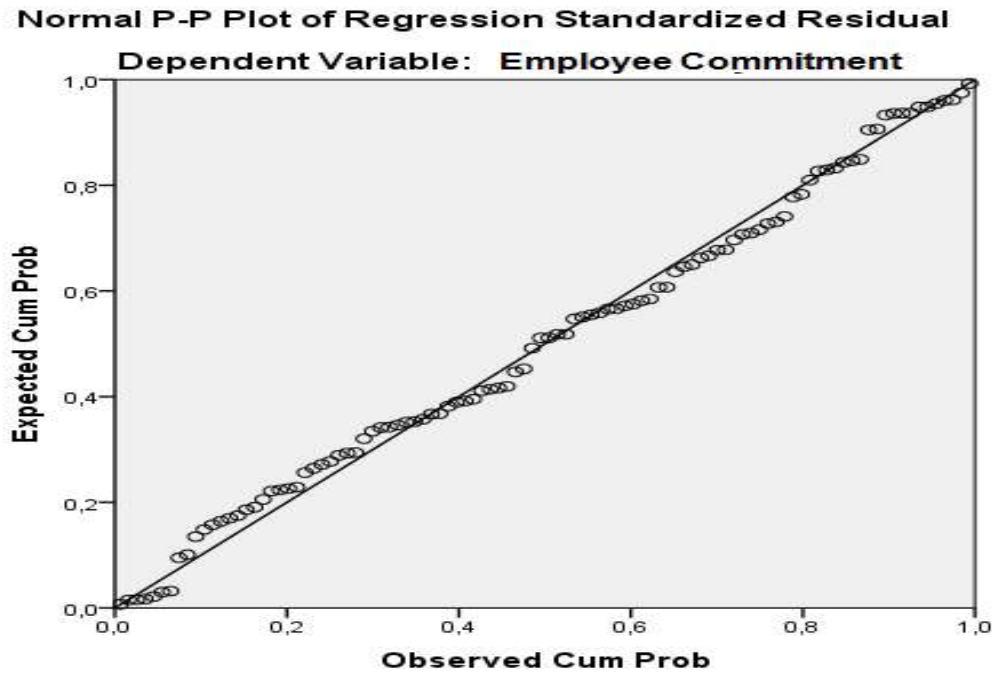
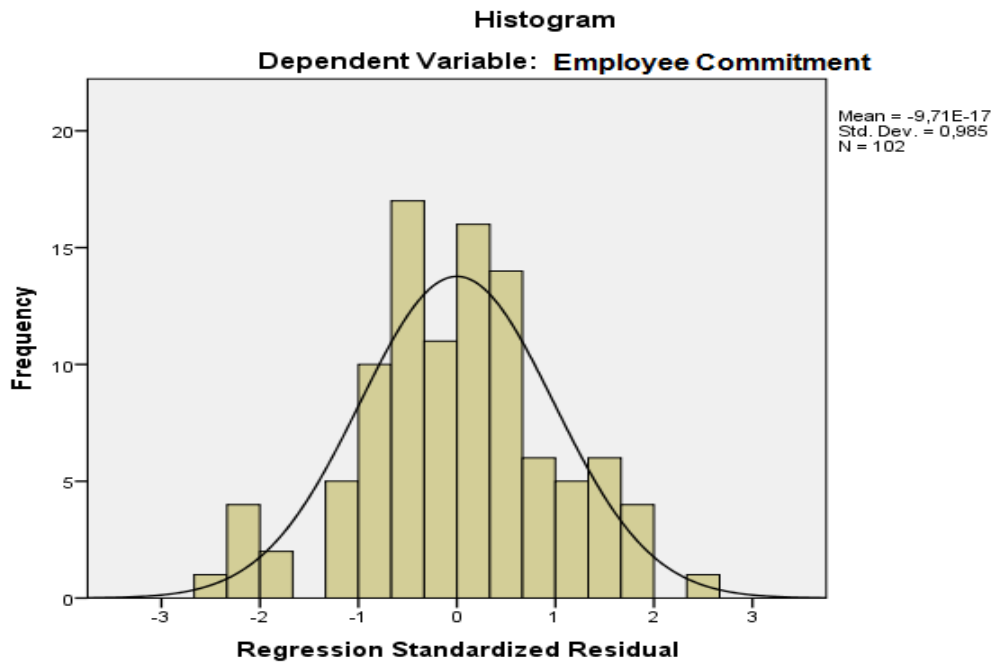


Figure Graph Histogram Test Residual Normality



In this test, the p-plot shown in the figure can be concluded that the model used indicates a normal indication, where the analysis of the graph above shows spots spread around the diagonal line, and its distribution follows the direction of the diagonal line. Thus the regression model is feasible to be used to predict employees' commitment to PT. Scomi Oiltools in Jakarta.



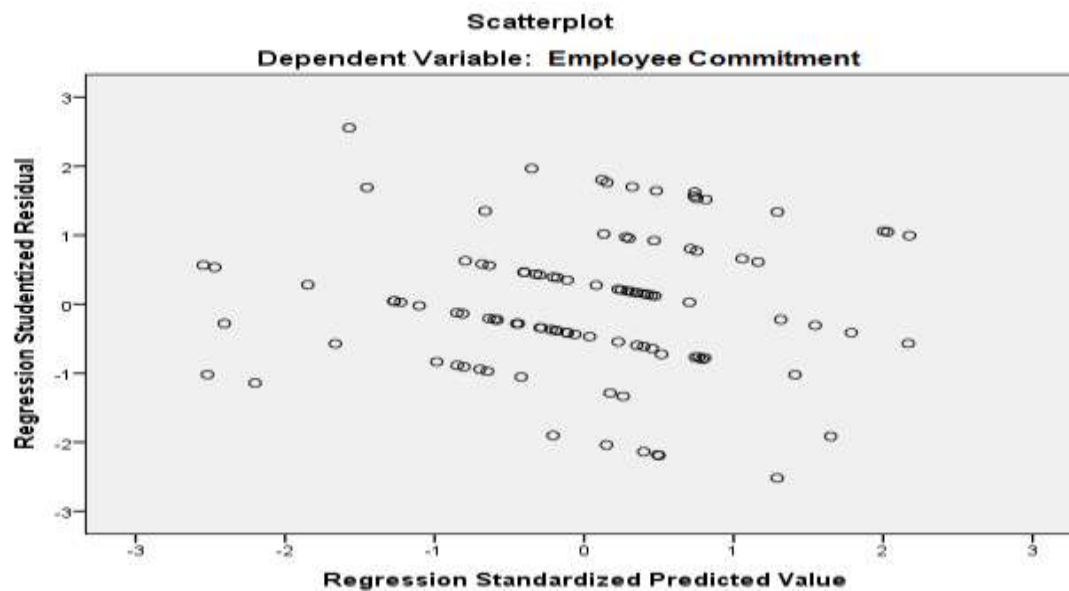
As well as the Histogram Graph shown in the figure can be seen histogram showing normal distribution pattern spread evenly to left and right, that is, it can be concluded that residual value of normal distribution, so that normality requirement of residual value for regression analysis can be fulfilled.

### *Heteroscedasticity Test*

Heteroscedasticity is an assumption in regression that the variance of residuals is not the same for one other observation. In the regression, one of the assumptions that must be met is that the variance of the residuals of another observational observation has no particular pattern. This unequal symptom of variance is called heteroscedasticity, whereas the same residual variance symptom from one observation to another is called homoscedasticity. Heteroskedastity test is done to know the existence of deviation from classical assumption requirement in regression model, where in regression model have to fulfill requirement of absence of heteroskedastisitas.

In this research the test will be done to find out whether there is a symptom by using scatterplot between predicted value with residual result of regression equation. A model is considered to be heterokedastis if the plot forms a particular pattern or function otherwise if the plot is random / random it can be said that the model is free from heterokedastic assumptions. Here is the output:

Figure 3 Scatterplot Employee Commitment Variable



The above figure shows the scatterplot between the predicted value and the residual result of the regression equation spread randomly / randomly without forming a certain function pattern in other words the model used is free from heterokedastic assumption.

### *Multicollinearity Test*

Multicollinearity test is used to know whether or not the deviation of classical assumption of multicollinearity is the existence of linear relationship between independent variable in regression model. The requirement that must be fulfilled in the regression model is the absence of multicollinearity. A model is said to have assumed multicollinearity of tolerance value  $< 0.1$  and VIF value of each independent variable  $> 10$ . In general if VIF is greater than 10, then the variable has multicollinearity problem with other independent variables. But if the variable has a value smaller than 10, so it can be said that between independent variables do not occur multicollinearity issues.

H0 : for  $i \neq j$  (there is no multicollinearity between independent variables)

H1 : for  $i \neq j$  (there is multicollinearity between independent variables)

Decision Making Criteria:

- a. If the value of VIF  $> 10$  then occur multicollinearity symptoms among independent variables.
- b. If the VIF value  $< 10$  then there is no symptom of multicollinearity among independent variables

Table 4 Coefficients Multicollinearity Test

Coefficients <sup>a</sup>		Collinearity Statistics	
Model		Tolerance	VIF
1	(Constant)		
	Leadership Style	,615	1,625
	Job Satisfaction	,756	1,322
	Work Environment	,730	1,370

a. Dependent Variable: Employee Commitment

The result of calculation of tolerance value in the above table shows that there is no independent variable having tolerance value less than 0.1, it means there is no correlation between independent variable. In the calculation result of Variance Inflation Factor (VIF) also shows the same thing because there is no one independent variable has value (VIF) more than

10. So, it can be concluded that there is no multicollinearity between independent variables in the regression model. From the calculation results can be concluded that the model has met the assumption of non-multicollinearity among independent variables.

### Correlation Analysis

Correlation test is a study of the degree of closeness relationship between variables expressed by the correlation coefficient. The relationship between the independent variable (X) and the dependent variable (Y) can be:

- Positive, meaning that if the independent variable (X) rises, then the dependent variable (Y) rises.
- Negative, meaning that if the independent variable (X) goes down, then the dependent variable (Y) goes down.

Table 5 Results of Correlation Test

		Leadership Style	Job Satisfaction	Work Environment	Employee Commitment
Leadership Style	Pearson Correlation	1	,489**	,515**	,315**
	Sig. (2-tailed)		,000	,000	,001
	N	102	102	102	102
Job Satisfaction	Pearson Correlation	,489**	1	,312**	,314**
	Sig. (2-tailed)	,000		,001	,001
	N	102	102	102	102
Work Environment	Pearson Correlation	,515**	,312**	1	,126
	Sig. (2-tailed)	,000	,001		,208
	N	102	102	102	102
Employee Commitment	Pearson Correlation	,315**	,314**	,126	1
	Sig. (2-tailed)	,001	,001	,208	
	N	102	102	102	102

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Based on the Significance:

- Given the variable Leadership Style with Employee Commitment (EC) significance value  $0.001 < 0.05$  which means there is a significant correlation.
- Given variable Job Satisfaction with Employee Commitment (EC) significance value  $0.001 < 0.05$  which means there is a significant correlation.

□ Given the variable Work Environment with Employee Commitment (KK) value significance of  $0.208 > 0.05$  which means there is no significant correlation.

Based on the Star Sign on SPSS:

From the results of the above output, note that the value of Pearson correlation associated between each variable has an asterisk, it means there is a significant correlation between the variables that are connected.

### Multiple Linear Regression Analysis

Multiple linear regression analysis test is used to know whether there is influence of free variable to dependent variable. The regression equation can be formulated as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Where,

Y = Employee Commitment

a = Constant

$b_1, b_2, b_3$  = Correlation Coefficient

X1 = Leadership Style

X2 = Job Satisfaction

X3 = Work Environment

e = Error

Table 6 Multiple Linear Regression Analysis

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1	(Constant)	7,774	1,804		4,309	,000		
	Leadership Style	,069	,034	,245	2,044	,044	,615	1,625
	Job Satisfaction	,064	,032	,216	1,998	,048	,756	1,322
	Work Environment	,025	,041	,068	,615	,540	,730	1,370

a. Dependent Variable: Employee Commitment

Based on the table can be obtained the following regression formula:

$$Y = 7,774 + 0,069 X_1 + 0,064 X_2 + 0,025 X_3 + e$$

The interpretation of the above regression is as follows:

- Constants (a)

If all independent variables have a value of zero (0), then the value of the dependent variable Employee Commitment (Y) of 7.774.

- Leadership Style ( $X_1$ ) on Employee Commitment (Y).

Leadership coefficient value for variable  $X_1$  is 0,069. It can be concluded that every increase of Leadership Style variable ( $X_1$ ), then Employee Commitment (Y) variable will increase by 0,069 assuming that other independent variable from regression model is fixed.

- Job Satisfaction ( $X_2$ ) on Employee Commitment (Y)

Coefficient of Job Satisfaction for variable  $X_2$  equal to 0,064. It can be concluded that every increase of Job Satisfaction variable ( $X_2$ ), then Employee Commitment (Y) variable will increase by 0,064 assuming that other independent variable from regression model is fixed.

- Working Environment ( $X_3$ ) on Employee Commitment (Y)

Work Environment coefficient value for  $X_3$  variable is 0,025. It can be concluded that every increase of work environment variable ( $X_3$ ), then Employee Commitment (Y) variable will increase by 0,025 assuming that other independent variable from regression model is fixed.

### T Test (Partial Test)

The t test is used to find out whether the independent variable is partially influential or not to the dependent variable. Hypothesis testing is done by comparing between tcount value with ttable value with decision criteria is: If  $t_{calc} < t_{table}$   $H_0$  accepted or  $H_1$  rejected; If  $t_{calc} > t_{table}$   $H_0$  rejected or  $H_1$  accepted

As for the method in the determination of ttable using the provisions level significant 5%, dengan  $df = n - k - 1$  (in this study  $df = 102 - 3 - 1 = 98$ ), so that the value of ttable is 1.966

Table 7 Coefficients of t Test (Partial)

Model	Coefficients		Beta	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
1 (Constant)	7,774	1,804		4,309	,000		
Leadership Style	,069	,034	,245	2,044	,044	,615	1,625
Job Satisfaction	,064	,032	,216	1,998	,048	,756	1,322
Work Environment	,025	,041	,068	,615	,540	,730	1,370

a. Dependent Variable: Employee Commitment

Based on the above test coefficients t test, then:

- Tcalc value for Leadership style variable (2.044)> compared with ttable (1,966), value of significance equal to 0,044. Then H10 rejected H1a accepted for leadership style variables, thus then the partial leadership style variables positively and significantly affect the commitment of employees
- Tcalc value for job satisfaction variable (1,998)> compared with ttable (1,966) significance value equal to 0,048. Based on the results obtained then H20 rejected and H2a accepted for job satisfaction variable, thus the partial job satisfaction variable positively and significantly affect the commitment of employees.
- Tcalc value for work environment variable (0,615) <compared with ttable (1,966) value of significance equal to 0,540. Based on the results obtained then accepted H30 and H3a rejected for work environment variables, thus the partial working environment variables have no significant effect on employee commitment.

Table 8 Hypothesis testing

Hypothesis	Statement	Score	Description
H <sub>1</sub>	There are positive and significant influences between leadership styles to employee commitment	2,044	H <sub>1a</sub> accepted H <sub>10</sub> rejected
H <sub>2</sub>	There are positive and significant influences between job satisfaction and employee commitment	1,998	H <sub>2a</sub> accepted H <sub>20</sub> rejected
H <sub>3</sub>	There are not positive and significant influences between work environment and employee commitment	0,615	H <sub>3a</sub> rejected H <sub>30</sub> accepted

### F Test (Simultaneous Test)

F test is used to find out whether the independent variables together influence or not to the dependent variable. The result of F statistic test or known as Anova test for leadership variable, job satisfaction, and work culture as independent variable to employee commitment as dependent variable can be seen in following table:

Table 9 Anova Test Result

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27,070	3	9,023	5,158	,002 <sup>b</sup>
	Residual	171,450	98	1,749		
	Total	198,520	101			

a. Dependent Variable: Employee Commitment

Anova test is done by comparing the value of  $F_{calc}$  with  $F_{table}$ . Anova test results show:

Score  $F_{calc} = 5,158$

The  $F_{table}$  Score can be seen in the distribution table F

Df numerator =  $df_1 = (4-1) = 3$

Df denominator =  $df_2 = (102-4) = 98$

Then, the obtained  $F_{table}$  of 2.69

Because  $F_{calc} > F_{table} = 5.158 > 2.64$ . So it can be concluded that the style of leadership, job satisfaction, and work environment have a simultaneous influence on employee commitment.

To see the significance of the effect of variables is by comparing the probability value or the real level of 0.05.

- If  $sig < 0.05$  then there is a significant influence
- If  $sig > 0.05$  then the influence is not significant

The significant value obtained is  $0.002 < 0.05$  it can be concluded that the variables of leadership style, job satisfaction and work environment together have a significant influence on employee commitment, so it can be concluded H4a accepted.

## CONCLUSIONS

Based on the results of the data analysis described in the previous chapter, it can be concluded as follows:

- a. Partially, leadership style variables have a positive and significant effect on employee commitment of PT. Scomi Oiltools Jakarta amounted to 0.245, meaning that leadership style can really increase the commitment of employees of PT. Scomi Oiltools Jakarta.

b. Partially, the variable of job satisfaction has positive and significant influence to the employee commitment of PT. Scomi Oiltools Jakarta amounted to 0.216, meaning job satisfaction can increase the commitment of employees of PT. Scomi Oiltools Jakarta.

c. Partially, the working environment variable has no significant effect on the commitment of the employees of PT. Scomi Oiltools Jakarta, it means the ability to work really can increase the commitment of employees of PT. Scomi Oiltools Jakarta only amounted to 0.068.

d. Simultaneously leadership style, job satisfaction and work environment have a positive and significant impact on employee commitment of PT. Scomi Oiltools Jakarta, meaning leadership style, job satisfaction, and work environment together can increase employee commitment.

Based on the above description can be explained that the employee's commitment to PT. Scomi Oiltools Jakarta, directly influenced by the style of leadership and job satisfaction, while the work environment does not affect the commitment of employees.

## RECOMMENDATIONS

1. It is recommended that the leader see the situation seen in the field and learn first the situation before taking the decision and the leader is expected to pay more attention to communication 2 (two) directions and hear all opinions before the final decision is taken.
2. The awarding of rewards and incentives as a reciprocity of the workload, especially the additional work performed by an employee should be improved and adjusted to the work load and performance of employees.
3. In order for employees to be responsible to their work it is advisable to award the employees of The Best Performance every month so that employees strive to give maximum responsibility to their work.
4. Even if the work environment partially does not affect the employee's commitment but simultaneously the work environment as part of the influence of the commitment so it should also note the work device and atmosphere of a comfortable working environment away from noise.

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