

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Types of Research

This type of research is part of the process of collecting and analyzing data which is carried out systematically and logically to achieve certain goals. This research is included in the type of quantitative research, because this research is presented with numbers. According to (Sudaryono, 2019: 98) quantitative research is a research method that aims to describe social phenomena or symptoms that quantitatively or analyze how social phenomena or symptoms that often occur are related to one another. This research method is included in the associative method which according to (Sudaryono, 2019: 653) the associative method is research that proves and finds a pattern relationship between two or more variables. In this study, the independent variables are Work From Home and Work Life Balance and the dependent variable is the performance of women employees.

3.2 Data Sources

Primary data

Primary data is data collected by researchers directly from respondents (Umi Narimawati, 2020: 13). In this study, the primary data used were in the form of a questionnaire about the application of Work From Home and Work Life Balance and its relationship with the performance of women employees at PT Perkebunan Nusantara VII. The questionnaire is a list of questions that will be answered by respondents (Umi Narimawati, 2020: 14).

3.3 Data Collection Methods

The data collection method is a technique used by researchers to obtain data. In this study, researchers used data collection methods, namely field research. According to (Sudaryono, 2019: 182) field research is research with problem

characteristics related to the background and current conditions of the subject under study and their interactions with the environment.

Questionnaire

A separate questionnaire is a list of questions whose answers will be answered by respondents (Umi Narimawati: 2020: 8). Respondents in this study were women employees of PT Perkebunan Nusantara VII. Researchers collected data by providing question sheets about the implementation of Work From Home and Work Life Balance and its relationship with the performance of women employees, to obtain some information, to support the results of this study.

Tabel 3.1
Likert Scale

Scale	Description	Score
1	Strongly agree	5
2	Agree	4
3	Neutral	3
4	Disagree	2
5	Strongly Disagree	1

Source: (Sudaryono, 2019: 160)

3.4 Population and Sample

3.4.1 Population

According to (Sudaryono, 2019: 190) Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by the researcher to study and then draw conclusions. The population in this study were employees of PT Perkebunan Nusantara VII.

3.4.2 Samples

The sample is part of the number and characteristics of the population (Sudaryono, 2019: 190). The sampling technique used in this study was purposive sampling. Sampling is based on considerations based on certain criteria (Sudaryono, 2019: 182). The sample in this study were 45 women employees at PT Perkebunan Nusantara VII with criteria based on married status.

3.5 Research Variables

According to (Sudaryono, 2019: 159) research variables are anything in the form determined by the researcher to study so that information is obtained about it, then conclusions are drawn.

3.5.1 Independent Variable

According to (Sudaryono, 2019: 162) the independent variable or dependent variable is a variable that explains or affects other variables. The independent variables in this study are Work From Home (X1) and Work Life Balance (X2).

3.5.2 Dependent Variable

According to (Sudaryono, 2019: 163) the dependent variable or dependent variable is a variable that is explained or influenced by the dependent variable or independent variable.

3.6 Operational Definition of Variables

Table 3.2

Operational Definition of Variables

Variabel	Concept Definition	Operational Definition	Indicator	Scale
Work From Home (X1)	WFH is work and tasks carried out remotely, i.e. from home need to be understood and not only in the definition category but in the practical category: working from home means experiencing two worlds (private and public, family and work) simultaneously with limited space. Gedecki et al (2018)	Employees can carry out work at home, without the need to meet with colleagues at the office.	1. Space 2. Time 3. Social Role	Interval
Work Life Balance (X2)	WLB is the extent to which individuals can equally be involved and feel satisfied with their roles in work life or outside their work. Greenhaus, Collins & Shaw (2019)	Employees face two obligations at the same time, namely as employees as well as as housewives.	1. <i>Time Balance</i> 2. <i>Involvement Balance</i> 3. <i>Satisfaction Balance</i>	Interval
Performance(Y)	Performance is the result of work and work behavior that has been achieved in completing assigned tasks and responsibilities within a certain period. Kasmir (2019)	Employees' work results can be seen from the quantity supplied by their superiors and the quality produced by their employees.	1. Quality 2. Quantity 3. Time 4. Cost 5. Emphasis 6. Supervision 7. Relations Between Employees	Interval

3.7 Test Instrument Requirements

3.7.1 Validity Test

The validity test is a concept related to the extent to which the test has measured what should be measured (Sudaryono, 2019: 315). So that with the validity test it can be seen to what extent the accuracy and accuracy of a measuring instrument in carrying out its measuring function. The validity test that will be carried out in this study is carried out by correlating the score of each indicator with the total construct score. By using the following formula:

$$r = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{(N \sum X^2 - (\sum X)^2) (N \sum Y^2 - (\sum Y)^2)}}$$

Information :

r = correlation coefficient

X = item score

Y = total score of items

N = number of respondents

The test criteria are carried out in the following manner:

1. If the probability (Sig) < 0.05 (alpha) then the instrument is valid
If the probability (Sig) > 0.05 (alpha) then the instrument is invalid
2. Testing the validity of this instrument using the SPSS program (Statistical Program and Service Solution) series 23.

3.7.2 Reliability Test

According to Suliyanto (2018) Reliability is a measuring device that shows the ability of the measuring instrument to produce reliable measurement results. In this study, the reliability test used the management of the 23 series SPSS (Statistical Program and Service

Solution). This reliability test used the Alpha Cronbach formula, namely:

$$r_{II} = \left[\frac{k}{k-1} \right] \left[1 - \frac{\sum \sigma_i^2}{\sum \sigma_i^2} \right]$$

Information :

Information :

r_{II} = instrument reliability

$\sum \sigma_i$ = the number of score variants for each item

k = number of questions

σ_i^2 = total variants

Furthermore, to interpret the r alpha of the correlation index, namely:= instrument reliability

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Table 3.3

Interpretation of r Alpha Value of Correlation Index

Correlation Value	Description
0,8000 – 1, 0000	Very high
0,6000 – 0,7999	High
0,4000 – 0,5999	Moderate
0,2000 – 0,3999	Low
0,0000 - 0,1999	Very low

Source : (Suliyanto, 2018: 76)

3.8 Test Data Analysis Requirements

3.8.1 Normality Test

The sample normality test to test whether we use sample data taken from a number of populations, first we need to do a sample normality test with the aim of whether the sample size is representative or not so that the research conclusions drawn from a number of samples can be justified. The normality test is used to determine whether the data obtained from the sample comes from a normally distributed population or vice versa. The sample normality test in this study used the non-parametric one-sample Kolmogorov Smirnov (KS) test.

The test criteria are carried out by means of:

1. Ho: Data comes from populations with normal distribution

Ha: Data from populations that are not normally distributed

2. If (Sig) > 0.50 then Ho is accepted (Normal)

If (Sig) < 0.50 then Ho is rejected (Not Normal)

3. Sample normality testing is carried out through the SPSS series 23 program.

3.8.2 Linearity Test

To find out whether the two variables are linear or not, the linearity test with the F test is used. The rule is to look at the linearity table, where if $p < 0.05$ for linearity and if $p > 0.05$ for deviation for linearity, then the two variables have a linear relationship. In this linearity test the writer uses SPSS (Statistical Program and Service Series 23).

Hypothesis Formulation:

1. Ho: A line regression model.

Ha: The regression model is not a line.

2. If the probability (Sig) > 0.05 (alpha) then Ho is accepted.

If the probability (Sig) < 0.05 (alpha) then H_0 is rejected.

3.8.3 Multicollinearity Test

According to (Sudaryono, 2018: 419), the multicollinearity test is used to determine whether there is a strong correlation or relationship between independent variables. One way to determine whether there is multicollinearity is to use a regression model. Multicollinearity test analysis can be done by comparing the coefficient of determination simultaneously with the coefficient of determination between variables. Apart from this method, multicollinearity symptoms can be identified using the VIF (Variance Inflation Factor) value. If the VIF value is > 10 then multicollinearity symptoms occur, while the element $(1-R^2)$ is called Collinierity Tolerance. This means that if the Collinierity Tolerance value is below 0.1, there will be a symptom of multicollinearity. In this multicollinearity test, the authors use SPSS (Statistical Program and Service Series 23).

Testing Procedure:

1. If the VIF value > 10 then multicollinearity symptoms occur.

If the VIF value < 10 then there are no symptoms of multicollinearity.

2. If the tolerance value < 0.1 then multicollinearity symptoms occur.

If the tolerance value > 0.1 then there are no symptoms of multicollinearity.

3.9 Data Analysis Methods

3.9.1 Multiple Linear Regression

Multiple linear regression analysis is an analysis to determine the effect of more than one independent variable on one dependent variable. According to (Sudaryono, 2019: 421) this multiple regression is an

analysis of the relationship between one dependent variable with two or more independent variables. This study uses more than 1 (one) independent variable, namely Work From Home (X1), Work Life Balance (X2) and Performance (Y). So this study uses multiple linear regression using SPSS (Program Statistics and Services series 23). The general equation for multiple linear regression used is as follows:

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

Information :

Y = Women employee performance

X1 = Work From Home

X2 = Work Life Balance

a = Constant

b1, b2 = Regression coefficient

e = confounding variable

3.10 Hypothesis Testing

This research uses hypothesis testing, namely the t test and f test.

3.10.1 Partial Test (T-Test)

This T test is to test how the influence of each independent variable individually on the dependent variable. For this test, it was carried out using SPSS (Program Statistics and Services series 23).

Hypothesis formulation:

1. Work From Home (X1) Against Women Employees Performance (Y)

Ho: There is no influence between Work From Home on the Performance of Women Employees of PT Perkebunan Nusantara VII.

Ha: There is an influence between Work From Home on the Performance of Women Employees of PT Perkebunan Nusantara VII.

Testing criteria:

Determine and compare the probability value (sig) with the α value (0.05) with the following ratio:

- 1) If the sig value < 0.05 then Ho is rejected
- 2) If the sig value > 0.05 then Ho is accepted
- 3) Determine the conclusions and results of hypothesis testing.

2. Work Life Balance (X2) Against Women Employees Performance (Y)

Ho : There is no influence between Work Life Balance on the Performance of Women Employees of PT Perkebunan Nusantara VII.

Ha : There is an influence between Work Life Balance on the Performance of Women Employees of PT Perkebunan Nusantara VII.

Test Criteria:

Determine and compare the probability value (sig) with the value of (0.05) with the following comparison:

- 1) If the value of sig < 0.05 then Ho is accepted
- 2) If the value of sig > 0.05 then Ho is rejected

3) Determine the conclusions and results of hypothesis testing

3.10.2 Partial Test (F-Test)

The F test is a test of the significance of the equation used to determine how much influence the independent variables (X1, X2) simultaneously have on the dependent variable (Y). This data management uses SPSS (Statistics Program and Service Series 23).

Hypothesis Formulation:

Test F: Work From Home (X1) and Work Life Balance (X2) on
Women Employee Performance (Y)

Ho : Work From Home (X1) and Work Life Balance (X2) have no
significant effect on Women Employee Performance (Y)

HI : Work From Home (X1) and Work Life Balance (X2) have a
significant effect on Women Employee Performance (Y)

Testing criteria:

Testing is done by comparing the significant level of the calculation results with a significant level of 0.05 (5%) with the following criteria:

1) If F count (sig) $\geq \alpha 0.05$ then Ho is accepted and Ha is rejected

2) If F count (sig) $< \alpha 0,05$ then Ho is accepted and Ha is rejected

3) Determine the conclusions and results of hypothesis testing.