CHAPTER IV

RESEARCH METHOD

4.1 RESEARCH METHOD

4.1.1 RESEARCH SUBJECT

a. Population

The population used for this research was employee of Super SA Roof-Tile Company.

b. Sample and sampling procedure

The samples of the research were employee of Super SA Roof-Tile Company. Considering the limitation of time and cost, the research took approximately 50 respondents. It used a simple random sampling as sampling method in which each element has the same chance of being selected.

4.1.2 RESEARCH INSTRUMENT

a. Interview

The method conducted was asking question directly to the employee or company's party

b. Questionnaire

The writer made a list of questionnaires that contained some question to be answered to get information.

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c. Observation

The writer observed directly the company's activity

4.2 DATA NEEDED

a. Primary data

The information was directly collected from Super SA Roof-Tile Company and respondents.

b. Secondary data

Secondary data was the information collected from literature as a complementary data.

4.3 RESEARCH SETTING

The research was conducted at Super SA Roof-Tile Company.

4.4 TECHNIQUE OF DATA ANALYSIS

a. Qualitative analysis

The analysis was based on the information from the respondents and the questionnaire result used to find out the influence of motivation to the work productivity of employee.

Here, the analysis will be explained in the table form that shows the description of:

a) Respondents' identity (age, gender, marital status and loyalty tq the company).

b) Motivations factors (psychological needs, safety needs, social needs, esteem needs and self actualization needs).

c) Factor of productivity (quality of work, quantity of work, ability to the work, knowledge of employees, relationship of employee and safety work of employee).

b. Quantitative analysis

Quantitative analysis is to know if there is a positive relation or not between motivation and work productivity.

4.5 QUALITATIVE ANALYSIS

4. 5.1 Qualitative analysis of respondent's identity

1. Age

Questionnaire distribution toward 50 respondents, and the result is:

Table 4. 1

Frequency of Age

Age	Frequency	Percent
< 20 years old	16	32%
21 – 30 years old	18	36%
31 – 40 years old	9	18%
> 40 years old	7	14%
Total	50	100%

Source: Primary Data

Table 4. 1 shows that the employees whose age is less than or equal 20 years old is 32%, 21 – 30 years old is the high frequencies with 36%, 31 – 40 years old is 18% and more than 40 years old is 14%.

2. Gender

Table 4. 2

Frequency of Gender

Gender	F	Percent
Male	29	58%
Female	21	42%
Total	50	100%

Source: Primary Data .

Table 4. 2 shows that male were 58% and female 42%. So, the majority of employee at Super SA was male.

3. Marital status

Table 4. 3

Frequency of Marital Status

Marital Status	F	Percent
Married	31	62%
Single	19	38%
Total	50	100%

Source: Primary Data

Table 4. 3 shows that 62% of employees were married and 38% single.

4. Loyalty to the company

Table 4. 4

Frequency of Loyalty

Loyalty to the Company	F	Percent
2 years	9	18%
3 years	28	56%
> 4 years	13	26%
Total	50	100%

Source: Primary Data

Table 4. 4 shows that 18% of employees have been working for 2 years, 56% of employees have been working for 3 years, and 26% of employees have been working for 4 years.
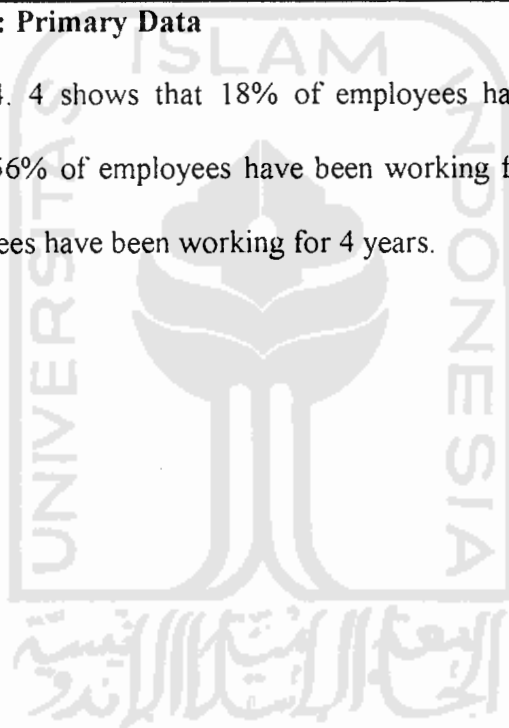
4. 5. 2 Qualitative Analysis of Motivation

1. Psychological Needs

Psychological needs are the important factors of motivation or the most fundamental of all needs. A person deprived of everything would want to satisfy these basic needs first. From the questionnaire, psychological needs consisted of the salary that employees accept nowday; the salary covers all the need and the growth of income. And the result is:

Table 4. 5

Conception of Employee To the Psychological Needs

	F	Percent
Strongly agree	23	46%
Agree	18	36%
Neither agree nor disagree	7	14%
Disagree	2	4%
Strongly disagree	-	-
Total	50	100%

Source: Primary Data

Table 4. 5 shows that the respondents gave answer for strongly agree is 46%, agree is 36%, neither agree nor disagree is 14% and disagree is 4%. So, the company's to fulfillment of the psychological needs to the employees is good.

2. **Safety Needs**

Table 4. 6

Conception of Employee To the Safety Needs

	F	Percent
Strongly agree	22	44%
Agree	23	46%
Neither agree nor disagree	4	8%
Disagree	1	2%
Strongly disagree	-	-
Total	50	100%

Source: Primary Data

Table 4. 6 shows that 44% of respondents were strongly agree, 46% agree, 4% neither agree nor disagree and 2% disagree. The data shows that respondents found this safety needs are good enough.

3. **Social Needs**

Table 4. 7

Conception of Employee To the Social Needs

	F	Percent
Strongly agree	22	44%
Agree	23	46%
Neither agree nor disagree	5	10%
Disagree	-	-
Strongly disagree	-	-
Total	50	100%

Source: Primary Data

Table 4. 7 shows that 44% were strongly agree, 46% agree and 10% neither agree nor disagree.

Factors of social need related to the interaction with other and also reciprocal relationships between superior and subordinate. So, the data shows that the work atmosphere and work relationship in the company is good.

4. **Esteem Needs**

Table 4. 8

Conception of Employee To the Esteem Needs

	F	Percent
Strongly agree	23	46%
Agree	22	44%
Neither agree nor disagree	5	10%
Disagree	-	-
Strongly disagree	-	-
Total	50	100%

Source: Primary Data

Table 4. 8 shows 46% of respondents were strongly agree, 44% agree and 10% neither agree nor disagree.

People need to fell that they are important, and self-esteem and self-respect are vital in the process. The appreciation that given by company can increase the work performance of individual. From the data above shows appreciation that given by company is good.

5. Self Actualization Needs

Table 4. 9

Conception of Employee To the Self-Actualization Needs

	F	Percent
Strongly agree	29	58%
Agree	21	42%
Neither agree nor disagree	-	-
Disagree	-	-
Strongly disagree	-	-
Total	50	100%

Source: Primary Data

Table 4. 9 shows the employees' respond for strongly agree is 58% and agree is 42%. So, the company gave the opportunity to the employees to develop their ability.

6. Total of Motivation Factors

Table 4. 10

Conception of Employee To the Motivations

	F	Percent
Strongly agree	24	48%
Agree	21	42%
Neither agree nor disagree	4	8%
Disagree	1	2%
Strongly disagree	-	-
Total	50	100%

Source: Primary Data

Table 4. 10 shows 48% of respondents were strongly agree, 42% agree, 8% neither agree nor disagree and 2% disagree. The table above shows motivation that given by company is good.

4. 5. 3 Qualitative Analysis of Work Productivity

1. **Quality of Working**

Table 4. 11

Conception of Employee To the Quality of Working

	F	Percent
Very good	29	58%
Good	21	42%
Neutral	-	-
Bad	-	-
Very bad	-	-
Total	50	100%

Source: Primary Data

Table 4. 11 show that the employees' quality in working is very good. Quality in here consists of the time that needed by employee to finish the job, accuracy, and awareness in doing the job, the work result and the skill of employee. The table above shows that 58% for quality of working is very good and 42% is good.

2. Quantity of Working

Table 4. 12

Conception of Employee To the Quantity of Working

	F	Percent
Very good	14	28%
Good	26	52%
Neutral	9	18%
Bad	1	2%
Very bad	-	. -
Total	50	100%

Source: Primary Data

Table 4. 12 shows that the quantity of employee is good that is 52%; very good 28%, neutral 18%, and only 2% is bad.

3. Ability to Do Work

Table 4. 13

Conception of Employee To the Ability To Do Work

	F	Percent
Very good	24	48%
Good	23	46%
Neutral	2	4%
Bad	1	2%
Very bad	-	-
Total	50	100%

Source: Primary Data

Table 4. 13 shows that the employees' ability to do work is 48%, which very good, 46% is good, 4% is neutral, and 2% is bad. The ability in here including the work result of employee with the

minimum control, the ability to give initiative, the ability of employee to do jobs outside their ability and discipline of employee. So, as a whole the ability of employee is very good.

4. Knowledge of Employee

Table 4. 14

Conception About Knowledge of Employee

	F	Percent
Very good	24	48%
Good	26	52%
Neutral	-	-
Bad	-	-
Very bad	-	-
Total	50	100%

Source: Primary Data

Table 4. 14 shows that the employees' knowledge 48%, which is very good, and 52%, which is good. This factor of employees' knowledge considered of the knowledge of employee to understand work procedures, comprehension in using companies' tools and equipment, and the technical knowledge that related to the work. So, employees' knowledge at Super SA Company is good.

5. Relationship of Employee

Table 4. 15

Conception About Relationship of Employee

	F	Percent
Very good	26	52%
Good	23	46%
Neutral	1	2%
Bad	-	-
Very bad	-	-
Total	50	100%

Source: Primary Data

Table 4. 15 shows that 52% of respondents gave the very good respond for the relationship at Super SA Company, 46% is good and only 2% is neutral.

6. The Work Safety of Employee

Table 4. 16

Conception About the Work Safety

	F	Percent
Very good	26	52%
Good	23	46%
Neutral	1	2%
Bad	-	-
Very bad	-	-
Total	50	100%

Source: Primary Data

Table 4. 16 shows that the work safety of employee 52% which is very good, 46% which is good, and 2% is neutral. So, employees care about the safety work factors.

7. Totality of Work Productivity

Table 4. 17

Productivity of Employee

	F	Percent
Very good	24	48%
Good	24	48%
Neutral	2	4%
Bad	-	-
Very bad	-	-
Total	50	100%

Source: Primary Data

The table above shows that the totality of work productivity of employee is very good. In the percentage, respondents give the same percent that is between answered very good and good are 48% and 4% is neutral.

4.6 QUANTITATIVE ANALYSIS

4. 6. 1 Multiple Linier Regressions

An analysis of association that simultaneously investigates the effect of independent variables to the dependent variable.

And the formula:

$$Y = a \pm b_1 X_1 + b_2 X_2 + \dots b_n X_n$$

Samsubar Saleh (1986; 113)

Where:

a = Constant value

b = Coefficient of multiple regression

Y = Dependent variable

X = Independent variable

To find out the coefficient of b, the researcher used least square method.

$$\Sigma Y = n \cdot a + b \Sigma X$$

$$\Sigma x n Y = a \Sigma X n + b \Sigma X n^2$$

From the data processing for the multiple linier regression method, it can be inferred the equation below:

$$Y = 37{,}828 + 0{,}356 X_1 + 0{,}323 X_2 + 0{,}0446 X_3 + 0{,}847 X_4 + 1{,}633 X_5$$

Where:

a = constant value

b = coefficient of multiple regression

Y = the work productivity of employee

X_1 = the psychological needs

X_2 = the safety needs

X_3 = the social needs

X_4 = the esteem needs

X_5 = the self-actualization needs

And the meaning of each coefficient:

1) 37,828 is a constant value

    The estimate value of work productivity of employee that is not affected by all variables in the model $(X_1 X_2 X_3 X_4 and X_5)$, but is affected by the other variables outside the model.

2) When the psychological needs increased by 1%, the work productivity of employee increased by 0,356%, vice versa.

$$+0,356 = \frac{\Delta Y}{\Delta X_1}$$

3) When the safety needs increased by 1%, the work productivity of employee increased by 0, 323%, vice versa.

$$+0,323 = \frac{\Delta Y}{\Delta X_2}$$

4) When the social needs increased by 1%, the work productivity of employee increased by 0,446%, vice versa.

$$+0,446 = \frac{\Delta Y}{\Delta X_3}$$

5) When the esteem needs increased by 1% the work productivity of employee increased by 0,847%, vice versa.

$$+0{,}847 = \frac{\Delta Y}{\Delta X_4}$$

6) When the self-actualization needs increased by 1%, the work productivity of employee increased by 1,633%, vice versa.

$$+1{,}633 = \frac{\Delta Y}{\Delta X_5}$$

4. 6. 2 Test of Hypotheses

Hypotheses are temporary conclusion or statement that may not be true.

- **Hypotheses test 1.**

This research used F test or ANOVA to test hypotheses 1.

H_O = means that the independent variable will not affect significantly to the dependent variable.

H_A = means that the independent variable will affect significantly to the dependent variable.

If H_O is rejected, it can be concluded that the independent variable will affect significantly to the dependent variable.

Based on the probability it can be concluded that:

H_O Will be accepted if probability > 0,05

H_A Will be accepted if probability < 0,05

From the result of SPSS, the F test has the amount of 11,368 with the level of significance at 0,000. It means that the probability is < 0,05. Means H_O rejected H_A is accepted or the

independent variable (motivations) will affect significantly to the dependent variable (the work productivity of employee).

- **Hypotheses test 2.**

This research used the T test to test the hypotheses 2.

H_O = means that the independent is not a dominant contribution to the dependent variable.

H_A = means that the independent is a dominant contribution to the dependent variable.

The test through T test is to compare the T value with the T table in significance level at the 0,05. If the result show that:

1. T values > T table, it means H_O is rejected and H_A is accepted or the independent variable is a dominant contribution to the dependent variable.

2. T values > T table, it means H_O is accepted and H_A is rejected or the independent variable is not a dominant contribution to the dependent variable.

Based on the probability it can be concluded that:

H_O Will be accepted if probability > 0,05

H_A Will be accepted if probability < 0,05

From the result of SPSS program, it can be found that:

a. Psychological needs (X1)

T value is 1,926 in the level of significance at 0,061 and the T table is 2,201.

Means: H_O is accepted, H_A is rejected

Conclusion: the psychological needs are not a dominant

contribution to the work productivity of employee.

b. Safety needs (X2)

T value is 2,062 in the level of significance at 0,045 and

the T table is 2,201.

Means: H_O is accepted, H_A is rejected

Conclusion: the safety needs are not a dominant

contribution to the work productivity of employee.

c. Social needs (X3)

T value is 2,378 in the level of significance at 0,022 and

the T table is 2,201.

Means: H_O is rejected, H_A is accepted

Conclusion: the social needs are a dominant contribution

to the work productivity of employee.

d. Esteem needs (X4)

T value is 2,901 in the level of significance at 0,006 and

the T table is 2,201.

Means: H_O is rejected, H_A is accepted

Conclusion: the esteem needs are a dominant contribution

to the work productivity of employee.

e. Self-actualization needs (X5)

T value is 3,047 in the level of significance at 0,004 and the T table is 2,201.

Means: H_O is rejected, H_A is accepted

Conclusion: the self-actualization needs are a dominant contribution to the work productivity of employee.

4. 6. 3 Durbin Watson Test

This statistic measures the correlation of each residual and the residual for the time period immediately preceding the one of interest. Durbin Watson test is 1,906. It means that there is no time lag. Because the change of independent variable will affect the dependent variable.
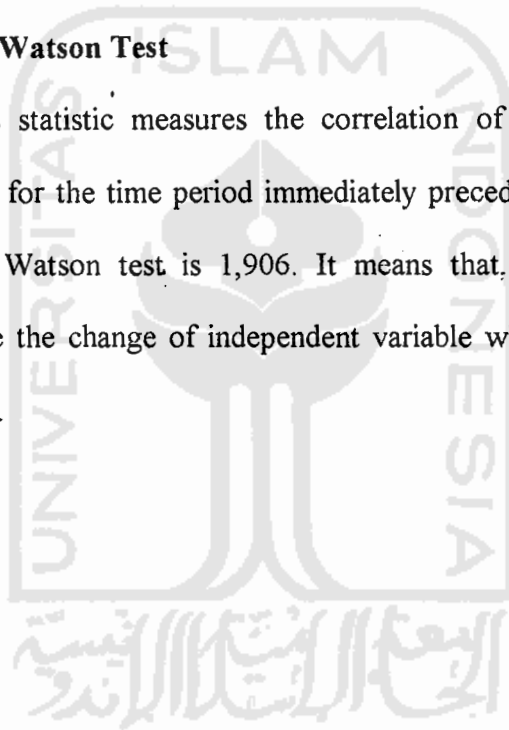
4. 6. 4 Coefficient of Correlation

To know the strength relationship between dependent variable and independent variable can use coefficient of correlation. The correlation between motivation and productivity will become stronger when the value **R** is nearly −1 or +1.

On the other hand, the correlation between motivation and productivity will be weaken if the value of **R** (coefficient of correlation) is nearly 0.

Formula:

$$R = \frac{n\sum XY - \left(\sum X\right)\left(\sum Y\right)}{\sqrt{\left[n\sum X^2 - \left(\sum X\right)^2\right]\left[n\sum Y^2 - \left(\sum Y\right)^2\right]}}$$

The result of SPSS for R^2 is 0,564 or 56,4%. It means that, the correlation between motivation and productivity is stronger and the variation of psychological needs, safety needs, social needs, esteem needs and self-actualization needs will explain around 56,4% to the productivity of employee while 43,6% goes to the other variables outside the model.