CHAPTER III
RESEARCH METHODOLOGY

Research is conducted in a systematic activity to process the data and conclude by using certain methods to find answers to the problems faced. The method should be according to the object, so the research can be run systematically. This chapter discusses the type and design of the study, the research variables, population and sample, data collection methods, testing and data analysis methods.

A. Types of Research

In this study, the authors used a quantitative approach. Research using a quantitative approach emphasizes the analysis of numerical data (numbers) are processed with statistical methods.[1] According to Arikunto, quantitative research is required using a lot of numbers, ranging from data collection, interpretation of data, as well as the appearance of the result.[2]

Meanwhile, according to Sugiyono quantitative method is quantitative research methodology can be interpreted as a method that is based on the philosophy of positivism, is use examine the or certain sample population, the sampling technique is generally conducted randomly, using the data in collecting research instrument, data analysis is form of quantitative/ statistics in order to test the hypotheses that have been set.[3]

B. Identification of Research Variables

The variable is the concept of attribute properties are on the subject of research that can vary quantitatively and qualitatively.[4] The variables used in this study consistof two kinds of variables, dependent variable and independent variable.

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[1]Saifuddin Azwar, *Metode Penelitian* (Jogjakarta: Pustaka Pelajar, 2001), p. 5

[2]Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik* (Jakarta: Rineka Cipta, 2006), p. 12

[3]Sugiyono, *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R & D* (Bandung: Alfabeta, 2012), p. 14

[4]Saifuddin Azwar, *Metode Penelitian*, p. 59

1. Dependent Variable: the study variables were measured to determine the magnitude of the effect or influence of other variables.[5] The dependent variable in this study is optimism in working at PT. Nusantara Building Industries, District Karangtengah Demak.

2. Independent Variable: a variable whose variations affect other variables, or variables that influence on other variables would like to know.[6] The independent variable in this study is religion maturity.

C. Definition of Operational Variables

The definition of an operational variable is a definition of the variables defined by the characteristics of the variables that can be observed.[7] The definition of this Operational is put forward in order to avoid misunderstandings regarding the data to be collected and to avoid the ambiguity of the study variables. The definitions of operational variables of this study are as follows:

1. Religious Maturity

Religious Maturity is a situation and ability to understand, appreciate, and apply the noble values of their religion in everyday life. He embraced religion is exactly the best. Because of this, he tried to be a good religion. The belief displayed in attitude and behavior that reflect religious adherence to his religion.[8] As for the religious aspect of maturity to be measured in this study is the use of religion maturity scale, namely:

a) Differentiation is translation and differential of religion, or the discovery of truth based on facts and religion teachings. Indicator of this aspect is observational, reflective, critical, openminded, and objective.

b) Dynamic characteristics, is the ability to control and direct the religious motives and activities of an individual. This aspect is an indicator of self-control, behavior and controlled life.

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[5] Ibid., p. 59
[6] Ibid., p. 62
[7] Ibid., p. 74
[8] Jalaluddin, *Psikologi Agama* (Jakarta: PT Grafindo Persada, 2004), cet 8, p. 119

c) Moral consistency is alignment behavior with moral values consistently. Indicator of this aspect is to align behavior with religious moral values.

d) Comprehensive, there are understanding and thorough applications of religion in everyday life. Indicator of this aspect is being able to accept other people's opinions.

e) Integral, it is ability to integrate or unite religion with all other aspects of life include science. Indicator of this aspect is to unite religion with aspects of life.

f) Heuristic, which is always evolving as the belief that is believed to be confirmed or help find a more valid belief. Indicator of this aspect is aware of its limitations in religion and always trying to improve the understanding of the religion.

2. Optimism in the Work

Optimism in the work is a belief in individuals who are in a working relationship, and consider it positively that occurred in his life, so it will not affect other activities, believes that the adverse events that occurred only temporary. The aspect of optimism in the work that will be measured in this study is to use the optimism scale, namely:

a) Permanence aspectexplains matters related to the time that is temporary or permanent. Individuals who are optimistic when explaining the causes of bad events are temporary, whereas pessimistic individuals would be permanent. Indicators of permanence aspects, namely: to have a future, to have the confidence to go forward, to have the spirit to flourish.

b) Pervasiveness aspect explains the influence of an event on a person's life, it means the individual in explaining the cause of a specific and global events. If the optimistic individual finds the adverse event it will be explained specifically, pessimistic individuals while explaining globally. Indicator of the pervasiveness aspects, namely:

able to manage the problem; have a purpose in life, able to accept the situation as an employee.

c) Personalization aspect explains about cause of event. Individuals in explaining who is the cause of an event if the factors themselves (internal) or others (external). Individuals who are optimistic are less likely to blame themselves as the cause of an adverse event, whereas pessimistic individuals tend to blame themselves absolutely. Indicators of personalization aspects, namely: to have self-esteem, trust in his own abilities, like the self, able to control the feeling.

D. Correlation between Research Variables

The correlation between variables is the most important thing to be seen in a study. In the correlation of these variables influence we will see a variable in influencing other variables. The variables of this study is optimism in the work as a dependent variable, where as religion maturity as independent variables.
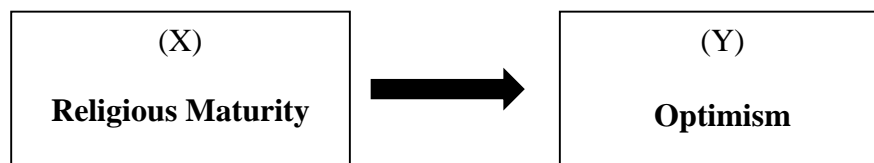
It can be seen as follows:

(X) Religious Maturity	→	(Y) Optimism

Image Interpersonal Variables

Caption:

(X) The independent variable

(Y) The dependent variable

E. Population and Sample

1. Population

The population is the subject of research.[9] According to Sugiyono, population is generalization regions consist of objects/subjects that have qualities and characteristics are determined by the researcher to be studied and take the conclusions. In social studies, the population is defined as a group of subjects to be

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[9]Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik*, p. 108

subjected to generalize the results of the study.[10] Research with population conducted by researchers if want to see population overall. If the subject of research is in large numbers or lots, the study population as a whole would be difficult to do.

The populations in this study were employees of PT. Nusantara Building Industries, District Karangtengah Demak. Characteristics of the population that will be used in this study were active employees working at PT. Nusantara Building Industries, District Karangtengah Demak.

2. **Samples**

The sample is part of the population, who has the characteristics possessed by the population.[11] Whether a sample is good representation for the population is highly dependent on the extent to which the characteristic of the samples was the same as the characteristics of the population.[12]

In this study using the technique model *purposive sampling*, it is sampling technique based on the particular characteristics that are considered to have a close relation with the previously known population. In other words, the samples were contacted to adjust on specific criteria that are applied based on the research objectives.[13]

The total employees in PT. Nusantara Building Industries as many as 1000 people, while the sample of the population taken as many as 100 employees who have the categories or characteristics of the attitude of optimism in the work. Just for sign if the subject is less than 100 better taken all that research is the population study. Furthermore, if it is a large subject it can be taken between 10-15 %, or 20 - 25 % or more.[14]

F. **Method of Data Collection**

Data collection methods are the methods used to obtain the data under study. Thus, the method of data collection is absolutely necessary in a study, because the study requires accurate data and appropriate. Data will be collected using

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[10]Saifuddin Azwar, *Metode Penelitian,* p. 77
[11] Ibid., p. 79
[12] Ibid., p. 80
[13]Nurul Zuriah, *Metodologi Peneitian Sosial Dan Pendidikan: Teori-Aplikasi* (Jakarta : Bumi Aksara, 2006), p,124
[14]Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik*, p. 107

psychological scales. The psychological scales Always refers to measuring instruments aspects or affective attributes. The scale consists of question list or statement filed in order to be answered by the respondent and the respondent's answer is the interpretation of the projections of the respondent.

The reason researchers used psychological scale as the data collection is as follows:

1. Data used in the form of a psychological construct or concept that describes the personality of the individual.

2. Questions or statements as stimulate the behavioral indicators to elicit a response that is a reflection of the subject that is not realized by the respondent.

3. Respondents were not aware of the direction answer and actually conclusion revealed by the question.[15]

Azwar said that the characteristics of scale as a measure of psychological namely:

1. The stimulus is a question or statement that does not directly reveal the attributes to be measured by indicators of the questions attributes.

2. SubjectsAnswer of the new item is a part of many indications of the attributes measured, while the final conclusion as a new diagnosis can be achieved when all the answers have responded.

3. Response of the subject is not classified as answer "true" or "false". All answers are acceptable so long given honestly and sincerely. However, different answers will be interpreted differently.[16]

This scale consists of a set of statements which are those of the research subjects. Part of this statement shows that support the opinion (favorable) and others show that the statement does not support the opinion (unfavorable). An example of this scale is application of a *Likert scale*. Likert scale is a scale that can be used to

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[15]Saifuddin Azwar, *Penyusunan Skala Psikologi,* (Yogyakarta: Pustaka Pelajar, 2006), p. 5

[16]Ibid, p. 3

measure the attitudes of opinion, and perception of an object or a particular phenomenon.[17]

The scale used in this study is religion maturity scale and the scale of optimism. Presentation scale given in direct and closed. At the scale of each item supply response categories are Very Suitable (VS), Suitable (S), Unsuitable (U), and Very Unsuitable (VUS). As for giving the score is:

a. Favorable Item

Answer of Very Suitable (VS) the score is 4, category of Suitable (S) the score is 3, category of Unsuitable (U) the score is 2, and to answerof Very Unsuitable (VUS) the score is 1.

b. Unfavorable Item

Category of Very Unsuitable (VUS) the score is 4, Unsuitable (U) answer the score is 3,Suitable (S) response the score is 2, and answers Very Suitable (VS) answer the score is 1.

Table1. TheAnswer Evaluation

Answer	**Favorable**	**Unfavorable**
	Symbol	
Very Suitable (VS)	4	1
Suitable (S)	3	2
Unsuitable (US)	2	3
Very Unsuitable (VUS)	1	4

Thus blueprint religious maturity scale is synthesis fromcertainty aspects of religious maturity proposed by Allport. This scale is a scale that researcher's adoption from previous scale study.[18]

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[17]Syofian Siregar, *Statistika Deskriptif untuk penelitian: dilengkapi perhitungan manual dan aplikasi SPSS versi 17*, (Jakarta: Rajawali Pers, 2010), p. 138

[18] Look at Heni Tri Wahyuni thesis, *Hubungan antara Kematangan Beragama Dengan Sikap Terhadap Pergaulan Bebas pada Anak Jalanan di Rumah Singgah Ahmad Dahlan Yogyakarta*, *skripsi, (*Universitas Islam Negeri Sunan Kalijaga: Yogyakarya, 2008)

Table2. Blue Print the Scale of Religious Maturity before Experience

No	Aspect	Indicator	Total Item		Total
			Favorable	Unfavorable	
1	Differentiation	can take the ratio as one of region of life	1, 8, 9,	-	3
2	Dynamic characteristic	Self-controlling	11, 14,	10, 5	7
		behave and life control	2, 18	19	
3	Moral consistent	To adjust the behavior and moral region	7, 12, 15	22	4
4	Comprehensive	Accept other opinion	20, 21, 23, 28	25	5
5	Integral	To units the Region and life aspect	16, 24, 30, 29	4, 3	6

| 6 | Heuristic | To realize disable and effort to Increase the region knowledge | 6, 17, 26 | 13, 27 | 5 |
| **Total** | | | | | **30** |

Source: primary data

Table3. Blue Print the Scale of OptimismbeforeExperience

No	Aspect	Indicator	Total Item		Total
			Favorable	**Unfavorable**	
1	Permanence *(duration)*	Hopeful	60, 42	3, 40	14
		Believing	15	61	
		Spirit to develop	29, 17, 13	23, 21, 8, 2, 1	
2	Pervasiveness *(influence)*	Rational thinking	37, 57, 31, 26	45, 38, 56, 18	22
		Managerial problem	28, 9	27, 16, 10, 6	
		Life purpose	32	33	
		Received the condition in work	30, 14, 11	46, 22, 4	

3	Personalization *(resource)*	Appreciate to the self	48, 36, 24, 7	50, 62, 5	26
		Believe the self-competent	43, 34,	51, 59	
		Loving the self	52, 49, 35, 12	54, 25, 41	
		Handle the feeling	47, 39, 58, 19	55, 53, 44, 20	
Total					**62**

Source: primary data

G. Test Instrument Validity and Reliability

Implementation of the trial was held on 15-20 April 2014. Instruments are testedto 20 respondents of factory workers in Semarang which have similar characteristics to the actual respondents.

1. Validity

Validity has meaning how far precision and accuracy of a measuring instrument in performing measuring functions. A test or measurement instrument can be said have high validity if the measurement instruments do inmeasuring functions, or giving outcome measure that suitable for the purpose of doing these measurements. Instead, the test result of data that not relevant with the purpose of measurement is said to be a test that has low validity.[19]

It used the construct validity based on the theoretical aspects of the construction will be measured. The validity technique test used*product moment* correlation technique of *Karl Person.*

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[19]Saifuddin Azwar, *Penyusunan Skala Psikologi,* p. 5

a. Results of Validity Religious Maturity Scale Testing

The results ofreligion maturity scale measurement trialscarried out with *SPSS version 16.0.For Windows* shows that the 30 items were tested contained 28 valid items with validity coefficients range from 0.445 to 0.788 and the 2 items are not valid with coefficients range from 0.023 to 0.290. With basic determining if the significance correlation coefficient is < 0.001so the item is valid, in other line, if the significance correlation coefficient > 0.001so the item is not valid. Then the invalid item is number 29, 30. The complete calculation can be seen in the attachment ofreligion maturity scale validity test. Items that fall and the items are eligible can be seen in the following table:

Table4. Result of Religion Maturity Scale Testing

No	Aspect	Indicator	Total Item		Total
			Favorable	**Unfavorable**	
1	Differentiation	can take the ratio as one of region of life	1, 8, 9,	-	3
2	Dynamic characteristics	Self-controlling	11, 14,	10, 5	7
		behave and life control	2, 18	19	
3	Moral consistent	To adjust the behavior and moral region	7, 12, 15	22	4

4	Comprehensive	Accept other opinion	20, 21, 23, 28	25	5
5	Integral	To units the Region and life aspect	16, 24, *,*	4, 3	4
6	Heuristic	To realize disable and effort to Increase the region knowledge	6, 17, 26	13, 27	5
Total					**28**

Description:

Symbol (*) is not valid item

On the religion maturity scale after conducting the assessment, throwing 2 items are not valid, in consideration of each indicator is adequately represented by the valid items. Valid items then reassembled and used as a data collection tool, so that the religion maturity scale statement amounted to 30 items, and added 2 more items to complete one of indicator. So, in religion maturity scale totaled 30 items. The new distribution of religion maturity scale presented byresearcher in the following table:

Table5. New Item of ReligiousMaturityScale

No	Aspect	Indicator	total Item		Total
			Favorable	**Unfavorable**	
1	Differentiation	can take the ratio as one of	1, 8, 9,	-	3

		region of life			
2	Dynamic characteristics	Self-controlling	11, 14,	10, 5	7
		behave and life control	2, 18	19	
3	Moral consistent	To adjust the behavior and moral region	7, 12, 15	22	4
4	Comprehensive	Accept other opinion	20, 21, 23, 28	25	5
5	Integral	To units the Region and life aspect	16, 24, (30), (29)	4, 3	6
6	Heuristic	To realize disable and effort to Increase the region knowledge	6, 17, 26	13, 27	5
Total					**30**

Description:

*Symbol ( ) is new **item***

b. Results of Optimism Scale Test

The results of measurements the optimism scale test is also carried out with *SPSS version 16.0. For Windows* shows that of the 62 items tested contained 42 valid items with validity coefficients range from 0.444 to 0.782 and 20 items invalid with validity coefficients range from -0.325 to 0.439. On the basic determining if the significance correlation coefficient <0.001so the item is valid, in other side, if the significance correlation coefficient> 0.001so the item is invalid. Items that are not valid are the numbers 2, 4, 5, 6, 7, 8, 10, 11, 12, 18, 19, 23, 24, 29, 30, 36, 37, 40, 42, 47. The complete calculation can be seen in the validity optimism work scale questioner. Items that fall and the items are eligible can be seen in the following table:

Table6. Result of Optimism Scale Testing

No	Aspect	Indicator	Total Item		Total
			Favorable	Unfavorable	
1	Permanence (*duration*)	Hopeful	60, *	3, *	8
		Believing	15	61	
		Spirit to develop	*, 17, 13	*, 21, *, *, 1	
2	Pervasiveness (*influence*)	Rational thinking	*, 57, 31, 26	45, 38, 56, *	15
		Managerial problem	28, 9	27, 16, *, *	
		Life purpose	32	33	

		Received the condition in work	*, 14, *	46, 22, *	
3	Personalization *(resource)*	Appreciate to the self	48, *, *, *	50, 62, *	19
		Believe the self-competent	43, 34,	51, 59	
		Loving the self	52, 49, 35, *	54, 25, 41	
		Handle the feeling	*, 39, 58, *	55, 53, 44, 20	
Total					**42**

Description:

Symbol (*) is not valid item

While on the working optimism scale after doing the assessment, throwing 20 invalid items, with consideration of each indicator is adequately represented by the valid items. Then the valid items are reassembled and used as a data collection tool, so on optimism in the work scale amounted to 42 statement items, and added 3 more items as a completeone of the indicators. So, on optimism in the work scale amounted to 45 items. Distribution of new optimism in work scale is presented researcher in the following table:

Table7. New Item Optimism Scale

No	Aspect	Indicator	Total Item		Total
			Favorable	**Unfavorable**	
1	Permanence *(duration)*	Hopeful	40	2, (44)	10
		Believing	6, (43)	41	
		Spirit to develop	8, 4	10, 1	
2	Pervasiveness *(influence)*	Rational thinking	37, 16, 13	26, 21, 36	16
		Managerial problem	15, 3	14, 7	
		Life purpose	17, (45)	18	
		Received the condition in work	5	27, 11	
3	Personalization *(resource)*	Appreciate to the self	28	30, 42	19
		Believe the self-competent	24, 19	31, 39	
		Loving the self	32, 29, 20,	34, 12, 23	

		Handle the feeling	22, 38	35, 33, 25, 9	
Total					**45**

Description:

      *Symbol ( ) is new **item***

2. Reliability

Reliability is the translation of a word that has its origin word rely and abilities. Measurement has high reliability is referred to as a reliable measurement. Although reliability has various names such as reliability, dependability, constancy, stability, consistency, and so on, but the main idea that contained in the concept of reliability is extent to which the results of the measurements can be trusted.[20]

Reliability indicates the consistency and stability from the results of a particular measurement scale.[21]Reliability test is a measure that indicates the how far the instrument is said to be reliable or otherwise indicate how far the results of these measurements are consistent when measuring two times or more at the same symptoms.[22] The results of measurement can be trusted if the implementation of measures in recent times against the same group of subjects who obtained relatively similar results, as long as that measured aspects within the subject have not changed.

Table 8. Reliability Statistics of Religious Maturity Scale

Reliability Statistics

Cronbach's Alpha	N of Items
.684	28

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[20]Saifuddin Azwar, *Penyusunan Skala Psikologi*, p. 99

[21] Jonathan Sarwono, *Metode Penelitian Kuantitatif dan Kualitatif,* (Yogyakarta: Graha Ilmu, 2006), p. 100

[22]Syofian Siregar, *Statistika Deskriptif untuk penelitian: dilengkapi perhitungan manual dan aplikasi SPSS versi 17,* p. 173

Table9. ReliabilityStatisticsofOptimism Scale

Reliability Statistics

Cronbach's Alpha	N of Items
.932	42

3. Methods of Data Analysis

The method of data analysis is the preferred way to process data that have been obtained. Processing of the data that has been obtained is intended as a way to organize the data such that it can be read and can be interpreted.[23]

In this study, the data obtained will be analyzed using statistical methods, because the data was obtained is numeric data so with statistical method can give objective results. In addition, statistical methods can be drawn the conclusion and be accounted by the calculation of the systematic, thorough and precise.

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[23]Saifuddin Azwar, *Metode Penelitian*, p. 123