CHAPTER III
RESEARCH METHOD

A. The Object and Subject of The Research

This research was conducted based on phenomena, problems and, social dynamics that happened at Muhammadiyah Orphanage D.I. Yogyakarta province. Therefore this research uses phenomenology concept. This indicates that the researcher must go directly to the field to dig deep information in order to know the phenomenon that in detail.

Phenomenological study is a study which describes the meaning of several individual lived experiences from a concept or phenomenon. The basic purpose of phenomenology is to reduce the individual's experience with a phenomenon to the description of the universal essence (Cresswell, 2007: 58). Qualaitaive researcher identifies a phenomena in the middle of public about an object or human experinces.The Object in this study is the orphanages which are stand on the land of Persyarikatan Muhammadiyah, especially in the area of Muhammadiyah Regional Leadership (PWM) city of Yogyakarta. There are several orphanages under the PWM of Yogyakarta where they still very dependent on Persyarikatan Muhammadiyah, especially in the economic aspect. The orphanages are still in great need of a helping hand from donors willingly giving some of their sustenance to them. That way, the orphanages can survive and can meet their daily needs.

The subject of this study is to explore in depth the potential that can be developed in each orphanage. Hopefully, they can be an independent social

charity institution and not depend on the flow of funds from the Union (Persyarikatan) and donors. Although not completely free from union and prayer, at least reduce the dependence. So that they can be independent in fulfilling their needs and stand on their own feet.

B. Type of Data

1. Qualitative Research

This research uses qualitative research methods where researchers do the research and examine individuals or groups in detail. Qualitative research begins with an analysis that will be done based on theory related to individual and group's social problems (Cresswell, 2007: 37).

According to (Cresswell, 2007:36) cited from the book of Denzin dan Lincon (1994,2000,2005) qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible, these practices transform the world. They turn the wolrd into a series of representations, including fieldnotes, interviews, conversation, photograps, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitaive researchers study things in their natural setting, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them.

Taylor, Bogdan, & Devault, (2016:9) Pointed out in their book, Qualitative researcher should empathize and identify the people they study in order to understand and know deeply how those people see things. Daley

(2004:1) adreesed the definition of qualitative research refers to Cresswell (1998) stated that qualitative research is a procees of indetifying and understanding the scoial and human problem thorugh the inquiry process of different tradition methodology. The researcher conduct a holisitc picture, complex, analyze the data and report the detail informant point of view. The types of data used in this study are:

1) *Primary data* is data taken directly from the source. With other data, researchers jumped into the field to find out directly and detail the data available. Primary data collection can be done through direct interviews to the respondent concerned with the research cap, interview or discussed deeply with experts in their field, of course, must be in accordance with the topic of research.

2) *Secondary data* is the type of data obtained through intermediate media or not directly from the original sources. Secondary data can be obtained from sources such as books, journals, articles, theses, and the like.

C. Data Collection Technique

1. In-depth Interview

   An interview is an interaction or conversation between two or more people where the person involved is the respondent and the interviewer. The purpose of the interview is to get the right information from trusted sources. The interview was conducted by sending a number of questions to the respondent.

An in-depth interview is generally a data retrieval technique that aims to get useful information for research. The technique used is FAQ with face to face between interviewer and informant with or without using interview guideline.The main purpose of this type of interview is to find a problem as clearly as possible, where the interviewer asks opinions and ideas on a problem raised by the informant. In the execution, the researcher must observe and listen really and the message delivered by the informant.

2. Observation

Observation is the activity of a process for perceiving and then understanding the knowledge of a phenomenon based on previously known knowledge and ideas. To obtain the information needed to continue the research. The observation can be done through the test, questionnaire, image and sound recording technique.

In order to make the observations more effective, it would be better equipped with observation guidelines such as format or blank observation. Formats compiled in the form of items about events or behavior described will occur. After that, the researchers give a check ($\sqrt{}$) on the desired column.

3. Documentation

Documentation is a qualitative data collection technique for knowing something in the form of notes, books, newspapers, magazines, agenda and so on (Arikunto, 2006). Documentation is a technique of collecting data about something or variables in the form of notes, transcripts, books, newspapers, articles, official documents, photographs, thesis thesis, dissertation, internet

and others (Koentjaraningrat, 1989). Researchers took data on orphanages through books, the internet, brochures, photographs and documents. The data obtained will then be used as a reference to support the research.

D. **Technique of Sampling**

The populations used in this study are the caregivers and leaders of the Muhammadiyah orphanage in D.I Yogyakarta Province or someone who is competent in that field. The sample is part of the number and characteristics possessed by the population (Sugiyono, 2008). In this study, not all members of the population are taken, but only a part of the population or using non-random sampling. In non-random sampling research is divided into several samples based on research objectives and data needs to be taken. This research more precisely uses purposive sampling because the selected respondents are based on the needs and objectives of the study.

E. **Operational Definition of Research Variables**

1. The Hierarchy

The hierarchy is the easiest tool for understanding complex problems in which the problem is broken down into the elements concerned, organizing the elements hierarchically and finally assessing them as well as deciding which decisions to take. The process of preparing hierarchical elements includes grouping elements in components that are homogeneous and arranging those components in the proper hierarchy level (Ramli, 2014). In this study, the hierarchy in question is the highest level of funding sources

obtained and the allocation of funds disbursed by the orphanage muhammadiyah D.I.Y.

2. Financial Independency

Based on the (Big Indonesian Dictionary (KBBI)) explained that independence is a thing or situation can stand alone without depending on others. Independence is an attitude that gives people the freedom to act, to act on self-impulse according to their own needs without the help of others.

Finance is the science and art of managing money that affects the lives of everyone and every organization. Finance deals with the processes, institutions, markets, and instruments involved in the transfer of money between individuals and between businesses and governments (Sudjaja & Inge, 2003).What is meant by financial independence is the independence of orphanage Muhammadiyah in fulfilling their daily needs without relying on funding support from Muhammadiyah and donors.

3. Muhammadiyah's Orphanages

The orphanage is a socialization agent for orphans, orphans, orphans and abandoned children, where the orphanage is an institution capable of performing some family functions. The orphanage according to a large Indonesian dictionary is the home to nurture or care for orphans or orphans (Big Indonesian Dictionary (KBBI)).

The orphanage is a social institution that is responsible for providing social welfare services to abandoned children by providing parents' counseling service in fulfilling their physical, mental, and social needs to foster children.

F. **Technique To Maintain Data Validity**

In qualitative research required testing data to determine the credibility of data used. This is done considering the wetness in qualitative research needs more proof so that the result of research is not in doubt the truth. The steps taken in measuring the objectivity and validity of the data in this research are as follows:

1. Extension Of Observation

    The researcher conducted an extension of observation to obtain valid data and in accordance with the existing facts from various sources who became the subject of research. The extension of observation is made by preparing the right instrument accompanied by a high level of accuracy.

2. Increased Perseverance

    Increased perseverance is a technique of examination of data where researchers are encouraged to be more thorough and detailed in connecting the factors that stand out. According to Lexy (2009) explained that researchers should review the results of his research periodically from beginning to end. So that researchers really understand the research and produce accurate research.

3. Triangulation

    Triangulation is a technique of checking the validity of the data by checking or comparing the data obtained with other sources or criteria to improve the validity of data. Incredibility research, triangulation is interpreted

as a technique of checking data from various sources using various ways and time. So there is a triangulation of sources, triangulation of data collection techniques and time (Sugiyono, 2012).

This study uses source triangulation which means comparing opinions submitted by the subject with opinions submitted by informants with the intention that the data obtained can be trusted because the data obtained more than one source. The validity of the data used has been tested through triangulation techniques. The researcher confirms the results of the data processed to the key informant in order to ensure that the results are correct. The triangulation technique used is to go directly to the place of the informant key and via a call. The process of data validity takes a long time because the distance that must be taken is far enough and the research object exceeds one. There are several key informants who can only be asked to see via telephone, there are also those who have to be met directly to the orphanage or where the key informant lives. Another obstacle is the busy key informant that cannot be disturbed so that the researcher must adjust the free time that the informant key has.

G. Data Analysis Technique

1. Analytic Hierarchy Process (AHP)

a. AHP Stages

The Decision Maker must understand in detail and define each of the issues, needs, and objectives of the decision, criteria, and sub-criteria to evaluate each alternative (Russo & Camanho, 2015). The criteria and sub-

criteria in the AHP can be tangible and intangible, when the criteria are intangible, it cannot be used as a clue to classify alternatives. According to Russo and Camanho (2015), there are six stages of decision making using AHP namely:

1) *Define The Problem and Determine The Expected Solution*

The first step is to determine the problems that will be solved clearly, in detail and easily understood. Next, determine the solutions that are relevant to the problem. Solutions obtained can be more than one and will be further developed in the next stage.

2) *Creating A Hierarchical Structure Begins With The Main Purpose*

This step where the ultimate goal is placed as the top level of the hierarchy, followed by appropriate criteria for considering or assessing alternatives. It is necessary, predetermined criteria will continue with sub-criteria at the next hierarchy level.

The main purpose of making hierarchy is to decide a decision easily. It is important to have fully attention on all related element in the system. So, the complex p3oblem can be solved easily. Here we go the hierarchy structure by Thomas L. Saaty:
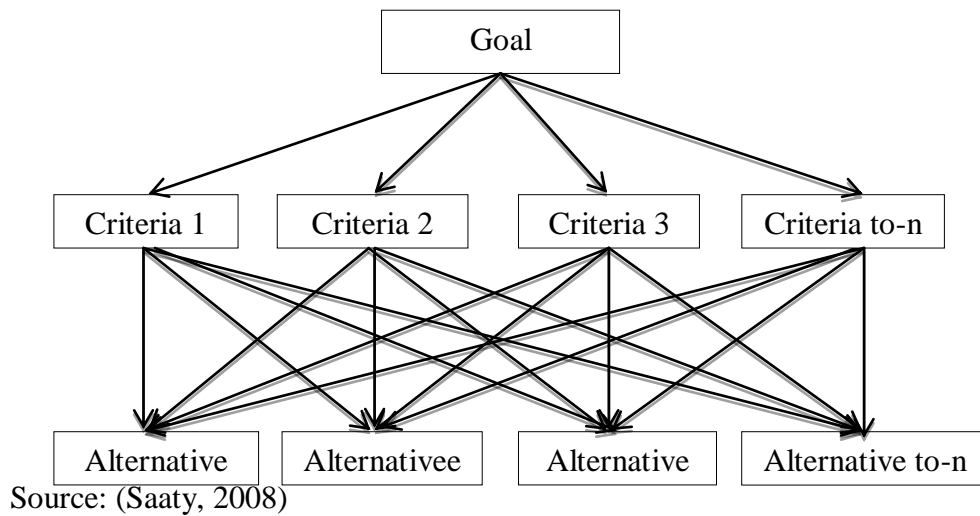
```
                              ┌──────────┐
                              │   Goal   │
                              └──────────┘
```


Source: (Saaty, 2008)

FIGURE 3.1
Hierarchy Structure

The first step is to determine the goals or goals that have been set as the main reference in determining the priority. The goal is a target to be achieved and the issues to be studied. Then described systematically into structures that make up a series of systems so that goals can be achieved rationally. The next is to determine the criteria that are the supporting factors of the above goal. The selected criteria must be relevant and appropriate to the issues to be tested. it aims to be the ideal choice for solving the problem. Then, determine the alternatives or options to solve the problem.

1) Priority determining

   a. *Relative measurement*

      The matrix used is simple, has a strong position for the consistency framework, obtain other information that may be required with all comparisons possible and able to analyze the overall priority sensitivity for

changes in consideration. This comparison aims to determine how important and dominant between one element or alternative to other elements is. The matrix approach will reflect multiple aspects of the priority of dominating or dominated. To do the comparison must be a judgment of the decision maker by prioritizing the importance of an element to another element.

Table 3.1
The Matrix Criteria

Criteria	Point A	Point B	Point C
Point A	1		
Point B		1	
Point C			1

Source: (Saaty, 2008)

The table above shows that:

a) Knowing the importance of A with B

b) Knowing the importance of A with C

c) Knowing the importance of B with C

Assessment or weighting in the hierarchy aims to compare the scores on each criterion to achieve the goal. So that will be obtained weighting the level of importance of each of the criteria to achieve the goals set.The pairwise comparison appraisal procedure in AHP refers to the scoring score developed by Thomas L Saaty as follows:

Table 3.2
The Fundamental Scale of Absolute Numbers

Intensity of importance	Definition	Explanation
1	equal importance	two activities contribute equally to the objective
2	weak or slight	
3	moderate importance	experience and judgement slightly favour one activity over other
4	moderate plus	
5	strong importance	experience and judgement strongly favour one activity over other
6	strong plus	
7	very strong or demonstrated importance	an activity is favoured very strongly over another, its dominance demonstrated in practice
8	very, very strong	
9	extreme importance	the evidence favouring one activity over another is of the biggest possible order of affirmation
reciprocals of above	if activity i has one of the above non-zero numbers assigned to it when compared with activity j, then j has the reciprocal value when compared with i	a reasonable assumption
1.1-1.9	if the activities are very close	May be difficult to assign the best value but when compared with other contrasting activities the size of the small numbers would not noticeable, yet they can still indicate the relative importance of the activities.

Source: (Saaty, 2008)

b. *Eigenvalue and Eigenvector*

To find out the most important criterion in a perception comparing the criteria within one level requires the preparation of a comparison matrix. The matrix in question is the square matrix. The main feature of the comparison matrix used by the AHP model is that the diagonal from the

top left to the lower right is 1 (one) because the comparable are the same two criteria. This is in accordance with the way how human brain thinks. Then the priority weight measurement of each criterion that has been input into the matrix.

The priority weight calculation is performed when the comparison matrix has been completed. The result of the priority weight calculation is a decimal number under one with total priorities for criteria in one group with another. The form of weighted equation priority is known as an eigenvector. The eigenvector is a square matrix with the order of n x n supposes A, a vector of column X. vector X is a vector in the euclidian space R * associated with an equation:

$$AX = \lambda X$$

Where λ is a scalar and X is a non-zero scalar vector named with the eigenvalue of the matrix A. Eigenvalue is the characteristic value of a square matrix.

3) *Calculate the consistency*

In this stage, there are several steps to do as follow: (i) fill in the columns to normalize the matrix (ii) then evaluate the consistency of the matrix (iv) do the anterior steps for each criterion (v) calculate each alternative values for the criterion including in one matrix (vi) lastly, add the values to obtain the final value.

The consistency measurement from a matrix itself depends on the maximum eigenvalue. The maximum eigenvalue produce the matrix

comparison that can be minimize. The formula of consistency index as follow:

$$CI = (\lambda \text{ maks} - n)/ (n-1) \ldots\ldots\ldots\ldots$$

Where: CI = consistency index   n = Orde matrix

λ = eigenvalue maximum

4) *Check and balance of decision*

At this stage, it is necessary to check and see if the result of the application AHP is compatible with expectations. If not appropriate, it is necessary to review the process already done.

5) *Decision documentation*

The decision-making process should be documented because it is very important to record all processes, as well as how to make decisions and why the decision was made.

2. **Strength, Weakness, Opportunity and Threats (SWOT)**

To perform the SWOT analysis outline should be done through the following stages:

a. **Data Collection Stage**

Data collection is a process of procuring data for a particular purpose with a systematic and standardized procedure to obtain the necessary data. Data collection is an important step since the data collected is used for analysis purposes. Therefore, the data collected is valid for use. Data

validity can be improved if measuring and measuring techniques are qualified.

The main instrument for data collection is the human instrument or researcher. This is done so that researchers are able to set the focus of research, selecting informants as data sources, collecting data, assessing data quality, analyzing data, interpreting data, and making conclusions on the findings. Researcher role is as a key instrument where its position is very complex. In addition to being a planner, he also serves as a data collector, data interpreter, and ultimately he must also act as a reporter of the research itself.

Other instruments are questionnaires and documentation. Questionnaires are a number of questions or written statements used to obtain information from respondents. Documentation is digging the data through document studies in the form of photo, archives, brochures, and others. Generally, the data will be categorized into two namely the internal and external data. SWOT analysis use External Factor Analysis Summary (EFAS) and Internal Factor Analysis Summary (IFAS) to analyze the data. Besides, a competitive profile matrix is used to get a clear picture of the format of each matrix. In order to understand easily, the data needs to be presented. The presentation of data can be done through various forms of the matrix. The first matrix used is the external factor analysis summary (EFAS) in the presentation of data.

Table 3.3
Matrix EFAS

Strategies factors	Weight (W)	Rating (R)	Value V = W x R	Comment
Category as an opportunity				
Category as a threat				
Total				

Source: (Saaty, 2008)

How to create EFAS:

1) Arrange the external factors in accordance with the group of factors that provide opportunities and factors that pose a threat.

2) Give weight to each of each factor. The weighting should be done carefully and based on the importance level of its strategic impact. The more important the factor is, the higher the weight is given. Maximum total weight is 1 (one).

3) Give a rating on each factor, either factors that provide opportunities or factors that provide threats. Rating is done with the provision that the factors that provide opportunities are given a positive sign. However, the threatening factor is given a negative sign. If the factors provide the greatest opportunity, it should be given the largest positive rating, vice versa if the chances are small. The same way is also done on the factors that give the greatest threats. It must be given the most negative rating, Vice versa if the threat level is small.

4) The next step is the weighted by the rating so that the value will be obtained.

5) After all the factors that are calculated in value, then summed to get the total score as a whole.

6) The last is giving a note or reason why the factor is selected.

Here is the IFAS matrix format as follow:

Table 3.4
Matrix IFAS

Strategies factors	Weight (W)	Rating (R)	Value V = W x R	Comment
Category as an strength				
Category as a weakness				
Total				

Source: (Saaty, 2008)

How to make IFAS matrix:

1) Arrange the external factors in accordance with the group of factors that provide strength (strength) and factors that gives weakness (weakness).

2) Give weight to each of each factor. The weighting should be done carefully and based on the importance level of its strategic impact. The more important the factor is, the higher the weight is given. Maximum total weight is 1 (one).

3) Give a rating on each factor, either the factor that gives the strength or the factor that gives the weakness. Rating is done with the provision that the factors that provide power are given a positive sign. But the factors that give weakness are given a negative sign. If the factors give the greatest strength, then it should be rated the largest positive, vice versa if the

strength is small. The same way is done on the factors that give the biggest weakness, it must be given the most negative rating. Vice versa if the level of weakness is small.

4) The next step is the weighted by the rating so that the value will be obtained.

5) After all factors are calculated in value, then summed to get the total score as a whole.

6) The last is to give a note or reason why the factor is selected.

   To simplify and provide uniformity in rating both IFAS and EFAS, it should use the following guidelines. Opportunities and strengths are given positive integers ranging from 1 to 4. While for weaknesses and threats are given a negative integer starting from -4 to -1. Below is a guideline that can be used for the rating number and its meaning.

Table 3.5
Rating Guidance for IFAS and EFAS

Factors	Rating	Meaning
Strength And Opportunity	1	Outstanding
	2	Good
	3	Fair
	4	Poor
Threat And Weakness	-1	Not So Good
	-2	Fairly Bad
	-3	Warning
	-4	Danger

Source: (Saaty, 2008)

The last part of the data collection phase is to make competitive profile matrix. The purpose of making competitive profile matrix is to know the relative position of company or institution. To get a realistic competitive profile, then in comparing the analyzed companies, we need to find a

competing company or competing agency. Between the agencies analyzed

with the competitor, agencies need to be given a different rating based on the

existing relative conditions. Here are the guidelines used:

Table 3.6
Rating Guidance for Matrix Profile Competitive

Rating	Meaning
1	If the condition of institution is extremely weak compared to the competitor.
2	If the condition of institution is quite weak compared to the competitor.
3	If the condition of institution almost the same with the competitor.
4	If the condition of institution is quite better than the competitor.
5	If the condition of institution is extremely good compared to the competitor.

Source: (Saaty, 2008)

Furthermore, each factor is weighted as described in the discussion of

EFAS and IFAS. After that, the score of each factor is calculated by

multiplying the weight with the rating. Then the calculation results summed

sum to get the total value. The following is a competitive profile matrix

format:

Table 3.7
Matrix Profile Competitive

Strategic Factors	Weight	Institution		Main Competitor		Second Competitor	
		Rating	Score	Rating	Score	Rating	Score
Total							

Source: (Saaty, 2008)

From a competitive profile matrix, it can actually be read how the position

of a company or agency against its competitors. It will obviously be seen

whether the strengths possessed by the agency or company are able to be utilized to take advantage of existing opportunities and whether weaknesses owned by companies or agencies can be minimized to withstand threats from outside.

b. Analysis Stage

After creating a matrix of EFAS, IFAS and Competitive Profile, the next step is to conduct the analysis. In analyzing the SWOT, at this stage will use the SWOT diagram. The horizontal axis or X-axis explains the IFAS factor and the vertical axis or Y axis explains the EFAS factor. The positive sections of each X and Y axis are occupied by strength and opportunity, while the negative parts of each X and Y are occupied by weakness and threats.

The plotting is done in the following steps:

1) The total score reflects the odds of the EFAS matrix plotted into the Y-axis in the positive section

2) The total score that reflects the threat of the EFAS matrix is plotted to the negative Y axis

3) The total score that reflects the strength of the IFAS matrix is plotted to the X-axis on the positive part

4) The same is done against the total score that reflects the weakness of the IFAS matrix X axis on the negative part.

5) Next, do the positioning. The ideal position is a position that has a level of weakness and a threat level close to zero. By knowing the last

position is expected to obtain various strategies that are very useful for the company.

6) Calculate the area of each quadrant and then rank in the order of the highest area.