

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides a discussion about the methodological aspect in this study. The chapter begin with an introduction to research design of this study. Following this, the chapter explains about the population and sample that will be included in this study. Then, the chapter describes the method and procedure of data collection, and the measurements. Finally, the chapter explains the data analysis that will be applied in this study, follow by the chapter summary.

3.2 Research Design

Research design is an action plan to meet the objectives of the study (Kelliher, 2005; Akhtar, 2016). Other researcher defined it as the arrangement of conditions for the collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy and procedure (Ahuja, 2010; A. Saleem et al., 2014). Similarly, Zikmund (2011) defined it as a master plan specifying the methods and procedure for collecting and analyzing the needed information (Akhtar, 2016).

There are three types of research design which are qualitative, quantitative, and mixed methods (Creswell, 2012). Qualitative research is an approach for exploring and understanding the meaning individuals or groups ascribe to a social or human problem (Creswell, 2014). Qualitative research interested in analyzing subjective meaning or the social production of issues, events, or practices by collecting non-standardized data and analyzing texts and images rather than number and statistics (Flick, 2014; Rahman, 2017).

Similarly, Rahman (2017) defines qualitative research as an umbrella term covering an array of interpretive techniques which seek to describe, decode, translate, and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world. The process of qualitative research involves emerging questions and procedures, data typically collected in the participant's setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data. The final written report has a flexible structure (Creswell, 2014).

On the other hand, a quantitative research is defined as the study of strategy which focuses on the collection and analysis of data (Bryman, 2012). In specific, a quantitative research (normally using deductive logic) seek regularities in human lives, by separating the social world into empirical components called variables, which can be represented numerically as frequencies or rate, whose associations with each other can be explored by statistical techniques, and accessed through researcher-introduced stimuli and systematic measurement (Payne & Payne, 2004; Rahman, 2017). In addition, other scholars such as Aliaga, and Gunderson (2002) and Apuke (2017) argue a quantitative research is an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures. The final written report has a set structure consisting of introduction, literature and theory, methods, results, and discussion. (Creswell, 2014).

The final type of research design is mixed method research. Mixed methods research is an approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks. The core assumption of this form of inquiry is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone (Creswell, 2014). Similarly, other scholars also argue mixed methods research is a research design (or methodology) in which the researcher collects, analyzes, and mixes (integrates or connects)

both quantitative and qualitative data in a single study or a multiphase program of inquiry (Creswell & Clark, 2011; Almeida, 2018; Schoonenboom & Johnson, 2017).

This study applies a quantitative research design. The quantitative data can be used to look for cause and effect relationship and can be used to make predictions. In addition, the quantitative findings are likely to be generalized to a whole population or a sub-population because it involves the larger sample which is randomly selected (Rahman, 2017). Moreover, the quantitative data uses the statistical software such as Statistical Package for the Social Sciences (SPSS). The use of statistical software reduces the time and effort, which the researcher would have invested in describing his result (numbers, percentages and measurable figures) (Gorard, 2001; Connolly, 2007; Daniel, 2016; Rahman, 2017).

3.3 Population and sample

A population is a group of individuals who have the same characteristics (Creswell, 2012). The population of this study are 190 employees at Yayasan Dakwah Islamiah Malaysia (Yadim). Yadim is an agency under the Prime Minister's Department. This agency act as the central agency in the Islamic Affairs management plan and the development of the ummah with functions as coordinate Islamic da'wah activities, coordinate Islamic da'wah activities through social approaches and producing knowledgeable and skilled Islamic preachers. In specific, Yadim vision is to make Malaysia administration as a model of Islamic Rahmah. While their mission is to develop Islamic religion by producing YADIM's well-trained, good and Muslim preachers through Rahmatan Lil Alamin's approach. Yadim has its own advantages of having field volunteers such as Yadim Companions and Al Falah Volunteers. Yadim, with the strength of its volunteers and field machinery, is able to move beyond the concerns of youth and society in particular (Fuziah, 2019).

This study proposed Yadim as the context because the employees, who work with Yadim have performed very well. They are dedicated, brilliant and have successfully implemented so many dakwah programs. These include programs related to faith, family,

financial transactions, welfare and youth leadership (Yusri, 2016). Therefore, it is not surprising that Yadim has been named as the best organization during the Prime Minister's Department Innovation Award in 2018. This Prime Minister's Innovation Award was introduced to recognize the significant and high impact of innovation made by the organization to improve the delivery system quality through improved work processes or procedures more efficiently.

A sample is a subgroup of the target population that the researcher plans to study for generalizing about the target population (Creswell, 2012). To select the sample from the population, this study applies a stratified random sampling technique. A stratified random sample is obtained by separating the population elements into non-overlapping groups, called strata, and then selecting a simple random sample from each stratum (Richard, William, Lyman & Kenneth, 2012). This sampling technique has number of advantages. First, this sampling technique may produce a smaller bound on the error of estimation that would be produced by a simple random sample of the same size. The result is particularly true if measurements within strata are homogeneous. Second, the cost per observation in the survey may be reduced by stratification of the population elements into convenient groupings. Third, estimates of the population parameters may be desired for subgroups of the population. These subgroups should then be identifiable strata (Richard et al., 2012).

In specific, all employees who work in Yadim are the sample for this study. The data taken from the sample has been used to answer the objective of the study; to identify the factors that influence employee's motivation in Yadim and to examine the moderating effect of job satisfaction and job involvement in the relationship between the factors (salary, transformational leadership, job enrichment, training and development and empowerment) and motivation.

3.4 Data Collection Method and Procedure

The data for this study has been collected through questionnaire. Questionnaire involves the collection of information from a sample of individuals through their responses to questions (Check & Schutt, 2012). Other scholars argue a questionnaire is a series of questions asked to individuals to obtain statistically useful information about a given topic (Roopa & Menta, 2012). There are also scholars regard the questionnaire as the primary data collection instrument in social, health, epidemiological, and other areas of research (Magen & Roy, 2018). In general, a questionnaire aims to develop knowledge by identifying variables, and by testing textual research questions and theories - often reflecting the epistemological stances of positivism and post positivism (Johnson & Onwuegbuzie, 2004; Saunders, 2015).

Questionnaire was chosen as a tool for data collection due to it having the ability to be developed in less amount of time, being capable of collecting data from a large number of respondents, allowing numerous questions asked about a subject, giving extensive flexibility in data analysis and finally, being cost affective (Daw, 2016). A questionnaire also enable researcher to obtain information about the thoughts, feelings, attitudes, beliefs, values, perceptions, personality, and behavioral intentions of research participants (Burke & Larry, 2014).

The questionnaire contained questions related to all variables that have been included in the conceptual framework of this study (see Figure 1 in previous Chapter 2). The questionnaire was design in English language and translated into the Malay language to make the respondent easy to understand the questionnaire. The use of the translated version improved the readability of the respondents in the questionnaire and increased the probability that the instrument would operate in the new target culture, just as it had in the original culture in which it was developed (Bates & Khasawneh, 2005; Daw, 2016).

Before the distribution of the questionnaires, the pretest of the questionnaire instrument has been undertaken to ensure all the questions posed are understood by the respondents (Sekaran, 2003). The pretest allowed the researcher to determine if the respondents have any difficulty to understand the questionnaires or if there are any

ambiguous or biased questions (Zikmund, 2011). Pre-testing the questionnaire also is ensuring that there are no problems with wording and measurements in order to ensure that the internal consistency for the scale used are acceptable before data collection is carried out (Sekaran, 2003). One of the most used indicators of internal consistency is Cronbach's alpha coefficient. Ideally, the Cronbach alpha coefficient of a scale should be above 0.7 (Sekaran, 2003).

The questionnaire has been distributed to the selected respondent in person. To distribute the questionnaire to respondent, a permission is often necessary before researcher can enter a site and collect data. This approval usually comes from leaders or persons of authority in organizations. Obtaining permissions from organizational management requires contacting them before the start of a study and obtaining their permission to enter and to study their setting (Creswell, 2012). This permission will ensure that the selected respondents will cooperate in this study and provide data. Besides cooperation, the organization permission also acknowledges that they understand the purpose of the study and that researcher will guarantee them certain rights and that request their permission to be involved in the study (Creswell, 2012). In addition, obtaining permission before starting to collect data is not only a part of the informed consent process but is also an ethical practice (Creswell, 2012). Therefore, a permission has been sought from the management in YADIM to distribute the questionnaire to the selected respondents.

After getting the approval from the organization, researcher has set appointment with the selected respondents. During the meeting, researcher has briefly explained the purpose of the study and made it clear to the respondents that the participants in the research was voluntary and anonymous (the respondent identity will be kept confidential by assigning numbers to returned instruments) (Creswell, 2012). This way was very useful to clarify any doubt among respondents in the survey and to motivate the respondents to be more open and honest in his/her answers (Sekaran & Bougie, 2010). In addition, the researcher has explained to the respondents on how to complete the questionnaire and allowed them to take about 15-20 minutes to complete the questionnaire. The respondents are required to put the complete questionnaire in envelop given, seal it and submit it to the

researcher. Asking the respondents to put the complete questionnaire in envelop has been regard as one of the methods to handle confidential.

3.5 Measurement

All the measures for each variable are based on the existing measurement developed by previous studies as details below:

3.5.1 Motivation

Motivation is measured using 6 items adapted from the McKinsey Quarterly (2006). This measurement scale has been used by recent study, which showed acceptance reliability score ($\alpha = 0.759$) (Irum et al., 2014). The respondents are required to answer the items based on 5 Likert scale; 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree. Below are the details of the items:

1. I feel a sense of personal satisfaction when I do this job well.
2. My opinion of myself goes down when I do the job badly.
3. I take pride in doing my job as well as I can.
4. I feel unhappy when my work is not up to my usual standard.
5. I like to look back at a day's work with a sense of a job well done.
6. I try to think if ways of doing my job effectively

3.5.2 Salary

Salary is measured using 10 items adapted from Sharma and Bajpai (2011). This measurement scale has been used by recent study, which showed accepted reliability score ($\alpha = 0.79$) (Shahzad et al., 2011). The respondents are required to answer the items based on 5 Likert scale; 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree. Below are the details of the items:

1. Employees are positively affected
2. Pay schemes based on incentives
3. Believes in pay-for-performance
4. Pay system is based on equity and justice
5. Pay system is based on seniority
6. Job utility depends on the level of pay
7. Feel secured about their job dimension
8. Healthy working condition
9. Pay system is based on qualifications
10. Pay system related to its size

3.5.3 Transformational Leadership

Transformational leadership is measured using 21 items adapted from Bass and Avolio (1990). The measurement consists of four aspects of transformational leadership known as idealized influence (6 items), inspirational motivation (7 items), intellectual stimulation (5 items) and individualized consideration (3 items). This measurement scale has been used by recent studies, which showed accepted reliability score ($\alpha = 0.902$) in a study by Jeevan and Sonia (2016), ($\alpha = 0.860$) in a study by Jiang and colleagues (2017), and ($\alpha = 0.90$) in a study by Nilwala and colleagues (2017). The respondents are required to answer the items based on 5 Likert scale representing the frequency of each behavior; 0=not at all, 1=once in a while, 2=sometimes, 3=fairly often, 4= frequently, if not always. Below are the details of the items:

Idealised influence

1. I am satisfied when others meet agreed-upon standards.
2. I am content to let others continue working in the same way as always.
3. Others have complete faith in me.
4. I make others feel good to be around me.
5. Others are proud to be associated with me.
6. I tell others the standards they have to know to carry out their work.

Inspirational motivation

1. I provide recognition/rewards when others reach their goals.
2. As long as things are working, I do not try to change anything.
3. Whatever others want to do is OK with me.
4. I provide appealing images about what we can do.
5. I help others find meaning in their work.
6. I express with a few simple words what we could and should do
7. I ask no more of others than what is absolutely essential.

Intellectual stimulation

1. I provide others with new ways of looking at puzzling things.
2. I get others to rethink ideas that they had never questioned before.
3. I enable others to think about old problems in new ways.
4. I tell others what to do if they want to be rewarded for their work.
5. I call attention to what others can get for what they accomplish.

Individualized consideration

1. I help others develop themselves.
2. I let others know how I think they are doing.
3. I give personal attention to others who seem rejected.

3.5.4 Job enrichment

Job enrichment is measured using 13 items adapted from the Bryan and Locke (1967). The measurement consists of three aspects of job enrichment known as task significance (5 items), task identity (3 items), and skill variety (5 items). This measurement scale has been used by recent study, which showed accepted reliability score ($\alpha = 0.902$) in a study by Vijay and Indradevi (2015). The respondents are required to answer the items based on 5 Likert scale; 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree. Below are the details of the items:

Task Significance

1. The amount of work I am expected to do in my job is reasonable to the institution
2. My success at work is appreciated by my colleagues
3. Opportunity is given by the institution to complete my entire tasks on my own
4. Departments has good priorities and direction for employee
5. When I have a problem at work, my colleagues help me with solutions

Task identity

6. My institution strongly considers my goals and values
7. My institution really cares about my well-being
8. My institution is willing to help me, when I need a special favor

Skill Variety

9. Opportunity is given by the institution to use my skills
10. I have adequate information and knowledge which enables me to do my job well
11. The amount of work I am expected to do in my job is reasonable for me
12. I have the skills and abilities to do more work
13. Motivation is important to do work more effectively

3.5.5 Job Security

Job security is measured using the 10 items adapted from the Oldham, Kulik, Stepina, and Ambrose (1986). This measurement scale has been used by recent studies, which showed accepted reliability score ($\alpha = 0.705$) in a study by Rabia and colleagues (2015) and ($\alpha = 0.87$) in a study by Nicole and Toni (2016). The respondents are required to answer the items based on 7 Likert Scale; 1=very inaccurate, 2=inaccurate, 3=moderately accurate, 4=neither inaccurate nor inaccurate, 5=moderate, 6=accurate, 7=very accurate. Below are the details of the items:

1. I will be able to keep my present job as long as I wish.
2. My current company will not cut back on the number of hours I work each week.
3. If my current company was facing economic problems, my job would be the first to go.
4. I am confident what I will be able to work for my company as long as I wish.
5. My job will be there as long as I want it.
6. If my job was to be eliminated, I would be offered another job in my current company.
7. Regardless of economic conditions, I will have a job at my current company.
8. I am secure in my job.
9. My current organization would transfer me to another job if I were laid off from my present job.
10. My job is not a secure one.

3.5.6 Training and Development

Training and development is measured using the 5 items adapted from the House (1981). This measurement scale has been used by recent study, which showed accepted reliability score ($\alpha = 0.928$) in a study by Newman, Alexander, Thanacoody, Rani and Hui (2011). The respondents are required to answer the items based on 5 Likert scale; 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree. Below are the details of the items:

1. My organization provides its employees with good opportunities to undertake in house job specific training.
2. My organization provides a good environment for new recruits to learn job specific skills and knowledge.
3. My organization provides its employees with good opportunities to learn general skills and knowledge inside the organization which may be of use to me in my future career.
4. My organization provides its employees with good opportunities to undertake general training programs and seminars outside of the organization.
5. My organization provides assistance for its employees to take management training and development courses externally at educational institutions.

3.5.7 Empowerment

Empowerment is measured using 12 items adapted from the Spreitzer (1995). The measurement consists of 4 aspects, known as meaning (3 items), competence (3 items), autonomy (3 items) and impact (3 items). This measurement scale has been used by recent studies, which showed accepted reliability score ($\alpha = 0.893$) in a study by Hasan and colleagues (2017) and ($\alpha = 0.74$) in a study by Hanna and Kerstin (2006). The respondents are required to answer the items based on 5 Likert scale; 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree. Below are the details of the items:

Meaning

1. The work I do is very important to me.
2. My job activities are personally meaningful to me.
3. The work I do is meaningful to me.

Competence

4. I am confident about my ability to do my job.
5. I am self-assured about my capabilities to perform my work activities.
6. I have mastered the skills necessary for my job.

Autonomy

7. I have significant autonomy in determining how I do my job.
8. I can decide on my own how to go about doing my work.
9. I have considerable opportunity for independence and freedom in how I do my job.

Impact

10. My impact on what happens in my department is large.
11. I have a great deal of control over what happens in my department.
12. I have significant influence over what happens in my department.

3.5.8 Job Satisfaction

Job satisfaction is measured using the three-item scale of Overall Job Satisfaction contained in the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1979). This measurement scale has been used by recent studies, which showed accepted reliability score ($\alpha = 0.85$) in a study by Golden and Veiga (2005) and ($\alpha = 0.82$) in a study by Shahzad and colleagues (2011). The respondents are required to answer the items based on 5 Likert scale; 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree. Below are the details of the items:

1. In all, I am satisfied with my job.
2. In general, I do not like my job.
3. In general, I like working here.

3.5.9 Job Involvement

Job involvement is measured using the 10 items adapted from the Kanungo (1982). This measurement scale has been used by recent studies, which showed accepted reliability score ($\alpha = 0.74$) in a study by Sipho (2014) and ($\alpha = 0.80$) in a study by Tariq and colleagues (2011). The respondents are required to answer the items based on 5 Likert scale; 1=strongly disagree, 2=disagree, 3=neither disagree nor agree, 4=agree, 5=strongly agree. Below are the details of the items:

1. The most important things that happen to me involve my present job.
2. To me, my job is only a small part of who I am.
3. I am very much involved personally in my job.
4. I live, eat and breathe my job.
5. Most of my interests are centered around my job.
6. I have very strong ties with my present job which would be very difficult to break.
7. Usually I feel detached from my job.
8. Most of my personal life goals are job oriented.
9. I consider my job to be very central to my life.
10. I like to be really involved in my job most of the time.

3.6 Pilot Study

The questionnaire was pre-tested on 30 respondents comprising of employees in Jabatan Kemajuan Islam Malaysia (JAKIM), Putrajaya. During the meeting, the respondents have received a briefing about the research objective. Then, they are allowed to read through the questionnaire together with the researcher to clarify doubts and ensure that the questions are properly understood by repeating or rephrasing the questions when needed. Respondents were reminded to evaluate the questionnaire based on the specific Likert Scale given.

The pilot study was analyzed using SPSS software version 22. As showed in Table 3.1, the test carried indicated that the variables achieved acceptable value since Cronbach's alpha coefficient values are all above 0.7 (Hair, et al., 2007).

Table 3.1: The Results of Reliability Analysis for Pilot Study

Variables	Cronbach's Alpha Value
Motivation	0.92
Salary	0.95
Transformational Leadership	0.97
Job Enrichment	0.96
Job Security	0.72
Training and Development	0.93
Empowerment	0.92
Job Satisfaction	0.90
Job Involvement	0.89

3.7 Data Analysis

The data was analyzed using the Statistical Package for Social Sciences (SPSS) version 22 based on the procedure proposed by Hair, Anderson, Tatham and Black (1998) as details below:

a. Cleaning the data

A preliminary analysis has been conducted to clean the data including the test of outliers, normality, homoscedasticity and linearity.

The outliers have been assessed with Mahalanobis distance value. According to this method, when the value of Mahalanobis distance exceeds the critical value of chi-square, the case considered to be outliers (Hair et al., 1998)

The normality has been tested using Kurtosis critical value. Based on this method, the data perceived as non-normality distributed if values more than normal value of multivariate Kurtosis (Hair et al., Stevens, 2009).

Homoscedasticity assumptions is principally associated to dependence relationship amongst variables. According to this assumption, the variance level of dependent variable should be the same across the range of predictor variables. Conducting this test can ensure the relationships between dependent and independent variable are fully captured through the use of the equal value of variance at each value of the predictor variable. This assumption has been examined by using scatterplot residual analysis (Hair et al., 1998).

Linearity is the assumption that used to identify if there is any nonlinearity in the data which could result in underestimating of the strength of relationships. The scatterplot has been applied to examine the relationships between variable and to detect if there any nonlinearity that could affect the correlation (Hair et al., 1998).

b. Exploratory Factor Analysis

The exploratory factor analysis (EFA) is widely applied statistical technique in the social sciences research to detect the underlying relationships amongst measured variables (Stevens, 2009; Joseph et al., 1998).

The first step to conduct EFA is assessing the suitability of the data for EFA. To do so, the Kaiser-Meyer-Olkin (KMO) test was applied to examine the adequacy of the sample size where the value of KMO at least 0.6 or more to consider the sample size suitable for factor analysis (Stevens, 2009).

The second step is the use of principle component to identify the smallest number of factors that should be retained to depict the interrelationships amongst set of items (Latin, Carrol & Geen, 2003). The factors that show eigenvalue 1 or greater can be retained (Stevens, 2009).

The third step is rotating the factors using the approach of varimax rotation to evaluate each item loading pattern on the factors, where the loading denotes the correlation between the items and the factors (Latin et al., 2003).

c. Reliability Analysis

The reliability is conducted to ensure the degree of consistence between multiple measurements of variable (Hair, Anderson, Tatham & Black, 1998). The importance reliability comes from the fact that when repeating the measurement to collect data from the same individuals using the same instrument, it should produce the same results (Koul, 2004). The most popular instrument to be applied to determine the internal consistency of the variables in this research is Cronbach's alpha coefficient (Tavakol & Dennick, 2011; Musaazi, 2006). The estimate value of reliability that score 0.7 or higher, is considered as a good (Hair et al., 2006).

d. Regression Analysis

Regression analysis was applied to test the hypotheses of this study. This technique is a powerful tool designed to explore and analyze the relationship between a single dependent variable and several independent variables (Joseph et al., 1998). It is important to know that when the case involves one independent variable, the technique here called simple regression. However, in the case that involves more than one independent variable the technique called multiple regression (Joseph et al., 1998). The multiple regressions have been applied to inspect the effect of factors (salary, transformational leadership, job enrichment, job security, training and development and empowerment) on motivation. The moderating effect of job satisfaction and job involvement on the relationship between the factors (salary, transformational leadership, job enrichment, job security, training and development and empowerment) and motivation has been tested using a moderated multiple regression using Hayes' process macro method. This method of analysis assesses the interaction effect between independent variables (salary, transformational leadership, job enrichment, job security, training and development and empowerment) and moderator (job satisfaction, job involvement), and whether or not such an effect is significant in predicting dependent variable (motivation).

3.8 Conclusion

In this chapter, the methodological aspects of this study have been explained including the research design, population and sample, the data collection method and procedure, the measurements, and the procedure of analyzing the data of this study. The next chapter Four will provide a discussion about the result of data analysis.

