CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methodological aspects of this study, covering the research design, population and sample, data collection methods and procedures, measures, and finally data analysis methods and procedures.

3.2 Research Design

This study employed the quantitative research methodology. This methodology provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying its sample (Cresswell, 2009). According to Babbie (2010), quantitative research can be described as the collection of numerical data and linking theory and research through a deductive and objectivist conception of social reality. An advantage of using the quantitative methodology is the examination of variables and the generalizability of the results from a sample to a larger sample or population (Chintaman, 2014).

A form of quantitative research design is correlational research. This design aims to test research hypotheses in cases where it is not possible or desirable to experimentally manipulate the independent variable of interest. It also allows the investigation of behavior in naturally occurring situations. Correlational methods range from analysis of correlations between a predictor and an outcome variable to multiple regression (Stangor, 2011).

Correlational research has several advantages. First, correlations are a quick and easy way to see whether there is a relationship between two variables. Pre-existing data can be used, and if a correlation is found it may be worth investigating why there is a correlation. Second, correlational design can describe the strength of a relationship. A correlation coefficient is a simple and objective way to describe the strength of a relationship between two variables. Expressing it as a precise number makes it clear and easy to understand. Third, correlational design can be used to assess behavior as it occurs in people's everyday lives. Fourth, the predictor variables cannot be manipulated (Stangor, 2011).

The study employed simple regression analysis to test the effects of the independent variables on the dependent variable. This study also applied hierarchical regression analysis to test the mediation effect based on Baron and Kenny's (1986) four-step approach.

3.3 Population and Sample

Krieger (2012) defined population as all members of any well-defined class of people, events, or objects. According to Sekaran (2003), population refers to a group of people that a researcher wants to investigate. The research population was 1,028 educators at Pesantren Darunnajah. Pesantren Darunnajah is a private (non-government) Islamic educational institution. This Islamic boarding school was established on 1 April 1974 by the late KH. Abdul Manaf Mukhayyar and his colleagues, the late KH. Qomaruzzaman and KH. Mahrus Amin. The *Pesantren* implements an integrated curriculum system, which consist of boarding education and intensive Arabic and English instruction. It offers eight levels of education: playgroup/early childhood education, kindergarten, *Madrasah Diniyah*, Islamic

Elementary School, *Tarbiyatul Mu'allimin/Mu'allimat Islamiyah*, Islamic Junior High School, Islamic Senior High School (two streams: Social and Religious and Science), Kindergarten Teacher Education, and Islamic College (STAI).

Pesantren Darunnajah has four branches in Jakarta, West Java, Banten, and outside Java. Table 3.1 shows the distribution of educators in each branch. There are 424 educators at the Jakarta branch, 360 educators at West Java, 183 educators at Banten branch, and 61 educators outside of Java.

Table 3.1: Number of Educators in Each Darunnajah Branch

No.	Branch	Number of Educators
1	Jakarta	424
2	West Java	360
3	Banten	183
4	Outside Java	61
	Total	1028

A sample is a set of individuals or participants selected from a larger population for the purpose of a survey (Salant & Dillman, 2004). The sample size was calculated based on Krejcie and Morgan's (1970) sampling table. Therefore, the minimum sample size for this study was 278 respondents. A cluster sampling technique was applied to select the sample. In this sampling technique, each member of the population has an equal chance of being selected (Wimmer & Dominick, 2006). Cluster sampling is a probability sampling method in which the population is divided into clusters, such as districts, and the participants are then randomly selected from these clusters. As shown in Table 3.1, the population was clustered into the four branches of Pesantren Darunnajah. Respondents were then selected randomly from each branch.

3.4 Data Collection Methods and Procedures

The data were collected through a questionnaire. Questionnaire is a valid way to collect data. O'Leary (2014) listed some obvious strengths of questionnaires. First, they can reach a large number of respondents. Second, they can represent an even larger population. Third, they allow for comparisons. Fourth, they can generate standardized, quantifiable, and empirical data. Fifth, they are confidential and even anonymous.

Approval from the management of Pesantren Darunnajah was obtained before the questionnaires were distributed to the selected respondents. Following this approval, the name and email addresses of the respondents were requested from the human resources department. The sample was selected randomly from the list. The questionnaire was administered to the selected respondents in person. Bell and Waters (2014) explained that administering a questionnaire personally enables the researcher to explain the purpose of the study and increases the probability of receiving completed questionnaires. The questionnaire was also administered to the selected respondents via personal email. Online questionnaire was adopted because of its low cost and swiftness in sending and returning information (Stacks, 2010).

3.5 Measurement

The questionnaire was developed based on measures from previous studies. It was constructed in English and then translated into Bahasa Indonesia because the respondents were native Indonesians. The translated questionnaire was sent to a Professor in the Faculty of Economics and Business of Universitas Islam Negeri Syarif Hidayatullah, Jakarta, to check its accuracy, make amendments or adjustments if needed, and improve the translation.

After finalizing the translated version, the Indonesian questionnaire was pre-tested on a small group to ensure that the questions are unambiguous and clear. This process helped to correct any issues before the questionnaire was administered to the main sample, reducing the likelihood of errors (Sekaran & Bougie, 2016; Sarstedt & Mooi, 2019). Thirty respondents were involved in the pre-test. They were employees of Pesantren Darunnajah and not included in the main sample. All measurements showed an acceptable value of Cronbach's alpha (> 0.70). The measurements used in this study are described below. All items were measured on a five-point Likert scale, from (1) strongly disagree to (5) strongly agree.

3.1.1 Charismatic Leadership

Charismatic leadership was measured with a 20-item scale adapted from Conger, Kanungo, Menon, and Mathur (1997) (see Table 3.2). The scale consists of five dimensions: vision and articulation, environmental sensitivity, unconventional behavior, personal risk, and sensitivity to member needs. The measurement has been found to have acceptable reliability and validity in diverse contexts (Conger et al., 1997).

Table 3.2: Charismatic Leadership Scale

No	Item
Dimension 1: Vision and articulation	
1	Kiyai has vision; often brings up ideas about possibilities for the future
2	Kiyai provides inspiring strategic and organizational goals
3	Kiyai consistently generates new ideas for the future of the organization
4	Entrepreneurial; Kiyai seizes new opportunities in order to achieve goals
5	Kiyai readily recognizes new environmental opportunities (favorable physical and social conditions) that may facilitate achievement or organizational objectives
6	Kiyai able to motivate by articulating effectively the importance of what organizational members are doing
7	Kiyai is an exciting public speaker

Table 3.1, continued

No	Item
Dimension 2: Personal risk	
1	In pursuing organizational objectives, Kiyai engages in activities involving considerable personal risk
2	Kiyai takes high personal risk for the sake of the organization
3	Kiyai often incurs high personal cost for good of the organization
Dimension 3: Environmental sensitivity	
1	Kiyai readily recognizes constraints in the physical environment (technological limitations, lack of resources, etc.) that may stand in the way of achieving organizational objectives
2	Kiyai readily recognizes constraints in the organization's social and cultural environment (cultural norms, lack of grass roots support, etc.) that may stand in the way of achieving organizational objectives
3	Kiayi recognizes the limitations of other members in the organization
4	Kiayi recognizes the abilities and skills of other members in the organization
Dimension 4: Sensitivity to member needs	
1	Kiayi shows sensitivity for the needs and feelings of other members in the organization
2	Kiyai influences others by developing mutual liking and respect
3	Kiyai often expresses personal concern for the needs and feelings of other members of the organization
Dimension 5: Unconventional behavior	
1	Kiyai engages in unconventional behavior in order to achieve organizational goals
2	Kiyai uses non-traditional means to achieve organizational goals
3	Kiyai often exhibits very unique behavior that surprises other members of the organization

Source: Conger et al. (1997)

3.1.2 Transformational Leadership

Transformational leadership was measured with 12 items adapted from the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 1990) (see Table 3.3). MLQ consists of four dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 2010). Each dimension consists of three items. MLQ scales have excellent internal consistency with alpha coefficients of > .80 (Bass & Riggio, 2006). In addition, MLQ shows acceptable reliability test with a Cronbach's alpha of .953 (Kieres, 2012; Yavirach, 2012).

Table 3.3: Transformational Leadership Scale

No	Item
Dimension 1: Idealized influence	
1	Kyai makes other people around feel comfortable
2	Others have complete faith with Kiyai
3	Others are proud to be associated with Kiyai
Dimension 2: Inspirational motivation	
1	Kiyai expresses with a few simple words what we could and should do
2	Kyai provides an interesting description of what we can do
3	Kiyai helps others find meaning in their work.
Dimension 3: Intellectual stimulation	
1	Kyai enables others to think about old problems in new ways
2	Kiyai gives others a new way of seeing things that are confusing
3	Kiyai gets others to rethink ideas that they had never questioned before
Dimension 4: Individualized consideration	
1	Kiyai helps others to develop themselves
2	Kiyai lets others know how he thinks they are doing
3	Kiyai gives personal attention to others who seem rejected

Source: Bass and Avolio (1990)

3.1.3 Autocratic Leadership

Autocratic leadership was measured with nine items adapted from Cheng et al. (2000). The measure consists of two dimensions: determining all decisions and emphasizing the best performance. Table 3.4 lists the items.

Table 3.4: Autocratic Leadership Scale

No	Item
Dimension 1: Determining all decisions	
1	Kiyai asks me to obey the instructions completely
2	Kiyai determines all decisions in the organization whether they are important or not
3	Kiyai always gives the last vote in the meeting
4	Kiyai always behaves in a bossy manner in front of employees
5	I feel pressured when working with Kiyai
Dimension 2: Emphasizing the best performance	
1	Kiyai exercises strict discipline over assistants
2	Kiyai scolds us when we can't accomplish the tasks
3	Kiyai emphasizes that a group must have the best performance of all the units in the organization
4	We have to follow the supervisor's rules to get things done. If not, he/she punishes us severely

Source: Cheng et al. (2000)

3.1.4 Job Satisfaction

Job satisfaction was measured using the Minnesota Satisfaction Questionnaire (MSQ) (Table 3.5). The scale was developed at the University of Minnesota Industrial Relations Center as part of the Work Adjustment Project to measure satisfaction under specific aspects of work and work environments (Weiss, Dawis, England & Lofquist, 1967). The scale consists of 36 items and nine dimensions, including pay, promotion, supervisor, fringe benefit, contingent reward, operating condition, co-workers, nature of work, and communication. The MSQ was used because it is a well-regarded measure of job satisfaction and has been widely used in academic research for over 30 years (Thomas et al., 2002).

Table 3.5: Job Satisfaction Scale

No	Item
Dimension 1: Pay	
1	I feel paid enough for the work I do
2	Salary increases are too few and distant
3	I feel appreciated by the organization when I think about what they pay me
4	I feel satisfied with my chances for salary increases
Dimension 2: Promotion	
1	There are very few opportunities for promotion in my work
2	Those who do well on the job stand a fair chance of being promoted
3	People progress as fast as they do anywhere else
4	I am satisfied with my chances for promotion
Dimension 3: Supervision	
1	My supervisor is quite competent in doing his/her job
2	My supervisor is unfair to me
3	My supervisor shows too little interest to employee
4	I like my supervisor
Dimension 4: Fringe benefit	
1	I am not satisfied with the benefits I receive
2	The benefits we receive are as good as what most other organizations offer
3	The benefit package we have is equitable
4	There are benefits we do not have which we should have
Dimension 5: Contingent rewards	
1	When I do a good job I receive recognition for it that I should receive
2	I do not feel that the work I do is appreciated
3	There are few rewards for those who work here
4	I don't feel my efforts are rewarded the way they should be

Table 3.5, continued

No	Item
Dimension 6: Operating condition	
1	Many of the rules and procedures make it harder to do a good job
2	My efforts to do a good job rarely hinders bureaucracy
3	I have too much to do at work
4	I have too much paperwork
Dimension 7: Co-workers	
1	I like the people I work with
2	I find I have to work harder because of the incompetence of people I work with
3	I enjoy my co-workers
4	There is too much problem at work
Dimension 8: Nature of work	
1	I sometimes feel my job is meaningless
2	I like doing the things I do at work
3	I feel a sense of pride in doing my job
4	My job is enjoyable
Dimension 9: Communication	
1	Communication seems good within this organization
2	The goals of this organization are not clear to me
3	I often feel that I do not know what is going on with the organization
4	Work assignment are not fully explained

Source: Weiss et al. (1967)

3.1.5 Organizational Commitment

Organizational commitment was measured using the Organizational Commitment Questionaire (OCQ) (Meyer & Allen, 1990, 1991). It contains 18 items and three dimensions: affective commitment, normative commitment, and continuance commitment (see Table 3.6). Affective commitment describes the employee's perception on whether they want to stay with the organization (emotional attachment). Normative commitment describes the employee's feeling of obligation to stay with the organization (moral attachment). Continuance commitment refers to the employee's need to stay with the organization (consequences of leaving are too high). Each dimension consists of six items.

Krishnaveni and Ramkumar (2008) revalidated the three-component conceptualization model of Meyer and Allen (1997) in the Indian context and found it to be suitable for future research. The three dimensions, as measured using Cronbach's

alpha, were acceptable: affective commitment (0.847), continuance commitment (0.706), and normative commitment (0.756) (Tikare, 2016). The overall reliability was also acceptable with α = .953 (Kieres, 2012) and α = .807 (Yavirach, 2012).

Table 3.6: Organizational Commitment Scale

No	Item
Dimension 1: Affective commitment	
1	I would be very happy to spend the rest of my career in this organization
2	I really feel as if this organization's problems are my own
3	I do not feel like "part of my family" at this organization
4	I do not feel "emotionally attached" to this organization
5	This organization has a great deal of personal meaning for me
6	I do not feel a strong sense of belonging to this organization
Dimension 2: Continuance commitment	
1	It would be very hard for me to leave my job at this organization right now even if I wanted to
2	My life will be disrupted too much if I leave my organization
3	Right now, staying with my job at this organization is a matter of necessity as much as desire
4	I believe I have too few options to consider leaving this organization
5	One of the few negative consequences of leaving my job at this organization would be the scarcity of available alternatives elsewhere
6	One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice
Dimension 3: Normative commitment	
1	I do not feel any obligation to remain with my organization
2	Even if it were to my advantage, I do not feel it would be right to leave
3	I would feel guilty if I left this organization now
4	This organization deserves my loyalty
5	I would not leave my organization right now because of my sense of obligation to it
6	I owe a great deal to this organization

Source: Meyer and Allen (1990, 1991)

3.6 Data Analysis

The collected data were analyzed using SPSS through the following steps. Firstly, the demographic variables of the respondents were analyzed, covering gender, age, working experience, and work status. Frequency shows the rate of survey responses, while percentage distribution shows the proportion of observations for each data point or group of data points.

Secondly, checking the validity of the instrument using an exploratory factor analysis (EFA). In multivariate statistics, EFA is a statistical method used to uncover

the underlying structure of a relatively large set of variables. EFA is a factor analysis technique whose overarching goal is to identify the underlying relationships between the measured variables (Norris & Lecavalier, 2010). EFA is commonly used when developing a scale and serves to identify a set of latent constructs underlying a battery of measured variables. It should be used when the researcher has no prior hypothesis about the factors or patterns of the measured variables (Finch & West, 1997).

There are several procedures when conducting EFA. The first is to verify the suitability of the data for factor analysis. According to Pallant (2011) and Leech, Barrett, and Morgan (2005), data are considered suitable for factor analysis if the variables in the correlation matrix table shows at least some correlation, with a correlation coefficient of 0.30 or greater. If the Bartlett's test of sphericity is statistically significant, this means that the variables are correlated highly enough to provide reasonable basis for factor analysis. Additionally, according to Leech, Barret and Morgan (2005), the Kaiser-Meyer-Olkin value should be 0.50 and greater. The second is to determine the number of components to extract. At this stage, the researcher looked at the total variance explained in the respective table to determine how many components to extract. The researcher was only interested in components that have an eigenvalue of 1.0 and above and see how much this component explains the total variance (Pallant, 2011). Third is assessing the item loadings on each factor. At this stage, the researcher observed the component matrix in the table to check the item loadings on each factor. The researcher was only interested in items with a loading of greater than 0.30. The communalities table was also presented to gather the amount of variance explained by each item. A low loading (< 0.30) could indicate that the item does not fit well with the other items in its component. The EFA results were validated through confirmatory factor analysis (CFA) using the AMOS-SEM software.

Thirdly, assessment of the reliability of each variable based on Cronbach's alpha. Cronbach's alpha measures the internal consistency or average correlation of items in a survey instrument, indicating its reliability. Cronbach's alpha ranges from 0 to 1. The higher the score, the more reliable the generated scale is. Nunnaly (1978) suggested that an alpha of 0.70 and above indicates reliability.

Fourthly, conducting a descriptive analysis to check the mean and standard deviation of each variable. The correlation between variables was also examined. If the correlations between the variables are less than 0.90, this means that there is a low probability of multicollinearity (Tabachnick & Fidell, 2007).

Fifthly, testing the hypotheses. A regression analysis was conducted to test the proposed hypotheses. Regression analysis estimates the strength and direction, either positive or negative, of relationship between variables, as well as the significance of this relationship. The procedure proposed by Baron and Kenny (1986) was followed to test the mediation effect. Baron and Kenny (1986) proposed a four-step approach to test for mediation:

- Step 1: Conduct a simple regression analysis between the independent variable (X) and dependent variable (Y).
- Step 2: Conduct a simple regression analysis between the independent variable (X) and mediator (M).
- Step 3: Conduct a simple regression analysis between the mediator and dependent variable.
- The purpose of steps 1–3 is to establish the presence of zero-order relationships among the variables. If one or more of these relationships are non-significant, researchers usually conclude that mediation is not possible or likely. Assuming there are significant relationships from steps 1 to 3, one proceeds to step 4.

- Step 4: if the relationship between X and Y is no longer significant when M is controlled, the finding supports full mediation. If the relationship between X and Y is still significant when M is controlled, the finding supports partial mediation. In addition, the Sobel test was conducted to confirm the result of Baron and Kenny's mediation procedure.

3.7 Chapter Summary

This chapter has described the research methodology, covering the research design, population and sample, data collection methods and procedures, measurements, and finally the data analysis methods and procedures. Chapter 4 will present the data analysis results.