

## CHAPTER 4

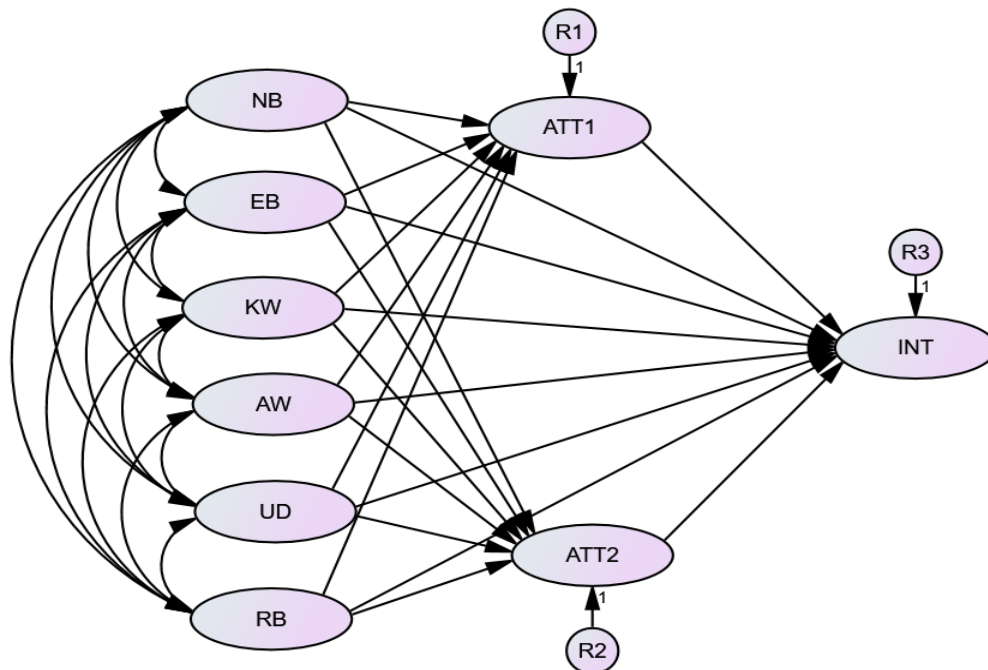
### RESEARCH METHODOLOGY

#### 4.1 Overview

This chapter presents the research methodology, starting with discussions on conceptual framework in section two. Then, section three and four explain the methodology of research and research strategy respectively. Research method is discussed in section five. Section five shows the explanation the research design. Next, this chapter shows the explanations on qualitative method (semi-structured interview) in section seven which comprise on the explanation pertaining significance of conducting the interviews, the interview design, types, sampling, administration of interview, potential sources of error, validity and reliability of interviews. Then, this chapter shows the explanations on quantitative method (questionnaire) in section eight which comprise on the explanation pertaining significance of conducting the questionnaire, sampling, uni-dimensionality, validity and reliability of questionnaire and normality tests. Then, this chapter deliberates on the data analysis method in section nine and ten. Lastly, section ten concludes this chapter.

## 4.2 Conceptual Framework

This part is to highlight the conceptual framework of the research based on the literature reviews and interviews results conducted in the preceding chapters. This will be achieved by comparing several ATT-INT models. The models were improved by creating an integrated research model. The proposed frameworks incorporated new additional variables such as cognitive (RB, KW, AW and UD). This study adopts a systematic combination of inductive-deductive social science research approach. Research hypotheses are proposed to validate the research framework as presented in previous chapter.



**Figure 4.1:** Conceptual Framework (Users)

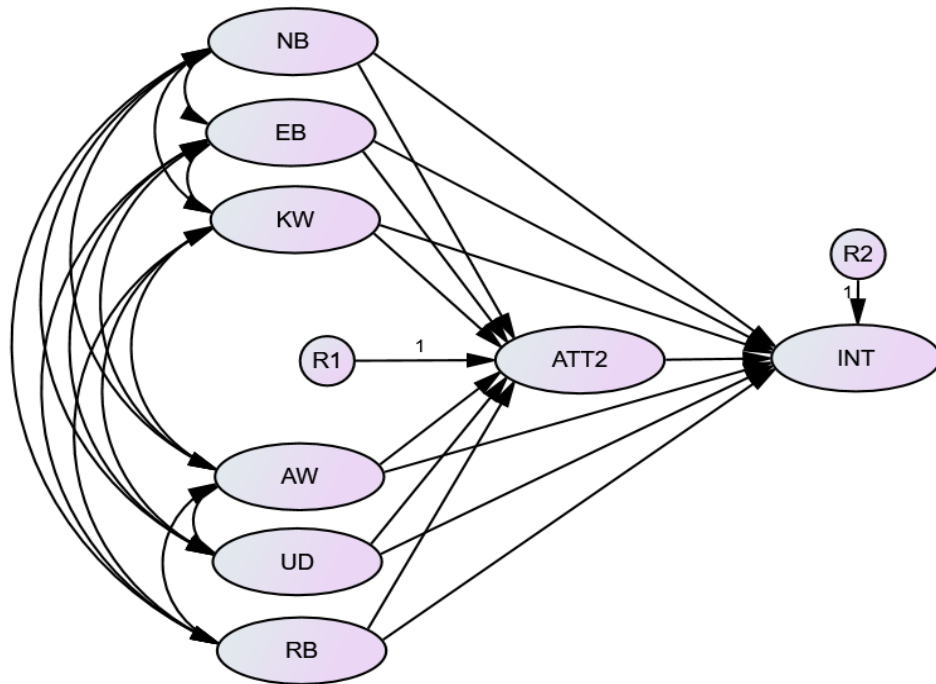


Figure 4.2: Conceptual Framework (Non-Users)

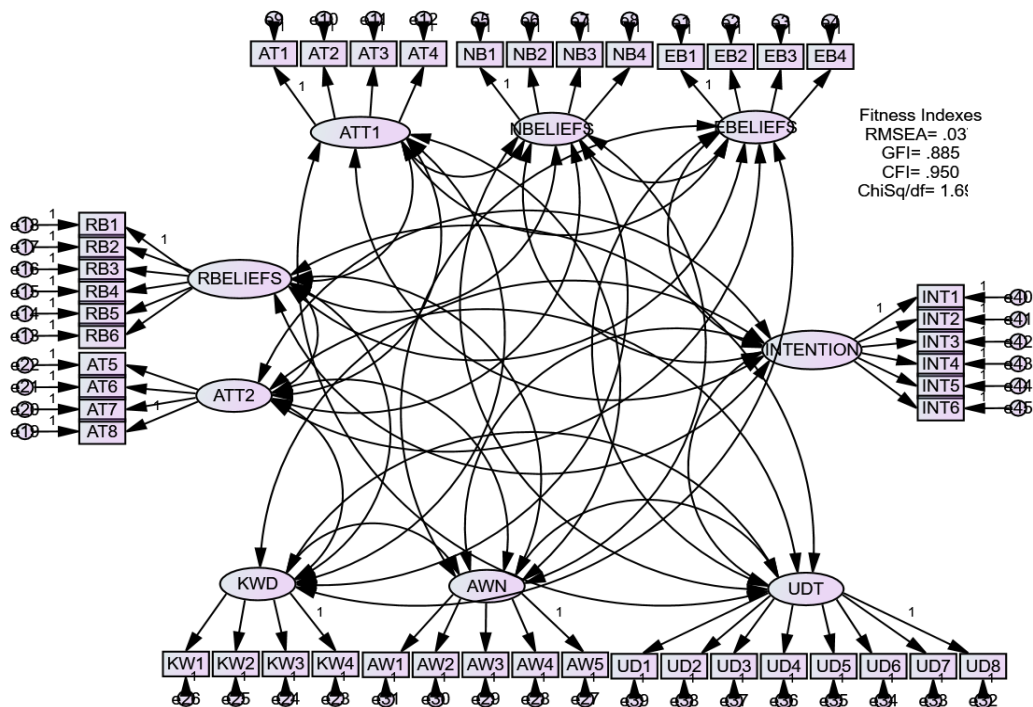
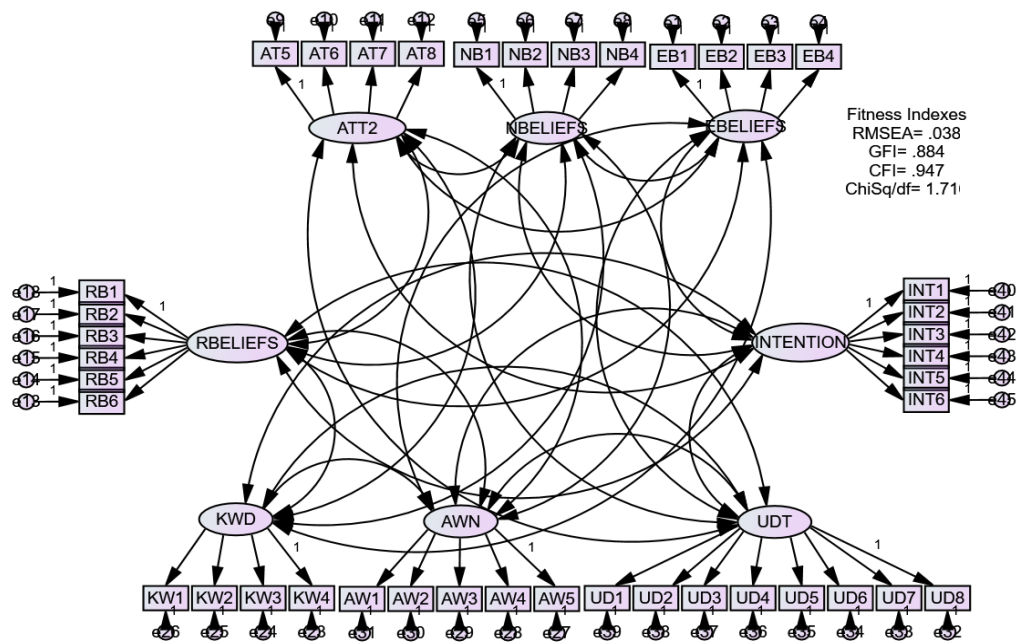


Figure 4.3: Framework for Confirmatory Factor Analysis (CFA)-Users



**Figure 4.4:** Framework for Confirmatory Factor Analysis (CFA)-Non-Users

A good framework in research begins with good strategies in data collection as to observe in particular contexts, along with contextually appropriate techniques for doing so. It also includes processes for integrating research/data from other practice areas as well as specific methodologies for making meaning of the raw research (Kumar, 2014).

As shown in figure 4.1, 4.2, 4.3 and 4.4, it shows the synthesis of theory as well as literature and results from interviews findings in dimension of demand-side on how to explain a phenomenon. These frameworks development maps out the actions needed in the study as point of views and observations on the subject of research. In other words, the conceptual frameworks in this study represent understanding of how particular variables connect with each other.

### **4.3 Research Methodology**

Research methodology and research method are two (2) distinct things. The former connotes wider scope than the latter, where it can be defined as a way to systematically solve the research problems or a science of studying how research is conducted scientifically (Kumar, 2014).

Research methodology includes the study with various steps which are generally adopted by the researchers in studying the research problems along with the logic behind them (Babbie, 2014). In this relation, the researcher must know not only the research method techniques but also includes its methodology. Thus, researchers not only need to know how to develop certain tools and to apply particular research techniques, but they also need to know which of the methods or techniques are relevant, and what would they mean and indicate and why.

Furthermore, in terms of research methodology, researchers need to know the criteria by which they can indicate on certain problems and others will not (Babbie, 2014). Research methodology has many scopes and research methods do constitute a part of research methodology. Therefore, the discussion on research methodology will not only include research methods, but also consider the logic behind the methods used and explain why it is important in adopting particular methods or techniques.

In addition, research methodology is based on the approaches to inquiry or the process taken to find answers to the research questions is divided into two major types of research which are first is qualitative research methodology which it is a research strategy that usually emphasizes words rather the quantification in the collection and analysis of data (Kumar, 2014). Likewise, it is concerned with qualitative phenomenon which relates to or involves quality or kind. Therefore, it explores

processes rather than outcomes and focuses on the meaning of experiences by exploring how people define, describe and metaphorically make sense of these experiences.

On the contrary, the second is the quantitative research methodology is based on the measurement of quantity or amount and often described as entailing the collection of numerical data as exhibiting a view of the relationship between theory and research as a deductive relationship (Babbie, 2014). The analysis of data subjects variables to frequency distributions, cross tabulations or other statistical procedures. Whilst the organization in the communication of findings is more analytical in nature and it makes inferences and conclusions for example by means of testing the magnitude and strength of a relationship between variables.

Hence, for the purpose of this study, both qualitative and quantitative research methodology are implemented as it involved both exploring experiences from experts from the reality and emphasizing objective measurements through numerical analysis of data collected by conducting survey questionnaires, and also it aims to examining subject and the field.

#### **4.4 Research Strategy**

In social research, the connection between theory and research leads to two distinctive clusters of research strategy namely inductive and deductive (Babbie, 2014). In other words, each strategy has connections with particular philosophical and theoretical traditions. Indeed, inductive research strategy is more open ended and

exploratory in nature, particularly at the beginning while deductive strategy is narrow in nature and is more concerned on testing theories and confirming hypotheses.

Inductive research strategy aims to establish descriptions of characteristic and patterns through the realities of the field or the social reality (Ranjit Kumar, 2014). Thus, it starts with the collection of data on particular characteristics and later produces descriptions. Then it relates these descriptions to the research questions. It ends up by developing some general conclusions or theories.

On the other hand, deductive research strategy aims to test theories, eliminate the false one and corroborate the survivor. It starts with identifying the regularity that needs to be explained, and later it constructs a theory and deduces hypotheses. This strategy ends when it tests the hypotheses by matching them with data explanation in that context.

Therefore, the both inductive and deductive approaches were chosen as a suitable approach to this study as it employed to establish pattern and test theory.

#### **4.5 Research Method**

Research method can be defined as a technique for collecting data that involve a specific instrument, such as interviews, self-completion questionnaires or participant observation (Saldana, 2014). Therefore, these methods adopted by researchers in performing the research operations during the course of studying research problems. In doing so, the research techniques employed must be appropriate for the questions to be answered or research questions that entail the selection of methods to be employed. They must be based on the required information, from whom and under what circumstances. In addition, the choice of research methods will also reflect some

practical considerations related to time, resources and access to the sources of data but, they must be consistent with research methodology, design and strategy.

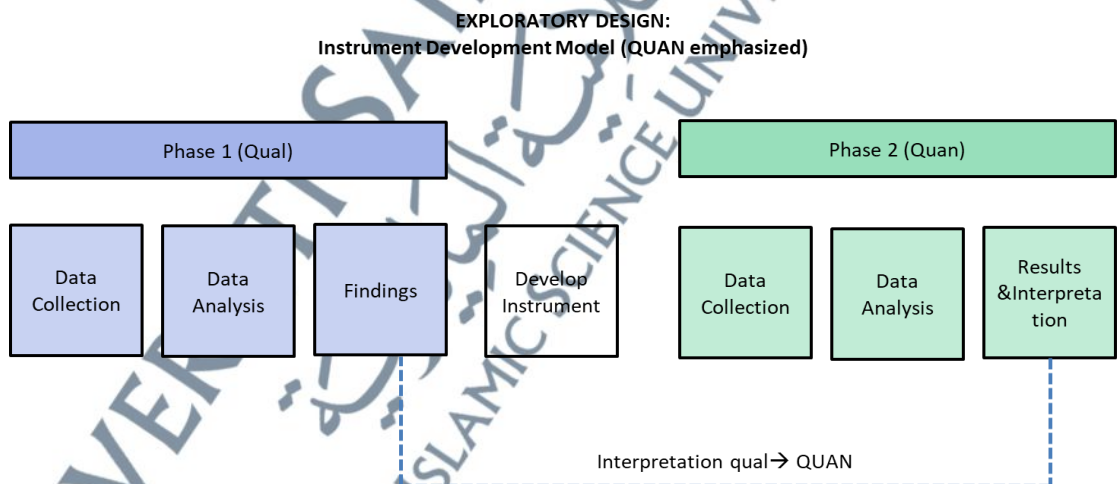
There are two broad categories of the common used by social science researchers. Quantitative method is most often used when the motives for research are explanatory, descriptive or evaluative (Babbie, 2014). Data that are treated as quantitative can either be in numbers or attributes which can be ordered in terms of magnitude for example, people's attitude and behavior. The main research method associated with quantitative research is surveys. Surveys gather data at a particular point in time and vary in their levels of complexity from providing simple frequency counts to that which present a relational analysis.

Meanwhile, qualitative method is most often used when the motive is exploration. Data that are treated as qualitative are mainly those which are written or spoken words or observations which do not have direct numerical interpretations. The main research methods associated with qualitative research are participant observation, qualitative interviewing, focus groups, language-based approaches to the collection of data such as conversation analysis and the collection and qualitative analysis of texts and documents (Ranjit Kumar, 2014).

Therefore, both qualitative and quantitative methods are chosen because the data would enrich this research. Specifically, it links between explore the phenomena, thus predict and test the theory, as the methods emphasis on validity and reliability. Therefore, by using these mixed-methods would provide a more holistic as to build facts and predicts behavior as it retrieves qualitative and quantitative elements.

#### 4.6 Research Design

Before collection of the data, a research needs a design that comes from the work plan and it is important for answering the research questions. Babbie (2014) classified research design types into four, which are triangulation, embedded, exploratory and explanatory design. The triangulation design denotes to the practice of using various sources of data to analyzing data to enhance the credibility of a study. Meanwhile, embedded design synthesizes the different data sets at the design level, with one type of data being entrenched within a methodology framed by the other data type. Explanatory design is known as causal research as it is conducted in order to identify the nature of cause-and-effect relationships and exploratory design is based on the results of first method of qualitative which help to inform the second method which is quantitative.



Source: Creswell & Clark (2007)

**Figure 4.5:** Research Design

As shown in figure 4.5, this study implemented the exploratory design (QUAN emphasized) since it separate phases which make this study straightforward to describe, implement and report data. As such, the inclusion of quantitative can make the qualitative approach more acceptable to quantitative-biased audiences.

Therefore, to have the information needed, the study first conducted interviews with the key personnel of Islamic banks in Malaysia. This is because it is believed that, from the expert's point of views, they know more about the related area of topic based on their experience in area of interests. Then, a survey questionnaire is conducted with the selected customers (users and non-users of financing) of Islamic banks in Malaysia. However, before conducting the surveys, the study produced questionnaires guide to make it easier for them to answer the survey. Based on the results and interpretation from quantitative is helps this study to interpret and validate the results of interviews.

To simplify, the implication of using exploratory design is based on the viewpoint inquiry revolves around the subject or issue of whether ATT-INT is an objective reality, or an aspect of subjectivity or the interaction between the two. For instance, customer ATT-INT can be seen as falling along the continuum of extreme objectivism to the other extreme of subjectivity. Also, as the epistemology is the science of knowing (Babbie, 2014), the useful for using this types of design is help to answer question of whether the same principles, procedures, and ethos can be applied to users' and non-users of financing which based on the implication on attitudes (ATT) and intention (INT). This design also helps the ontological and epistemological position in this study as it based on the Islamic worldview of ontology on what is reality and how knowledge can be acquired.

## **4.7 Qualitative Method: Semi-structured Interview**

### **4.7.1 Significance of Interviews for this Study**

Since this study aims to explore the participants' perceptions, experiences and perspectives from the related respondents, it is essential that the views from them to be revealed.

Thus, the aim of conducting interviews is to develop a clear insight of practices from these industry players who are involved directly in the implementation of equity-based financing (EBF) contracts whether the existing practices is exhaustive sufficient in governing the contracts and problems faced by the Islamic banks in implementing these types of contracts.

### **4.7.2 Interview Design**

In preparing the interviews sessions, there are several necessary steps. The design of the interview must always be guided by its aims. Therefore, the first important step is to study the themes which are necessary for the construction of interview questions or interview guides. These themes can be derived from and translated into the research questions. Then they would be translated into interview questions. The questions constructed were relevant to those to be interviewed. Most of the questions are semi-structured where the interviewees were given the flexibility to express their views freely and based on the questions given, in accordance with their experience and knowledge. The interview questions are presented in the Appendix.

Apart from the questions guide, another important aspect to be considered was the position held by the potential interviewees taking into account their level of

knowledge and experience that they might have. Generally, the higher the position of the participants, the more detail and in depth information can be obtained. Therefore, in order to explore and understand the insight practices of EBF contracts, the participants selected is based on their positions and knowledge, where most of them are the individuals who involved directly, starting from the idea to the implementation of EBF contracts in Malaysia.

#### **4.7.3 Types of Interviews**

Generally, interviews can be grouped into three; structured interview, semi-structured interview and unstructured interview (Babbie, 2014). The main differences between them stem from the degree of control exercised by the interviewer over the nature of the responses and the length of the answers allowed by the interviewee.

Structured interview involves a tight control over the format of the questions and answers. In other words, it is more likely a questionnaire which is administered face to face with the interviewee in which he is invited to offer limited option responses, thus offering a relatively easy data analysis through the advantage of standardization of the answers. This type of interview is best suited in the collection of quantitative data.

On the other hand, in semi-structured interview, the researcher has a list of questions or a fairly specific topic to be covered, often referred to as an interview guide, but the interviewee has a great deal of leeway in how to reply. Questions may not follow on exactly in the way outlined on the schedule. Thus, the answers are open-ended and there is more emphasis on the interviewee elaborating points of interest.

Unstructured interviews go further in the extent to which emphasis is placed on the interviewee's thought and opinion. In this situation, the interviewer just introduces the theme or topic and let the interviewee develops the ideas and thoughts.

For the purpose of this study, a semi structured-interview is adopted as it offers the flexibility in allowing the interviewee/ participants to develop ideas and speak more widely on the points of interest, whilst the interviewer still has a clear list of issues or interview guide to be addressed. This type of interview is the most appropriate to discover and explore perceptions, experiences and perspectives from different views of participants. Most importantly, interviews enable them to relate their perceptions with their position and experience.

#### **4.7.4 Interview Sampling**

Kumar (2014) argues that most of the people choose purposive sampling for the interview. Purposive sampling is indeed a non-probability form of sampling. In doing so, the researcher does not search for the sample research respondents on a random basis. The objective of purposive sampling is to sample cases/respondents in a strategic way, so that those sampled are relevant to the research questions that are being posed. Purposive sampling is deemed to be essentially strategic and it entails an attempt to create a good correspondence between research questions and sampling. Thus, the researcher will target to interview people who are capable of answering the research questions. In other words, the researcher samples are on the basis of wanting to interview people who are relevant to understand a social phenomenon related to the research questions.

For the purpose of this research, purposive sampling is chosen due to its characteristics and relevancy, as this research aimed at interviewing the right individuals who are familiar and took part in the debate related to *Shariah*, legal, operational side and risk management practices (RMPs) aspects in EBF contracts.

To justify the reason on the sample selection were seven (7) participants, as well as this study were on phenomenological, according to Morse (1994) advocates at least six (6) participants need in conducting qualitative research. There are no exact rules when determining a suitable sample size in qualitative research and it may best be determined by the time-allotted, resources accessible, and study objectives (Patton, 2014).

The wording of the interview guide is maintained as same among the participants to ensure greater reliability. Should the interviewee require further clarification to the question, the researcher tried to explain the intention of the interview questions. The sampling is purposely continuing until a total of 7 participants as it has been saturated in data and no new data is likely to emerge.

#### **4.7.5 Interview Administration**

As part of the interview process, in identifying the names of the officials, various methods were utilized: including internet search and also consulting the specialist individuals about potential names in various department of Islamic banks as well as experienced in EBF contracts.

Only then, emails were sent or telephone calls were made either directly to the interviewees/ participants or through their secretary to make an appointment to interview them. Through email correspondence, an explanation for interview and its

aim was given. An explanation was also given on the purpose of the study and the importance of the participant's contribution towards the research.

Besides, the interviewees were also informed about the expected length of the interview, taking into account the list of the interview questions. Then, one or two days before the interviews took place, reconfirmation of the date and time of interview was also made through the email or telephone call to ensure the smoothness of the plan. The interviewees were also reminded that data are used only for the academic purpose and they were also assured of regarding the confidentiality of the information.

Prior to the interview, the consent to use a voice recorder is required from the participants, so that the recording process would not interfere with interview and they would be more comfortable in expressing their views. As much as possible, each interview was made in an efficient professional manner and friendly environment, where the participants were also allowed to ask questions, if any. The main rule in conducting an interview is that it should be focused on the subject matters discussed without any departure to it from either the interviewer or the interviewee unless they relate directly to the subject and are part of the searching the information.

In order to have a systematic way of interview, the questions were asked according to their priority, where general questions came first and followed by specific ones. Each question is also numbered to keep track and avoid repeating it. In the event there is any difficulty in understanding the questions, the researcher provided clarifications over the issue, either by rephrasing the questions or explaining the intention of the questions. Within one to two hours, the interview would end where at the end of each session a token of souvenir were given to the interviewee for the information given and time spent.

#### 4.7.6 Potential Sources of Error

There are few factors that can be considered potential sources of error for interview data. These include interviewer's personal identity, involvement and self-presentation (Saldana, 2014). Personal identity and presentation of the researcher namely sex, age, ethnic origins and occupational status will potentially affect the interview data.

Due to the fact that the interviewer and interviewee have their own preferences and prejudices, they are likely to have impact on the chances of developing rapport and trust during the interview. Therefore, taking into consideration that all these attributes of the interviewer cannot be simply changed, but the effort to be polite, courtesy and punctual, receptive and neutral as well as to listen and learn rather than preach, can encourage the right climate for an interviewee to feel comfortable, and yet provide honest answers (Kumar, 2014).

In addition, the interviewer needs also be aware that the interviewees/ participants understand the questions posed. Therefore, the questions must be clear and short, with no jargon that make the interviewee easy to understand. Furthermore, the interviewer needs to be balanced, in the sense that he or she cannot talk too much which may make the interviewee passive, or the interviewer cannot also talk too little which may result in the interviewee feeling that he or she is not talking along the rights lines.

In applying all those important principles in this interview, the questions have been drafted in a short and simple to ensure the interviewees are able to comprehend and respond to the questions smoothly.

#### 4.7.7 Validity and Reliability of Interviews

Reliability concerns with the degree to which the finding is independent of any accidental circumstances of the research, while validity is the degree to which the finding is interpreted in a correct way (Babbie, 2014). This shows that perfect reliability can be easily obtain without validity at all. However, perfect validity, on the other hand, would ensure perfect reliability, for each observation would contribute to the complete and exact truth.

For that reason, in order to ensure validity in the interview data, the most significant question to bear in mind is whether the interview questions asked measure what they claim to measure. In relation to this, an element of bias seems the main cause of invalidity of interview data.

Thus, in order to achieve perfect validity and perfect reliability, the element of bias should be as far as possible be minimized in the process of the interview. Biasness in an interview can occur due to the characteristic of the interviewer, and the questions themselves. More specifically, the element of bias exists in these following situations (Saldana, 2014):-

- 1) The attitudes, opinions and expectations of the interviewer as well as his or her personal identity and personal presentation;
- 2) A tendency of the interviewer to perceive the interviewee in his or her own picture;
- 3) An interviewer already has a preconceived notion and try to seek the answer to support it;
- 4) An interviewer's misperceptions and error in understanding on what the interviewee is saying; and

- 5) The interviewee's mistake in understanding the questions that are being asked to him or her.

In addition, one way of controlling the reliability is to maintain the same word of questions, procedures, and have a similar recording and rapport to interviewee. In this situation, applying those principles and rules to this study, sufficient training on part of the interviewee might be useful to ensure the validity and reliability of the interview data.

Having said that and paying high attentions to those matters, by having necessary training or practices and adequate preparation for the interview, the researcher as the interviewer in this study had as far as possible, tried to avoid these situations that could lead to the invalidity and unreliability of the interview data

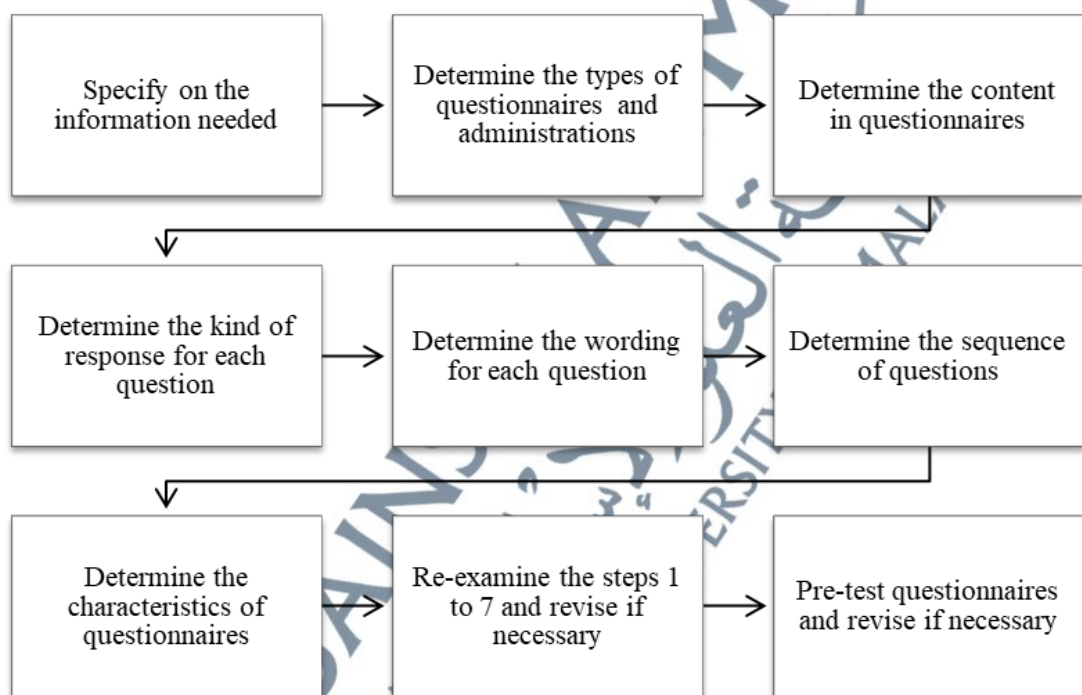
#### **4.8 Quantitative Method: Questionnaire Survey**

##### **4.8.1 Significance of Questionnaire for this Study**

Since this study aims to examine and predict the respondents' attitudes and intention (ATT-INT) towards financing, it is essential that the verifiable observation as opposed to theory to be revealed. Thus, the aim of conducting survey questionnaires is to assist in accomplishing the research objective for this study to develop what motivates survey respondents and what is important to them, and gather meaningful opinions, comments, and feedback.

#### 4.8.2 Questionnaires Design

In preparing the questionnaires, there are several necessary steps. The design of the questionnaires must always be guided by its aims. Therefore, the first important step is to specify what information that will be sought. The information can be derived from predicting and translated into the specific questions.



Source: Kumar (2014)

**Figure 4.6:** Steps in Conducting Survey Questionnaires

According to Kumar (2014), there are nine (9) steps to develop questionnaires design as shown in figure 4.6. The important of these steps is in order to meet the research objectives, as well as to find the answers to the research questions posed. The basis of all questionnaires is the questions, and the built questionnaire needs to follow certain procedures.

### **Step 1: Specify the Information Needed**

The first step is required as it help to translate the research objectives into the specific questions and it motivate the respondents to provide the information being sought.

There are seven (7) different parts questionnaires is crafted. First is screening part questions. Part A is the respondents' details on attitudes and intention. Part B is information regarding their knowledge, awareness and understanding. Part C is about their behavioral beliefs, normative beliefs and efficacy beliefs. Part D then is about their environmental factors. Part E is about their religiosity dimensions. Lastly part F is about their demographic information.

### **Step 2: Determine the Types of Questionnaires and Administrations**

This study chooses online-based and paper-based questionnaire technique as it required the researcher to deliver the questionnaires to the respondents and then collect them personally. The advantage of using paper-based questionnaires as it allows those without internet facilities to complete the questionnaire offline because it will increase the response rate. Then, the advantage of using online-based questionnaires as it allows those with internet facilities to complete the questionnaire online because it will also increase the response rate.

### Step 3: Determine the Content of Questionnaires

**Table 4.1:** Questionnaire Contents

Constructs	Items	Sources
Attitudes towards Current Financing (ATT1)	Participating in SBF is the right thing to do.	Abdun & Razak (2012); Alam et al., (2012); Amin et al., (2014); Ali et al., (2017); Balushi et al., (2018); Zabri & Mohammed (2018)
	Participation in SBF is beneficial and rewarding.	
	Participating in SBF will enable me to contribute to the development of SBF.	
	I appreciate the fact that <i>SBF</i> is available in Malaysia.	
Attitudes towards EBF (ATT2)	Participating in <i>Musharakah</i> and/or <i>Mudharabah</i> financing is the right thing to do.	
	Participation in <i>Musharakah</i> and/or <i>Mudharabah</i> financing is beneficial and rewarding.	
	Participating in <i>Musharakah</i> and/or <i>Mudharabah</i> financing will enable me to contribute to the development of <i>Musharakah</i> and/or <i>Mudharabah</i> financing.	
	I appreciate the fact that <i>Musharakah</i> and/or <i>Mudharabah</i> financing is available in Malaysia.	
How would you rate your knowledge of the following:		
Knowledge (KW)	The basic principles and objectives of Islamic banking	Adopted from interviews results.
	The various retail and finance instruments that are available from Islamic banking	
	Knowledge on the existence of EBF in IB	
	The name of Islamic banking that operative in Malaysia	
How familiar are you with the following?		
Awareness (AW)	<i>Mudharabah</i> (Capital trust when the lender share only profit but not loss)	Adopted from interviews results.
	<i>Musharakah</i> (Full partnership in profits and losses)	
	<i>Tawarruq</i> (Mark-ups on sale)	
	<i>Ijarah</i> (Lease financing)	
	<i>Bai' Bithaman Ajil</i>	

How would you rate your understanding of the following:		
Understanding (UD)	The profit sharing concept in associated with <i>Musharakah</i>	Adopted from interviews results
	The profit-and lonss sharing concept in associated with <i>Mudharabah</i>	
	The method of computing profit in <i>Musharakah</i> and/or <i>Mudharabah</i> financing is not similar to other types of contracts in Islamic financing.	
	The pricing of <i>Musharakah</i> and/or <i>Mudharabah</i> financing is fair because it is based on rental value of assets/goods.	
	<i>Musharakah</i> and/or <i>Mudharabah</i> financing are based on justice and equality.	
	<i>Musharakah</i> and/or <i>Mudharabah</i> financing reflects the true spirit of Islam in promoting the well-being of society.	
	<i>Musharakah</i> and/or <i>Mudharabah</i> financing contributes positively to the equitable distribution of wealth and income.	
Normative Beliefs (NB)	<i>Musharakah</i> and/or <i>Mudharabah</i> financing offers risk-sharing practices among parties	Abduh & Razak (2012); Alam et al., (2012); Amin et al., (2014); Ali et al., (2017); Balushi et al., (2018); Zabri & Mohammed (2018)
	My spouse/parents think that I will fulfil my religious obligation if I make use of <i>Musharakah</i> and/or <i>Mudharabah</i> financing.	
	Most of the people that are important to me think that I should make use of <i>Musharakah</i> and/or <i>Mudharabah</i> financing.	
	The viewpoints expressed by Shariah Scholars influence my decision to use <i>Musharakah</i> and/or <i>Mudharabah</i> financing.	
Efficacy Beliefs (EB)	It is expected of me that the <i>Muslim</i> Brotherhood is strengthened if I participate in <i>Musharakah</i> and/or <i>Mudharabah</i> financing.	Abduh & Razak (2012); Alam et al., (2012); Amin et al., (2014); Ali et al., (2017); Balushi et al., (2018); Zabri & Mohammed (2018)
	I know enough about <i>Musharakah</i> and/or <i>Mudharabah</i> financing products to make an informed decision to use or reject it.	
	The use of Arabic terminology for Islamic financing products makes it difficult to understand Islamic finance.	
	My knowledge of Arabic is adequate to make an informed decision to accept or reject Islamic finance.	
Religiosity Beliefs	Knowing that Islamic banking in Malaysia still practice the <i>Musharakah</i> and/or <i>Mudharabah</i> financing affects my attitude.	Dali et al. (2019)
	Muhammad (PBUH) is His last prophet.	

(RB)	I believe there is only one Allah.	Zabri & Mohammed (2018)
	I believe Quranic Teachings are suitable in today's life.	
	All mankind's good deeds will be judged and rewarded accordingly after death.	
	I believe <i>Rasulullah's</i> traditions are suitable throughout all times.	
	I believe that my faith is as a source of comfort.	
Intention (INT)	I am interested to use <i>Musharakah</i> and/or <i>Mudharabah</i> financing.	Zabri & Mohammed (2018)
	I am interested to use <i>Musharakah</i> and/or <i>Mudharabah</i> financing in the future.	
	I will use <i>Musharakah</i> and/or <i>Mudharabah</i> financing someday.	
	I will definitely recommend <i>Musharakah</i> and/or <i>Mudharabah</i> financing to others.	
	If an Islamic bank offers me to participate in <i>Musharakah</i> and/or <i>Mudharabah</i> financing, I intend to find sufficient information about the contract/s in order to become one of the participants.	
	If I apply for Islamic financing, I will seriously consider <i>Musharakah</i> and/or <i>Mudharabah</i> financing.	

For this study, the questionnaire was constructed through operationalization, which had been adapted from previous studies and adopted from results of interviews. By adapting and adopting the content of individual questions of those studies and integrates it which suitable for current study, it ensured that the questions had been well-developed and tested. The measures listed are shown in Table 4.1 above.

#### **Step 4: Determine the Kind of Response for Each Question**

The questionnaire was constructed by implementing closed-ended questions to ensure that the responses were standardized and could be compared from individual-to-individual. It was also easier to code and analyze, thereby saving time and cost.

These were constructed by using the Likert-scale, which provided the respondents with a sequence of defined numerical alternatives, such as strongly disagree, disagree, neutral, agree, and strongly agree.

#### **Step 5: Determine the Wording for each Question**

The study constructed the questionnaire in simple words in order to ensure that the respondents understood the questions in the same manner. At the same time, the questionnaire was also constructed by using two different languages, which were English and Malay, in order to ensure that those from various knowledge levels and age had been able to understand the questions and provide accurate answers.

#### **Step 6: Determine the Sequence of Questions**

In this step, this study ensured that the questions were sequentially constructed and employed a funnel approach. Besides, discussion with the experts had been very helpful in facing this phase.

#### **Step 7: Determine the Physical Characteristics of Questionnaire**

In this step, this study ensure that the questionnaire had a cover letter, straight forward instructions, a simple layout and design, a progress thermometer, question sequence, usage of quality paper, and suitable font size.

#### **Step 8: Re-examine Step 1 to 7 and Revise if Necessary**

Before the survey questionnaire was pre-tested, all the questions were reviewed to avoid confusion or ambiguity.

### **Step 9: Pre-test Questionnaire and Revise if Necessary**

Last but not least, a pre-test questionnaire was conducted for necessary revisions. The pre-test of the questionnaire was conducted among the customers, which involved 20 samples. As they were unfamiliar with the concept of financing, some of them refused to answer the questionnaire. Nevertheless, some of them suggested that the questionnaire needed amendments in terms of wording because some questions were incomprehensible.

Besides, they also suggested the need to provide the definition of sale-based and equity-based financing in the first page of the questionnaire in order to ensure that those lacked clarity concerning both types of financing would be able to figure out what they meant.

After all the comments from the respondents were considered and corrections were made on the questionnaires, the next step was to conduct a pilot test. The questionnaire is a measuring instrument that must be tried in the pilot test before major data collection for the study is undertaken.

Through the pilot test, deficiencies that were not apparent by simply reviewing the items may be uncovered. The pilot test of this study took 50 samples of the respondents in order to measure the reliability of the data. This pilot test was conducted among customers of Islamic banks. The results of the pilot test found that the data had been indeed reliable and relevant for use in the final survey.

### 4.8.3 Sampling Technique

Sampling is the process of selecting units (e.g. people, organizations) from a population of interest so that by studying the sample, any findings can be generalized or extrapolated to that target population with confidence (Saunders et al., 2007).

According to Sidek (2002), sampling is the best choice because the study need not bear high costs and labour energy in a relatively long time period to collect data. For the purpose of sampling, Gall et al., (2005) asserted that it does not necessarily have to be that all the members in a population are used as sample if the selected ones can adequately reflect the issue at hand and the phenomenon that the population has to face.



Figure 4.7: Steps of Developing a Sampling Plan

#### Step 1: Determining the population of interest

Determining the population of interest is the first step of developing a sampling plan. The population of interest in this study had been individuals who were aware of and have basic information about the Islamic financing. In order to identify this population and for this study to be conducted within them, Muslim community

and customers of Islamic banking were chosen because the study believed that this population was synonym and possessed knowledge about those instruments. Obviously, they could be a good indication to the factors that influenced individual's intention.

### **Step 2: Choose data collection method**

As mention earlier in previous section, paper-based and online-based questionnaire was used as the main data collection method.

### **Step 3: Choose sampling frame**

The sampling frame is a list of all cases in the population from which the sample is drawn. Choosing an appropriate sampling frame for the current study depends on the characteristics of the target population under investigation and the sources available for identification of potential subjects. There are 16 Islamic banking in Malaysia.

However, it is difficult to obtain the Islamic banking users database from the banks since the banks are governed under Islamic Banking Act 1983 and Banking and Financial Institutions Act 1989 (BAFIA) which requires them to adhere to secrecy provision. Information about the customers is not allowed to be disclosed except to the parties as stated in the act (BAFIA 1989). IBA 1983 and BAFIA 1989 act have been re-appealed and two new acts have been introduced namely as Islamic Financial Service Act (IFSA) 2013 and Financial Service Act (FSA) 2013 since June 2013. Therefore, for the present study, non-probability sampling seems to be the most appropriate sampling method.

#### **Step 4: Select a sampling method**

There are three major types of non-probability sampling, which are: convenience sampling, quota sampling, and snowball sampling. Convenience sampling is one of the techniques under non-probability sampling in which the selection of respondents are based on convenient accessibility and proximity to the researcher. Convenience sampling is a useful method for theory application or to gain ideas about a subject of interest. Snowball sampling is a technique in which respondents are required to suggest other respondents who might be willing to participate in the survey.

Quota sampling involves with quota samples in which subsamples are selected from clearly defined groups. It is different from stratified probability sampling because it does not have sampling frame. However, quota sampling normally underrepresents certain components of the population such as the people from lower strata, manufacturing workers and overrepresented women with children and people from large family and it does not seem appropriate for this study.

All the non-probability sampling techniques have some advantages and disadvantages as compared to the probability sampling techniques. Some of the advantages are that they are cheaper, time efficient and most importantly, they can be used if the studied population and sampling frame cannot be determined. Nevertheless, the usage of non-probability sampling techniques reduces the ability of the researchers to generalize the findings from the non-probability studies to the entire population. Convenience sampling was used in the selection of the respondents.

#### **Step 5: Determine sample size**

Sample size is a critical factor because the current study uses SEM to test the proposed structural model and hypotheses. Crouch (1984) in his observation stated that, “a minimum sample sizes for quantitative consumer surveys are of the order of 300 to 500 respondents.”

In addition, a sample size between 500 and 1,000 is considered very good to excellent in instances where factor analysis is to be undertaken (Comrey and Lee 1992). Based on the above discussion, the present study planned to obtain a number of useable responses of between 100 and 500.

#### **Step 6: Execute sampling plan**

The last step was executing the sampling plan. In this step, this study only had to ensure that all steps were adhered to.

#### **4.8.4 Uni-dimensionality, Validity and Reliability of Questionnaire**

In the scientific study of the social sciences, the accuracy in the measurement model and the theoretical constructs of a model study should be viewed in terms of reliability and validity. Even though reliability is important; a reliable instrument does not necessarily mean that the instrument is valid. However, a valid instrument normally means that the instrument is reliable.

Nevertheless, validity tests are often not reported in many marketing papers despite its importance. In this subsection, a description of how this study establishes the reliability and validity of the survey instruments will be given. The present study

covers the measures taken in ensuring the uni-dimensionality, validity and reliability of the survey instruments.

Uni-dimensionality is achieved when all measuring items have acceptable factor loadings for the respective latent construct (Awang, 2015). In order to ensure uni-dimensionality of a measurement model, any item with a low factor loading should be deleted. For newly developed items, the factor loading for every item should exceed 0.5 and for established items, the factor loading for every item should be 0.6 or higher.

Validity is the ability of instrument to measure what it supposed to measure for a latent construct (Awang, 2015). Three types of validity are required for each measurement model is:-

a. **Convergent Validity:** This validity is achieved when all items in a measurement model are statistically significant. The convergent validity could also be verified by computing the Average Variance Extracted (AVE) for every construct. The value of AVE should be 0.5 or higher for this validity to achieve. Thus, retaining the low factor loading items in a model could cause the construct to fail Convergent Validity.

**b. Construct Validity:** This validity is achieved when the Fitness Indexes for a construct achieved the required level.

**Table 4.2:** Model Fit and Level of Acceptance

Name of category	Name of index	Level of acceptance
1. Absolute fit	Chi-Square	P-value > 0.05 (not applicable for large sample size more than 200)
	RMSEA	RMSEA < 0.08
	GFI	GFI > 0.90
2. Incremental fit	AGFI	AGFI > 0.90
	CFI	CFI > 0.90
	TLI	TLI > 0.90
	NFI	NFI > 0.90
3. Parsimonious fit	Chisq/df	Chi-Square/ df < 3.0

\*\*\*The indexes in bold are recommended since they are frequently reported in literatures

Source: Awang (2015)

The fitness indexes indicate how fit is the items in measuring their respective latent constructs. The Fitness Indexes, their respective category, and the level of acceptance are presented in Table 4.2.

**c. Discriminant Validity:** This validity indicates the measurement model of a construct is free from redundant items. AMOS could identify the items redundancy in the model through a discrepancy measure called Modification Indices (MI). High value of MI indicates the respective items are redundant. The researcher could delete one of the identified items and run the measurement model. The researcher could also constraint the redundant pair as “free parameter estimate”. Another requirement for discriminant validity is the correlation between exogenous constructs should not exceed 0.85. The correlation value exceeding 0.85 indicates the two exogenous constructs are redundant or having serious multicollinearity problem.

Reliability is the extent of how reliable is the said measurement model in measuring the intended latent construct. The assessment for reliability for a measurement model could be made using the following criteria:-

**a. Composite Reliability:** The Composite Reliability indicates the reliability and internal consistency of a latent construct. A value of  $CR > 0.6$  is required in order to achieve composite reliability for a construct. (CR is calculated using the given formula).

**b. Average Variance Extracted:** The Average Variance Extracted indicates the average percentage of variation explained by the measuring items for a latent construct. An  $AVE > 0.5$  is required for every construct (AVE is calculated using the given formula):-

$$AVE = \frac{\sum K^2}{n}$$
$$CR = \frac{(\sum K)^2}{[(\sum K)^2 + (\sum 1 - K^2)]}$$

Notes:

$K$  = factor loading of every item

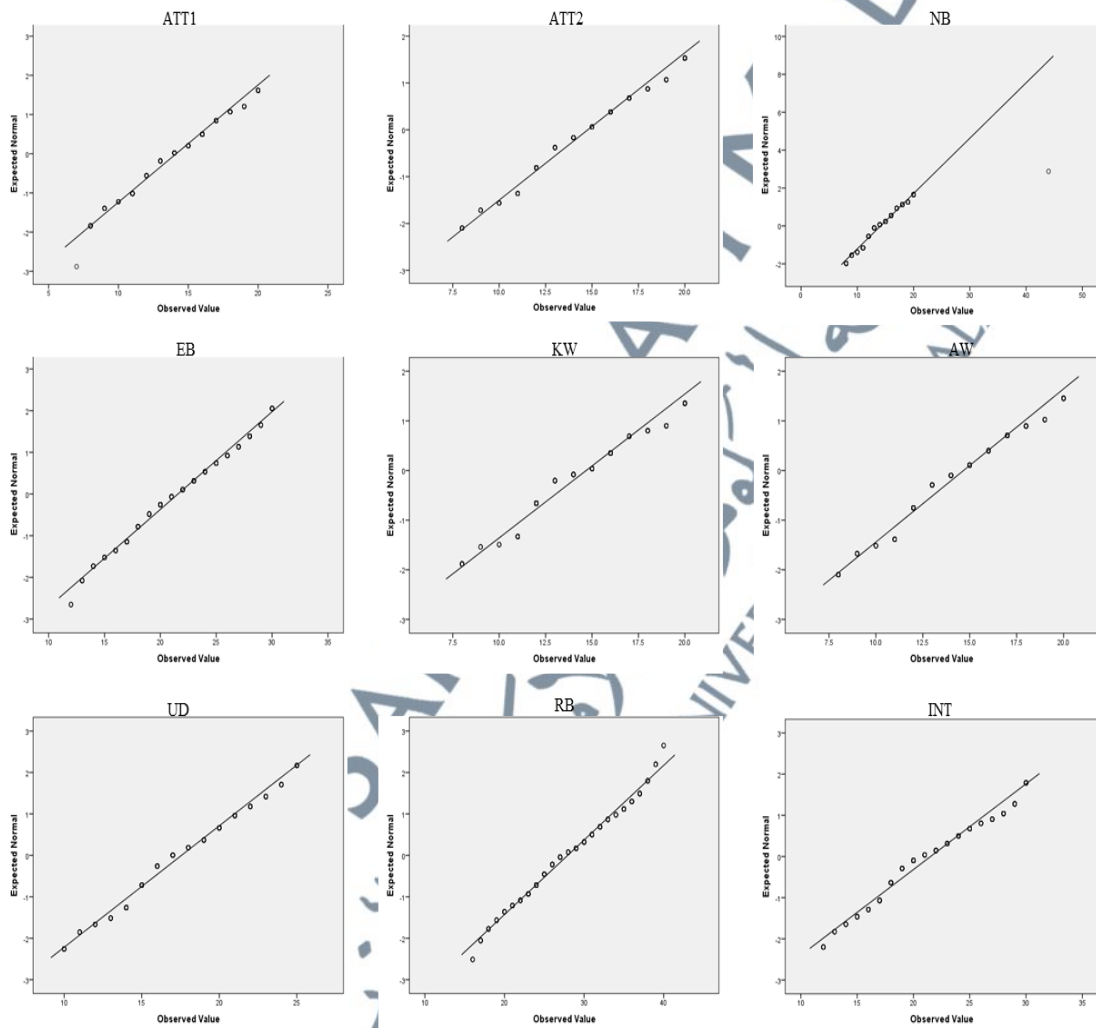
$n$  = number of items in a model

#### 4.8.5 Normality Tests

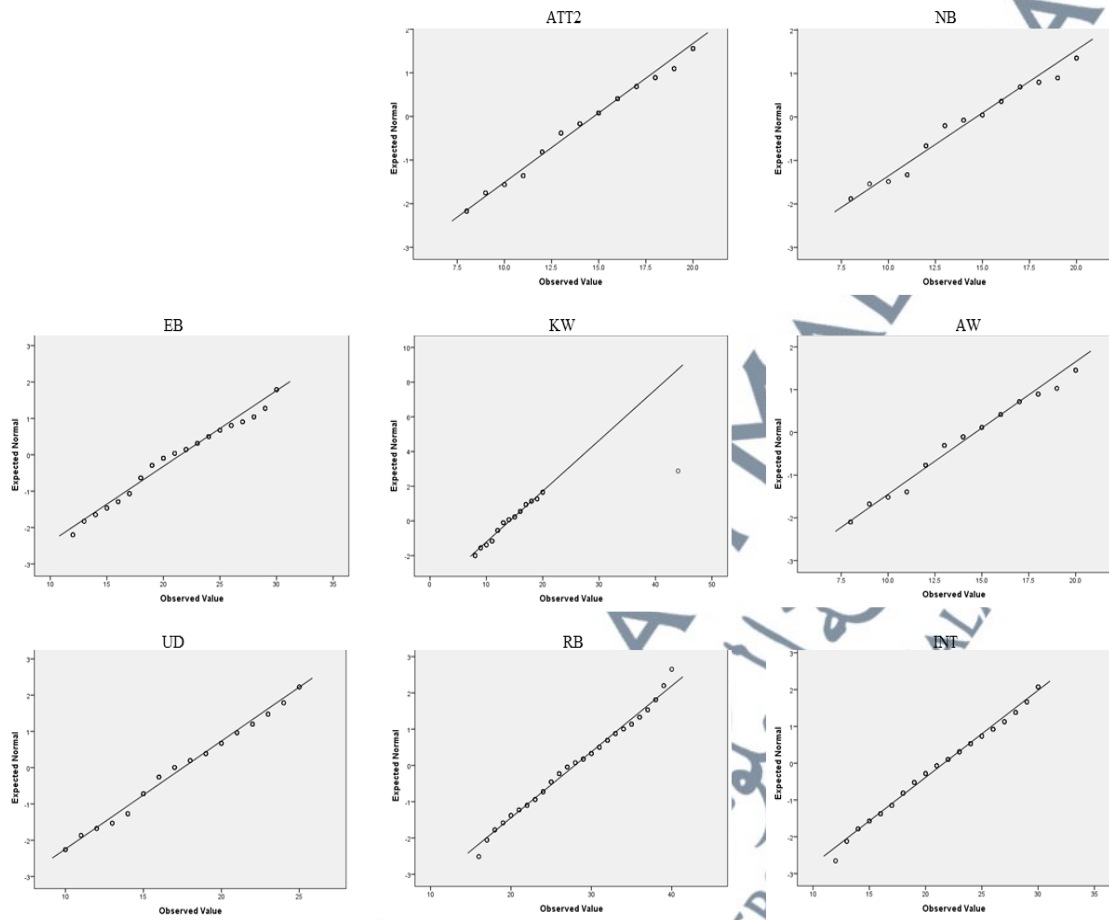
Normality tests is critical in many statistical methods as this assumption is disrupted and inferences made based on non-normal data may not be reliable or valid.

This is one of the reasons why researchers continually look at the nature of their data before conducting statistical tests as this procedure notifies them whether their data are normally distributed. To assess the normality test, this study used a quantile-

quantile plot (Q-Q plot) of the standardized data against the standard normal distribution. As such, these plots are easy to interpret and also have the benefit that outliers are easily identified.



**Figure 4.8:** Q-Q Plots for Users



**Figure 4.8:** Q-Q Plots for Non-Users

**Table 4.3:** Tests of Normality (Users)

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ATT1	.119	500	.000	.952	500	.000
NB	.124	500	.000	.957	500	.000
EB	.158	500	.000	.890	500	.000
RB	.094	500	.000	.979	500	.000
ATT2	.178	500	.000	.917	500	.000
KW	.151	500	.000	.937	500	.000
AW	.131	500	.000	.966	500	.000
UD	.088	500	.000	.982	500	.000
INT	.128	500	.000	.953	500	.000

a. Lilliefors Significance Correction

**Table 4.4:** Tests of Normality (Non-Users)

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ATT2	.124	500	.000	.960	500	.000
NB	.117	500	.000	.954	500	.000
EB	.177	500	.000	.917	500	.000
RB	.128	500	.000	.953	500	.000
KW	.146	500	.000	.938	500	.000
AW	.132	500	.000	.967	500	.000
UD	.085	500	.000	.983	500	.000
INT	.096	500	.000	.980	500	.000

a. Lilliefors Significance Correction

As stated in figure 4.7 and 4.8, the score appear to be reasonably normally distributed as a reasonably straight line suggests a normal distribution (Pallant, 2007). To assess the normality of the distribution data, it is useful for this study conducted tests of normality. In the context of this study, the significant values are .000, suggesting violation of the assumption of normality as this is quite common in larger samples (see table 4.3 and 4.4). Based on the fact that the Kolmogorov-Smirnov test as well as the Shapiro-Wilk W test accepted hypotheses of data normality, it was decided to conduct factor analysis in the next section.

#### **4.9 Qualitative Data Analysis Techniques**

A good technique in analyze the data collected is useful to develop a good framework in this research study (Kumar, 2014). In analyzing the data, the tool is important to ensure that the interviews process is run efficiently. Therefore, tape recorder is selected so that interviewer eases in analysis process.

From the tape recorder, the study analyzed the findings using NVIVO 12 software before inclusion in the thesis. By using the tape recorder to record the

answers, it is easier for the researcher to maintain eye contact and understand their participants during interviews. Thus, it is easier to discuss with them without the need to take notes and thus helps the interviewees to feel comfortable.

In addition, after interviews are done, all the recordings are transferred into the software and the copies sent back to the interviewees to enable them to make the necessary corrections before their inclusion in the thesis.

#### **4.10 Quantitative Data Analysis Techniques**

Structural equation modelling (SEM) grows out of, and serves purposes similar to, multiple regression, but in a more powerful way which takes into account the modelling of interactions, nonlinearities, correlated independents, measurement errors, correlated error terms, multiple latent independents each measured by multiple indicators, and one or more latent dependents also each with multiple indicators.

Hair et al. (2006) also argued that, “SEM is the best multivariate procedure for testing both the construct validity and theoretical relationships.” SEM is used as a more powerful alternative to multiple regressions, path analysis, factor analysis, time series analysis, and analysis of covariance.

Hair et al. (2006) added that by using SEM, the strength of relationships between constructs could be identified more accurately because it will consider measurement errors. The advantages of SEM compared to multiple regressions include:-

- 1) More flexible assumptions (particularly allowing interpretation even in the face of multi-collinearity);
- 2) The use of confirmatory factor analysis to reduce measurement error by having multiple indicators per latent variable;
- 3) The attraction of SEM's graphical modelling interface;
- 4) The desirability of testing models overall rather than coefficients individually;
- 5) The ability to test models with multiple dependents;
- 6) The ability to model mediating variables rather than be restricted to an additive model;
- 7) The ability to model error terms;
- 8) The ability to test coefficients across multiple between-subject groups;
- 9) The ability to handle difficult data (time series with auto-correlated error, non-normal data, incomplete data).

Moreover, where a regression is highly susceptible to errors of interpretation by misspecification, the SEM strategy of comparing alternative models to assess relative model fit makes it a more robust method.

#### **4.11 Chapter Summary**

This chapter presented the research methodology, starting with discussions on conceptual framework in section two. Then, section three and four explain the methodology of research and research strategy respectively. Research method is discussed in section five. Section five showed the explanation the research design. Next, this chapter showed the explanations on qualitative method (semi-structured

interview) in section seven which comprise on the explanation pertaining significance of conducting the interviews, the interview design, types, sampling, administration of interview, potential sources of error, validity and reliability of interviews. Then, this chapter presented the explanations on quantitative method (questionnaire) in section eight which comprise on the explanation pertaining significance of conducting the questionnaire, sampling, uni-dimensionality, validity and reliability of questionnaire. Then, this chapter deliberated on the data analysis method in section nine and ten.