

CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

As discussed in Chapter 2, this research study aims to determine the variables that influence customers' preference and decision to switch from the conventional banking system to the Islamic banking system/operating Islamic windows in conventional banks. The research methodology represents a detailed discussion on the research methods employed to pursue the research questions of the study. The data collection methods and techniques employed in this study depend on the scope of the study determined in the earlier chapters.

Research methodology defines the pathway to conduct any given study in the right manner. Research methodology provides a systematic approach to investigate the research problem. It may be understood as a science of studying how research is done scientifically (Atwood, 2019). A research methodology is responsible for the attempts made by academicians to explore the solutions to the research questions to the point of conclusion. The practitioners have to combat problems that they encounter during the search for the solutions raised in the research questions. These problems can easily be solved by the successful adoption of the appropriate research methodology (Igwenagu, 2016).

4.2 Research Process

Research methodology is the backbone of the entire research study as it provides useful insights in all the stages and the steps to be carried out to examine a problem under review in an orderly manner. The process gives a brief knowledge of the steps

and procedures involved in the study (Kumar, 2011). The present study includes the following steps to reach the results:

- a. Formulating a research problem
- b. Conceptualizing a research design
- c. Executing the literature review
- d. Identifying the research variables
- e. Developing testable statements, i.e., hypothesis
- f. Preparing the research design
- g. Highlighting the chosen research approach and paradigm
- h. Determining the sample design
- i. Collecting the data (Cohen, 2013)
- j. Executing the project
- k. Analyzing the collected data
- l. Testing the hypotheses statistically
- m. Interpreting the analyzed data
- n. Discussing the research results
- o. Preparing the report or the thesis/conclusion

The research process is conducted using a systematic and objective evaluation as well as by synthesizing evidence drawn from the results after a careful examination of the collected data. The process includes different types of research strategies, approaches, data collection techniques, and tools used for data analysis.

4.3 Research Strategies

Research strategies help in determining the road map of the study so that it can be conducted efficiently. Based on the scope of a research investigation, a clear and defined research strategy guides the researcher to develop the research plan, execute it, and then monitor it following a systematic process. The plan supports the high status, and thus there is a requirement of applying the research methods so that the research

study can be guided appropriately (Meissner *et al.*, 2010). The research strategies include the type of data, which is collected, i.e., primary or secondary, the time or paradigm, in which the study is conducted, the sampling methods adopted, and so on. Currently, the literature suggests that there are several strategies elaborated in research and the researcher has to choose the most appropriate among them for his/her research. These strategies are essential to determine the type of study a researcher is conducting to fulfill the objectives of the investigation (Atwood, 2019).

The current study collected the opinions of conventional bank customers by using a survey questionnaire to obtain data in order to analyze the variables that influence them to switch to Islamic banks and the Islamic banking system. Thus, the data in this study was collected using the quantitative data collection technique.

The research strategy is dependent on the objectives of the study, in which the selected strategy helps the researcher to pursue the answers to the research questions that are in alignment with the research objectives. Besides that, the researcher needs to ensure that the methods or strategies are chosen in an ethical manner (Denzin & Lincoln, 2006). No one should be harmed in the course of the research work. Research strategies are composed of research methods, paradigms, designs, data collection techniques, approaches, sampling, and data analysis methods (Margetta *et al.*, 2019).

4.4 Research Paradigm

Research paradigm is defined as a philosophical and theoretical framework of scientific approaches that include theories, laws, and experiments which justify their formulation of the framework (Rehman & Alharthi, 2016). According to Kuhn (1970), a paradigm can be defined as an “accepted model or pattern”, which can be the organizing structure relating to a phenomenon.

Paradigm is a theoretical framework or a belief system where the field of interest is represented. The beliefs or assumptions are based on the principles of ontology, epistemology, methodology, and methods (Clamp *et al.*, 2004). Ontology is the dimensions we give to the reality we believe (Richards, 2003). It is the question which arises on the reality that leads the researcher to begin the investigation (Rehman & Alharthi, 2016). Epistemology refers to the branch of philosophy that studies the nature of knowledge and the process, by which knowledge is acquired (Gall *et al.*, 2003). It is concerned with the nature and form of knowledge, the means of acquiring it, and the methods on how to pass it on to other people (Cohen *et al.*, 2007). The methodology is an articulated, theoretically informed approach to the production of data. It refers to the study and critical analysis of data production techniques. It is the strategy, plan of action, process, or design that informs one's choice of research methods (Crotty, 1998).

The paradigm helps the researcher to understand how the world has to be perceived and what nature of data has to be collected, studied, and analyzed concerning the topic under study. The different approaches to educational research are positivism and interpretivism.

4.4.1 Positivism

Positivism is considered as a research strategy that is based on the principle of ontology, which defines that the truth and reality are independent of the viewer and observer. There are many conflicts in the discussion regarding the viewpoint of the investigators and the philosophy of their explanations and definitions (Pham, 2018).

The term 'positivism' refers to a branch of philosophy that rose to prominence during the early 19th century because of the works of the French philosopher Auguste Comte (Richards, 2003). Positivism is said to exist independently of humans and is not

mediated by our senses. It is governed by immutable laws; the ontological position considered by the positivists is of realism. The positivist paradigm extensively depends on experimentation. Although objective and scientific methods hold good to analyze the realism or nature of data, it does not work with qualitative measurements such as feelings, experiences, and thoughts (Rehman & Alharthi, 2016). Research questions are converted into the objectives of the study. These objectives form a base to develop hypotheses. Hypotheses have to be tested logically by collecting data and analyzing them through statistical tools and graphs. The hypothesis is then accepted or rejected based on the results of the research. This kind of approach is apprehended to the positivist paradigm.

Positivism research generally deals with the generation of numerical data. The data are quantitative and less rigorous experiments; surveys with closed-ended questions can be used to collect data as per the positivist approach.

Positivism is a rejection of metaphysics. It is the path to understand the world as it exists in terms of converting the data or facts into statistical numbers and then to study or examine it (Krauss, 2005). Further, positivists usually detach themselves from the world to get a better understanding of the elements, features, and operations of the said environment (Healy & Perry, 2000).

The positivist paradigm gives rise to deductive reasoning. The truth can be controlled or predicted in the positivist approach. Trochim (2002) refers positivism to the deterministic approach as the world and the universe are deterministic; they operate by laws of cause and effect that are discernible if we apply the unique approach of the scientific method. Finally, it is said that deductive reasoning is postulated to theories or hypotheses that can be tested.

4.4.2 Interpretivism

Interpretivism believes that reality is multiple and relative (Ozanne & Hudson, 1989). It signifies that reality is interpreted by the individual depending on his/her ideology and cognitive abilities, thus it is complex and multi-layered (Cohen *et al.*, 2000). The concept of interpretivism depends on what the investigator thinks and what his/her aspect regarding the question is.

Interpretivism is a response to the over-dominance of positivism (Grix, 2004). Interpretivism strongly believes that there is no single, verifiable reality that exists; rather, they believe in socially-constructed multiple realities. According to the interpretivism philosophy, truth and reality are created and not discovered. Interpretive epistemology is subjective in nature, and it varies with different realities being created (Rehman & Alharthi, 2016). It refuses to adopt any permanent, unvarying (or foundational) standards by which truth can be universally known (Guba & Lincoln, 2005).

Interpretivism contrasts to positivism in terms of beliefs and intentions. The social researchers who adopt interpretivism in their studies try to identify the issues and their solutions through the human qualities of meanings and ideas. According to interpretivism, the research must be conducted and fulfilled by understanding the reality and drawing the estimations required to achieve the objectives (Clarke, 2009). The interpretivism philosophy holds good when a researcher tries to understand the qualitative terms of the study. For instance, the perception of the customer about specific products, their behavior, and attitudes are all qualitative aspects, and interpretivism philosophy is suitable under such circumstances (Ryan, 2019).

4.4.3 Mixed Approach

When positivism and interpretivism are combined to evaluate the results for any study, then the paradigm implemented for the study is called a mixed paradigm philosophy. The statistical and mathematical approaches along with the thematic analysis are conducted to interpret the results from the data under the mixed paradigm approach (Meissner *et al.*, 2010).

4.4.4 Research Paradigm Adopted

Consistent with the above discussion, we conclude that we will be following the positivist research approach in this study. It is because this study collects data quantitatively using survey questionnaire, deductive reasoning, and has a deterministic approach towards reality. Similarly, interpretivism believes that there is not a single way to verify and test the existing realities. Rather, there can be multiple ways to do so (Williams, 2000).

The present study employs a positivism approach in justifying the objectives of the study. The study uses the positivist paradigm as a portion of the data collected is quantitative. The researcher deduces the facts collected, and the opinion of the researcher, or that of the respondent, is not involved. Positivist philosophy has realistic ontology and the data is collected through a questionnaire consisting of closed-ended questions that represent the quantitative data. The research is based upon this method because it examines and investigates the attitude and behaviors towards switching to Islamic banking from conventional banking system. Furthermore, it deeply studies the switching barriers towards Islamic banking from conventional banking system.

4.5 Determinant Variables

The determinant variables are shown in Table 4.1.

Table 4.1: Determinant Variables

Push Factors	Pull Factors	Mooring Factors
Service Quality Customer Satisfaction Trust	Perceived Relative Advantage	Switching Cost Complexity Locked-In Apathy

4.6 Research Approach

The research questions reveal the approach followed by the researcher for obtaining valid results and conclusions. There are two basic forms of research approaches that can be adopted for analysis, i.e., qualitative and quantitative. The study conducted may involve either one of the two approaches or both the approaches (Creswell, 2011).

Research approaches include the plans and procedures that provide guidelines to conduct the research study. The steps move from broad assumptions to specific methods of data collection, analysis, and interpretation. A research approach guides the researcher on which strategies and techniques need to be adopted. The research approach depends on the objectives and the kind of data under study. The selection of a research approach also corresponds to the nature of the research problem or issue under investigation, the researcher's personal experiences, and the audience of the study (Creswell, 2014). There are mainly three types of research approaches. They are: (i) quantitative approach or the structured approach; (ii) qualitative approach or the unstructured approach; and (iii) mixed approach. The research approach is mostly based on the positivist and interpretivist paradigm of the research following the data collection

approach of the survey questionnaire and this research approach is interlinked. Many studies include the four P's; people, problems, programs, and phenomena (Mohajan, 2017).

4.6.1 Quantitative Approach

The quantitative approach deals with the numerical data and the data which can be converted into numbers and analyzed mathematically and statistically to derive meaningful information. Most researchers use the quantitative approach to conduct research studies. Several analytical tools and techniques are available to be used for analyzing the collected data. The quantitative research approach is linked to the positivism philosophy as it requires a researcher to design hypotheses and test them (Mohajan, 2017). The data collected to test these hypotheses are mostly quantitative. Kothari (2004) describes the quantitative approach as the generation of data in a quantitative form which can be subject to rigorous quantitative analysis formally and rigidly.

The quantitative approach can be further divided into the inferential approach, experimental approach, and simulation approach. The inferential approach uses a survey to identify the characteristics and traits of a chosen population. The purpose is to infer whether or not the population has the characteristics as assumed before the study (Kothari, 2004; Mohajan, 2018).

An experimental approach is more like positivism-based approach and uses the cause-and-effect relationship to test the hypothesis (Ross & Morrison, 1992). The simulation approach is nothing but the creation of an imaginative environment (artificial), within which relevant information or data are generated. This permits observation of the dynamic behavior of a system (or its sub-system) under controlled

conditions (Kothari, 2004). Simulation, as a social science research tool, is defined by Dawson (2002) as a construction and manipulation of an ‘operating’ model, that is, a physical or symbolical that represents all or some aspects of a social or psychological process.

The process of quantitative research initially requires the construction of a hypothesis. The hypotheses are the questions depending on the predictions made to analyze the variables. The data is collected through various experiments and tests and deployed according to the plan of action (Kothari, 2004).

4.6.2 Qualitative Approach

The qualitative approach is in general affiliated with the social sciences within the interpretivism paradigm approach. It is about understanding the beliefs, emotions, and behavior of humans towards various aspects within nature by a depth analysis. The motive of the researchers conducting the qualitative analysis is to interpret the experiences and views of the people in various aspects, but no numerical evaluation of their thoughts is involved. Qualitative researchers attempt to develop certain theories and patterns depending on the data collected (Kothari, 2004; Mohajan, 2018).

A qualitative approach is similar to the constructivist/interpretivists paradigm except that the inquirer identifies a specific transformative issue being explored in the study (e.g., oppression, discrimination), advances a collaborative form of data collection, and mentions the anticipated changes that the research study will likely bring (Creswell, 2014). The main focus of the qualitative approach is that the data being collected are qualitative. The data within the realm of qualitative research approach could be the perception of the respondents towards the subject under study, their beliefs, experiences, feelings, attitudes, behavior, opinions, and the like (Kothari, 2010). The

qualitative approach is not structured because there is no predetermined assumption and the data is entirely based on the response of the respondents.

In the qualitative research method, the researcher is usually a part of the research. This method is flexible, and the data collected is through informal interviews, observations, group discussions, and other methods within the approach. The concept of a qualitative approach entails to discover, understand, and describe the ongoing phenomena (Harrison *et al.*, 2012)

4.6.3 Mixed Approach

A mixed approach is a combination of both quantitative and qualitative approaches. Creswell (2011) defines a mixed approach as a method. It focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of the research problems than either approach alone (Almalki *et al.*, 2016).

It additionally permits the user to implement any method or technique that will be associated with the two approaches, namely quantitative and qualitative. Should the researchers find any limitation in any of the processes, they may implement a mix of different approaches to authenticate their study to the maximum level. Multiple approaches can be implemented at one time. The mixed approach enables the advantage of the triangulation (Green *et al.*, 2015).

4.6.4 Research Approach Adopted

As mentioned in the research paradigm section of the study, the current study adopts a quantitative research approach to assure that there is no bias in collecting the

data. Such is viable under this approach. It is a realistic ontology in which data is collected based on the evidence collected. The study proceeds with the objective data that can be possible with the implementation of quantitative approaches. The data is analyzed and the hypotheses are tested through numerous statistical analysis techniques based on the collected data and research objectives.

4.7 Research Design

Research design is the concept of following a set of patterns that will describe the step-by-step explanation of the study's progress. It can also be considered as a blueprint of the research study conducted. The design includes questions relating to what will happen in the study, where it will take place, how the study will be conducted, when it will be performed, what the requirements are, and other questions related to the study. According to Kothari (2004), a research design explains the patterns of the actions that are required for collecting and analyzing the data that will help in fulfilling the aims of the study. The research design can be conveniently categorized as follows: (i) exploratory research design; (ii) descriptive research design; (iii) explanatory research design; and (iv) policy-oriented research design (Creswell, 2012; Kothari, 2004). Figure 4.1 illustrates the research design flow chart for the current study.

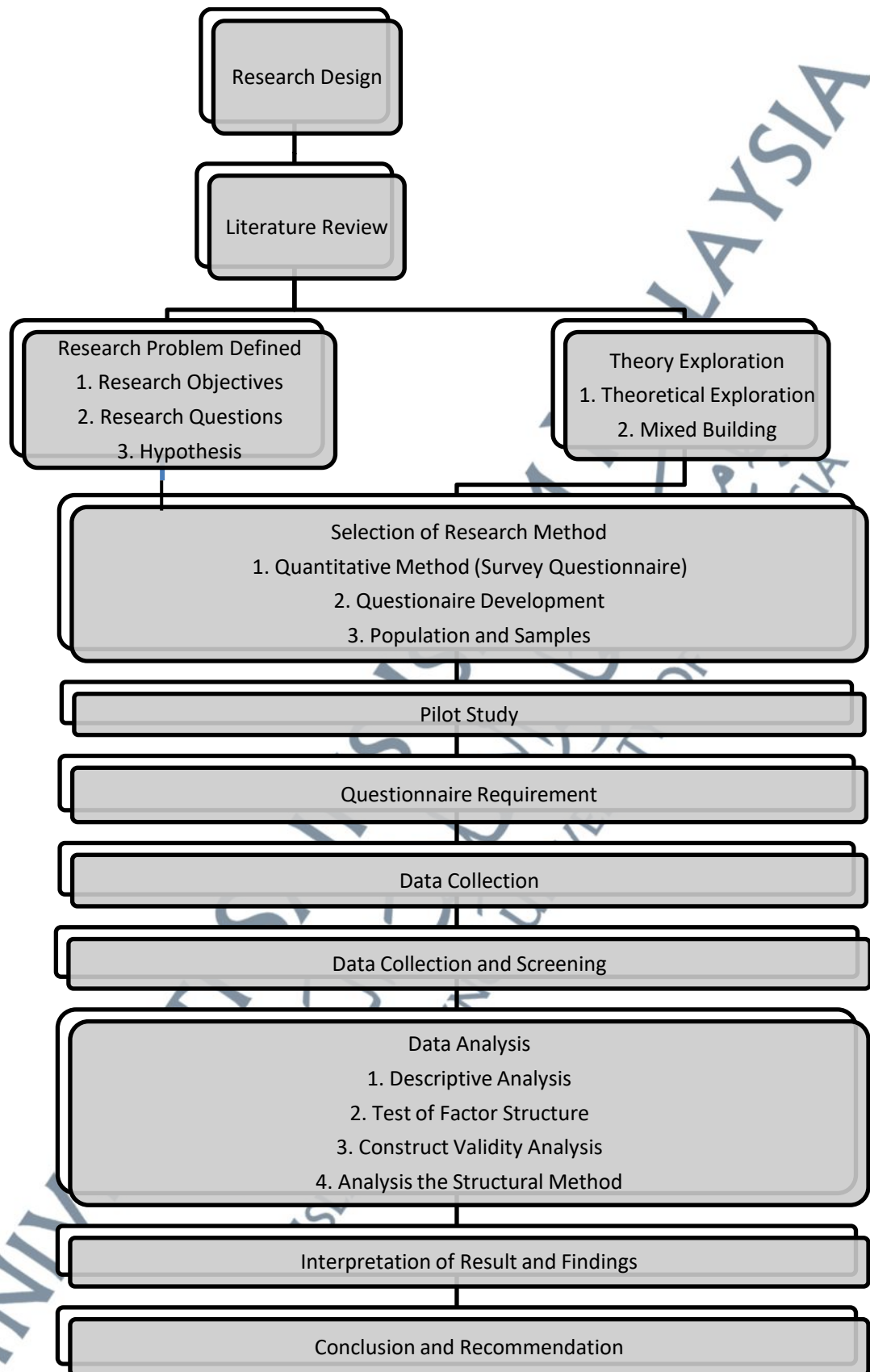


Figure 4.1: Research Design Flow Chart

4.7.1 Exploratory Research Design

An exploratory research design is one that seeks to find answers from a given study. As the name suggests, it is explorative where the researcher wants to investigate the new dimensions in a particular field of study. The exploratory design is associated with the testing of the hypotheses and concluded with a result in favor of the assumptions made or against it (Meissner *et al.*, 2010). An exploratory design is flexible and covers both qualitative and quantitative aspects of any study. It is the most suitable type of research design for qualitative studies or where the topic in discussion is particular to the point (case studies) as hypotheses are postulated at the beginning of the study which the entire research revolves around. Hypotheses frame is based on the objectives of the investigation (White, 2011).

4.7.2 Descriptive Research Design

A descriptive research design is also referred to as a statistical research technique. It describes the phenomena in its natural sense as they exist. This design helps to identify and obtain information on the characteristic of a particular issue, such as community, group, or people (Akhtar, 2016). It also describes social-related elements such as social events, social structure, and social situations, which are qualitative-sensitive. The descriptive research design answers the questions, what, who, where, how, and when. It is widely known to be applied in physical and natural sciences and it is used more often in the social sciences, for example, in a socio-economic survey, job, and activity analysis (Igwenagu, 2016). The study of Akhtar (2016) further indicates that a descriptive study may be concerned with the attitude or views (of a person) towards anything, e.g., attitudes towards presidential form of government, right to strike, capital punishment, prohibition, college autonomy, and alike.

4.7.3 Explanatory Research Design

An explanatory research design hones that the purpose of the study is to explore a new universe and the phenomenon that is not studied earlier. The type of research design is mainly concerned with causes or the 'why' factor about some phenomena. However, it does not involve any comparison and factors of change (Akthar, 2014). Most often, the explanatory research design is used to determine and formulate a research problem for specific investigations. Due to its nature, an explanatory by default is the basic type of design that any research follows.

4.7.4 Policy-Oriented Research Design

Another research design is the policy-oriented research. This type of research design has a different orientation and goals as compared to both policy analysis and disciplinary research. Policy-oriented research is an empirical form of research aimed at informing policymaking. Policy analysis is the process of systematically evaluating different policy choices or policy options (powers, policy-oriented research) and opting for the most appropriate policy for the organization (Johnston & Plummer, 2005).

Policy analysts prefer to use the findings from policy-oriented research in their evaluations of policies rather than to conduct an empirical study design. This type of research is also different from disciplinary research. The disciplinary research design, particularly in the social sciences, is empirical research that aims at providing a better understanding of the economic, political, and social processes of human communities. In contrast, policy-oriented research is more narrowly focused on the aspects of human societies that are targeted by government policies (Cash, 2018).

4.7.5 Research Design Adopted

The present study adopts a quantitative data collection technique, and therefore, the research design is a combination of both descriptive and exploratory research designs. The study includes hypotheses that were formulated based on the objectives identified in Chapter 1 of this thesis. Data for each hypothesis formulated in this study is collected in both qualitative and quantitative forms. The study focuses on understanding customer behavior towards adherence to the Islamic banking system and the factors, due to which customers are incline to Islamic banking. Out of push, pull and mooring factors, this study aims to empirically examine and identify the factors, which stand as the essential factors in the switching decision of the masses from conventional banks to Islamic banks. We tested the hypotheses for the exploratory research design and descriptive research design.

Misbah (2014) conducted a study to determine the switching factors between banks in the UK. Similarly, the study was based on the push, pull, and mooring factors. Misbah (2014) collected data to capture the opinions, beliefs, and behavior of the customers of the banks, and to evaluate the collected data as qualitative data. To prove the hypothesis, the researcher adopted the descriptive research for this research study as it facilitated the study in explaining the basic features of the samples. Taking the study of Misbah (2014) as a reference, the current study also adopts the same research design, i.e., descriptive research design along with the exploratory research design, to ensure that this research design provides better and enhanced insights as well as analysis of the collected data.

The present study adopts a quantitative data collection technique, and therefore, the research design is a combination of both descriptive and exploratory research designs.

4.8 Data Collection

The purpose of any research study is to analyze the association of different variables under study, test the hypotheses, and to evaluate the findings in light of the outcomes. Data collection is the next step to the research design, as the research design defines what type of data needs to be collected for the study. Data collection is a very critical part of the research as any fault in the data will lead to the overall failure of the study (Kothari, 2004).

Data collection is an integral part of any research study. Data collection is the process of acquiring the required information from the target audience in an attempt to seek answers to the research questions based upon which the research study is initiated. The collected data are required to be unbiased, gathered in an ethically manner and with disclosures essential to be made to the respondents. All these elements are critical as they support the analysis and determine the outcomes of any given research. The collection of data is carried out using different methods, such as questions can be asked to any target population or subjects through open-ended questions, closed-ended questions, structured or unstructured interviews, telephonic discussions, and internet responses (Showkat & Parveen, 2017).

Data collection is the combination of two processes; first, to gather data from the respondents of the target population and second, to measure the variable of interest. To obtain the true responses and better understanding of the phenomenon under investigation, the data collection must be appropriate, relevant, and accurate (Sekaran, 2006).

The data collection procedure can be defined by two distinct classifications based on the type of data, i.e., quantitative and qualitative. The two types of data simultaneously prove to be helpful and misleading. Therefore, research is required to

be focused, while opting for the data collection procedure. This classification provides the researcher with a clear vision of his research so that he can divide his type of data (Polkinghorne, 2005). The data collected can be broadly classified into primary data and secondary data.

4.8.1 Primary Data Collection Technique

Primary data is data collected directly from the respondents of the targeted population. Primary data is collected through various data collection methods, i.e., in the form of questionnaires or interviews. Both quantitative data as well as qualitative data are collected through this technique. Primary data collection consumes a lot of finances, time, and is required to be approached logically. The survey contains either closed-ended questions to collect quantitative data or open-ended questions, suitable to collect qualitative data or both. The questionnaire prepared focuses on realizing the objectives of the study. A few other methods of collecting primary data include surveys, focus groups, interviews, and field observation (Showkat & Parveen, 2017).

4.8.2 Data Collection Technique Adopted

The present study focuses on understanding switching barriers from the conventional banking system to the Islamic banking system in the Sultanate of Oman. The study adopts the primary data collection technique and secondary data was collected from the review of the literature for the research. The present research adopts the quantitative methods and data was collected through a structured questionnaire distributed to the respondents.

The primary data was collected by distributing the questionnaire to the respondents using services from the conventional banks of Oman. Further, this study

also delved into the intentions of the respondents to switch banking services from conventional to the Islamic banking system.

4.9 Time Horizon For Data Collection

To examine the impact of the determinants (push, pull and mooring factors) on consumers' decisions to switch, the data collected was cross-sectional. The data collected at one point in time from the sample population to gain an understanding of the effects of the determinants on the decision research.

4.10 Data Collection Procedure

In the application of probability sampling in the 1930s, the survey questionnaire became a standard tool for empirical research investigations in social sciences, marketing, and official statistics (Vehovar & Manfreda, 2008). As the method of data collection in this research study, a questionnaire was employed specifically on the prospect of Islamic retail banking in Oman. As there are very limited research studies available in Islamic banking in Oman, hence the present study significantly contributes towards examining the switching of customers from conventional banking to Islamic banking. Therefore, this study adopted several existing questionnaires to collect the data for the study. After making small corrections and amendments in the questionnaire (i.e., making it more understandable for the respondents without changing the actual meaning), the survey questionnaire was personally administered by the researcher and the respondents were briefed about the nature and purpose of the questionnaire before they responded to the questionnaire.

4.11 Population And Sampling Design

The population for an empirical research investigation clarifies the scope for the generalizability of its findings (Eisenhardt, 1989). Usually, the sample represents the population which influences the internal and external validity of the results (Reynolds *et al.*, 2003). Internal validity signifies how changes in the independent variable influence the dependent variable, while external validity signifies the generalizability of the results (Zikmund, 2003). Sampling is the process, act or method that is implemented for selecting the samples for a particular study for the data collection. This is the epitome of the population that contributes to determining the data of the concerned population. Sampling is the next step to the data collection, as this will be the source for data collection. The findings of the study are reliant on the responses and the output obtained from the samples or sample population. Although every researcher aims to collect information from a vast population, it is unrealistic in practice to take responses from each individual. Therefore, it is suggested to select a particular part of the population as the sample (Pelham & Blanton, 2006), in which the sample comprises the traits of the overall population.

To conduct this research study, a sample of 600 potential retail banking customers were selected from three cities in Oman (Muscat, Salalah, and Sohar). 300 respondents were from Muscat, 150 from Sohar, and 150 from Salalah. To collect the data, care was taken that the sample must be an existing customer having a bank account at a conventional bank in Oman. This criterion was adopted to ensure that the participants understand the nature of the study as well as terminologies used in the questionnaire. Therefore, the population only covers the working adults in Oman. The qualified respondents were chosen from the government sector, private firm employees, and also individuals who were self-employed. Following the convenient sampling

approach, the researcher focused on the highly populated cities because it was easier to achieve the targeted potential customers using banking services in such cities.

The total population of Oman is 4,974,986, in which 66 percent are male and 34 percent are females. Almost 50 percent of the total population lives in Muscat, the capital city of Oman. The statistics show that around 30 percent of the total population is below 15 years of age. Therefore, for this research study, 30 percent of the population was excluded.

To conduct a research study, a researcher is required to develop testable statements, i.e., hypotheses, and also to examine these hypotheses and determine the target sample population to collect data. The selection of an efficient sample by the researcher is the first step in the strategy to collect data, which process is called a sampling design. According to Teddlie and Yu (2007), to conduct a successful research, it is not possible to access the whole population. Therefore, it is adequate to consider and collect data from part of the population. Data collection from a sample result in reduced cost, time, and ability to get desired results from limited respondents, instead of collecting data from the whole population. A sample represents the whole population and is considered to possess all the variable characteristics as that of the population.

Out of two broad sampling techniques, i.e., probability and non-probability sampling, convenience sampling technique was used for the selection of sample, which belongs to the family of non-probability sampling. Through this technique, the selected sample is highly representative of the sample population, assuming that there is limited missing data in the data collected (Taherdoost, 2020). To follow this sampling strategy, initially, the researcher had to identify the study's population belonging to the main cities of Oman and grouped these cities into three strata accordingly. The target population includes the identification of all the eligible consumers of the retail banking

system (those who are already using conventional banks) and then selecting the respondents from each stratum to form the sample. The sample consisted of working adults of above 18 years, while as per the National Statistics of Oman, the number of individuals aged 15 years and above comprised 70% of the total population. The total population of Oman is 4, 978,766, that is 70% of the population, which comes to 3,485,136. Other than this method of sampling calculation, there are other ways to determine the sample size based on the status of the population, whether finite or infinite. In the case where the population size is infinite, Solvia's formula helps determine the sample size when the population estimate is unknown. On the other hand, in the case where the population size is finite, the technique of Krejcie and Morgan (1970), which indicates a simple process of determining the sample size, can be used. The study identified a table to use the sample size formula, i.e., when $N = 10$, $S = 10$ $N = 1000000$, $S = 384$ (where N is population and S is sample size). This technique is applicable when the population size is known. According to the Solvia's formula, this allows the researcher to select the minimum required sample size of the population with a desired degree of accuracy (Ellen, 2017). Using this formula enables the researcher to have a fair idea of the required sample size to ensure reasonable accuracy of the results and appropriate representation of the sample size. Therefore, this study opted Solvia's formula over other methods because the study's population is infinite and as such, this formula brings accuracy to the results. The current study acquired a confidence level of 95 percent with an error margin of 0.05. The sample size was calculated by using Slovia's formula as follows:

$$\begin{aligned}
 n &= N / [1 + N (e^2)] \\
 n &= 3484716 / [1 + 3484716 (0.05^2)] \\
 n &= 3484716 / 8712.79 \\
 n &= 399.99
 \end{aligned}$$

Approximately, 400 samples were needed for this study

Where,

n = sample size

N = population size

E = margin of error

The sample was selected by using simple random sampling, which sampling method also belongs to the probability sampling or ‘chance sampling’ family (Kothari, 2004). Simple random sampling provides an equal opportunity to any portion of the universal or population to participate in the study. Probability sampling is similar to a lottery system where individual units are picked randomly from the whole group. Kothari (2004) further divided this into the following:

- a. Random: The sample of the study is selected randomly as per the need.
- b. Systematic: The sample is selected in every periodical interval that is the n th element.
- c. Stratified: The sample is divided into various segments as per the particular department that has been chosen (Zikmund *et al.*, 2013).
- d. Cluster: The researcher chooses a subgroup randomly. This is dependent on a particular area or geographical location from the chosen sample.
- e. Area Sampling: A special case of cluster sampling, if the clusters are some geographical locations or areas, then it is known as area sampling (Kothari, 2004).

- f. Multi-stage Sampling: The base of multi-stage sampling is cluster sampling. It is branched out into layers of selecting the sample. The direction goes from a huge population to a concentrated one across different units (Kothari, 2004).

Since all the members of the population have an equal chance of becoming participants in the research study, therefore, simple random sampling technique was used as it is claimed to be the most efficient sampling technique. This led the researcher to choose three major cities of Oman, i.e., Muscat, Salalah, and Sohar. The researcher targeted three cities and targeted 400 respondents from these three cities.

4.12 Research Instruments And Construction

The main data gathering instrument used for this study was a survey questionnaire. A questionnaire refers to a list of structured questions, which are carefully chosen after considerable testing, intending to obtain reliable responses from the chosen sample, and the aim is to find out what the selected group participants do, think, and feel (Collins & Hussey, 2003). Denscombe (2007) states that a questionnaire for research is appropriate under the following circumstances:

1. When they involve a huge number of respondents.
2. When what is required is just brief, uncontroversial, and straightforward information, which consists of facts and opinions.
3. When the social culture is open to allow a complete and frank answer.
4. When there is a need for consistent data from the same questions.
5. When the respondents can likely be able to comprehend the questions and provide answers.

Since the research scope is quantitative and involves a large number of respondents, the questionnaire is, therefore, the most suitable data collection instrument for this study. Thus, the study used closed-ended questions presented with a set of fixed options, from which respondents chose the applicable and appropriate option. All the questions in the questionnaire were adapted from the earlier studies except for

complexity, which was self-developed. Further, these questionnaire items were adopted because of their proven consistency and effectiveness in earlier studies. The items used in the constructs of each investigated variable in this study were operationalized in the previous studies.

Four-points Likert scale was used to forcefully select and choose the appropriate option from the choices. Omitting the midpoint is appropriate because the majority of respondents are unclear about their responses. The five-point Likert scale (Strongly Disagree to Strongly Agree) was used in pilot testing, including midpoint (Undecided/Neutral). The results described that a huge number of respondents responded neutral, which signalled their inappropriate responses and the problem of social desirability. As a result, the researcher chose the four-point Likert scale (Strongly Disagree, Disagree, Agree, Strongly Agree) as force choice to obtain responses from the respondents. This method is aligned with existing studies. It is used in certain situations where the respondents are unclear about their choices, confused about their responses, and have difficulty in deciding and intentionally selecting the neutral values (Kulas & Stachowski, 2013; Nadler *et al.*, 2015).

The midpoint, including scale, creates difficulty in providing the appropriate responses as the respondents face the difficulty of choice. It expresses that the midpoint decreases the clearer items and choice (Velez & Ashworth, 2007). Some studies were conducted containing both types of Likert scale (four-points and five-points). The results compared that a considerable number of respondents who chose mid-point or neutral choice in five-points Likert scale were asked to choose either agreement or disagreement forcefully, and the subsequent results showed that neutral values altered, and respondents gave appropriate responses either in agreement or disagreement at massive levels (Adelson & McCoach, 2010; Garland, 1991; Hernández *et al.*, 2004:

Kulas & Stachowski, 2013; Nadler *et al.*, 2015). This thus shows the appropriateness of omitting the midpoint and encourages the use of the four-points Likert scale. Apart from this, it shows that there is no significant difference of reliability and validity concerns of four-points and five-points Likert scales. Moreover, it also expresses no significant difference and effect on factor loading, model fit, and other results (Alwin & Krosnick, 1991; Leung, 2011).

This study measures the answer choices by the respondents on a four-points Likert scale with four options in every question. These options represent the degree of participants' responses for the given question. The four-point Likert scale allows the respondent to choose between the degree of agree or disagree because it does not allow the participant to opt for a neutral answer choice. The main reason for selecting the four-points Likert scale is the nature of the research study. Due to this reason and the objective of gaining more appropriate responses, the four-points Likert scale was deemed effective and thusly used in this research.

4.12.1 Service Quality

Quality is described as one of the push factors at the individual level in this study. Service quality consists of three dimensions, i.e., interaction quality, physical quality, and outcome quality. The scale adopted for this study was developed by Mittal and Gera (2013). The Cronbach alpha for the scale was 0.752. In the study of Mittal and Gera (2013), the scale was measured on a five-point Likert scale, while in this research study, it was measured on a four-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Agree, and 4=Strongly Agree). The sample item for interaction quality is, "Staff do not listen to me carefully", for physical quality is, "A long queue of people in front of me in a branch", and for outcome quality is "ATM does not have enough cash".

4.12.2 Customer Satisfaction

Customer satisfaction is also described as another push factor at the individual level in this study. The scale was developed by Algesheimer *et al.* (2005). In the study of Algesheimer *et al.* (2005), the Cronbach alpha for the scale was 0.908. In their study, the scale was measured on a five-point Likert scale. However, in this research study, it was measured on a four-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Agree, and 4= Strongly Agree). The sample items include “How satisfied are you with the behavior of the staff at the branch?”.

4.12.3 Trust

Trust has also been described as another push factor at the individual level in this study. The scale adopted for this study was developed by Wang *et al.* (2019). The Cronbach alpha for the scale was .947. In the study of Wang *et al.* (2019), the scale was measured on a five-point Likert scale. However, in this research investigation, it was measured on a four-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Agree, and 4=Strongly Agree). The sample item for this research study is “I think my bank provides me a sincere and honest response during dealing and interaction”.

4.12.4 Perceived Relative Advantage

Perceived relative advantage is one of the factors identified at the individual level of this study’s investigation. It contains three dimensions, i.e., price, religion, and social prestige. The adopted scale was developed by Thambiah (2012). The Cronbach alpha for the scale was 0.864. In the study of Thambiah (2012), the scale was measured on a five-point Likert scale. However, in this research study, it was measured on a four-points Likert scale (1=Strongly Disagree, 2=Disagree, 3=Agree, and 4=Strongly

Agree). Sample items include, for Price, “Islamic bank provides better rate of profits”, for religion advantage, “Islamic bank do not deal with interest (*riba*)”, and for social prestige, “Muslim customers feel social pride when they use Islamic banking”.

4.12.5 Switching Cost

Switching cost is described as one of the mooring factors at the individual level in this research study. The scale adopted was developed by Thambiah (2012). In the study of Thambiah (2012), the Cronbach alpha for the scale was 0.725. The study measured the scale on a five-point Likert scale. However, in this research study, it was measured on a four-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Agree, and 4=Strongly Agree). The sample item is, “Switching my bank to an Islamic bank is a long procedure”.

4.12.6 Complexity

Complexity is described as another mooring factor at the individual level of this research study. The scale adopted was developed by Thambiah (2012). In the study of Thambiah (2012), the Cronbach alpha for the scale was 0.864. The study of Thambiah (2012) measured the scale on a five-point Likert scale. However, in this research study, it was measured on a four-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Agree, and 4=Strongly Agree). A sample item for complexity in this study is, “Islamic bank provides services that are difficult to understand”.

4.12.7 Locked-In

Locked-in is described as another mooring factor at the individual level in this research study. The scale adopted for this study was developed by Misbah (2014). In

the study of Misbah (2014), the Cronbach alpha for the scale was 0.930. Misbah (2014) measured the scale on a five-point Likert scale. However, in this research study, it was measured on a four-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Agree, and 4=Strongly Agree). A sample item for locked-in in this research study is, “I feel locked-in because of the loan I have with the bank”.

4.12.8 Apathy

Apathy is described as another mooring factor at the individual level of this research study. The adopted scale was developed by Lakshmi (2016). In the study of Lakshmi (2016), the Cronbach alpha for the scale was 0.740. Lakshmi (2016) measured the scale on a five-point Likert scale. However, in this research study, it was measured on a four-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Agree, and 4=Strongly Agree). The sample item for apathy in this research study is, “Islamic bank and conventional banks are the same”.

4.12.9 Decision to Switch

The decision to switch is described as a dependent variable for this research study. The adopted scale was developed by Chang *et al.* (2014). In the study of Chang *et al.* (2014), the Cronbach alpha for the scale was 0.810. The study of Chang *et al.* (2014) measured the scale on a five-point Likert scale. However, in this research study, it was measured on a four-points Likert scale (1=Strongly Disagree, 2=Disagree, 3=Agree, and 4=Strongly Agree). The sample item for decision to switch in this research study is, “I would like to switch to the Islamic bank if they offer better profit”.

4.13 Pilot Study

To test the validity of the questionnaire, the researcher carried out a pilot study by distributing the sample questionnaire to sixty respondents. This sampling and pilot process included the part-time students from government sector, private sector, entrepreneurs, and staff at Gulf College. All of the respondents belonged to the working class. Nonetheless, the pilot study was only used for testing purposes to further authenticate the results and to identify the loopholes in the adopted questionnaire. The respondents as well as their responses were not included in the main study.

During the encoding stage of the data for pilot study, the researcher found that almost 50 percent of the respondents tend to select the middle or neutral point option. Upon asking for their reason, most of the respondents who selected the middle point answered that they simply do not wish to respond as the questionnaire touches upon religion, providing that ‘only Allah knows better’. In another question asking about their preference for a six-point Likert scale, the participants in the pilot study again expressed their reluctance, stating that it would be too long and confusing.

Considering the respondents’ attitude and values about religion, the most suitable option for the researcher was to remove the middle point and to retain the shorter scale of four. Thus, responses with straight answers were excluded.

The successful completion of the pilot study indicated the suggestions and recommendations for necessary corrections to further improve the instrument, and to ensure the validity of the instrument. After collecting the data, the researcher used Cronbach’s Alpha to measure the internal consistency to determine how closely related a set of items are as a group and to measure the reliability of the scale (see Table 4.2).

Table 4.2: Cronbach Alpha Reliabilities

Variables	Results of Cronbach Alpha
1. Service quality	0.752
2. Customer satisfaction	0.908
3. Trust	0.947
4. Perceived relative advantage	0.864
5. Switching Cost	0.725
6. Complexity	0.864
7. Apathy	0.740
8. Locked-in	0.930
9. Decision to switch	0.810

The general rule of thumb states that if the result of Cronbach Alpha is 0.70 or above, it is considered as good, 0.80 or above is better, and 0.90 and above is best. Service quality, apathy, and switching costs have good Cronbach Alpha as they fall between 0.70 and above. As far as perceived relative advantage, complexity, and barriers are concerned, the Cronbach Alpha is 0.80 and above, which is considered better. Lastly, the result of customer satisfaction, trust, and locked-in is 0.90 and above, which is considered the best. Rules concerning Cronbach Alpha are shown in Table 4.3.

Table 4.3: Rules for Cronbach Alpha

Rule	Cronbach Alpha
Good	0.70 & above
Better	0.80 & above
Best	0.90 & above

4.14 Data Analysis Procedure

Data analysis is an important section of the research study, using which the researcher analyzes the collected data and derives the results. As per the scope of the study and the collected data, the researcher decided to choose the appropriate data analysis tools. In the qualitative data, the human brain interpretations are used along

with the thematic analysis and content analysis techniques to interpret the data collected through the interview process, for instance (Panneerselvam & Choi, 2014). Contrarily, the quantitative data is analyzed using various statistical tools as the data is collected in the form of numerical terms and need to be transformed into graphs and charts, so that the readers understand the results of the analysis explicitly.

The main purpose of data analysis is to extract the valid and relevant information from the data that has been collected out of the experiments or other modes. Data analysis majorly focuses on summarizing the data, identifying the relationship between the variables, comparison, differentiation, and prediction of the data irrespective of its type and sources.

After gathering the data from various sources, analyzing and reviewing them, the next step is to analyze the data to form findings and conclusions for practical implications. The process of evaluating data using analytical and logistical reasoning to examine each component of the data provided is known as data analysis. There are various techniques to analyze data.

There are numerous forms of data analysis and interpretation that can be employed for all types of data whether qualitative, quantitative, primary, or secondary. Data analysis is also helpful in assessing the quality of the data by identifying and addressing data quality problems. It is required for developing a better understanding of the results of the surveys, administrative sources, and pilot studies. Data analysis provides the data gaps that will enhance the need for the study by implementing better strategies. For this study, the data was analyzed with the aid of the Statistical Package for the Social Sciences (SPSS) 26, Structural Equation Modeling (SEM), and Analysis of Moment Structure (AMOS) 24.

The study analyzed the relationship between the independent and dependent variables. In this study, the researcher adopted a quantitative approach for the data collection. Therefore, the interpretation was done through statistical analysis. In a study conducted by Yahaya *et al.* (2016), the study required the implementation of statistical tools. Data screening was performed to understand whether the above-mentioned statistical tools are appropriate to be used for this research study.

Based on this research study, descriptive and inferential statistics are used to analyze the data. Initially, the data screening process was carried out to check the missing values and improper responses from the respondents. Then, the sample profile and characteristics of the respondents were analyzed through descriptive statistics. Cronbach alpha reliabilities were used in examining the reliability of the instruments that indicate how much the instruments are reliable, while for validity and checking the factor loading, factor analysis was performed. Moreover, correlation analysis was used to examine the relationship association among the variables while regression analysis was used to test the direct hypothesis using SPSS. Moreover, direct analysis and moderation analysis were also carried out through SEM, i.e., push, pull, and mooring factors' effect on the dependent variable (DV).

the Structural Equation Modeling (SEM) is a multivariate statistical method that involves the estimation of parameters for a system of simultaneous equations (Byrne, 2013). The selection of a proper methodology to conduct a research study is the most important and crucial part (Stevens, 2002). Multiple regressions are a data analysis method that can be implemented in analyzing the relationship between quantitative variables (dependent variables) and other variable factors (independent variables). Relationships can be in the linear or non-linear form, and the data obtained can be of either type, i.e., quantitative and qualitative. There is no dependency of one factor on

the other, and thus the analysis can be done without having any impact of single or multiple variables. There are several multiple regression models and their related significance tests that can be implemented for the analysis of the data (Casella & Berger, 2002). The first-generation methods such as multiple regressions are suitable for assessing the constructs and to find out the relations between the constructs. The purpose of regression analysis is to predict, while a correlation intends to evaluate the relationship between the independent and dependent variables (Nimako & Ntim, 2013). Statistical Equation Modeling is the second generation of the multivariate technique, which is applied for the assessment of validity and reliability to measure the model (Valenzuela, 2014).

Hashim and Kadir (2010) used the SEM analysis approach to investigate the effect of brand image, customer perceived value, relationship service quality, and switching intentions among Islamic banking customers in Malaysia and the result reveals that highly satisfied customers with service quality will not switch or seek other service providers.

4.15 Ethical Considerations Of The Research

A researcher, while conducting research is bound by certain ethics and moral values. The researcher is expected to comply with the credibility and authenticity throughout the research period. The ethical consideration section is allotted for a detailed discussion of the rules and regulations that the researcher has to follow. It is required that the research is conducted by considering the ethical norms to assure that the researcher has not done any false interpretation or manipulation of the data used for the analysis (Žukauskas *et al.*, 2018). The present study collected primary data from the banks' customers of the specified cities of Oman. The researcher assured that, while

collecting the data, the consent of the respondents was taken and confidentiality of the responses was maintained. The customers who were willing to participate in the survey were asked for the consent and after confirmation, then only the data would be collected. Care for safety and legal issues were taken at the time of data collection (see Rodham & Gavin, 2006). The researcher also conducted the study and interpretation without any bias and with full honesty. Furthermore, the study used only authentic information and data to avoid any kind of bias. Therefore, it was assured that there is no bias in the study and the interpretations and analysis are genuine and true.