

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

This chapter clarifies the research methodology adopted to undertake this study. It starts with research model and research framework together with hypothesis generated from the literature review in the previous chapter. This chapter mainly discusses on the research design, measurements of research variables, sampling design, data collection procedures, measurement development and questionnaire administration as well as elaborates in detail the data analysis procedures.

3.1 Research Design

Research design is a comprehensive plan which forms a basis for selection of the sources and types of information to answer research questions of this study. It also specifies the relationship among the variables and outlines application of every procedure for data collection and data analysis (Cooper and Emory, 1995).

This study uses quantitative approach as the research strategy which refers to positivism paradigm. Positivist research uses deductive reasoning as well precise and objective measure which is normally associated with quantitative data. Hence, this approach best fits the purpose to explore differences among groups as well as to explore relationship among variables which is required in this study.

3.2 Research Model/Framework

Based on the literature reviews, the following research models and framework are developed. The Research Model 1 as shown in Figure 3.1 seeks to explore the differences on the awareness on Islamic Banking products across the demographic variables. The Research Model 2 as shown in Figure 3.2 seeks to explore the differences on the perspectives on Islamic Banking across the demographic variables. The Research Model 3 as shown in Figure 3.3 seeks to explore the differences on the service brand equity across the demographic variables. Lastly, the Research Framework 1 as shown in Figure 3.4 seeks to investigate the relationship between service brand equity and service satisfaction.

Figure 3.1: Research Model 1

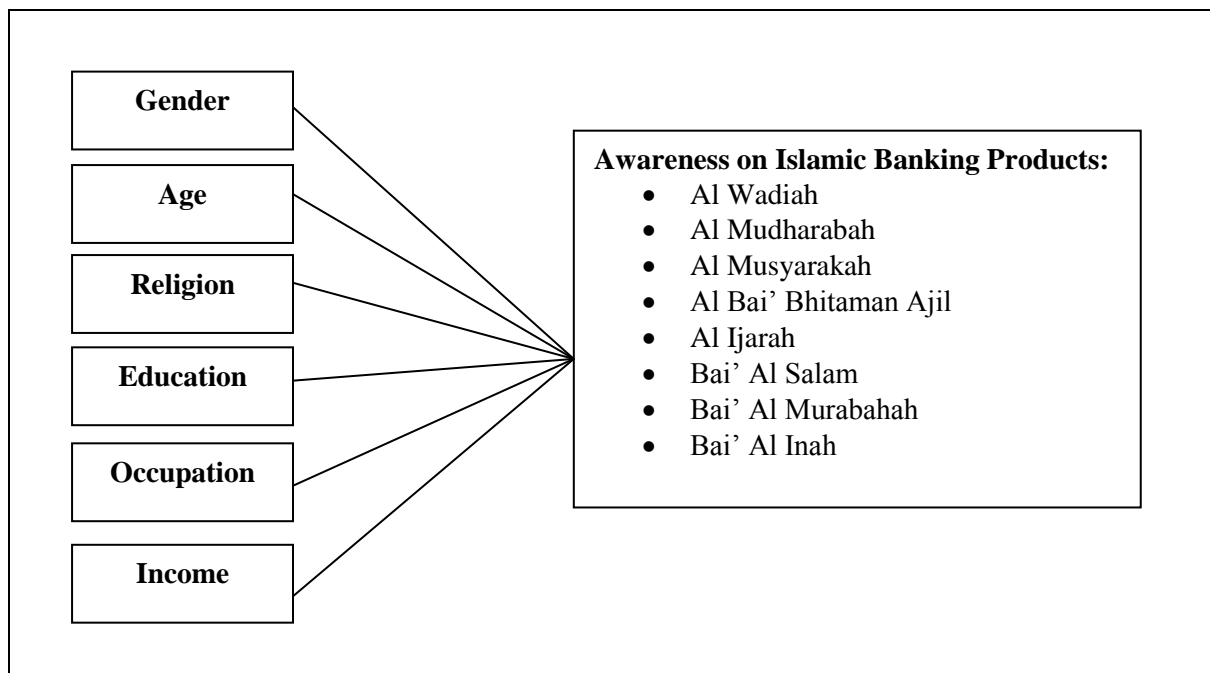


Figure 3.2: Research Model 2

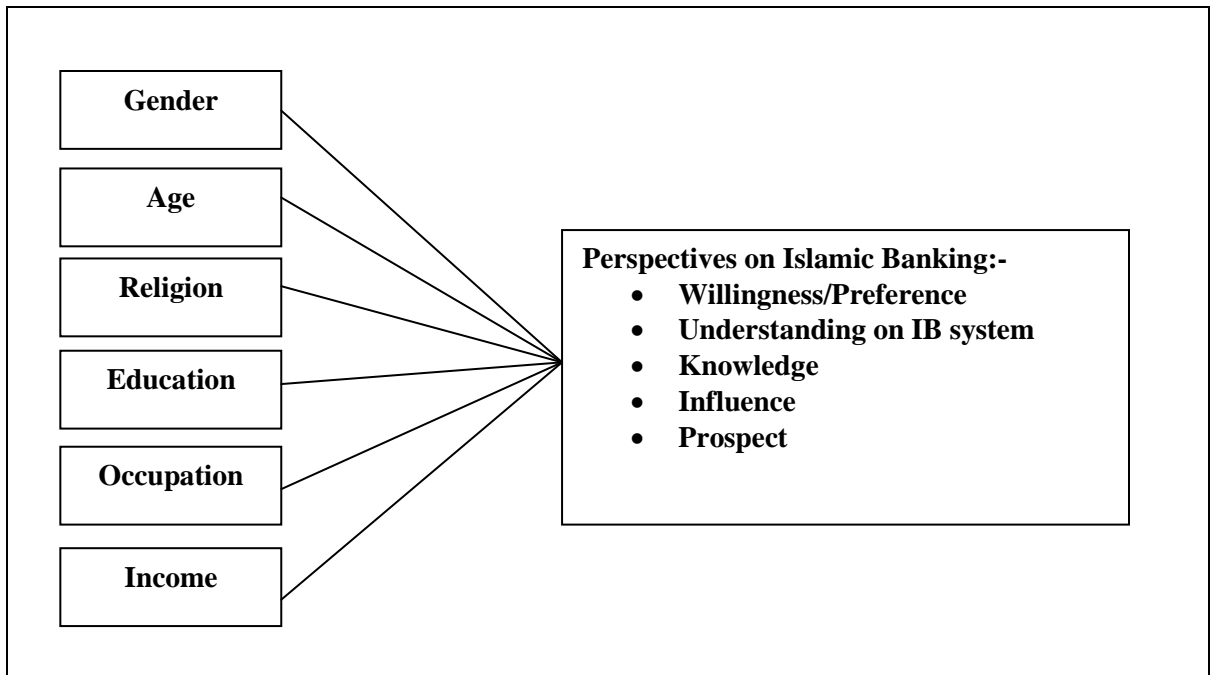


Figure 3.3: Research Model 3

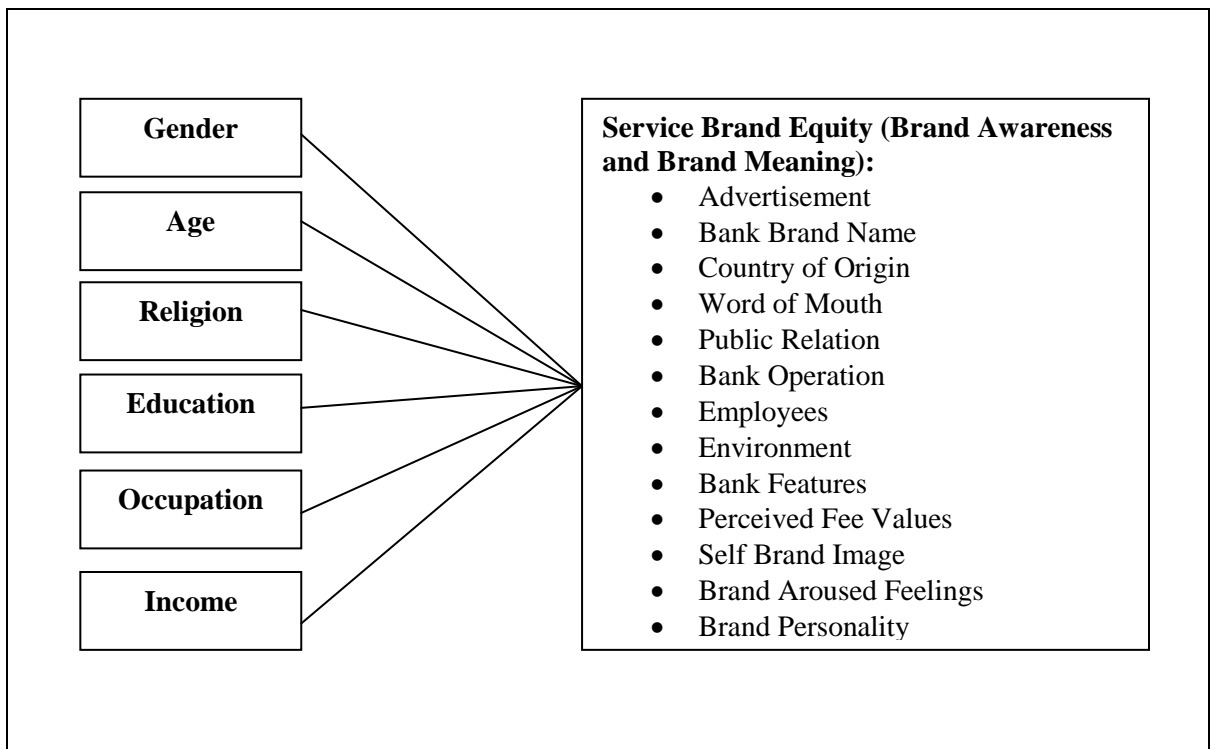
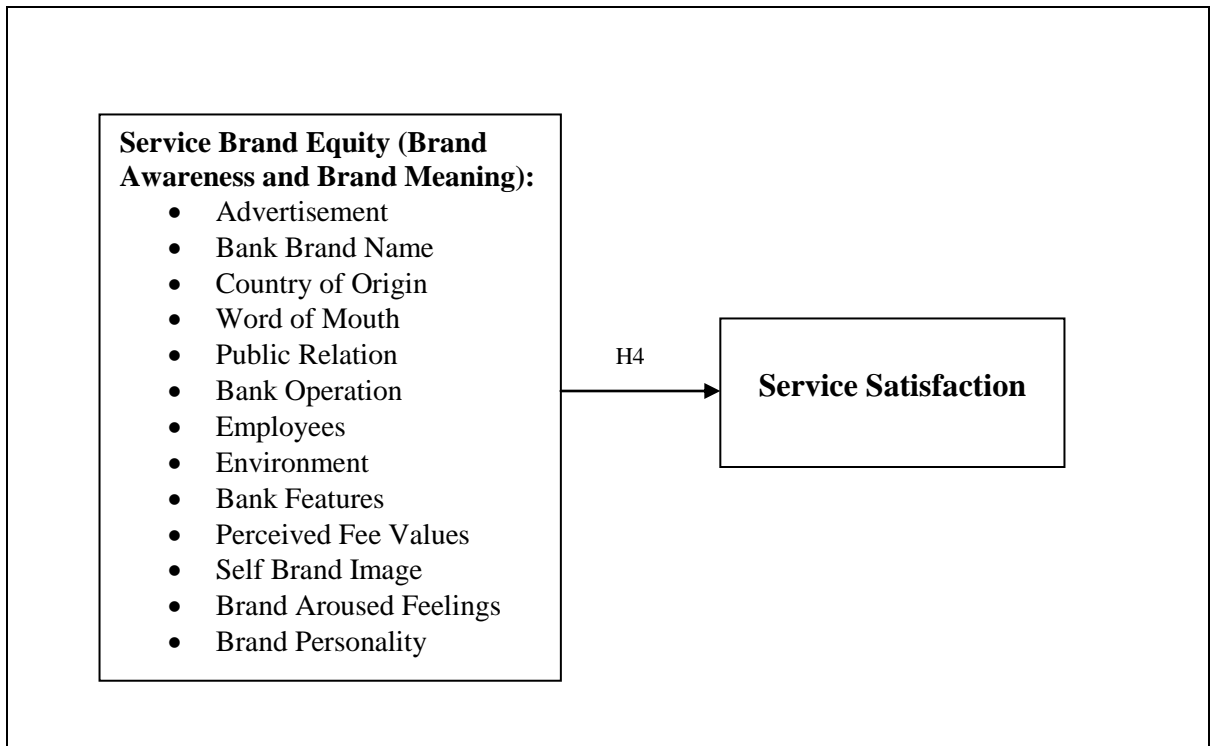


Figure 3.4: Research Framework 1



3.3 Hypothesis Development

Hypothesis is a testable proposition about the relationship between two or more concepts (Saunders et al., 2009). The followings are the hypotheses developed for this study based on the literature review done in the previous chapter:

H1: Awareness on Islamic Banking products is affected by demographic variables.

- g) There is a significant difference between different gender groups*
- h) There is a significant difference between different age groups*
- i) There is a significant difference between different religion groups*
- j) There is a significant difference between different income groups*
- k) There is a significant difference between different education level groups*
- l) There is a significant difference between different occupation groups*

H2: Perspectives towards Islamic Banking is affected by demographic variables.

- g) Perspectives are significantly different between gender groups*
- h) Perspectives are significantly different between different age groups*
- i) Perspectives are significantly different between different religion groups*
- j) Perspectives are significantly different between different education groups*
- k) Perspectives are significantly different between different occupation groups*
- l) Perspectives are significantly different between different income groups*

H3: Service brand equity (i.e. brand awareness and brand meaning) towards Islamic Banking is affected by demographic variables.

- g) Service brand equity is significantly different between gender groups*
- h) Service brand equity is significantly different between different age groups*
- i) Service brand equity is significantly different between different religion groups*
- j) Service brand equity is significantly different between different education groups*
- k) Service brand equity is significantly different between different occupation groups*
- l) Service brand equity is significantly different between different income groups*

H4: There is a significant positive relationship between service brand equity and service satisfaction.

3.4 Measurement of Research Variables

The measurements and scales adapted from the previous studies are summarised in Table 3.1. Six-point Likert Scale is used to for all the measures from “1” (Strongly Disagree) to “6” (Strongly Agree).

Table 3.1: Scale of measurement

Scale Measures	Scholar	Items	Adopted/Modified
Perspectives	Bley and Kuehn, (2004); Ahmad and Haron, (2002); Gerrard and Cunningham (1997); Haron et al. (1994); Loo (2010)	19	Adopted
Service Brand Equity (Brand Awareness and Brand Meaning)	O’Cass and Grace (2004); Bristow et al. (2002); Aaker (1997)	54	Adopted
Service Satisfaction	Bristow et al. (2002)	8	Adopted

For knowledge about the Islamic Banking products, the products are based on Bank Negara reports and it is measured using categorical scale (Yes and No).

3.5 Sampling Design

The sample for this study is students who are bank users in the Main Campus, University of Malaya. A minimum sample size of 500 students is set for this study.

3.6 Data Collection Procedures

A survey approach using questionnaire is adopted for this study. The questionnaire was distributed using convenience and snowballing sampling method covering the Main Campus, University of Malaya. The respondents are undergraduate and postgraduate students intercepted in the Main Campus, University of Malaya. O’Cass and Grace (2004) have also used the student samples in their service brand study on banks. According to Arora and Stoner (1996), it is common to use students as subjects for consumer research (Kent and Allen, 1994).

The questionnaire consists of 9 pages inclusive of a cover page which explains the objectives of the study, contact details and assurance on the confidentiality of the information provided. The questionnaire comprises six main sections. Section A captures the respondent’s demographic profiles. Section B is on awareness on Islamic Banking products whereby the respondents need to indicate yes or no by ticking the relevant box. Section C (Perspectives on Islamic Banking), Section D (Brand Awareness), Section E (Brand Meaning) and Section F (Service Satisfaction) are in interval scale whereby the respondent need to indicate their perception on the range of “1” Strongly Disagree to “6” strongly Agree.

In order to minimise measurement error, pre testing is conducted. Oppenheim (2004) indicates that questionnaire have to be developed, tested and improved several times before distributed. The pilot questionnaires are distributed to five lecturers and ten students. The respondents indicate favourable feedback on the questions, structure and design of the questionnaire.

A total of 1000 self administered survey questionnaires were distributed and 817 questionnaires were returned. After data screening, no response was discarded in this study. Thus, the 817 responses are used in the data analysis of this study contributed a high response rate of 81.7%.

A copy of the questionnaire is attached in “**Appendix A**” for further reference.

3.7 Data Analysis Procedures

Statistical Package for Social Science (SPSS) Version 16 is used to analyse the data collected in order to answer the research questions and to achieve research objectives of this study. The following data analyses are conducted:

3.7.1 Pre-Analysis Data Screening

Preliminary analyses include reversing negatively worded items and normality test. The normality is performed to assess whether the variables are normally distributed, to identify and to remove outliers; and to determine whether parametric or non parametric test is to be used. For regression, testing of assumptions is performed to ensure that the data fit for regression analysis without any assumption violation (Coakes et al., 2010; Pallant, 2007).

The assumptions tested are:-

1. Normality, linearity and homoscedasticity
2. Multicollinearity and auto-correlation
3. Multivariate outlier

3.7.2 Descriptive Statistic Analysis

To obtain the respondents' profile, descriptive analysis is performed. In addition, descriptive analysis is also used to illustrate the mean and standard deviation for perspectives and service brand equity. Frequencies are used to obtain the respondents' profile statistics and details on the awareness of Islamic Banking products.

3.7.3 Factor Analysis

Factor analysis is used to reduce the research data and to recap essential information related to the variables (Hair et al., 2010). It is commonly used as an exploratory technique to summarise the structure of research variables (Coakes et al., 2010). There are two main approaches for factor analysis namely exploratory and confirmatory (Pallant, 2007). For this study, exploratory approach is used and a principal components analysis (PCA) is conducted. Factor analysis is performed separately for each categories research variables. In this study, factor analysis for perspectives, brand awareness, brand meaning and service satisfaction are performed separately. KMO value and Bartlett's test of Sphericity are first examined to ensure the appropriateness for factor analysis and then followed by determining number of components extracted using Kaisen's criterion that have an eigenvalue exceeding 1 or above (Pallant, 2007).

3.7.4 Reliability Analysis

Reliability analysis is performed for measurement scales to examine the extent to which the items in the questionnaires are correlated and to determine internal consistency. Item

with low internal consistency should be deleted from the scale. Internal consistency is measured by Cronbach's coefficient alpha and ideally the value should be above .70 (Pallant, 2007).

3.7.5 Hypothesis Testing

For hypothesis H1 which is to explore differences across demographic profiles for awareness on Islamic Banking products, Chi Square test is used. This is because both the independent and dependent variables are categorical variables. According to Pallant (2007), Chi Square test is appropriate if the variables are in ordinal and nominal measurement.

For hypotheses H2 and H3, which is to explore differences across demographic profiles for perspectives on Islamic Banking and service brand equity, independent t-test and one way ANOVA are used. An independent-samples t-test is conducted to compare the scores for males and females. On the other hand, one way analysis of variance (ANOVA) between groups with post-hoc test is conducted to compare scores for age groups, religion groups, education groups, occupation groups and income groups.

For hypothesis H4, which is to investigate the relationship between service brand equity and service satisfaction to answer the research question on how well do the service brand equity dimensions predict service satisfaction and which dimensions are the best predictor of service satisfaction, multiple regression is performed.