CHAPTER 3
RESEARCH METHODOLOGY
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3.1 Introduction

This chapter explains the research methodology to examine the relationships among the variables identified in the literature review, namely Virtual Brand Personality, Customer Satisfaction and Brand Loyalty. A conceptual framework was proposed to illustrate the hypotheses suggested in the Chapter 2.

The research design is then defined with the sampling frame, the instrumentation of the measures and data collection method. This chapter will end with a discussion on how data was analysed in Chapter 4.

3.2 Research Hypotheses

Based on the literature review, three hypotheses were developed to establish the relationship among the variables, namely Virtual Brand Personality, Customer Satisfaction and Brand Loyalty through the conceptual framework as shown in Figure 3.1 as follows:

Figure 3.1 Conceptual Framework

H1: There is a positive relationship between Virtual Brand Personality and Customer Satisfaction
H2: There is a positive relationship between Virtual Brand Personality and Brand Loyalty

H3: Customer Satisfaction mediates the relationship between Virtual Brand Personality and Brand Loyalty

3.3 Research Design

The research involves variables and dimensions that are qualitative and in abstract form, therefore a descriptive design of research will be much relevant to this research. A survey with a questionnaire as the key tool using structured self-administered questionnaires as a primary data collection method is used.

A survey is chosen in this study because it allows the data collection to be compiled accurately and the participation from the respondents is welcomed. A large volume of data can also be collected at a low cost.

Thus, it is also important to note that data collected through survey, if carefully done, will represent a population that will allow it to be generalised to represent the whole population.

3.4 Questionnaire Design

The questionnaire consists of 4 sections and is structured in English language. The first section records the demographic information of the respondents. The second section measures the brand personality scale as proposed by Aaker (1997) on brand personality. Respondents were asked to cross (X) in a Likert scale format (1-5) with ‘strongly disagree’, ‘disagree’, ‘neither disagree nor agree’, ‘agree’ and ‘strongly agree’ in the 42 items of brand personality.

Virtual Brand Personality Measures

In Aaker’s (1997) research, she provides a table with a set of 42 personality trait norms that she suggests should serve as an aid towards comparing brand personalities across different categories. Since this research aim is to find out original brand personalities, using the context of virtual environment, the five basic dimensions and 42 traits able to enrich the data collection instrument.
In addition, Aaker’s original scale was found to have international applicability. The brand personalities were also examined among French (Ferrandi et. al., 2000), Japanese and Spanish (Aaker, Benet-Martinez and Garolera, 2001) consumers.

More often than not, most research papers on brand personality are also based upon this scale and they enable researchers to capture the symbolic meanings of brands as if they were people. (Austin et. al., 2003)

Again, Opoku, Abratt and Pitt (2006) examined on how a brand personality is communicated by means of its website and Da Silva et. al (2007) examined the virtual brand personality of the online bookstores and the measures positioned as an input to the determination of a virtual brand personality.

In deciding to use the Brand Personality Scale from Aaker’s (1997) as the measure of Virtual Brand Personality for the current study, the researcher eventually decided that this scale would be preferable. The Aaker’s scale provides a solid track record in which to be tested in virtual environment for this research and it is internationally applicable from other empirical researches. There, the Aaker’s 42 personality traits in 5 dimensions was chosen to measure the Virtual Brand Personality in this research.

**Customer Satisfaction Measures**

Once the Virtual Brand Personality measures were identified, the respondents are asked to indicate the satisfaction level to the online banking websites as the study also provide an insight on the overall customer satisfaction on the online banking websites over time.

In measuring the Customer Satisfactions, 6 items are chosen to measure the level of customer satisfaction to online banking industry in the third section as follows:

1. My decision to choose this site was a wise one. (Adopted from Han et. al.)
2. I am pleased to be associated with this site. (Adopted from Oliver)
3. I am happy shopping or do business/ transaction with this site. (Adopted from Oliver)
4. I feel affinity with the site. (Adopted from Davies and Chun)
5. This site has a unique identity. (Adopted from Davies and Chun)
6. I feel good on my decision to do business with this site. (Adopted from Davies and Chun)

As indicated above, all of these 6 items provided multi-item measures which are claimed to be more reliable in the measurement of satisfaction. Several studies have been used to determine the multi-items which were adopted from Han et. al., Oliver, and Davies and
Chun. Respondents were asked to indicate the level of satisfaction to the online banking websites using five-point Likert scale.

**Brand Loyalty Measures**

In the last section, the respondents will need to examine the association of brand loyalty intention. According to Zeithaml et. al (1996), loyalty intention can be manifested from consumers expressing preferences from one brand over another, and continue to purchase from the same brand in the future.

Davies et. al (2003) defined loyalty as repeat purchase and the action reflect the customer satisfaction could be linked to loyalty intention. Zeithaml et. al. (1996) also measures consumer willingness to recommend as an important construct for loyalty. Apparently, Selnes (1993) in his study to brand reputation measures loyalty or behavioural intention were the likelihood of customers continue their relationship with the vendor and the degree of the respondents would recommend their supplier to others.

Therefore, the respondents were asked to indicate the level of brand loyalty to the online banking websites using five-point Likert scale based on the fourth section which consists of 4 brand loyalty items as follows:

1. I consider this site to be my first choice for online banking in the future. (Adopted from Zeithaml et. al.)
2. I will recommend this site to a friend. (Adopted from Zeithaml et. al.)
3. I am likely to do more business from this site within the next 3 months. (Adopted from Zeithaml et. al.)
4. I am likely to revisit this site within next 3 months. (Adopted from Sang-Lin Han et. al.)

At the end of the question, a question on what the respondents has browsed websites for any transaction or purchase of goods or exchange of services that is applicable to them. The researcher aimed to understand other potential industry for future research areas. The industries listed are airline, hotel, travel, insurance, government, investment, leisure, entertainment, computer, telecommunication, apparels or accessories and others.

**3.5 Data Collection Method**

As mentioned earlier, a survey is chosen in this research because it allows for an accurate data collection and it is participatory where the respondents are able to participate directly in the study. The data for the survey is collected via an online questionnaire and hardcopy distribution to the MBA student in University of Malaya.
A total of 350 personalized emails are sending out individually via email and hardcopy by hand distribution to attract respondents. Messages advertising the survey were also posted at one week intervals reach by personal email and yahoo groups. Responses submitted through the email were saved onto a folder that was downloaded daily. This survey lasted for approximately one month from 15th July to 15 August 2009. A total of 253 sets had returned. A cross validation on the survey is checked to avoid any missing values and only 219 sets of completed survey questionnaires with all answers given were accepted for the result analysis. The returned rate translates to a percentage of 63% from the total questionnaire sent.

The overall method used for the collection is a convenience sampling through emails and hardcopy distribution for the online banking users and must meet the pre-requisite of have at least one active online banking account and use online banking websites in the last 6 months. After the questionnaire collection, the data is entered into SPSS version 17.0.

3.6 Data Analysis Technique
The collected data from the questionnaire is coded into SPSS version 17.0 and analysed through different tests. First, a preliminary analysis computed by looking at the descriptive statistics, normality of the data distribution, factor analysis and reliability tests to identify and test the new dimension of virtual brand personality.

The normality of the data distribution is determined through the skewness and kurtosis level and ensures that it meets the required scores. Next, factor analysis was administered to ensure that the new groupings of the Virtual Brand Personality (Aaker, 1997, Davies & Chun, 2003) are consistent with past research models. If they are inconsistent, new factors or groupings of Virtual Brand Personality will be identified and tested with the reliability tests.

Following that, the Bivariate analysis is explored to identify whether the Virtual Brand Personality dimensions meet the correlation between the dimensions. Then, multivariate analysis using multiple regression models will be used to determine the relationship of Virtual Brand Personality with Brand Loyalty by assuming Customer Satisfaction as the mediating factor (Selnes, 1993). The mediating factor of Customer Satisfaction will be tested using Baron and Kenny Steps (Baron & Kennt, 1986, Judd & Kenny, 1981). The details of the steps as mentioned will be discussed in Chapter 4 of Research Results.
3.7 Chapter Summary

This chapter discussed how the hypotheses as discussed in Chapter 2 using a conceptual model consistent with the model developed by Selnes (1993) to illustrate the relationships among the variables.

The instrument to measure the descriptive data were adapted from measures developed by Davies et. Al (2003), Davies & Chun (2002), Oliver (1997), Selnes (1993) for Customer Satisfaction and Brand Loyalty.