CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

Briefly, this chapter discusses the research methodology used in this study. The chapter begins with research instrument, follow by sampling design, data collection procedure and data analysis techniques. The selection of measure and scale reliability is discussed at the end of chapter.

3.1 Research Instrument

Quantitative methodology via survey research is the most appropriate method to explain the behavioural patterns as the measures are based on reliable scales, and able to quantify the strength and relationship amongst the variables.

The survey questionnaire is originally written in English, and has been translated into 2 other languages (Malay and Chinese) using back translation method. Three versions of survey questionnaires is attached in the appendices:- Appendix 1 exhibits the l English version, Appendix 2 exhibits the Malay version and Appendix 3 demonstrates the Chinese versions.

Briefly, the structure of questionnaire is comprised of two main sections. Section A captured respondent's demographic profiles (e.g. gender, race, age group, marital status etc.). Section B is the main questionnaire, which consists of six parts. Part one examines materialism values, part two examines cosmopolitanism, part three investigates religiosity, part four inspects

consumer ethnocentrism, part five investigates perceived global brand values, and the final part measure the global brand attitudes.

The initial questionnaire was pre-tested with approximately thirty five respondents, and slight revisions were made to the questionnaire based on the feedback from the respondents. The revision mainly involved stating clearer instruction and clearing ambiguity to ease respondents understand the question by providing examples.

3.2 Sampling Design

The targeted respondents are Malaysian aged within 18 to 65, residing in Malaysia. The criteria of target respondent is consider robust as it covers wide consumer segments with purchasing power, has achieved certain level of maturity and is able to understand one's self values and beliefs.

The main sampling method is convenient sampling, complement by snowball sampling and online survey. Convenient sampling is appropriate method for this study as it can satisfactory meet the sampling objectives, and able to deliver acceptable results. Punch (1998) mentions convenience sampling is appropriate where "…advantage is taken of cases, events, situations or informants which are close at hand" (p.193).

3.3 Data Collection Procedure

The research data was collected by means of survey. Survey questionnaire was distributed via convenient and snowballing sampling method, covering mainly Peninsular Malaysia, with majority of respondent from Klang Valley area. These questionnaires were either personally distributed in UM and MBA

campus, or through friends, colleagues and family members networks. Besides, online survey method was adopted and it was posted via social media and personal emails. The overall fieldwork took approximately 2 months period, from January to March 2011.

A total of 550 self-administered survey questionnaires were distributed and 362 questionnaires were returned, reflecting a response rate of 65.8%. However, only 289 questionnaires were deemed usable for data analysis due to the remaining questionnaires were incomplete. By adding the feedback from online survey with 28 usable responses, a total of 317 sample size was collected.

In short, the sample comprises approximately 50% Malay, 40% Chinese and 10% Indian and other races. The sample collected generally reflects the race distribution in Peninsular Malaysia. This survey has more female respondents of approximately 55% and male comprises 45%. In terms of age, approximately 45% are between 21 to 30, and 39% in between 31 to 40. As far as education concern, 70% of respondents reported degree and postgraduate level. Greater number of respondents (45%) has monthly income more than RM4,000, which reflects the middle to high income category. In general, the sample shows a younger, high educated and higher income population. The detail demography of sample is presented in Chapter 4.

3.4 Data Analysis Techniques

Once questionnaire was returned, screening was done to check common errors such as missing values etc. The questionnaires that were incorrectly fill in or illogically answered will be discarded, and replaced by another set of complete questionnaire.

Next, data was coded following the scales measurements. The data was analysed via SPSS (Statistical Package for the Social Sciences) Version 17. The negatively word items were 'transform' using SPSS in order to group other items for analysis.

Frequency and percentage counts were calculated when generating demographic profile of respondents. Mean and standard deviation was calculated for all variables and the ratings for all brands were also based on overall mean score. Besides, the respondents were group into 'religious' and 'non-religious' based on the mean score.

In order to identify whether linear relationship exists between the independent, mediating and dependent variables, Pearson Correlation Analysis was conducted. This method was applied in testing hypothesis 1, 2, 3 and 5. The correlation coefficient (r) has a range of values from negative one to positive one (-1 to +1), the value specify the strength of the relationship, and the sign specify the directions. In terms of significant level, this study has set at the value of 0.05.

Multiple regression analysis was widely used in this study. Overall, it is a useful tool to gauge best prediction of dependent variables from several

independent variables. It is also used to test and explain causal theories, and commonly referred to Path Analysis. It used to describe a whole structure of linkages which have been advanced from a causal theory. In addition, it is also an inference tool to test hypotheses.

Specifically in this study, this method was used to examine how well the independent variables predict the dependent variables, and whether there is a statistically significant relationship between these variables. Hypothesis 4 was also adapting the same method. In terms of interpreting the results, R-square (R^2) used to interpret the proportion of variance of the dependent measure that can be predicted from independent variables. Adjusted R-square is more trusted as it represents technical improvement over R-square which it adjust the numbers of predictor relative to the sample size. The standard error used to measure sampling variability of each regression coefficient. In terms of significant test, F statistic test is used to inspect whether any independent variables are significantly related to the dependent variable, while t-test used to determine which independent variables are significantly related to the outcome measure. Standardised regression coefficient, Beta (β) is used to judge the relative contribution of several independent variables.

3.5 Measurement and Scale Reliability

3.5.1Selections of Measures

The measurements and scales adapted from previous studies are summarised in table 3.1. All items used to measure the constructs in this

study are shown in Appendix 4. Five-point Likert Scale was used for all measures, from (1) Strongly Disagree to (5) Strongly Agree.

Table 3.1 Brief Description and Internal Consistencies of Scale Measure Used in the Study

Scale Measures	Scholar	n (items)	α	Adapted / Modified items
MAT	Richins and Dawson's (1992)	18	0.80-0.88	Adapt all
COS	Cleveland et al. (2009)	11	0.90	Adapt
CET	Shimp and Sharma (1989)	17	0.94-0.96	Adapt all, modified 'US' or' American' to Malaysia or Malaysian
REL	Lewis et al. (2001)	11	0.93	Adapt all, modified item seven (added mosque and temple etc.)
PERVAL	Sweeney and Soutar (2001)	19	0.96	Adapt all
GBA	Merrilees and Fry (2002)	5	-	Adapt all, add general brand attitudes measure

i) Materialism (MAT): Materialism statements were adapted from Richins and Dawson's (1992) eighteen-item three factors Materialism Value Scale.

ii) Cosmopolitanism (COS): Cosmopolitanism was measured by adopting Cleveland et al. (2009) eleven-item scale which had been tested with good reliability across eight countries recently.

iii) Consumer ethnocentrism (CET): The seventeen-item CETSCALE developed and tested by Shimp and Sharma (1987) was administered. The original scale's items which use 'U.S. or Americans' has been rephrased to suit Malaysia scenario, all has been changed into 'Malaysia or Malaysian'.

iii) Religiosity (REL): Religiosity (REL) was measured adopting Lewis et al. (2001) religiosity scale in 'The Santa Clara Strength of Religious Faith Questionnaire'. It is a one-dimensional measure of religious faith with high

levels of internal consistency and nomological validity (Freiheit et al., 2006; Cleveland and Chang, 2009). One item was modified to reflect the diversity of religious practice in Malaysia (e.g. I consider myself active in my faith or church) was expanded into “I consider myself active in my faith or church/mosque/temple etc (refer to your religious faith)”.

iv) Perceived Global Brands Value (PGBV): Perceived value was measured by Sweeney and Soutar’s (2001) nineteen-items of PERVAL scale. Five global brands which was listed on Business Week Interbrand’s top 100 best global brands ranking for 2010 was chosen to represent the global brands. These brands were Toyota, Nike, Nestle, Sony and Ikea. Each product category was listed in order to guide respondent to relate the brands when responding to the questions. Each brand represent different product category:- Toyota Camry (automotive), Nike Shoe (sports gear), Nestle Milo (fast moving consumer goods), Sony Bravia TV (Home and consumer electronics) and Ikea furniture (home furnishing products).

v) Global brand attitudes (GBA): Global brand attitudes’ measure was adopted from Merrilees and Fry (2002) in their article of ‘Corporate Branding: A framework for E-Tailers’. The measures were ‘greatly admired’, ‘brands that can be depended on’, ‘brand committed to customer’, ‘something special’ and ‘consistent quality’. Besides, the general global brand attitudes measure (e.g. positive or negative opinion of global brands) proposed by Kelley (2010) was used.

3.5.2 Reliability of Measures

Prior to hypotheses testing, all scales with multiple items are factor analysed to reduce the number of items for each variables. As stated by Hair, Anderson, Tatham and Black (1998), factor analysis is essential to identify the main dimensions which underlie the observed set of items. Principal component factor analysis with a varimax rotation is used to reduce the number of items for all variables. Factor drops when all eigenvalue ≥ 1.0 are achieved, and a set of factors describe a large percentage of total variance is attained. Any variable with factor loading of ≥ 0.5 is regarded as significant and are deemed associate with the appropriate factor. Reliability test (Cronbach's Alpha), a model of internal consistency that analyse the reliability of all items, is calculated where a coefficient at ≥ 0.5 is deemed acceptable (Kerlinger and Lee, 2000). The summary of number of factors for all scales and reliability test results are shown below.

Table 3.2 Summary of Scale Reliability

KMO=0.876 , Bartlett (Significant = 0.000)	**Cronbach's Alpha (α)**	**KMO=0.905 , Bartlett (Significant = 0.000)**	**Cronbach's Alpha (α)**
Materialism (MAT)	**0.700-0.784**	**Perceived Global Brand Value (PGBV)**	**0.849-0.921**
Success	0.718	*Emotional*	0.909
Centrality/Luxury	0.700	*Social*	0.914
Happiness	0.784	*Price*	0.849
Cosmopolitanism (COS)	**0.784-0.950**	*Quality*	0.921
Openness to other culture/Countries	0.824	**Religiosity (REL)**	0.965
Openness to try other things	0.784		
Consumer Ethnocentrism (CET)	0.950		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

In table 3.2, the factor analysis of all independent variables (MAT, COS and CET) result shows that the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy is 0.876, with significant at 0.00 level. Seven items from materialism (MAT) is deleted due to factor loadings is lower than 0.500 (MAT Q1,5,7,8,9,13,18). When these items are deleted, reliability test results for materialism scale has increased to 0.700 and above (α = 0.700-0.784). The factor analysis shows that materialism consists of three dimensions, which is consistent with the dimensions of Richins and Dawson's (1992) MVS scale. The factors are 'success', 'centrality/luxury', and 'happiness'.

The factor analysis of cosmopolitanism reveals that there are 2 dimensions underlie the variable, which is 'openness to other cultures', and 'openness to try other things', and the Cronbach's Alpha (α) is between 0.784 to 0.950. Consumer ethnocentrism is one-dimensional with α=0.950, which is highly reliable. As for moderating and mediating variables, the same procedure is carried out. The results shows that KMO= 0.905, significant at 0.00 level. Religiosity is also one-dimensional with α=0.965, which is highly reliable.

As for perceived global brand value, an additional step is taken by analysing the mean score for all brands. The result reveals that the mean score for Ikea is overall lower than other four brands, hence lowered the alpha value of reliability test. One possible reason is Ikea might not be perceived as reputable and globally recognise as compare to other four brands.

Table 3.3 PGBV Mean Comparison between Ikea and Other Brands

Mean of Perceived Global Brand Value

Dimensions	Average mean *	Ikea
PGBV	**3.592**	**3.281**
Quality	3.876	3.484
Emotional	3.742	3.370
Price	3.324	3.263
Social	3.248	3.007

* Consist of four brands (Toyota, Sony, Nestle and Nike)

Hence, Ikea is dropped from the analysis, and the remainder four brands are being analysed throughout this study. Once factor analysis is conducted, the result reveals that there are four dimensions underlie this variable, which is 'emotional', 'social', 'price' and 'quality'. All these dimensions are consistent with the finding of Sweeney and Soutar's (2001) PERVAL scale. The Cronbach's Alpha confirmed the scale has high reliability as the alpha values is in the range of 0.849-0.921. The details of factor loadings are presented in Appendix 4 and 5.