CHAPTER 3

RESEARCH METHODOLOGY

3.0   Introduction

Previous chapters have laid out the foundation for the present study. In this chapter the research design, research hypotheses, research method, measurement of constructs, questionnaire design, sampling techniques, data collection methods and data analysis techniques used in this study are presented.

3.1   Research Design

The present research employs both qualitative and quantitative methods. Malthotra (2004, p. 137) states that "Qualitative research provides insights and understanding of the problem setting, whereas quantitative research seeks to qualify the data and, typically, applies some form of statistical analysis". Quantitative analysis is used in the present study to examine the hypotheses, and to research and identify the reasons and the factors associated with consumer behaviour. The present research endeavours is to examine the relationship of American popular culture and five selected aspects of consumer behaviour. This research was conducted based on cross-sectional design. The findings from this research are considered to be conclusive in nature and may be used as input for marketers.

3.1.1 Secondary Data

Secondary data is the data was previously collected and assembled for some projects other than the one at hand. Secondary information or data can often be found inside the company, in the library, on the Internet or it can be purchased from firms that specialize in providing information. Among the sources used to gather the information needed were on-line journals (e.g., Journal of Marketing Research and International Journal of Research in Marketing), and other related periodicals from governments (e.g., Ninth Malaysia Plan 2006 – 2010), libraries and resource centres as well as from the online Internet news sources (e.g., www.americanpopularculture.com). In addition, local newspaper such as The Star, Malay Mail, Berita Harian and Utusan Malaysia were also used as secondary data.

3.1.2 Primary Data

Primary data refers to the data collected directly from the original sources for a specific purpose. In other words, primary data is data gathered and assembled specifically for the project in hand. The primary data used for this research was gathered through the distribution of questionnaires to selected consumers to investigate the effect of American popular culture towards five selected areas in consumer behaviour. For this research, a survey was decided upon as the best method to obtain the data. Pope (1993) argues that a field survey is a feasible technique to collect data from several households in a neighbourhood that has been selected to be part of the random sample. Malhotra (2004), states that the survey method involves a structured questionnaire that is given to respondents and is designed to elicit specific information.

A survey was employed as the main method of data collection using a structured form of questionnaire distributed to selected consumers. Other consumer behaviour researches in Malaysia also used a field survey to collect data from respondents (Nik Yacob, 1990; Nik Yakob and Abdul Aziz, 1991; Nik Yakob and Jaffar, 1992). The scales used in the current study were basically modified from earlier research conducted by Martin and Bush (2000), Raviv et al. (1996), Md Nor (1988), Wakerfield and Inman (2003), Kapferer et al. (1983) and Lachance et al. (2003), Wells and Tigert (1971), Manrai et al. (2001), Wilkes et al. (1986) and Safiek (2006). The details of the questionnaire will be discussed in a later section of this chapter.

3.2   Research Questions and Hypotheses

The following are the research questions together with the hypotheses for this study (please refer to Figure 3.1).

a) **Research Question 1:**

Is there a relationship between American popular culture and conspicuous consumption?

Hypothesis 1a

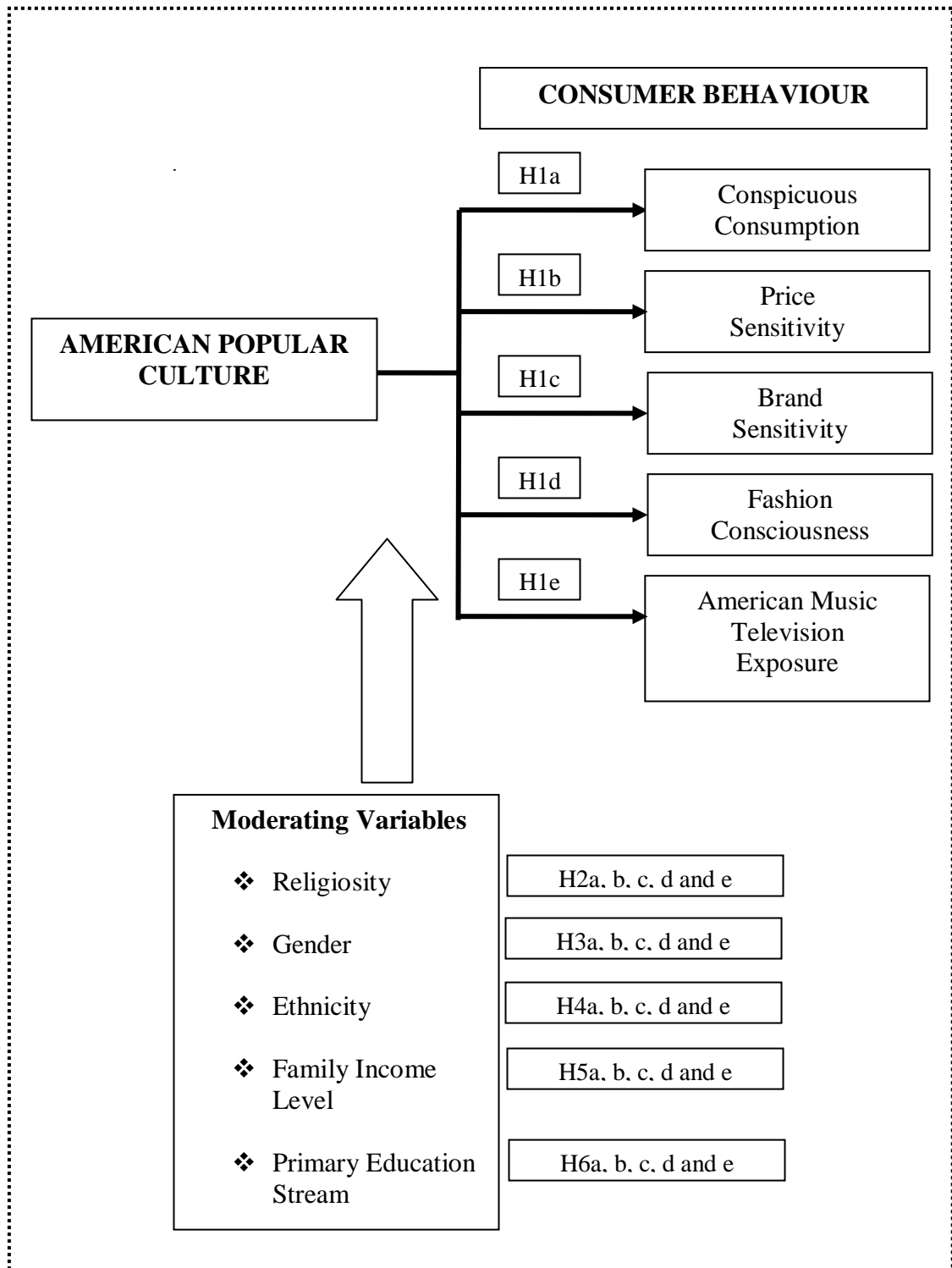The higher the level of American popular culture, the higher will be the conspicuous consumption of the respondents.

b) **Research Question 2:**

Is there a relationship between American popular culture and price sensitivity?

Hypothesis 1b

The higher the level of American popular culture, the lower will be the price sensitivity of the respondents.

Figure 3.1: Research Model

c) **Research Question 3:**

Is there a relationship between American popular culture and brand sensitivity?

Hypothesis 1c

The higher the level of American popular culture, the higher the brand sensitivity of the respondents.

d) **Research Question 4:**

Is there a relationship between American popular culture and fashion consciousness?

Hypothesis 1d

The higher the level of American popular culture, the higher the fashion consciousness of the respondents.

e) **Research Question 5:**

Is there a relationship between American popular culture and American music television exposure?

Hypothesis 1e

The higher the level of American popular culture, the higher the American music television exposure of the respondents.

f) **Research Question 6:**

Does religiosity have a moderating effect between American popular culture and five selected aspects of consumer behaviour?

Hypothesis 2a

Religiosity moderates the relationship between American popular culture and conspicuous consumption.

Hypothesis 2b

Religiosity moderates the relationship between American popular culture and price sensitivity.

Hypothesis 2c

Religiosity moderates the relationship between American popular culture and brand sensitivity.

Hypothesis 2d

Religiosity moderates the relationship between American popular culture and fashion consciousness.

Hypothesis 2e

Religiosity moderates the relationship between American popular culture and American music television exposure.

g) **Research Question 7:**

Does gender have a moderating effect between American popular culture and five selected aspects of consumer behaviour?

Hypothesis 3a

Gender moderates the relationship between American popular culture and conspicuous consumption.

Hypothesis 3b

Gender moderates the relationship between American popular culture and price sensitivity.

Hypothesis 3c

Gender moderates the relationship between American popular culture and brand sensitivity.

Hypothesis 3d

Gender moderates the relationship between American popular culture and fashion consciousness.

Hypothesis 3e

Gender moderates the relationship between American popular culture and American music television exposure.

h) **Research Question 8:**

Does ethnicity have a moderating effect between American popular culture and five selected aspects of consumer behaviour?

Hypothesis 4a

Ethnicity moderates the relationship between American popular culture and conspicuous consumption.

Hypothesis 4b

Ethnicity moderates the relationship between American popular culture and price sensitivity.

Hypothesis 4c

Ethnicity moderates the relationship between American popular culture and brand sensitivity.

Hypothesis 4d

Ethnicity moderates the relationship between American popular culture and fashion consciousness.

Hypothesis 4e

Ethnicity moderates the relationship between American popular culture and American music television exposure.

i) **Research Question 9:**

Does family income level have a moderating effect between American popular culture and five selected aspects of consumer behaviour?

Hypothesis 5a

Family income level moderates the relationship between American popular culture and conspicuous consumption.

Hypothesis 5b

Family income level moderates the relationship between American popular culture and price sensitivity.

Hypothesis 5c

Family income level moderates the relationship between American popular culture and brand sensitivity.

Hypothesis 5d

Family income level moderates the relationship between American popular culture and fashion consciousness.

Hypothesis 5e

Family income level moderates the relationship between American popular culture and American music television exposure.

j) **Research Question 10:**

Does education stream at primary level have a moderating effect between American popular culture and five selected aspects of consumer behaviour?

Hypothesis 6a

Primary education stream moderates the relationship between American popular culture and conspicuous consumption.

Hypothesis 6b

Primary education stream moderates the relationship between American popular culture and price sensitivity.

Hypothesis 6c

Primary education stream moderates the relationship between American popular culture and brand sensitivity.

Hypothesis 6d

Primary education stream moderates the relationship between American popular culture and fashion consciousness.
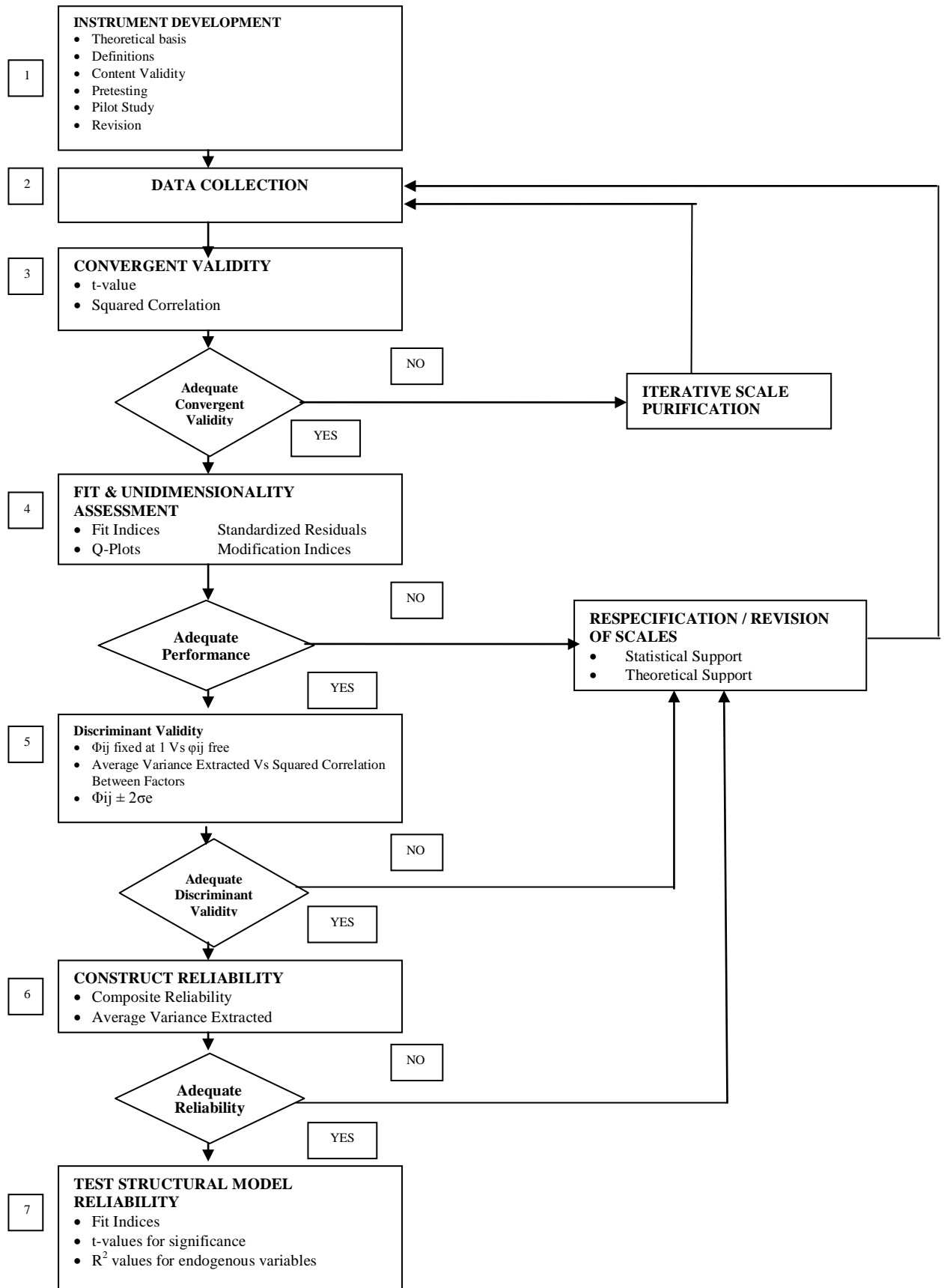
Hypothesis 6e

Primary education stream moderates the relationship between American popular culture and American music television exposure.

3.3   Research Methods

Figure 3.2 shows a complete step by step approach for the assessment of unidimensionality and the evaluation of other measurement properties in developing the domain of the construct A researcher must be exacting in delineating what is included, and what is not included in the definition of research constructs. In theoretical measurement, modelling is the generation of a sample of items for each construct of interest. This should be accomplished through the analysis of existing literature, and expert opinion.

Figure 3.2: A Paradigm for Assessment of Measurement Properties

1 — **INSTRUMENT DEVELOPMENT**
- Theoretical basis
- Definitions
- Content Validity
- Pretesting
- Pilot Study
- Revision

2 — **DATA COLLECTION**

3 — **CONVERGENT VALIDITY**
- t-value
- Squared Correlation

Adequate Convergent Validity — NO → **ITERATIVE SCALE PURIFICATION**

YES ↓

4 — **FIT & UNIDIMENSIONALITY ASSESSMENT**
- Fit Indices   Standardized Residuals
- Q-Plots   Modification Indices

Adequate Performance — NO → **RESPECIFICATION / REVISION OF SCALES**
- Statistical Support
- Theoretical Support

YES ↓

5 — **Discriminant Validity**
- Φ_{ij} fixed at 1 Vs φ_{ij} free
- Average Variance Extracted Vs Squared Correlation Between Factors
- $\Phi_{ij} \pm 2\sigma_e$

Adequate Discriminant Validity — NO

YES ↓

6 — **CONSTRUCT RELIABILITY**
- Composite Reliability
- Average Variance Extracted

Adequate Reliability — NO

YES ↓

7 — **TEST STRUCTURAL MODEL RELIABILITY**
- Fit Indices
- t-values for significance
- R^2 values for endogenous variables

Source: Adapted from Koufteros (1999)

Finally, a panel of experts (i.e., academics, practitioners in the area) can offer valuable ideas and insights into the phenomenon of interest. Upon completion of the theoretical measurement modelling the developed congeneric measures of a given construct(s) are transferred from the respondent to the researcher through a formal data collection procedure (Step 2). This diagram is similar to the approach suggested by Segar (1997) and modified by Koufteros (1999). The initial instrument development process is well documented in Torkzadeh and Doll (1999).

Items that do not load significantly on a scale and/or have low item reliabilities may be dropped via an iterative procedure. If a trimmed model emerges, the model should be retested using a validation sample and subsequently analyses should be based on this sample. The standard factor loadings of observed variables (items) on latent variables (factors) can be used as estimates of the convergent validity of the observed variables. The larger the factor loadings or coefficients, as compared with their standard errors and expressed by the corresponding t-values, the stronger is the evidence that the measured variables or factors represent the underlying constructs (Bollen, 1989).

If a satisfactory model is derived, then the analysis proceeds with the assessment of model fit and unidimensionality (Step 4). Several diagnostics can be used to assess unidimensionality and identify misspecifications in the proposed model. Here, the researcher is interested to know how a particular item relates to other items in the entire set. Respecification may be warranted based on statistical analysis and support from theory (Koufteros, 1999). The choice of a course of action should not be data driven only.

In addition, if respecification is warranted, the assessment of the newly hypothesized model ought to be carried out using another sample. The present study begins with model fit evaluation, which includes indices of goodness-of-fit such as χ^2, goodness-of-fit (GFI), adjusted goodness-of-fit (AGFI), root mean-square error of approximation (RMSEA) and comparative fit index (CFI) (Hair et al., 2006).

Assuming an adequate model, more diagnostics and tests such as discriminant validity (Step 5), composite reliability and variance extracted (Step 6) may be evaluated if one is to be confident about the measurement scales. However, the researcher omitted Step 7 by replacing it with a simple regression and hierarchical multiple regression to answer the hypotheses of the study.

3.4   Measurement of Constructs

The following section will discuss the measurement of all the constructs in the study. The constructs are American popular culture, conspicuous consumption, brand sensitivity, price sensitivity, fashion consciousness, American music television exposure and religiosity.

Malhotra (2004) defines measurement as the assignment of numbers or other symbols to characteristics of objects according to certain pre-specified rules. Most of the measurements in the study were adopted and modified for the suitability of the present study. The research instrument in the present study was a survey questionnaire. The questionnaire contained an introductory statement presenting the topic of the survey and stating that the answers would be treated in the strictest confidentiality. All the constructs in this study were measured using a seven point Likert scale, (1) "Strongly

Disagree", (2) "Disagree", (3) "Slightly Disagree", (4) "Neutral", (5) "Slightly Agree", (6) "Agree", and (7) "Strongly Agree". All items generated for all scales in this study were reviewed by an expert in English language from a local university to ensure their accuracy.

The advantages of Likert scaling are that it is easy to construct and understand as well as flexible and economical in terms of space (Alreck and Settle, 1995). The 7-point Likert scale was applied in this study for all the items used to capture the attitudes of the respondents on the intended measured variables. It can provide the midpoint option for respondents if they are indifferent to the questions. Additionally, Malhotra (2003) mentioned that in order to apply the structural equation modelling or any other sophisticated statistical techniques, seven or nine point numerical scales are recommended.

3.4.1 Measuring the American Popular Culture Construct

American Popular Culture is conceptualised as the tendency for people to love or like popular culture derived from the United States. The meaning of the term popular culture used covers a set of generally available films, music records, clothes, television programs, advertisements, etc. It involves dimensions of role modelling and expression of idolization (see Hebdige, 1988; Harper, 2000; Jensen, 2003).

As indicated in Figure 3.3, we proposed that the American popular culture construct to be measured by two dimensions (i.e., role modelling and expression of idolization). The expression of idolization dimension was further explained by another two sub-dimensions (i.e., imitation, adoration and knowledge and consumerism).

Figure 3.3
American Popular Culture Construct Dimensions


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           ┌──────────────────────────┐
           │  American Popular Culture │
           │        Construct          │
           └──────────────────────────┘
              │                    │
    ┌──────────────────┐   ┌──────────────────────────┐
    │   Role Model     │   │  Expression of Idolization│
    │  of American     │   │   of American Idol/       │
    │  Idol/Celebrity  │   │       Celebrity           │
    └──────────────────┘   └──────────────────────────┘
       │          │                         │
 ┌──────────┐ ┌──────────┐    ┌──────────────────────────┐
 │ Imitation│ │ Adoration│    │ Knowledge and Consumerism│
 └──────────┘ └──────────┘    └──────────────────────────┘
```
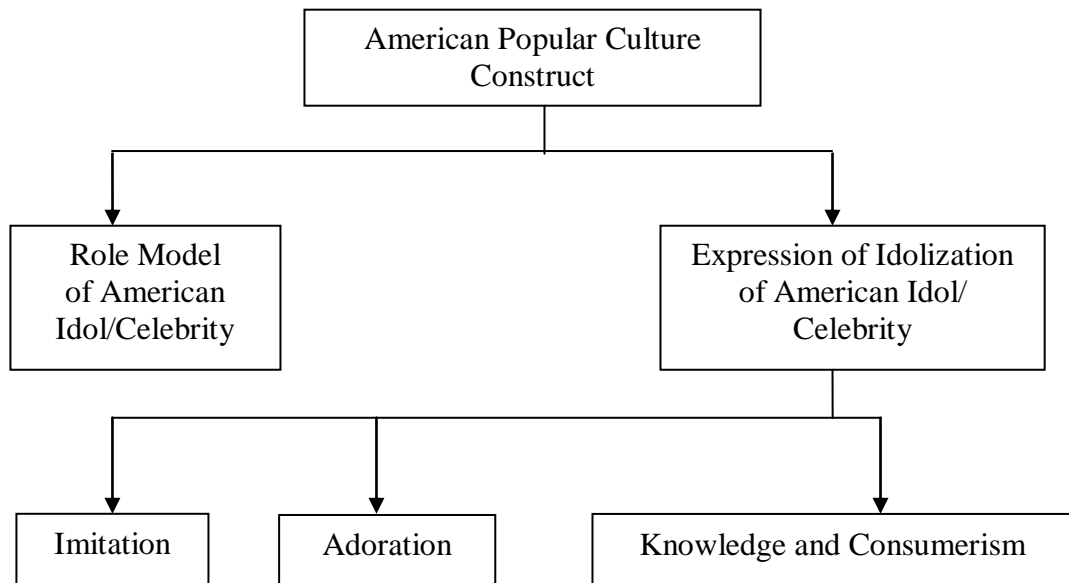
Based on the literature, it was initially conceptualized that American popular culture is defined as the tendency for people to love or like popular culture derived from the United States. A total of 21 items were generated from the refined and edited version for content validity by a group of four expert academician judges with an interest in marketing, media effect and psychology. The panel expert academician judges with an interest in marketing, media effect and psychology have given a few suggestions in refining the American popular culture measurement. Some of the suggestions are choices of words to ease the understanding of our target respondents. For example, the marketing expert suggests that the word "worship" to be changed to "admiration". The marketing expert feels the need to modify the term "worship" as it might trigger sensitive religion issues among respondents. The use of expert judges of a scale's domain has been commonly used in marketing (Zaichkowsky, 1989; Babin and Burns, 1998). These judges were given the study's operational definition of American popular culture in the context of two dimensions of the constructs as initially conceptualized.

i. Measuring the Role Model Dimension for American Popular Culture Construct

The original role model influence scale utilized in this study was adapted by Martin and Bush (2000) from the measurement developed by Rice (1997). In a research done by Martin and Bush (2000), they adapted the five-item role model influence scale from Rice (1997). The five-item scale was anchored by "strongly agree" (1) and "strongly disagree" (5). The scale with demonstrated psychometric properties was used to measure role model influence.

Table 3.1
Items to Measure the Role Model Dimension for American Popular Culture Construct

Original Items	Modified Items	Source
Provides a good role model to follow.	My favourite popular American singer/music band provides a good model for me to follow.	All five items were adapted from Martin and Bush (2000).
Leads by example	My favourite popular American singer/music band leads by example.	
Sets a positive example for others to follow	My favourite popular American singer/music band sets a positive example for others to follow.	
Exhibits the kind of work ethic and behaviour that I try to imitate	My favourite popular American singer/music band exhibits the kind of behaviour that I try to imitate.	
Acts as a role model for me	My favourite popular American singer/music band acts as a role model for me.	

The alpha values for the four role model influences scale (i.e., father, mother, athlete and entertainer) in Martin and Bush's study ranged from 0.92 to 0.97. Their respondents were asked to identify and refer their "favourite" singer or music bands when

completing the role model influence scale as a reference point. In this study, the role model influence scale was further validated using exploratory factor analysis and internal consistency (alpha) coefficient.

All of the items statements were modified to suit the objective of the present study. Both the original and modified items are presented in Table 3.1.

ii. Measuring the Expression of Idolization Dimension of the American Popular Culture Construct

The expression of idolization dimension was further divided into three main sub-dimensions – imitation, adoration and knowledge and consumerism. The measuring instrument was adapted from the study conducted by Raviv et al. (1996). Their study examined the phenomenon of adolescents' idolization of pop singers among adolescents aged between 10 to 17 years old. Their instrument comprising 16 items and measured on a seven point Likert-type scale from strongly agree to strongly disagree. The items involved in this dimension included five items for imitation, five items for adoration and six items for knowledge and consumerism.

The imitation sub-dimension involved five items that were measured by a seven point Likert-type scale from strongly agree to strongly disagree. The sub-dimension was measured by using five items adapted from measurement developed by Raviv et al. (1996). The internal consistency reliability of the original scale by Raviv et al. (1996) was very high ($\alpha = 0.887$).

For the purpose of the present study, the researcher modified the statements by adding "…my favourite popular American singer/music band…" to the original scale developed by Raviv et al. (1996). This sub-dimension was intended to measure the various behavioural manifestations of idolization. Respondents were asked to indicate the extent to which they engaged in the behaviours presented in Table 3.2. The table shows the original and modified items used to measure the imitation sub-dimension for expression of idolization dimension used in this research.

Table 3.2
Items to Measure the Imitation Sub-Dimension for Expression of Idolization Dimension in the American Popular Culture Construct

Original Items	Modified Items	Source
Adoption of singer's style of dressing.	I adopt my favourite American singer/music band's style of dressing.	
Adoption of singer's hairstyle.	I adopt my favourite American singer/music band's hairstyle.	All five items were adapted from Raviv et al. (1996).
Adoption of singer's opinions.	I adopt my favourite American singer/music band's opinions.	
Adoption of singer's mode of speech.	I adopt my favourite American singer/music band's mode of speech.	
Adoption of singer's behaviour.	I adopt my favourite American singer/music band's behaviour.	

One item was dropped from the original scale developed by Raviv et al. (1996) due to the similarity of the item with other items included in the present study. The item dropped was *"Attempts to resemble the singer"*. The item *"Attempts to resemble the singer"* was viewed as a repetition of all the items in the list above. Therefore, the researcher felt that the item should be dropped from the measurement scale.

The adoration sub-dimension consisted of five items measured by a seven point Likert-type scale from strongly agree to strongly disagree. In the original scale developed by Raviv et al. (1996), this dimension was called worship. However, in the Malaysian context due to religious reason the researcher felt that it would be too sensitive to use the term "worship" in this manner and, therefore, replaced it with the term "adoration". Table 3.3 shows the items used to measure the adoration sub-dimension for expression of idolization dimension. The sub-dimension was measured using a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree) by using five items adapted from the measurement developed by Raviv et al. (1996). The internal consistency reliability of the original scale by Raviv et al. (1996) was very high ($\alpha = 0.929$).

Table 3.3
Items to Measure the Adoration Sub-Dimension for Expression of Idolization Dimension in the American Popular Culture Construct

Original Items	Modified Items	Source
Hanging singer's posters.	I hang my favourite American singer/music band's posters.	All five items were adapted from Raviv et al. (1996).
Buying souvenirs related to the singer.	I buy souvenirs related to my favourite American singer/music band.	
Searching for information about the singer in magazines and newspapers.	I search for information about my favourite American singer/music band in magazines and newspapers.	
Getting in touch with other fans of the singer.	I get in touch with other fans of my favourite American singer/music band.	
Collecting personal details about the singer.	I collect personal details about my favourite American singer/music band.	

For the purpose of the present study, the researcher modified the items statements by adding "…my favourite popular American singer/music band…" to the original scale developed by Raviv et al. (1996). One item was dropped from the original scale (Raviv et al., 1996) due to the similarity of the item with another item included in the present study. The item was *"Buying printed material related to the singer".* The item is similar to the item adapted for the present study: *"I search for information about my favourite American singer/music band in magazines and newspapers".* Therefore, the researcher felt it was unnecessary to include it in the present study.

Table 3.4
Items to Measure the Knowledge and Consumerism Sub-Dimension for Expression of Idolization Dimension

Original Items	Modified Items	Source
A number of singer's records and cassettes purchased.	I purchase a number of my favourite American singer/music band's cassettes and CD.	
Listening to singer's music.	I listen to my favourite American singer/music band's music.	
Attending singer's performance	I attend my favourite American singer/music band's performance.	All six items were adapted from Raviv et al. (1996).
Watching the singer on TV or VCR.	I watch my favourite American singer/music band on TV or CD.	
Getting to know the melodies of the singer's songs.	I get to know my favourite American singer/music band's songs.	
Getting to know the lyrics of the singer's songs.	I get to know the lyrics of my favourite American singer/music band's songs.	

The third sub-dimension to explain the Expression of Idolization dimension was knowledge and consumerism. This sub-dimension consisted of six items, which were measured by a seven point Likert-type scale from strongly agree to strongly disagree.

All six items were adapted from the measurement ($\alpha = 0.863$) developed by Raviv et al. (1996). For the purpose of the present study, the researcher modified the items statement by adding "…my favourite popular American singer/music band…" to the original scale developed by Raviv et al. (1996). Knowledge and Consumerism items are presented in Table 3.4.

3.4.2 Measuring the Conspicuous Consumption Construct

Conspicuous consumption is conceptualised as excessive and lavish consumption with the intention of displaying wealth (adapted from Md Nor, 1988; O'Cass and McEwen, 2004).

The measuring instrument was adopted from Md Nor (1988) and comprised ten items using a seven point Likert-type scale from strongly agree to strongly disagree. This scale was originally developed by Md Nor (1988) based on the conceptual and theoretical discussion by Veblen (1899) and Mason (1981). Both Veblen and Mason argue that the main motivation for conspicuous consumption is for social acceptability and for the purpose of showing off. Md Nor (1988) measured two aspects: (a) the respondent's tendency to conspicuously consume, and (b) their attitude towards conspicuous consumption.

In the original ten-item scale, one item measures the attitude of the consumer with regard to the social visibility of the product (Md Nor, 1988). Three items measure the consumer's attitude with regard to the social acceptability of the product. Five items measure the respondent's attitude towards the status appeal of the product. While the last item measures the image the product brings to the consumer. The original

conspicuous consumption scale by Md Nor (1988) was further validated using factor analysis and internal consistency (alpha) reliability coefficient ($\alpha = 0.80$). Md Nor also conducted the discriminant validity to show conspicuous consumption scale did not correlated with constructs different from the one measured by the instrument under validation.

A similar scale was subsequently used by O'Cass and McEwen (2004). The conspicuous consumption scale contains a six-item scale that represents the degree to which the consumer is predisposed to consume conspicuously. This scale comprises six items anchored by "strongly agree" (1) and "strongly disagree" (5). The items measure in terms of the presence and noticeable appearance to others, act of gaining respect, popularity, status appeal and seen using it. In the study of O'Cass and McEwen (2004), the conspicuous consumption scale was further validated using exploratory factor analysis and internal reliability consistency (alpha) coefficient ($\alpha = 0.887$). The results in O'Cass and McEwen (2004) indicate that the confirmatory factor loadings ranged from 0.67 to 0.82, explaining 73 percent of the variance. The fit indices achieved from the confirmatory factor analysis indicate that the model of conspicuous consumption also has an acceptable fit on the key indices with $\chi^2 = 251.10$, $p = 0.001$, a GFI of 0.823 and an RMSEA of 0.108.

The present study adopted the scale developed by Md Nor (1988), which involved eight items. The adopted items used in this research are presented in Table 3.5. The construct was measured using a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree). Another two items were dropped from the original scale due to the unsuitability of the items in the present study. The items involved measuring the attitude of the

consumers with regards to the social visibility of the product and the image the product

brings to the consumer. The two items are:

- *"When buying a product, prestige is an important factor to me"*.

- *"I don't mind paying extra in order to get a more prestigious product"*.

Table 3.5
Items to Measure the Conspicuous Consumption Construct

Items	Source
When buying a product, I am not concerned with whether a product carries any status appeal or not. *(R) The ability of a product to attract the attention of others is important in my buying decision. What others think of the product I buy is important in my purchasing decision. I am not against a person who buys a product for the purpose of showing off. To my knowledge, almost all people have the tendency of buying products to get the recognition from others. People judge others by the things they own. I buy some things that I secretly hope will impress other people. I think others judge me as a person by the kind of products and brands I use.	All eight items were adopted from Md Nor (1988).

*Reversed Score

3.4.3   Measuring the Price Sensitivity Construct

Price Sensitivity is conceptualised as "price sensitivity is the extent to which individuals

perceive and respond to changes/differences in prices for products or services", adapted

from Md Nor, 1988; Hsieh and Chang, 2004; Shimp et al., 2004).

Earlier researchers on price sensitivity measured the construct using many different methods. One method used the price recall technique (Gabor and Granger, 1964). Under this method, price sensitivity is measured by assessing the accuracy of the price recall of the respondents. The respondents who can recall the price of the given products accurately are said to be price sensitive. Gabor and Granger argue that high price sensitivity is inconceivable without correspondingly high price awareness.

A later study by Wells and Lo Sciuto (1966) used the direct observation method. In this method, a subject (in this case, a shopper) is considered to be price sensitive if while shopping he/she looks at the price of the product before buying it. The authors suggest that if the observer conducting the research is not sure whether the shopper really looks at the price or not, they can always stop the shopper and ask.

A third method utilized store image data (William et al., 1978). The measurement consists of a 17-item semantic differential scale evaluating the respondent's favourite store. The responses are then submitted to a hierarchical clustering algorithm. A clustering procedure is used in such a way that it is stopped when the entire sample is reduced to four groups. One of the groups is price-oriented shoppers. This group is sensitive to the price policies of the store.

Another method used the importance rating scale (Murphy, 1978). Respondents were asked to rank from extremely important to extremely unimportant eight to ten product features (including a price variable) of three product categories. Price sensitivity was measured by looking at the overall mean importance ratings for the variable.

Looking at the past literature, different researchers have operationalized the price sensitivity constructs differently depending on the research design in question. It has been acknowledged by Zeithaml (1984) that there is no accepted measuring instrument to measure this construct for a particular time period. None of the above methods seem appropriate to measure the price sensitivity construct. The use of price recall as a proxy to price sensitivity is over simplifying the price sensitivity construct (Zeithaml, 1984). The price of a product varies from one store to another and from one time period to another. Although the use of the direct observation method is not appropriate for retailing studies, the third and fourth methods are. In the third method, data on store image is used to classify respondents into various categories including price sensitive shoppers. In the fourth method, price sensitivity is operationalized using a one-item measure. Price sensitivity is judged based on the mean response of the price variable.

Due to the inappropriateness of the above measures, a multi-item scale was developed by Md Nor (1988) to measure the price sensitivity construct. The ten-item, seven-point Likert-type scale ranges from strongly agree to strongly disagree. The researcher tries to measure certain behaviours that are related to price sensitivity. Furthermore, with respect to these behaviours, the price sensitive consumer is expected to behave differently compared to the price insensitive consumer. From Md Nor's point of view, price sensitive consumers are expected to be more involved in the following behaviours than price insensitive consumers:

- actively clipping coupons

- likes to read for sale advertisements in the newspaper

- likes to go to stores having sales

- frequently shops at discounts stores

Before the measures were used in Md Nor's survey, they were examined by four experts. This step was taken to ensure that the measurement had content validity. In his study, the internal consistency reliability was very high ($\alpha = 0.800$) for the scale.

A study done by d'Astous and Gargouri (2001) looked at the correlation between five consumer characteristics (product category involvement, product familiarity, brand sensitivity, generalized brand loyalty and price sensitivity) with evaluation of brand imitation. Specifically, the researchers measured certain participants' behaviours that were related to price sensitivity. The first three items were taken from Wells and Tigert (1971) and the last item pertaining to price as crucial information was added by d'Astous and Gargouri (2001). In d'Astous and Gargouri (2001), the internal consistency reliability was very high ($\alpha = 0.700$) for the scale. d'Astous and Gargouri utilized a four-item scale. Among the items were:

- *"I shop a lot for specials"*.

- *"I find myself checking the prices in the grocery store even for small items"*.

- *"A person can save a lot of money by shopping around for bargains"*.

- *"For me, the price of a product is crucial information"*.

A recent study by Wakerfield and Inman (2003) used a three-item scale to assess respondents' price sensitivity. In their study, the researchers tried to assess the cognitive nature of price sensitivity regarding functional and hedonic categories. A seven-point scale with three items regarding the purchase of three primarily functional product categories (i.e., groceries, household supplies and gasoline) and three primarily hedonic services categories (i.e., sporting events, movies theatres, dine-in restaurants) was used in the survey. The internal consistency reliability (Cronbach's alpha) of the three items for functional and hedonic product categories ranged between 0.86 and 0.89.

In the current study, the researcher has adopted the scale developed by Md Nor (1988) involving three items. The adopted item statements used in this research are:

- *"Whenever I see an ad for a sale in the newspaper I read it"*.

- *"I like to go to stores that are having sales just to see if I can find a bargain"*.

- *"I frequently wait until a product goes on sale before buying it"*.

However, the current researcher has modified one item explaining the behaviour of "frequently shops at discounts stores" from the original measurement developed by Md Nor (1988). The modified item used in this research is *"I frequently buy products at stores that are generally cheap/lower in price. (e.g., Giant, Tesco, Carrefour, Macro and etc.)"* to suit the Malaysian scenario (See Table 3.6).

The remaining three items from the original measurement developed by Md Nor (1988) were discarded due to the unsuitability of the items to Malaysia scenario. The behaviour of clipping coupons, rebates and advertisements are viewed as not a widely used behaviour of Malaysian consumers. The items were:

- *"I look for products with rebates whenever I can"*.

- *"I actively clip coupons"*.

- *"I buy products that are frequently advertised"*.

The researcher again adopted another three items based on a similar study done by Wakerfield and Inman (2003). The adopted items used in this research were:

- *"I'm willing to make an effort to find a low price for the product that I'm interested in"*.

- *"I will change what I planned to buy in order to take advantage of a lower price"*.

- *"I am sensitive to differences in price of the product that I'm interested in".*

Table 3.6 shows the nine items used to measure the price sensitivity construct. The construct is measured using a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree).

Table 3.6
Items to Measure the Price Sensitivity Construct

Original Items	Modified Items	Source
Whenever I see an ad for a sale in the newspaper I read it.	Whenever I see an ad for a sale in the newspaper I read it. **	All six items were adapted and adopted from Md Nor (1988).
I like to go to stores that are having sales just to see if I can find a bargain.	I like to go to stores that are having sales just to see if I can find a bargain. **	
I frequently wait until a product goes on sale before buying it.	I frequently wait until a product goes on sale before buying it. **	
I frequently buy products at discounts stores (e.g., Wal-Mart, Food-4-Less, etc.).	I frequently buy products at stores that are generally cheap/lower in price (e.g., Giant, Tesco, Carrefour, Macro etc.). *	
When shopping I always check the price before I decide to buy the product.	When shopping I always check the price before I decide to buy the product. **	
I stock up products that are on sale.	I stock up products that are on sale. **	
I'm willing to make an effort to find a low price for the product that I'm interested in.	I'm willing to make an effort to find a low price for the product that I'm interested in. **	All three items were adopted from Wakerfield and Inman (2003).
I will change what I had planned to buy in order to take advantage of a lower price.	I will change what I planned to buy in order to take advantage of a lower price. **	
I am sensitive to differences in price of the product that I'm interested in.	I am sensitive to differences in price of the product that I'm interested in. **	

*Modified Item
**Adopted Item

3.4.4   Measuring the Brand Sensitivity Construct

The brand sensitivity variable is conceptualised as the degree to which the brand name plays a key role in the choice process of an alternative in buying decision (adapted from Kapferer and Laurent, 1983, 1992; Lachance et al., 2003).

In the present study, the researcher adopted the brand sensitivity scale of Kapferer and Laurent (1983) to assess the respondents' brand sensitivity level. The original scale is a single dimension comprising seven items. From the seven items, six are anchored by a five-point Likert-type scale ranging from strongly agree to strongly disagree. The seventh item in the original Kapferer scale asks the participant to rank the importance of five criteria – fabric, print, brand, price and colour – in making their purchase decision of a piece of clothing or clothing accessories. The scores to each individual item were aggregated to form an overall brand sensitivity index (Kapferer and Laurent, 1983).

Previous literature shows the modification of Kapferer and Laurent's Brand Sensitivity Scale by many researchers. One of the researches using the scale was d'Astous and Gargouri, (2001). In their research the three item brand sensitivity scale was modified from Kapferer and Laurent (1989) study. The three items measure the consumer's attitude with regard to brand in terms of attention, quality and information gathered. The internal consistency reliability of the scale was assessed using Cronbach's alpha coefficient (Nunnally, 1978).

In another study done by Lachance et al. (2003), brand consciousness or sensitivity in apparel was examined among French-Canadian adolescents. Kapferer and Laurent's Brand Sensitivity Scale was used in this research, however, after the validation process

with adolescents in two preliminary studies, Lachance et al. (2003) dropped one item that did not appear to share sufficient construct communalities with the other items. In their study, the dimensionality of the seven items composing the original brand sensitivity scale was assessed using maximum likelihood factor analysis. From these seven, six were anchored by a five-point Likert scale ranging from "strongly agree" (1) to "strongly disagree" (5). The seventh item in the scale asked the participant to rank the importance of five criteria in clothing choice including brand name. Cronbach's alpha internal consistency reliability coefficient for the scale was 0.89.

A recent study by Nelson and McLeod (2005) developed a seven-item scale to measure brand sensitivity to measure the importance and perceptions of brands among adolescents. These items were based, in part, on a DDB Needham Lifestyle survey, which was a broad-based adult consumer questionnaire sent to a random sample of the US adult population by a large US advertising agency. Additional items were added specifically for adolescents; some of the items were related to clothing, an important product category for adolescents (Henrickson and Flora, 1999) and one in which brands were deemed important (Meyer and Anderson, 2000). Items specifically related to clothing also allowed a more concrete application of the concepts related to brand consciousness or sensitivity.

According to Nelson and McLeod (2005), some of the items in their study were quite similar to the Kapferer and Laurent Brand Sensitivity Scale readapted for adolescents (Kapferer and Laurent, 1992). Both measures focus on brands in clothing; however, the scale used here also delved into perceptions of brands related to quality, cost and "coolness". The modified scale by Nelson and McLeod (2005) asked the adolescents to indicate their agreement or disagreement on each of the seven brand consciousness or

sensitivity items according to a five-point Likert scale ranging from "strongly agree" (1) to "strongly disagree" (5). Internal consistency reliability analyses for the original seven-item scale revealed a Cronbach's alpha of 0.89 from Nelson and McLeod's (2005) study.

The present study has generally adopted the scale developed by Kapferer et al. (1983) and Lachance et al. (2003) involving six items. The modified item statements used in this research are presented in Table 3.7. The construct is measured using a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree).

Table 3.7
Items to Measure the Brand Sensitivity Construct

Original Item	Modified Items	Source
When I buy a product (e.g., sport shoes, caps etc.), I look for brand.	When I buy a product (e.g., sport shoes, caps etc.), I look for brand. ***	
When I buy a product, I take brands into account.	When I buy a product (e.g., sport shoes, caps etc.), I take brands into account. **	All six items were adapted and adopted from Kapferer et al. (1983) and Lachance et al. (2003).
I don't choose a product, according to its brand. (R)	I don't choose a product (e.g., sport shoes, caps etc.), according to its brand. (R) ***	
Brand is not important to me. (R)	Brand is not important to me. (R)***	
When I buy a product, I prefer buying well known brands.	When I buy a product (e.g., sport shoes, caps etc.), I prefer buying well known brands. **	
If the store I am shopping in doesn't offer the specific brand I am looking for, I prefer to wait.	If the store I am shopping in doesn't offer the specific brand I am looking for, I prefer to wait. ***	

*Reversed Score
**Modified Item
***Adopted Item

One item was dropped from the original scale due to the unsuitability of the item in the present study. The item was found to stand alone in as much as it seemed to semantically address brand loyalty rather than brand sensitivity (Lachance, 2003). The respondents were asked to rank the characteristics in terms of fabric, print, brand, price and colour according to their importance when they purchase a piece of clothing or clothing accessories. The item used a ranking scale ranging (1) most important to (5) least important.

3.4.5   Measuring the Fashion Consciousness Construct

The fashion consciousness construct was conceptualised as the degree of involvement with up-to-date styles or fashion of clothing (adapted from Nam et al. 2007 and Walsh et al., 2001).

Initial research done by Wells and Tigert (1971) measured fashion consciousness using a five item scale that included the following items:

- "I usually have one or more outfits that are of the very latest style".
- "When I must choose between the two I usually dress for fashion, not for comfort".
- "An important part of my life and activities is dressing smartly".
- "I often try the latest hairdo styles when they change".
- "I dress in style".

A recent study done by Manrai et al. (2001) adopted the original scale by Wells and Tigert (1971). The study was conducted in Bulgaria, Hungary and Romania, and compared respondents on two-dimensions of style: fashion consciousness and dress-

conformity. The internal consistency reliability for the fashion consciousness in Manrai et al.'s study (2001) was very high ($\alpha = 0.740$). The scale was subsequently used by Lumpkin and Darden (1982) in a consumer research panel. This scale comprised five items anchored by "strongly agree" (1) and "strongly disagree" (5). A study done by Nam et al. (2006) adopted a five-item fashion consciousness scale from Lumpkin and Darden (1982). In their study, the internal consistency reliability was high ($\alpha = 0.710$) for the scale.

A recent study done by Dutta-Bergman (2006) used "fashion consciousness" as one of their dimensions to explain a psychological construct. The fashion consciousness scale was further validated using factor analysis and internal consistency reliability (alpha) coefficients ($\alpha = 0.740$). A scale consisting of five-items was used for further analysis. Among the items were:

- "Dressing well is an important part of my life".

- "I enjoy getting dressed up"

- "I work at trying to maintain a youthful appearance".

- "I enjoy looking through fashion magazines".

- "It is important to have my hair cut in the latest style".

Another related study done by Kavak and Gumusluoglu (2007) used fashion consciousness as one of the dimensions to explain their lifestyle construct. The internal consistency reliability coefficient (Cronbach's alpha) was 0.75 for lifestyle scales, which included the fashion consciousness dimension. A factor analysis was conducted and all five-items were extracted. The items extracted were:

- "When I must choose between the two I usually dress for fashion, not for comfort".

- "I often try the latest hairdo styles when they change".

- "I often try new stores before my friends and neighbours do".

- "I spend a lot of time talking with my friends about products and brands".

- "I often seek out the advice of my friends regarding which brand to buy".

However, we found that the items for fashion consciousness construct presented in Kavak and Gumusluoglu (2007)'s study was fuzzy. We noticed that the last three items were not related directly with fashion consciousness construct.

In a similar study done by Gould and Stern (1989), the fashion consciousness construct was operationalized as individual's everyday fashion consciousness. They further pointed out that the Fashion Consciousness Scale was derived from two related constructs: (1) self-consciousness in general (Fenigstein et al., 1975), and (2) an everyday concept of fashion consciousness, which most people have. The Fashion Consciousness scale was further validated using exploratory factor analysis. A scale consisting of 38 items with factor loading of 0.5 and above was developed in Gould and Stern (1989)'s study. Its overall internal consistency reliability (Cronbach's alpha) was 0.96.

Another study, done in 2001 by Wan et al., measured fashion consciousness as a multidimensional construct. The dimensions involved were "dressing style", "materialism", "physical appearance" and "individuality". All of the 15 items involved were measured by a six-point scale ranging from "definitely disagree" to "definitely agree". In this study, the Fashion Consciousness scale was further validated using factor analysis and the internal consistency reliability was very high ($\alpha = 0.800$) for the scale.

Based on past literature, the current researcher has adapted the scale developed by Wells and Tigert (1971) and Manrai et al. (2001) involving 6 items (see Table 3.8). The second item (*"I dress for fashion versus comfort"*) was adapted to address two different perspectives (i.e., fashion and comfort). The seventh item (*"I enjoy reading fashion magazines"*) was added based on the most recent related research done by Dutta-Bergman (2006). Table 3.8 shows seven items used to measure the construct. The construct was measured using a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree).

Table 3.8
Items to Measure the Fashion Consciousness Construct

Original Items	Modified Items	Source
Likely to have the latest style outfits.	I usually have one or more outfits of the very latest style. **	All six items were adapted from Wells and Tigert (1971) and Manrai et al. (2001).
Dress for fashion versus comfort	I dress for fashion. (R)***	
	I dress for comfort. (R)***	
Dress in style	I dress in style. **	
Dress smartly	Dressing smartly is an important activity in my life. **	
Try latest hairstyle	I often try the latest hair styles. **	
I enjoy looking through fashion magazines.	I enjoy reading fashion magazines. **	One item was adapted from Dutta-Bergman (2006).

*Reversed Score
**Modified Item
***Adopted Item

3.4.6   Measuring the American Music Television Exposure Construct

The American music television exposure construct was conceptualised as the frequency of being exposed to the American music television programs (adapted from Strouse et. al., 1994; Van Den Bulck and Beullers, 2005).

Earlier literature shows a modification of the music television exposure measurement. Research done by Strouse et al. (1995) examined family environment and gender as moderators of a hypothesized relationship between exposure to rock music videos and premarital sexual attitudes and behaviour. In their study, music video exposure was assessed by responses to the question, "How often do you watch televised rock-music videos (e.g., MTV, Video Soul, and VH1)". There were nine response categories ranging from "I don't watch at all" to "about six hours or more per day".

A similar study conducted in United States by Sun and Lull (1986) found that adolescents on average spent over two hours a day watching MTV. In their study, the music videos were taken from the dominant music videos services in San Jose, California, United States. The respondents reported watching for certain reasons beyond those usually given for watching television or listening to music including to find out the meaning of their favourite songs. The respondents were asked the following statements:

- How many hours a day you watch music video on weekdays?
- How many hours a day you watch music video on weekends?

A recent study done by Van Den Bulck et al. (2005) examined the association between music video viewing and the amount of drinking in adolescents. Previous authors have

employed a similar measurement for music video viewing (Brown and Campbell, 1986; Sun and Lull, 1986; Robinson et al., 1998; Strouse et al., 1995 and Brown and Witherspoon, 2002). In all the above mentioned research, the music video exposure construct was measured as part of a long list of television content types. Respondents had to answer the question, "how often do you watch music video programmes aired at the time" on a scale with values (0) never; (1) a few times a year; (2) a few times a month; (3) a few times a week and (4) nearly everyday. In all the above mentioned studies, most of the music video clips were taken from music television channels.

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Table 3.9
Items to Measure the American Music Television Exposure Construct

Items	Source
I never watch American music television programmes. (e.g., MTV Hits, MTV Burned, MTV Jams etc.). (R)* I watch American music television programmes every day. (e.g., MTV Hits, MTV Burned, MTV Jams etc.) I watch American music television programmes less than 1 hour per day. (e.g., MTV Hits, MTV Burned, MTV Jams etc.) I watch American music television programmes a few hours per day. (e.g.,MTV Hits, MTV Burned, MTV Jams etc.) I watch American music television programmes whenever I desire. (e.g., MTV Hits, MTV Burned, MTV Jams etc.)	Developed by the Researcher.

*Reversed Score

After reviewing the literature, none of the studies were measuring the American music television exposure construct. As such, the present researcher had to develop the scale to measure the American music television exposure construct. The American music television exposure construct was measured using five items (refer to Table 3.9). The

construct was measured using a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree).

3.4.7   Measuring the Religiosity Construct

The religiosity construct was conceptualised as the degree of an individuals' commitment to a particular religion (adopted from Wilkes et al., 1986).

Although there have been a number of attempts to measure religiosity (DeJong et al., 1976; Greenley, 1963; King and Hunt, 1972; Lenski, 1961; Wilkes et al., 1986; Yinger, 1969), a common thread seems to have developed. Four factors, in various forms, were present in most of the measurement systems: belief in the religious doctrine, religious practice or activity, the moral consequences and an experience dimension or self-rating of one's religiosity (Sood and Nasu, 1995).

In one cross-cultural study involving religiosity, DeJong et al. (1976) measured the religiosity of German and American students on six dimensions: belief, experience, individual moral consequences, religious activity, religious knowledge and social consequences. A similar scale was subsequently used by Wilkes et al. (1986). They measured religiosity by church attendance, importance of religious values, confidence in religious values and self-perceived religiousness. However, the internal consistency reliability result for the following items was not reported. Frequency of church attendance was measured through the use of open-end questions (How often do you attend church?) to assessments of varying degrees of choice alternatives for their respondents. Among the statements that were anchored by "strongly agree" (1) and "strongly disagree" (6) were as follows:

- I go to the church regularly.

- Spiritual values are more important than material things.

- If Americans were more religious, this country would be a better one.

Finally, Wilkes et al. (1986) requested their respondents to evaluate their own feelings of religiousness and characterize themselves as being either: very religious, moderately religious, slightly religious, not at all religious or antireligious.

Another research done by Md Nor (1988) adopted and adapted the religiosity measure developed by Wilkes et al. (1986). In Md Nor's study, the modification focused on the first and last items. The first item was modified to a statement form ("I go to church regularly"). Originally, the last item in Wilkes, Burnett and Howell's religiosity scale was a five-point self-described religiousness from very religious to antireligious. However, to be consistent with the other items, Md Nor modified the item to a seven-point Likert type item from strongly-agree to strongly-disagree. In his study, the religiosity scale was further validated using a factor analysis and the internal consistency reliability was very high ($\alpha = 0.810$) for the scale. Among the statements that were anchored by "strongly agree" (1) and "strongly disagree" (7) were as follows:

- I go to church regularly.

- Spiritual values are more important than material things.

- If Americans were more religious, this country would be a better one.

Table 3.10
Items to Measure the Religiosity Construct

Original Items	Items	Source
How often do you attend church?	I go to mosque/church/temple regularly. **	All four items were adapted and adopted from Wilkes et al. (1986) and Md Nor (1988).
Spiritual values are more important than material things.	I consider spiritual values are more important than material things. **	
If Americans were more religious, this country would be a better one.	If Malaysians were more religious, this country would be a better one. **	
Please evaluate your own feelings of religiousness and characterize yourself as being either: - Very religious. - Moderately religious. - Slightly religious. - Not at all religious. - Antireligious.	I consider myself to be very religious. **	
I make financial contributions to my religious organization.	I make financial contributions to my religious organization. ***	All six items were adopted from Safiek (2006).
I often read books and magazines about my faith.	I often read books and magazines about my faith. ***	
Religion is especially important to me because it answers many questions about the meaning of life.	Religion is especially important to me because it answers many questions about the meaning of life. ***	
My religious beliefs lie behind my whole approach to life.	My religious beliefs lie behind my whole approach to life. ***	
Religious beliefs influence all my dealings in life.	Religious beliefs influence all my dealings in life. ***	
It is important to me to spend periods of time in private religious thoughts and prayers.	I always spend time in private religious thought and reflection. **	

**Modified Item
***Adopted Item

A research done by Sood and Nasu (1995) measuring religiosity was based on nine questions. All questions were formed using a five-point Likert scale. The first question addressed personal activity in one's religion; the second and third questions were concerned with the perceived importance and confidence in religious values; the fourth was a self-evaluation of one's religiosity and the last five questions were directed at one's belief in the basic tenets of one's religion. The reliability based on the internal consistency of the nine items was calculated and the Cronbach's alpha coefficient ranged from 0.79 to 0.82 for the American Protestant sample and from 0.59 to 0.65 for the Japanese respondents.

A recent study by Safiek (2006) measured religiosity by using the Religious Commitment Inventory (RC-10) developed by Worthington et al. (2003). The RCI-10 measures cognitive and behavioural commitment to a religious value system, irrespective of the content of beliefs in that faith system and has been validated across different samples. Consistent with the Worthington et al. (2003) findings, results of the factor analysis yielded two factors. They were intrapersonal and interpersonal religiosity. The Cronbach's alpha coefficients for both factors were 0.85 and 0.68 respectively. The religiosity scale used by Safiek (2006) was composed of ten statements with six statements expressing intrapersonal religiosity (cognitive) and four expressing interpersonal religiosity (behavioural). The cognitive dimension focuses on the individual's belief or personal religious experience while the behavioural dimension concerns the level of activity in organized religious activities.

Considering the method used in the previous studies, and taking the characteristics of religion into account, the measure of religiosity of the current study was based on the responses to ten questions (refer to Table 3.10). The current researcher has adapted and

adopted the measurement developed from Wilkes et al. (1986), Md Nor (1988) and Safiek (2006). Table 3.10 shows that four statements were adapted and adopted from Wilkes et al. (1986) and Md Nor (1988). The remaining six items were adopted from Safiek (2006). All questions were in the form of 7-point Likert scale ranging from "strongly disagree to strongly agree".

3.5 Questionnaire Structure and Sequencing

The survey method was employed using a ten-page structured questionnaire as the instrument (see Appendix A for the survey questionnaire). A total of 77 open-ended and closed questions were included in the questionnaires.

The questionnaire was prepared using A4 size paper. The questionnaire contained an introductory statement presenting the general topic of the survey, covering letter describing the research background and the purpose of the study, and stating that the answers would be treated in the strictest confidentiality (see Appendix A for the survey questionnaire).

The questionnaire was divided into three sections with each section separated by a specific heading. Instructions were clearly and precisely stated after each heading. The final section of the questionnaire was used to record the background information of the respondents. This procedure was adopted following suggestions that sensitive questions should be placed at the end of the questionnaire (Dillman, 1999; Zikmund, 2000).

a. Section 1

In the first section, the respondents were asked to list their three most favourite popular American singers/music bands. Based on their specific favourite popular American singers/music bands, the respondents were required to answer all 21 Likert-type scale questions, which were used to tap the American Popular Culture influences through two dimensions - role model and expression of idolization.

Questions 1, 5, 7, 14 and 19 in this section tried to tap the dimension of role model in American popular culture influences. In Questions 1, 5, 7 and 19, the respondents were asked to indicate whether or not their favourite popular American singer/music band provided a good role model for them and sets a positive example for others to follow. In Q14, the respondents were asked whether their favourite popular American singer/music band exhibited the kind of behaviour that they tried to imitate.

Questions 3, 9, 11, 12 and 16 in the same section tried to tap the imitation sub-dimension for expression of the idolization dimension. The questions related to whether the respondents adopted their favourite popular American singer/music band opinions, mode of speech, style of dressing, behaviour and hairstyle.

Questions 6, 10, 13, 15 and 17 tried to measure the second sub-dimension – adoration – for expression of the idolization dimension. The questions related to searching for information in magazines and newspapers, buying souvenirs, hanging posters, get in touch with other fans and collecting personal details of their favourite popular American singer/music band.

In the same section, questions 2, 4, 8, 18, 20 and 21 tried to measure the third sub-dimension – knowledge and consumerism – for expression of the idolization dimension. The questions answered were about attending concert and watching performances on television or CDs, getting to know the lyrics and melodies, listen to the music and buying cassettes and CDs of their favourite American singer/music band.

b. Section 2

The second part of the questionnaire contained 45 questions pertaining to five dependent variables and one moderating variable. All the items were randomly arranged and not in a specific group. The five dependent variables were conspicuous consumption, price sensitivity, brand sensitivity, fashion consciousness and American music television exposure, with one moderating variable, i.e., religiosity. The Likert scale was designed to examine how strongly subjects agree or disagree with the statements on a 7-point scale.

The respondents were asked eight (8) questions on conspicuous consumption, nine (9) questions on price sensitivity, six (6) questions on brand sensitivity, seven (7) questions on fashion consciousness, five (5) questions on American music television exposure and ten (10) questions concerning religiosity. Evaluations of all 44 questions were assessed on seven-point scales (1 = strongly agree, 7 = strongly disagree) – see again Appendix A.

In this section, respondents were not given any clues as to how many constructs were included in the questions nor how many items were used to measure each construct. The items to measure each construct were not arranged in sequence. As examples, question

numbers 23, 30, 35, 41, 47, 53, 58 and 62 were designed to measure conspicuous consumption and question numbers 25, 31, 37, 43, 49, 55, 60, 64 and 66 to measure price sensitivity (see Appendix A).

c. Section 3

Section 3 of the instrument was designed to capture the personal background of the respondents. The researcher used nominal, ordinal, simple and forced choice scales to gather information from the respondents. This section contained 11 demographic questions (Questions 67 to 77) covering the respondents' gender, ethnicity, religion, age, primary and secondary education background, highest level of education achieved, family income level, personal monthly allowance and number of household members (see Appendix A).

The questionnaire was produced in two languages: English and Malay. The original English version of the questionnaire was translated into the Malay language using the back-to-back translation method (Zikmund, 2000). The questionnaire was pre-tested before the actual survey. The final version of the questionnaire was developed after receiving feedback from the respondents.

Before the actual survey was implemented, the questionnaire was pre-tested. The final version of the questionnaire was developed after receiving feedback from the respondents.

3.6   Pre-Test and Pilot Test

The brief focus group approaches were set before pre-test and pilot test among 25 adolescents from multiple background of school to ask about their perceptions, opinions, beliefs and attitudes towards American singer/music band icons. The present study held five group sessions with five participants each (12 males, 13 females; mean and median age 18 years old, ranged 16-19 years old) for a session to last for about an hour. Each session was facilitated by the present researcher. Questions were asked in an interactive group setting where participants are free to talk with other group members. The findings from the brief focus group are in line with the past literature pertaining to adolescents' perceptions, opinions, beliefs and attitudes towards American singer/music band icons.

A pre-testing was carried out before proceeding with data collection. The questionnaire was pre-tested on convenience sampling of six adolescents from multiple backgrounds of schools. This enable the current researcher to get assess the reliability of the main constructs used in this study, and to get feedback concerning understanding, phrasing and design of the questionnaire. According to Babbie (2004) pretesting the questionnaire enable researcher to get feedback concerning understanding, phrasing and design of the questionnaire. Furthermore, the pre-test can also be used to check the face and content validity as well as assuring that the questions are understood and correctly translated into Malay language.

Kaynak and Kara (2002) believed that the pre-test is useful to check the clarity, comprehension and consistency of the questionnaire. In addition, it is important for the respondents to understand and provide comments on the instructions of the

questionnaire. The instruction must be easily understood by the respondents due to the fact that they come from different background of schools.

In December 2006, the pilot test was conducted and the questionnaires were distributed to 40 selected respondents. The sample size for pilot test was quite small but still accepted for exploratory research. All the respondents in the pilot test were chosen from the same target population as the actual research. Each questionnaire was attached with a small token of appreciation for the respondents' participation in the pre-test. All the pilot test questionnaires were returned back and the respondents gave a good response to the questionnaire. The test was not used for statistical purposes, and responses from the pre-test were not included in the research findings. In fact, only an initial reliability assessment was conducted using Cronbach's coefficient alpha reliability test. However, the present researcher did not carried out the factor analysis due to the small sample size. Tabanchnick and Fidell (2007) review this issue and suggested that it is comforting to have at least 300 cases for factor analysis. Therefore, factor analysis is not needed in the pilot test.

Table 3.11
Cronbach's Alpha Values for the Pilot Test

	Construct	No. of Items	Cronbach's Alpha
1	American popular culture	21	0.9432
2	Conspicuous consumption	8	0.6315
3	Price sensitivity	9	0.7697
4	Brand sensitivity	6	0.8287
5	Fashion consciousness	7	0.7715
6	American music television exposure	5	0.5528
7	Religiosity	10	0.8272

For this study, the initial set and the final scale developed was subject to independent evaluation by a few experts in marketing, psychology and cultural areas. Content validity can be determined through using scales, which are adopted from established empirical studies (Narver and Slater, 1990; Jaworski and Kohli, 1993) or through pre-testing. Since content validity alone is not a sufficient measure of the validity of a scale (Malhotra, 2004), other validity tests will be performed to validate the scales used in the research. Due to the small sample size and content validity that have been carried out before the pilot test, the present researcher feels that the factor analysis is not needed in this situation.

All the comments, feedback and suggestions from the respondents were taken into consideration. Several important points have been included to the pilot test section which includes: (a) sentence structure and choice of words have been enhanced; (b) the meaning of several items was rather vague and it has been rephrased subsequently; (c) correction of spelling error; (d) Restructured all the positive and negatively worded statements (i.e., "some of the questions may appear to be similar, but they do address somewhat different issues"). Basically, all the constructs met the reliability requirements. Even though, the cronbach's alpha value for American music television exposure construct was 0.5528, it is still accepted as suggested by Nunnally (1967). Furthermore, the cultural research conducted by Rasidah and Sparrow (2009) also supported the argument. As suggested by Nunnally (1967), in the early stage of the research, reliability in the range of 0.5 to 0.6 is sufficient. Table 3.11 shows a summary of the reliability test and the Cronbach's alpha values of the constructs. All the alpha values for the constructs in this study were above the suggested value of 0.5.

All the questions were retained to proceed with the actual data collection. From the results of the reliability tests of the pilot test, all the other constructs also exhibit high internal consistency and no items needed to be deleted to improve the coefficient alpha.

3.7   Sampling Design

The population and sample for this research was Malaysian late adolescents residing in Peninsular Malaysia and included males and females, Malay, Chinese and Indian, urban and suburban late adolescents as survey respondents.

3.7.1   Target Population

A sample is a subset of the population. It comprises some members selected from the population. In other words, some, but not all, elements of the population would form the sample (Sekaran, 2003). According to the Ninth Malaysia Plan 2006 – 2010 (2006), a total of 1.205 million adolescents aged between 16 to 19 years old reside in Malaysia. However, the present research targeted the population in Peninsular Malaysia only. The present researcher would like to clarify that the concern of including the whole Malaysia is not a main issue in this study. The main aim of the present study is to test the theory. Moreover, the sample in Peninsular Malaysia is more dominant than Sabah and Sarawak. According to Department of Statistic (2006), the density percentage for Peninsular Malaysia, Sabah and Sarawak respectively are 79.91%, 11.19% and 8.9% . Therefore, the present researcher feels that the sample from Peninsular Malaysia is more than sufficient.

When the population is large, the sampling error is a function of sample size (Finn et al., 2000). Furthermore, the more specific the population is, the lower the variability of its

characteristic. According to Hair et al. (2006), the larger the size of the sample is necessary if the greater the variability of the population characteristic exist. In this study, it was assumed that the sample would represent the adolescents' population in the Peninsular Malaysia.

The unit of analysis or target population is where the information about the study is collected. It describes the characteristics or level of analysis of the study (De Vaus, 2002). Zikmund (2000) observes that the target population (unit of analysis) is a specific, complete group relevant to the research project. Primarily, the unit of analysis in this study is Malaysian adolescents who are exposed to the influence of American popular culture via electronic and printed media. The population of the present research is defined as late adolescents with ages ranging from 16 to 19 years old (Connell et. al. 1975; Abdul Razak and Safiek, 2003). The targeted sample was chosen from higher secondary schools, pre-diploma, pre-university, teachers training centres, certificate and diploma level students from four main regional areas in Peninsular Malaysia. The four regional areas were divided into northern, southern, central and eastern region.

3.7.2 Sampling Techniques

A non-probability sampling, specifically, quota sampling was employed in this present study. Quota sampling is the second type of purposive sampling (Sekaran, 2003). Quota sampling is basically a form of proportionate stratified sampling, in which a predetermined proportion of people are sampled from different groups, but on a convenience basis. In other words, the quotas ensure that the composition of the sample is the same as the composition of the population with respect to the characteristics of interest (Malholtra, 2004).

In the present study, a quota for five demographic variables, namely, ethnicity, gender, age, family income group and regional areas in Peninsular Malaysia, were set prior to the data collection stage. The quota sampling was set based on the Ninth Malaysia Plan (2006). An equal percentage (50:50) of both gender and age group of 16 to 19 years old were taken into consideration. The present researcher would like to clarify that the Department of Statistics of Malaysia in 2006 quoted an equal percentage (50:50) of both gender. Therefore, the present researcher set an equal percentage of gender in the quota sampling. The actual percentage in the survey revealed 54.3% (female) and 45.7% (male). However, the present researcher believes that the small percentage differences (five percent) from the population will not impose a huge difference. In terms of age proportion, the samples from the age group between 16 to 17 years old were taken from upper secondary schools. While the remaining samples, from the age group of 18 to 19 years old, were from pre-university, pre-diploma, teachers training centres, certificate and diploma level students from four main regional areas in Peninsular Malaysia.

The quota sampling for the present research in terms of ethnicity group was: 55:35:15 for Malay: Chinese: Indian (Ninth Malaysia Plan 2006-2010, 2006). The quota for Indian respondents was set at 15 percent of the population because if the quota was set at 8 to 10 percent, the number of Indian respondents in the sample would be statistically too small to be used in the research analysis. From previous research experience, many researchers found that Indian samples were less interested in cooperating in answering research questionnaires. Therefore, to ensure the present study has enough Indian respondents, the 8 to 10 percent figure representing the Indian population in Malaysia was increased to 15 percent.

For the income level, 50 percent of respondents earning a monthly household income of below RM3,000 and 50 percent of respondents earning a monthly income of above RM3,000 were targeted. This is due to the report provided by the Department of Statistics of Malaysia in 2006. In the report of Ninth Malaysia Plan 2006 – 2010, the average of monthly household income in Malaysia is RM3,022. Therefore, the current study targeted to get approximately 50 percent of respondents that earned the monthly household income of above average and 50 percent of respondents that earned the monthly household income of below average.

As mentioned earlier, the quota sampling was also based on regional areas in Peninsular Malaysia. The regional areas were divided into four main regions of Peninsular Malaysia – northern, southern, central and eastern Peninsular Malaysia. Northern region includes Kedah and Pulau Pinang. Southern region covers Johor. Central region is made up of the Klang Valley areas and the eastern region covers Terengganu. The selection of the four regional areas was followed by the identification of the districts from each regional area.

In order to ensure that there were respondents from each targeted state in Peninsular Malaysia, the questionnaires were distributed based on the number of population in each state. More questionnaires were distributed to states with a bigger population and fewer to less populated states (see Table 3.12). Thus, about 500 questionnaires were distributed by early November 2006. The remaining 500 questionnaires were distributed later. It was very important because the researcher had to make sure that the quota sampling requirements set prior to the data collection period were fulfilled. According to Malhotra (2004), a standard was set for a minimum sample of 500 Malaysian adolescents for consumer research.

In the present study, the schools and institutions involved were selected from urban and suburban areas from four main regions in Peninsular Malaysia. We believe that adolescents from urban and suburban areas have a greater tendency for exposure to American popular culture compared to adolescents from the rural areas. The distribution of questionnaires is shown in Table 3.12.

Table 3.12
Number of Questionnaires Distributed

No.	State	Urban Area	Quantity	Suburban Area	Quantity
1	Central Region -Klang Valley	Petaling Jaya Subang Jaya Titiwangsa	250	Rawang Kajang	250
2	Southern Region - Johore	Johor Bahru	100	Batu Pahat	100
3	Northern Region - Kedah - Pulau Pinang	Alor Setar Pulau Pinang	175	Jitra Pongsu Seribu Bukit Mertajam	175
4	Eastern Region - Terengganu	Kuala Terengganu	75	Gong Badak	75
Total			**600**		**600**

3.7.3   Sample Size

Vignali et al. (2001) quoting Gankowicz (1995), define sampling as the "deliberate choice of a number of people, the sample, who are to provide you with the data from which you will draw conclusions about some larger group, the population whom these people represent" (p.465).

As a rule, the larger the sample the higher the reliability, the lower the error and the greater the confidence one can place on the findings reflecting the characteristics of the population as a whole. A sample size of 1,000 respondents was targeted in the present study. This sample size followed the guide for sample sizes given by Malhotra (2007): the minimum sample size is 500 respondents for problem identification research.

3.7.4   Data Collection Techniques

Once the questionnaire is designed, pre-tested and amended, and the sample selected, it can be used to collect data. The self-administered questionnaire was chosen as the data collection technique. This self-administered method is more efficient for the researcher due to time and cost constraints. Since the targeted sample size was 1,000 respondents, the researcher decided to distribute 1,200 questionnaires to the public. The researcher decided to distribute the questionnaires stage by stage between November and December.

Table 3.13 indicated that there were 16 main enumerators who were willing to assist the researcher distribute the questionnaires to the respondents in four main regions of Peninsular Malaysia. The information on American Popular Culture effect towards Malaysian adolescents was obtained through a self-administered survey and with the assistance provided by teachers from targeted states in Peninsular Malaysia who were able to meet and interact directly with their students.

The questionnaire takes approximately fifteen minutes to complete. Respondents were assured of their anonymity and that all the responses would be kept strictly confidential. A briefing with clear instructions on the distribution of questionnaires was conducted

before the survey questionnaire was given to the research enumerators. This included the conveying of clear instructions to potential respondents regarding the answering and collection of the completed questionnaires. Enumerators were also reminded to fulfil the quota sampling requirements that had been set prior to the data collection stage. Enumerators were given two months (November to December) to distribute and collect the data. The respondents were asked by the enumerators to complete the questionnaires themselves and were given two to three days to answer the research questions. During the period, the researcher also reminded the enumerators about the deadline to return the questionnaires. In addition, the researcher also gave a contact number and e-mail address in the questionnaires in case the respondents need further clarification on the questions and the study itself. Respondents were given a token gift - photo frame, fridge magnet or keychain - as an appreciation for their cooperation in answering the questionnaires.

The enumerators involved in the present study comprised teachers, lecturers and administrative staff from targeted education institutions in selected states in Peninsular Malaysia. Prior to the survey, the researcher sent all the questionnaires personally to the enumerators. Therefore, the briefing sessions were conducted before the questionnaires were distributed to them. Upon the completion of the survey, the enumerators were asked to mail back to the researcher the envelopes and mailing expenses that were already provided to them. A small token was given to all the enumerators for their cooperation in distributing the questionnaires.

By the end of December, about 1, 200 questionnaires were distributed and 990 were returned. In order to ensure that the quota sampling had been fulfilled, the researcher had to calculate the returned questionnaires based on gender, ethnicity and location of

the respondents. About 820 questionnaires were completed and considered useable for the study.

Each question in the questionnaire of the study was coded with numeric values for easy identification prior to administration of the questionnaire (De Vaus, 2002). The data were entered into SPSS version 12 (Statistical Package for Social Sciences Version 12) data processing statistical programme.

Table 3.13
List of Institutions and Enumerators Involved in Each Region

No.	State	Name of the School/University/College/ Matriculation Centre	No. of Enumerator
1	Central Region -Klang Valley Total enumerator: 5	Urban • Kolej Damansara Utama, Petaling Jaya, Selangor • Sekolah Menengah Tinggi Kajang, Selangor • Sekolah Menengah Kebangsaan Titiwangsa, Selangor Suburban • Sekolah Sri Murni, Cheras, Selangor • Sekolah Menengah Kebangsaan Sg. Choh, Rawang, Selangor	1 1 1 1 1
2	Southern Region - Johor Total enumerator: 5	Urban • Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor • Maktab Sultan Abu Bakar, Johor Baharu, Johor • Sekolah Menengah (P) Sultanah Engku Tun Aminah, Johor Baharu, Johor Suburban • Sekolah Menengah Kebangsaan Taman Universiti, Johor Baharu, Johor • Sekolah Menengah Kebangsaan Munsyi Sulaiman, Jalan Kluang, Batu Pahat, Johor	1 1 1 1 1

3	Northern Region - Kedah Total enumerator: 2	Urban • Sekolah Menengah Kebangsaan Pokok Sena, Alor Setar, Kedah	1
		Suburban • Sekolah Menengah Kebangsaan Tunku Anum Tunku Abdul Rahman, Jitra, Kedah	1
	Pulau Pinang Total enumerator: 4	Urban • Sekolah Menengah Kebangsaan Munshi Abdullah, Pulau Pinang • Sekolah Menengah Han Chiang, Pulau Pinang	1 1
		Suburban • Matriculation Center, Pongsu Seribu, Pulau Pinang • Sekolah Menengah Kebangsaan Bukit Mertajam, Pulau Pinang	1 1
4	Eastern Region - Terengganu Total enumerator: 3	Urban • Universiti Malaysia Terengganu, Kuala Terengganu, Terengganu • Sekolah Menengah Tengku Mahmud, Kuala Terengganu, Terengganu	1 1
		Suburban • Sekolah Menengah Kebangsaan, Gong Badak, Terengganu	1

3.8   Data Analysis

The data were analysed quantitatively. There were one independent variable and five dependent variables involved in the study. There were also four moderating variables: religiosity and four demographic variables (gender, ethnicity, family income level and primary education stream). Therefore, the data collected were analysed using several statistical techniques available in the Statistical Package for the Social Sciences (SPSS) version 12.0.1 and Analysis of Moment Structure (AMOS) version 6.0.1 software.
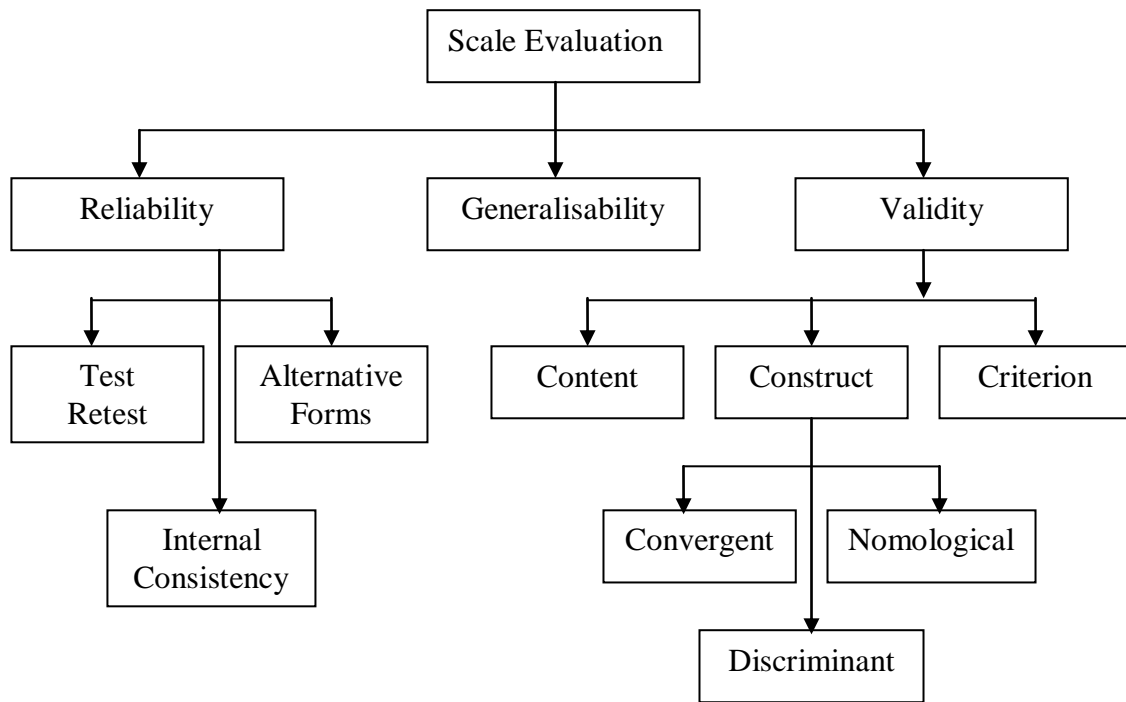
3.9 Reliability and Validity Assessments

Reliability, validity and practicality are the tools used to evaluate the characteristics of a good measurement (Cooper and Emory, 1995; Cooper and Schindler, 2003). Practicality is considered in terms of the convenience to administer, the ease to interpret and the economy of cost (Cooper and Schindler, 2003). In contrast, reliability and validity involve a measurement of accuracy and applicability (Malhotra, 2004). Since the present study utilizes multi-item scales, which are a better measurement for behaviour and attitudinal constructs (Churchill, 1979), all constructs were tested for reliability and validity to determine whether they measured what they were intended to measure.

A critical aspect in any study is the development of good measures to obtain valid and reliable estimates of the constructs of interest. By establishing the validity and reliability of the constructs, it is easier to standardize the measurement scales, and eventually the constructs can be measured. Moreover, reliability and validity involve a measurement of accuracy and applicability (Malhotra, 2004). The concern behind validity and reliability assessment is the reduction of measurement errors. Therefore, the concepts of validity and reliability are important to understand. Figure 3.4 illustrates the possible tests used to examine the reliability and validity of measurements.

The major concern behind reliability and validity assessments is the reduction of measurement errors. The ideal is to develop a measurement that reflects a true score of the variables being measured (Churchill and Iacobucci, 2005). Measurement error results in the measurement or observed score being different from the true score of the characteristic being measured (Sekaran, 2003).

Figure 3.4: Scale Evaluation

Source: Adapted from Malhotra, N.K. (2004).

As a result, the accuracy and the applicability of the measurement will be questioned. To increase the consistency, accuracy and applicability, a researcher normally performs reliability and validity tests on the instrument measures. If a measure is perfectly valid, it is perfectly reliable. In other words, perfect validity requires that there be no measurement error. In contrast, if a measure is perfectly reliable, it may or may not be perfectly valid because systematic error may still be present. Thus, reliability is necessary, but not a sufficient condition for validity. The goodness of measure is established through the different kinds of reliability and validity tests depicted in Figure 3.4 (Sekaran, 2003). In any research, well-validated and reliable measures must be used to ensure that the research is scientific. A researcher must, therefore, be aware that there are various factors that may cause measurement error – systematic error and random error.

3.9.1   Reliability Assessment

The reliability of a measure is an indicator of the stability and consistency with which the instrument measures the concept and helps to access the "goodness" of a measure. Reliability measures the consistency in measurement that is to ensure the consistent measurement across time and across the various items in the instrument. Peter (1979) broadly defines reliability as "the degree to which measures are free from error and therefore yield consistent results". Nunnally (1978) argues that reliability is "the extent to which measurements are repeatable and that any random influence which tends to make measurements different from occasion to occasion is a source of measurement error".

There are several types of reliability test that can be used to test the goodness of measures: test-retest reliability, parallel-form reliability (alternative-form reliability) and internal consistency reliability, which includes interim consistency reliability and split-half reliability. In this research, the internal consistency of measures was measured using the interim consistency reliability. This is a test of the consistency of respondents' answers to all the items in a measure. The Likert scale items were tested using Cronbach's coefficient alpha (Cronbach, 1946). "Cronbach's alpha is a reliability coefficient that indicates how well the items in a set are positively correlated to one another" (Sekaran, 2003, p. 250). The argument is in line with Churchill (1979) and Peter (1979) where both researchers recommended Cronbach's Coefficient Alpha for testing the reliability of the internal consistency. The alpha coefficient ranges from 0 to 1. A higher coefficient means the measuring instrument has a better and a higher internal consistency reliability.

Until recently, researchers have not come to a consensus on the acceptable value for alpha to measure the reliability. For the early stages of basic research, Nunnally (1967) suggests that reliabilities of 0.5 to 0.6 are sufficient and that increasing reliabilities beyond 0.8 is probably wasteful. Furthermore, a coefficient value exceeding 0.5 has been considered as the threshold recommended by Nunnally (1967) for exploratory research, but Nunnally (1978) recommends a minimum alpha cut off of 0.8 for measures not in the early stages of development. Malhotra (2004), on the other hand, considers a value of 0.6 or less as unsatisfactory or having poor internal consistency reliability. For this study, 0.5 was used as a cut-off point to measure the inter-item consistency reliability.

3.9.2   Validity Test

Hair et al. (2006) define validity as the "extent to which a measure or set of measures correctly represents the concepts under study – the degree to which it is free from any systematic or non-random error" (p. 3). Malhotra (2004, p. 269) suggests that "the validity of a scale may be defined as the extent to which differences in observed scale scores reflect true differences among objects on the characteristic being measured". In other words, validity is a term used to ensure the ability of a scale to measure the intended concept. It is a test of accuracy and applicability of a scale. A discussion on validity is given below, beginning with content validity, which is followed by construct validity.

a. Content Validity

Content validity (face validity) emphasizes the need for the adequate coverage of all the domains of the constructs being examined (Cooper and Emory, 1995). Malholtra (2004, p. 269) argues that content validity (face validity) is a subjective but systematic evaluation of how well the content of a scale represents the measurement task at hand. Most of the time, experts or professionals are invited to express their judgments on the relevancy and adequacy of the constructs (Green and Tull, 1978; Zikmund, 2003). For this study, the initial set and the final scale developed was subject to independent evaluation by a few experts in marketing, psychology and cultural areas. Content validity can be determined through using scales, which are adopted from established empirical studies (Narver and Slater, 1990; Jaworski and Kohli, 1993) or through pre-testing. Since content validity alone is not a sufficient measure of the validity of a scale (Malhotra, 2004), other validity tests will be performed to validate the scales used in the research.

b. Construct Validity

Zikmund (2003, p. 303) implies that the empirical evidence generated by a measure is consistent with the theoretical logic about the concepts. While, Malhotra (2004) suggests that construct validity addresses the question of what construct or characteristic the scale is in fact measuring. He argues that "construct validity is the most sophisticated and difficult type of validity to establish" (p. 269). In testing for construct validity, the convergent, discriminant and nomological validity should be examined (Cohen, 1979).

According to Malholtra (2004) *convergent validity* is a measure of construct validity that measures the extent to which the scale correlates positively with other measures of the same construct. *Discriminant validity* is a type of construct validity that assesses the extent to which a measure does not correlate with other constructs from which it is supposed to differ. *Nomological validity* is a type of validity that assesses the relationship between theoretical constructs. It seeks to confirm significant correlations between the construct as predicted by a theory (Malhotra, 2004).

However, before further discussing the techniques used to examine construct validity, an elaboration of factor analysis needs to be presented in this section. Nunnally (1978) states that factor analysis have a role in testing the three aspects of validity. That is, factor analysis can be applied to assist researchers in revisiting their instrument's content validity. In contrast, "internal structure and cross structures of set of variables" (Nunnally, 1978, p. 113) construct validity can be determined by applying factor analysis. This is relevant to the construct validity where the underlying notion is to examine whether or not the measurement adopted measures what it purports to measure. In this context, factor analysis is an important technique in assessing the convergent and discriminant validity. Factor analysis is further elaborated later in this chapter.

3.9.3   Statistical Techniques

Descriptive statistics (frequency distribution, the mean and standard deviation) and inferential statistics (Pearson's correlation, t-test, one-way ANOVA, simple regression and hierarchical multiple regression) procedures provide support in analysing the data collected. Pearson's bivariate correlation was used to test the relationship between the constructs and its relative influence on Malaysian adolescents' consumption behaviours.

Both exploratory and confirmatory factor analysis were performed to enrich the knowledge of American Popular Culture influences on Malaysian adolescents. The American Popular Culture construct was regressed using simple regression and hierarchical multiple regression analysis against each dependent variable.

The present researcher also performed a test of difference or measures of association between two variables at a time. Thus, the T-test and One-way ANOVA may be used to test the hypotheses. In many studies, researchers are interested in testing differences in mean scores between groups or in comparing how two groups' scores are distributed across possible response categories.

3.9.4 Hypothesis Test

Hypothesis is "an unproven or supposition that tentatively explains certain facts or phenomena" (Zikmund, 2000). In most research, there are null hypotheses and alternative hypotheses. The research has to decide whether to accept or to reject a hypothesis by defining the decision criterion known as the significance level. "The significance level is a critical probability in choosing between the null hypothesis and the alternative hypothesis" (Zikmund, 2000: p.460). The present research set a 95 percent confidence level as the desired level of statistical significance because a 95 percent confidence is the conventionally accepted level for most business research (Sekaran, 2003). Thus, the significance level was commonly denoted as 0.05 ($p<.05$). Researchers may use different types of multivariate techniques to test the hypotheses. However, the present study used multiple regression and hierarchical multiple regression to test the hypotheses. The decision to choose which method is appropriate

depends on the number of dependent variables and the scale used to measure the variables.

According to Hair et al., (2006), simple regression is a regression model with a single independent variable also known as bivariate regression. This procedure for predicting data (just as the average predicts data) uses the same rule: minimize the sum of squared errors of prediction. The researcher's objective for simple regression is to find an independent variable that will improve on the baseline prediction.

Another multivariate technique adopted in the present study to test the hypotheses is hierarchical multiple regression. Hierarchical regression was used to test the research hypotheses allowing the examination of the relative power of a set of independent variables. It should be used to examine the net effects of independent variables on the dependent variables in the model controlled (El-Ghannam, 2001). In the present study, the researcher included five moderator effect situations (religiosity, gender, ethnic, family income level and primary education stream) between every relationship of a single independent variable (American Popular Culture) and five dependent variables. This situation is termed a moderator effect, which occurs when the moderator variable, a second independent variable, changes the form of the relation between another independent variable and the dependent variable (Hair et al., 2006).

3.9.5 Factor Analysis

Factor analysis is a technique that is essential in several stages of the development and assessment of measures. However, the underlying principle of factor analysis is data parsimony and data interpretation (Churchill and Iacobucci, 2005; Zikmund, 2003).

3.9.6   Exploratory Factor Analysis

Exploratory factor analysis is used for data exploration and to generate hypotheses. It is a technique that assists researchers to determine the structure of factors to be examined (Hair et al. 2006). In other words, it is a technique used when the relationship between latent and observed variables is unknown or uncertain. In the present study, exploratory factor analysis was implemented to establish dimensionality and convergent validity of the relationship between items and constructs. Tests such as The Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity (Bartlett's Test) were also employed. These two tests examine the sampling adequacy (Pallant, 2001). Bartlett's test with a significance value of less than 0.05 ($p<0.05$) and KMO with more than 0.60 are considered appropriate for factor analysis (Pallant, 2001). Bartlett's Test shows whether or not the correlation among the factors in the matrix is identical.

The Varimax orthogonal rotation method was employed for analysis, on the grounds that the method is robust and will be able to simplify the factor loadings and assist in interpretation (Churchill and Iacobucci, 2005). Factor loading is useful to ascertain the convergent and discriminant validity of the scales (Hurley et al. 1998). Factor loading specifies the strength of the relationship between the item and latent construct.

3.9.7   Confirmatory Factor Analysis: Structural Equation Modelling (Measurement Models)

Structural equation modelling, involving analysing covariance structures and causal analysis, is a method of theory and hypothesis testing (Tabachnick and Fidel, 1996). In other words, this technique can only be applied with prior knowledge of the

hypothesised relationships among variables. Similarly, it is regarded as the "statistical methodology that takes a confirmatory (hypothesis-testing) approach to the analysis of a structural theory bearing on some phenomenon" (Byrne, 2001: p. 3), such that structural equation modelling is inherently confirmatory factor analysis.

Structural equation modelling is gaining popularity across disciplines including marketing, for reasons that have been expressed by Baumgartner and Homburg (1996: 158). According to the authors, structural equation modelling allows the researcher to take into account explicitly the inherent fallibility of behaviour science data and to assess and correct for measurement unreliability in provided multiple indicators of each construct. The technique also makes it possible to investigate in a straightforward fashion comprehensive theoretical frameworks in which the effects of constructs are propagated across multiple layers of variables via direct, indirect or bidirectional paths of influence. In this respect, it can be regarded that the technique is utilized to determine and to assess the linear relationships of the variables in the hypothesised model. Likewise, the above discussion also points to the fact that structural equation modelling is composed of two distinctive sub-models, which are measurement models and structural models.

The measurement models analyse the relationship between latent (unmeasured or theoretical construct) and observed (measured or indicator or manifest) variables. Figure 3.5 exhibits some of the key terms of structural equation modelling measurement. The measurement models provide scores (factor loadings) of construct items that it purports to measure. The factor loadings exhibit the strength of the relationship.

This analysis is a prerequisite to analyse structural models. Structural models, on the other hand, analyse the relationship between latent variables. In order to be more precise, the models examine direct or indirect relationships between latent variables and how much the relationship influences the score of particular latent variables (Byrne, 2001).

Confirmatory factor analysis is used to analyse convergent and discriminant validity. In order to assess for convergent validity, the proposed model has to exhibit a holistic fit. In other words, the hypothesised models need to illustrate a satisfactory fit in terms of absolute fit, incremental fit and model parsimony (Schumacker and Lomax, 1996). Model fit means that the hypothesised model fits the data well. Table 3.14 defines the indicators used to measure the model fit.

An absolute fit model refers to the overall fit of the model. That is, indices of the absolute fit model provide an assessment of the discrepancy between matrixes of variances and the covariance of the observed (hypothesised model) and implied models (reproduced model) (Schumacker and Lomax, 1996). The indices include chi-square statistic (χ^2), normed chi-square or relative chi-square (χ^2 / df), goodness-of-fit (GFI), adjusted goodness-of-fit (AGFI) and root mean-square error of approximation (RMSEA).

An incremental or comparative fit, on the other hand, examines the model fit of the hypothesised model against the fit baseline of the independence model or the null model, where there is no proposed relationship among variables (Schumacker and Lomax, 1996; Kline, 1998). In this case, the results of the relationship from the hypothesised models are compared with the independence models. For instance, a score

of 0.90 indicates that the overall fit of the hypothesised model is 90% better than that of the independence model (Kline, 1998). The score for the incremental fit model ranges from 0 to 1, in that, a score close to 1 suggests a perfect fit whereas 0 refers to there being no difference between the hypothesised and independence model. The ideal indices included in the study are Chi-square ($\chi2$), Goodness-of-fit (GFI) and Adjusted Goodness-of-fit (AGFI), Root mean-Square Error of Approximation (RMSEA) and Comparative Fit Index (CFI).

Figure 3.5: Some Basic Key Terms of Structural Equation Modelling
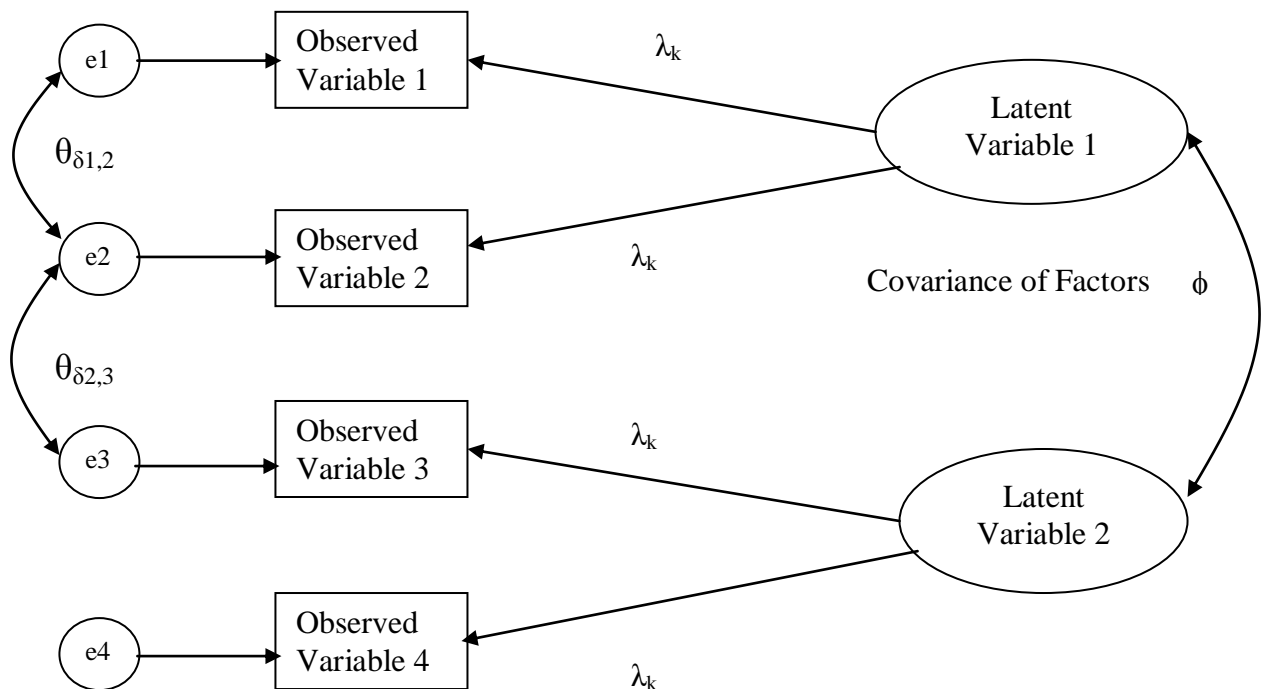
ϕ – Construct correlation
λ_k – Factor loadings/standardized regression coefficient (an assumption of direct effect between latent and observed variables)
θ_δ – Variance of the item as explained by the latent variable
e   – Measurement error (all other source of variance not explained by the observed variable)

Source: Adapted from Hair et al. (2006)

Table 3.14: Summary of Fit Indices

Type	Name	Abbev.	Acceptable level	Comments
Model Fit	Chi-square	χ^2 (df, p)	p > 0.05 at α = 0.05	p>0.05 reflects acceptable fit; 0.1 reflects a good fit. To get a non-significant χ^2 with an association to degree of freedom (meaning that data fits the model), significance has to be at p>0.05 or > 0.1.
Absolute Fit	Goodness-of-fit and Adjusted Goodness-of-fit	GFI AGFI	GFI and AGFI > 0.95	Value between 0.90 − 0.95 may also indicate satisfactory fit.
Absolute Fit	Root mean-Square Error of Approximation	RMSEA	RMSEA < 0.05	Value between 0.05 − 0.08 may also indicate satisfactory fit. Value 0 indicates a perfect fit.
Incremental Fit /Comparative Fit	Comparative Fit Index	CFI	CFI > 0.95	Value between 0.90 − 0.95 may also indicate satisfactory fit. Value close to 0 indicates poor fit, CFI = 1 indicates perfect fit.

Source: Adapted from Hair et al. (2006)

All indices discussed thus far are estimated for the measurement models of the study. They are also a medium used to test for convergent and discriminant validity, which is discussed below. These indices, however, are not the only criteria used to accept or reject the hypothesised model. Factors such as theoretical background of the study,

logical argument and opinion have to be established before any decision on model fit is made (Mavondo and Farrell, 2000). In order to examine convergent and discriminant validity, structural equation modelling with an Analysis of Moment Structure (AMOS) version 6 is adopted. The next chapter will discuss the results of convergent and discriminant validity in detail.

3.10   Chapter Summary

The present study is fundamentally descriptive based on a structural self-administered survey design. A total of 820 respondents from six different states in Peninsular Malaysia were targeted for this study. More questionnaires were distributed to states with a higher population and fewer to less populated states. This consideration was very important as the researcher had to make sure that the quota sampling requirements set prior to the data collection period were fulfilled.

The measurement for dependent, independent and moderator variables of this study were developed from available measures. Items for all constructs were measured using seven-point Likert type scales. Descriptive statistics (frequency distribution, the mean and standard deviation) and inferential statistics (Pearson Correlations, t-test, One-way ANOVA, Simple Regression and Hierarchical Multiple Regression) procedures provided support in analysing the data collected. Pearson's bivariate correlation was used to test the relationship between the constructs and its relative influence on Malaysian adolescents' consumption behaviour.

Both exploratory and confirmatory factor analysis were performed to enrich the knowledge of American Popular Culture influences on Malaysian adolescents. The

American Popular Culture construct was regressed using simple regression and hierarchical multiple regression analysis against each dependent variable.