# **CHAPTER 3**

# **3.0 RESEARCH METHODOLOGY**

# **3.1 Introduction**

This chapter exhibits the study's selection of measures, theoretical framework and variables, questionnaires adopted related to the hypotheses. The structure of the research methodology is defined in this chapter and explained thoroughly. In addition, the changes in the questionnaires after a pilot test are also explained in this chapter.

# **3.2 Selection of measures**

#### 3.2.1 Demographic Variables

#### Section A:

Participants' demographic variables (e.g. age, gender, education level, monthly income, occupation, education level, religion, ethnic, marital status and dining companion) are measured on nominal scale. These variables are dummycoded, where they are used as control. For example, gender is split into two new categories, where male in the first group is coded 1 while female is coded 0. In the second group, female is coded 1 while male is coded 0.

#### **3.2.2 Physical environment**

## Section B

Physical environment are evaluated with 7-item Atmospheric-related attributes scale (Liu & Jang, 2008). A 7-item Atmospheric-related attributes scale, 1 is indicating 'not important at all' and 7 indicating 'extremely important'. The authors adopted attributes from Ryu & Jang, 2007 and 2008. The attributes include design and decor, lighting, music, temperature, odours, cleanliness and employee appearance. It has a high reliability with Cronbach's alpha value of the 7-item attributes is 0.868. Temperature in this scale is referring to appropriate room temperature in the restaurant while employee appearance is on how neat and well-dressed their employees are. Participants are required to rate on the level of importance of each attribute according to their personal preference. The results obtained from these questions are used to rank the importance of the attributes based on customers' preference in choosing a food establishment or a full service restaurant in specific for this study.

## Section C

The same set of attributes is used to measure on attribute-performance whereby participants are asked to recall their most recent dining experience at full service restaurant. Similarly, a 7-point Likert scale is used with 1 indicating 'very poor' and 7 indicating excellent. These data were then be used to measure the performance of local full service restaurant using customer satisfaction and behavioural intentions as the indications.

#### **3.2.3 Food quality**

## Section B

Similar to physical environment, seven attributes were adopted from Liu & Jang, 2008 questionnaires. The attributes were evaluated using 7-point food-related Likert scale with 1 indicating 'not important at all' while 7 indicating 'extremely important'. This scale was developed with reference of two research conducted by Namkung and Jang 2007 and Sulek and Hensley, 2004. These food-related attributes consist of food presentation, menu variety, healthy option, taste, food freshness, appropriate food temperature and safety. The Cronbach's alpha value is 0.714 show that the questionnaires chosen are highly reliable. Each attribute will be evaluated based on the importance in choosing food establishment. These data are used to rank the importance of the attributes based on customers' perception towards the full service restaurant in specific for this study.

# Section C

Participants are asked to recall their most recent dining experience at full service restaurant and rate the full service restaurant using the same set of attributes with 1 indicating 'very poor' and 7 indicating 'excellent'. These data were then be used to measure the performance of local full service restaurant using customer satisfaction and behavioural intentions as the indications.

#### **3.2.4 Service quality**

## Section **B**

The service-related attributes consist of seven items (Liu & Jang, 2008). A 7-item Atmospheric-related attributes scale, 1 is indicating 'not important at all' and 7 indicating 'extremely important'. The seven items used to evaluate service provided by employees are:

- 1) Friendly and helpful employees
- 2) Attentive employees
- 3) Employees have knowledge of the menu
- 4) Employees serve exact food as ordered
- 5) Employees provide an accurate guest check
- 6) Prompt service
- 7) Dependable and consistent service.

The above scale has a significant reliability with Cronbach's alpha value of 0.922. These attributes were selected based on previous studies (Kivela et al., 1999; Andaleeb and Conway, 2006) and identified from an expert review. According to Liu & Jang, 2008, these attributes reflected the four dimensions, excluding the tangible dimension of the original DINESERVE scales developed by Stevens et al in 1995. Respondents are required to rank the importance level based on the given scale.

#### Section C

Besides testing on the importance level of each attribute in service quality, same attributes are used in the next section to test the performance of a full service restaurant. In this section, participants are asked to recall on their most recent dining experience and rate their performance as well as their level of satisfaction and behavioural intention of the restaurant with 1 indicating 'very poor' and 7 indicating 'excellent'.

#### **3.2.5 Price fairness**

## Section **B**

In this section where the attributes are ranked based on customers' preference in choosing food establishment, participants are asked to rank the importance of price fairness in choosing a food establishment with 1 indicating 'not important at all' and 7 indicating 'extremely important'.

# Section C

Price fairness related questionnaires were adopted from Meng and Elliot, 2008. A different type of measurement was used compared to physical environment, food quality and service quality because price fairness was not measured in Liu & Jang, 2008 study. A 1-5 semantic differential scale was used to evaluate price fairness. There are four statements used and have high internal reliability with Cronbach's value ranging from 0.73 - 0.84.

Examples of statement are:

- 1) The food prices at this restaurant are -----unfair-----fair
- 2) The beverage prices at this restaurant are -----unfair-----fair
- 3) The price charged by this restaurant is -----inappropriate-----appropriate
- 4) The price charged by this restaurant is -----irrational-----rational

Each respondent was asked to recall their most recent experience in a food establishment before answering the questions.

#### **3.2.6 Customer Satisfaction**

## Section C

In this section, all attributes are used to measure participants' perception towards their most recent dining experience in a full service restaurant. The performance of the restaurant they visited is measured using the following statement:

- 1. I'm satisfied with this restaurant
- 2. I'm pleased to have visited this restaurant

These 2-items were measured by a 7-point Likert scale with 1 indicating 'strongly disagree' and 7 indicating 'strongly agree. These items were originated from Liu & Jang, 2008. Customer satisfaction is categorised as the dependent variables whereby it can be affected by the performance of Malaysia full service restaurant.

#### **3.2.7 Behavioural intentions**

## Section C

Behavioural intention is one of the two dependent variables in this study. Similar to customer satisfaction, the post dining intentional behaviour are used to measure performance of the restaurants based on the same restaurant attributes in section B. The statements used in the research are:

- 1. I would like to come back to this restaurant in the future
- 2. I would recommend this restaurant to my friends or others
- 3. I would say positive things about this restaurant to others

These 3-items were measured by a 7-point Likert scale with 1 indicating 'strongly disagree' and 7 indicating 'strongly agree. These items were adopted from Liu & Jang, 2008 which has modified these items from Zeithaml et. al. (1996).

#### 3.2.8 Pilot test

A pilot test was conducted with 10 participants before distributing the questionnaire to respondents. This is to ensure wording, sentence structure and scale used are appropriate and understandable. Furthermore, these questionnaires were adopted from foreign research paper and are important to ensure these questions are applicable in local context. Based on the feedbacks, slight modification of the sentence structure and explanation are included in the finalise questionnaire.

From	То
How often you dine out in a month	How often you dine out in a week
Dining companion	Dining companion – Choose only ONE which is most frequent
Coffee Shop	Coffee Shop/Food Court
De'cor	Decoration
Food Safety	Food Cleanliness
Accurate Guest Check	Accurate Guest Billing

Table 3.0 The changes made after the pilot test conducted

The changes made are mainly on the wording to suit local context better. For instance, most may not know that food safety is referring on how the employees are managing the food and ensuring food cleanliness. Thus, food cleanliness is used for simplicity. Similarly, in Malaysia we rarely use the word 'check' when referring to bill, hence billing is used for better understanding of the phrase.

# 3.3 Sampling Design

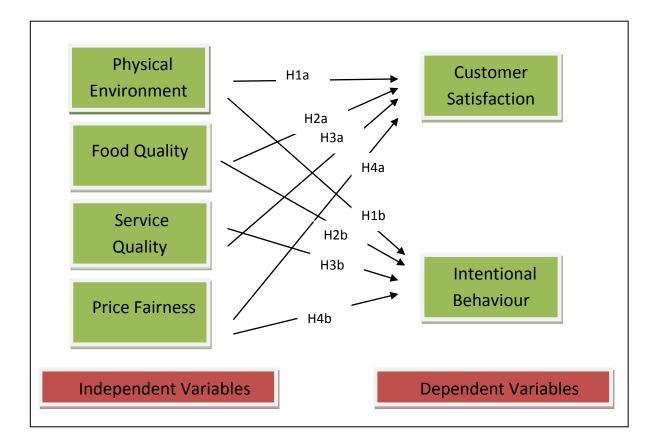
This research is designed to test hypotheses as listed at the former section by using structured questionnaires. The research interests are investigated by importanceperformance research on the highlighted variables. It is conducted with the least interference to the participants. In this study, the unit of analysis is the individual patron/customer of the full service restaurant. This research is designed to be conducted in which data are gathered just once (cross-sectional), for a period of one month in order to meet the research objectives.

#### 3.4 Data Collection Procedure

The data for this study is collected via self-administered questionnaire. There are 140 questionnaires distributed by hand and 120 sets are mailed electronically to anybody who dines out in Klang Valley, Malaysia. These respondents are readily available for the study. Non-probability samples are used in this case due to the time constraints and high cost. Volunteered respondents are requested to recall their most recent dining experience in full service restaurant and fill up the questionnaire. The structured questionnaire consists of five sections, namely Section A: Demographic variables (10 items), Section B: Restaurant attributes which are used to rank the importance of the attribute in choosing food establishment (22 items) and Section C consist of 7 items from food quality attributes, service quality attributes and physical environment attributes, 4 items on price fairness, 2 items on customer satisfaction and 3 items on behavioural intentions which give a total of 30 items in section C.

# 3.5 Data Analysis Techniques

Data are analysed using SPSS version 15.0. The data are screened first and foremost for errors in data entry. Next normality is assessed by measuring the central tendency and variability. The assessment is carried out by inspecting the skewness and kurtosis of the population. After running for normality test, each scale is tested on its reliability by observing the reliability coefficients, Cronbach's alpha. When the scales are reliable and the data are normal, multiple regression analysis is conducted.



*Figure 3.0 Research framework – The influence factors in choosing food establishment.* 

# 3.6 Conclusion

This research model uses two previous studies as a platform. The variables are combined and mixed to improve the investigation of each attributes influence toward the two dependent variables, customer satisfaction and behavioural intention. The questions are adopted to meet research objectives and address the research questions. Results from data analysis and interpretation are demonstrated in the following chapter.