International Journal of Culture, Tourism and Hospitality Research

The Influences of Cleanliness and Employee Attributes on Perceived Service Quality in Restaurants in a Developing Country

SCHOLARONE™
Manuscripts

1   Introduction

Issues of service quality, and consumer perception of quality, pervade practice and research in the restaurant industry internationally, and are important determinants of success within this significant economic sector. The restaurant industry contributes much to the market values of developed and developing countries, and is of undeniable importance to wider economic performance as well as being indicative of the development of the high-value experience and leisure-based service industries that characterise twenty-first century economies. In the European market, the restaurant industry grew by 2.6% to reach a value of $514.9 billion with an increase of 0.7% in the market volume to reach 13,384 thousand employees in 2014 (Marketline, 2015). Meanwhile, in the Asian market the value and volume of the industry is double that of Europe, according to the latest figures (Marketline, 2015). It is the fact that, since 2013, the restaurant industry has seen a tepid growth in values that suffered from the freefall of economic growth in most developed countries. Specifically, the global restaurant industry expanded by only 1% compared with the previous years due to the stagnation of the North American and Western European economies (Schaefer, 2013). Similarly, Asia, which has been characterised as the engine of global spending on eating out, also saw a low rate of growth in markets such as Japan and China, while growth stalwarts like Vietnam also struggled (Schaefer, 2013).

This study seeks to redress the shortage of service quality studies in Asian developing country contexts and to incorporate the dimension of cleanliness into the conceptual framework as a means of contributing to the international development of such studies. It is recognised that most of the investigations conducted to date have paid more attention to developed and Western countries (Bougure and Neu, 2010; Kueh and Voon, 2007), and so the specific case-study here investigates the service quality of full-service restaurants in Vietnam, where there has been robust economic growth recently. Established models in service quality studies originated in Western, developed world contexts, and there is a need to explore their validity in alternative settings rather than to simply assume that the same expectations and outcomes would apply in very different economies and cultures. Marinkovic *et al.* (2014) believe that the restaurant business relies on factors that are constantly responding to changes in social and economic status. In that situation, restaurants may have to consider their strategy to match customer preferences in order to satisfy customers with a quality service, which may help organizations to gain more customers with their favourable intentions. Warde and Martens (2000) suggested that examining the restaurant dining experience from the customer perspective could help restaurants to improve their professional knowledge and ability which in turn would enable greater success in meeting customer needs whilst also working to enhance business success.

Many researchers have investigated the dimensions of service quality in the restaurant industry in order to improve service quality management (Berry *et al.*, 2006; Berry and Wall, 2007; Gu and Heung, 2012; Barber *et al.*, 2011; Ryu and

Han, 2011). They have studied customers' perceptions of many aspects of service quality, and concluded that the overall judgement of a restaurant's service quality is significantly influenced by customers' perceptions of the quality of the physical environment, cleanliness, food quality and the behaviour of the employees. Berry and Wall (2007) suggested that food quality and employee behaviour are likely to be of more concern to customers than the physical environment in which the dining experience takes place. Namkung and Jang (2007) emphasised that: "Food is a fundamental component of restaurant experiences. There can be no doubt that the food has, and will continue to have, a major impact on consumer satisfaction and return patronage". Even more importantly, Berry and Wall (2007) emphasized that restaurants would be best to be strong in relation to the attributes of their service employees. It is believed that service employees' behaviour affects the customers' perception of the service quality as "they present the behaviours associated with the implementation of an organisation's service quality provision policy" (Farrell *et al.*, 2001). Others, such as Ryu and Han (2011), however, indicate that the physical environment element does play an important role in shaping customers perceptions that lead to a positive reaction from new customers and enhances the loyalty of repeat customers. Regarding the physical environment, the atmosphere of restaurants, which strongly influences the customer's first impression before experiencing employee services and food in restaurants, may change the degree of the impact of quality perception on consumption behaviour (Ha and Jang, 2010) as the multiple aspects of the restaurant setting interact. Within such analyses of physical settings, the importance of cleanliness should not be neglected. In most studies, cleanliness quality is considered as an attribute of environmental quality or of tangible quality (Liu and Jang, 2009; Lee *et al.*, 2012; Bujisic *et al.*, 2014). Recently, however, some research reports have suggested that cleanliness should be treated as a separate dimension due to its significant importance and impact on customer perception (Barber and Scarcelli, 2010). The cleanliness of restaurants must be considered for the importance of personal hygiene and safety which can influence service quality and the perception of service quality (Barber *et al.*, 2011). Cleanliness can work as a motivator, can improve positive reactions and modify the behaviour of customers, by way of dimensions such as the pleasantness of the experience, trust in the service and prestige attribution (Yavetz and Gilboa, 2010). Hence, the main purpose of this research is to investigate factors that impact customer perception, and to explore their relationship with satisfaction and behavioural intentions, specifically incorporating cleanliness as a dimension, and in a Vietnamese context.

Vietnam's restaurant industry has seen a considerably strong growth in value and in the number of outlets, which has resulted from an increase in the standard of living in the country. From 2001 to 2007, Vietnam had the second highest growth rate in Asia, which was 7% per year (USDA, 2012). At that time, the strong economic and tourist growth together created an increase of disposable income, a growing middle-class; people were impacted by Western lifestyles rapidly and this resulted in the change and development of the food service industry (AAFC, 2014). In the category of full-service restaurants, there is a diverse range of products, format/theme, prices, menus and age-targeted products, which creates a very competitive service environment (Euromonitor International, 2014). Up-scale full-service restaurants have tended to

standardise their food-making process, hire well-trained staff and develop chains of outlets. These restaurants target middle- and high-income consumers who prefer to dine in a modern and elegant environment. On the other hand, value-priced operators are more popular, they offer a full-service but with lower price by hiring relatively unskilled labours (Euromonitor International, 2015).

The small percentage of urban dwellers in Vietnam has started to increase due to dramatically increased rural to urban migration as the economy becomes more industrialised and urbanised (AAFC, 2014), which in turn increases the potential for concerns about the service quality of restaurants to grow in those urban areas. These concerns represent both the risks of poor hygiene and safety as well as customer perception of the issues. Due to the efforts of the Vietnamese Government, national and local media, and the easing of internet restrictions, contemporary Vietnamese consumers pay more attention to food hygiene and food safety, which is one of the main factors that affects the purchase decisions of consumers (USDA, 2012). This is understandable, since hygiene and food safety are global problems that threaten the food security of millions of people, particularly in developing countries in Asia (Prabhakar *et al.*, 2010). In many Asian contexts, the prevalence of the issue of food safety has increased mainly due to the poorly managed post-harvest food supply chains, and the way that resources are employed in production (Prabhakar *et al.*, 2010). Furthermore, according to the report from Euromonitor International (2013), Vietnam is a country that has a population characterised by a high proportion of young people, with more than half being below 30 years of age. This consumer group are more open to food service experiences and demand informal full-service restaurants that offer social elements, especially in terms of places where young people can meet for food and conversation with friends (Euromonitor International, 2013).

Due to the important role of local full-service restaurants in leading the overall dining category in Vietnam (AAFC, 2014), this study will investigate full-service restaurants in an urban area, where there is a considerable effort by operators to try to improve service quality in order to satisfy customer requirements in food and service as the attitudes of customers' change (AAFC, 2014).

2   Theoretical foundation and hypothesis formulation

2.1   Customer Perception

There are two key schools of thought about customer perception. Looking at the point of view of European researchers, Gronroos (1984) and Lehtinen and Lehtinen (1982), have stated that customer expectation is the element that influences customer perception of service quality, and that the perception of service quality is the antecedent of satisfaction. In contrast, what could be characterised as an American attitude has it that customer perception can also be used to reflect upon the whole service quality of an industry. Service organizations therefore need to be concerned about customers' expectations and how they perceive the actual value of organizations so that product and promotion strategies can be aligned more efficiently (Zeithaml, 1988). According to Parasuraman *et al.* (1985), customers' expectations are gained by

accumulated experiences through the many times they avail of or participate in different service organisations (Zeithaml *et al.*, 2012). Expectations reflect customers' needs, and if their needs are well satisfied then their perception of the service quality will be more positive and *vice versa* (Van *et al.*, 2000). Traditionally, the point of view of American researchers has been more widely agreed upon and supported (Gilmore and McMullan, 2009; Duff et al., 2008; Ladhari, 2009, Stevens et al., 1995; Mehta et al., 2000) but there is value in both approaches in unpacking complex processes.

Subramaniam *et al.* (2014) stated that customer perception is a cognitive outcome which could be described as a process by which an individual selects, organizes and interprets the product with a combination of surrounding factors into a meaningful and coherent picture of the world. When participating in a service organization, customers' perception may be influenced not only by the nature of the product and its physical attributes but also by the attributes of the service-delivery process (Bolton and Drew, 1991; Parasuraman *et al.*, 1990).

2.2   Service Clues

Berry *et al.* (2006) stated that customers have the ability to see more and receive more information than service providers, and that "they frequently behave like detectives in the way they process and organize 'clues' embedded" (Berry and Wall, 2007). They emphasised that there are three main clues that affect customer perception of service quality: Functional clues, Mechanic clues, and Humanic clues. Specifically, Functional clues concern the technical quality of the offering, "anything that indicates or suggests the technical quality of the service, its presence or absence" (Haeckel *et al*, 2003). In the concept of restaurant organization, Functional Clues refer to the food itself and the accuracy or efficiency of the service; for example, the taste and textures, the size of portions or variety of menu choices. Meanwhile Mechanic clues refer to the physical objects and non-human elements in the service environment, for example, sights, smells, sounds, facility layout, lighting and so on. It is also emphasised that importance should be attached to employee factors within the Humanic Clues, and that these emerge from the behaviour and appearance of service providers such as level of enthusiasm, neatness, and civility. They suggested that Functional Clues influence a customer's calculative perception of quality, while Mechanic and Humanic clues together influence a customer's emotional perception of quality. So far, it is important for restaurant organizations to be concerned about Product Quality, Atmosphere Quality and Employee Quality to leverage their customers' perceptions of service quality and to consider how all of these together create the overall servicescape (Ha and Jang, 2010; Chua *et al.*, 2014; Bujisic *et al.*, 2014; Rosenbaum and Massiah, 2011). Supporting the results of service clues studies, Barber and Scacelli (2010) point out that even though the Cleanliness of a service organization is a dimension that represents the condition of physical surroundings, it is an important factor that impacts oncustomer perception of service quality and should be considered as a separate dimension. They argue that considering Cleanliness Quality can help to enhance the tangible quality construct and better understanding how customers assess the service of an organization.

2.3 Service Quality Measurement

Customers not only evaluate service quality by its outcome but also consider the process of service delivery (Parasuraman *et al.,* 1990). Gronroos (1984), and Lehtinen and Lehtinen (1982) suggested that there are two main dimensions which can influence customer perception of service quality, which are technical and functional quality. Technical quality refers to "what" the customer is delivered, while functional quality indicates "how" this is delivered to the customer which is associated with psychological and behavioural aspects perceived through interaction and atmosphere. The functional quality is considered to be more important than the technical quality (Chow *et al.*, 2007).

Parasuraman et al. (1988) presented five dimensions within the SERVQUAL framework to determine service quality in more detail and these were intangibles, reliability, responsiveness, assurance and empathy. SERVQUAL measures service quality by way of 22 standardised items but, in the context of restaurant service, SERVQUAL is inadequate for the "unique" features of a restaurant service environment (Dube *et al.*, 1994). Stevens *et al.* (1995) retained SERVQUAL's five dimensions and adapted seven extra restaurant-specific items to measure restaurant service quality more accurately within the DINESERV instrument which utilises 29 items. DINESERV passed the test on content validity with most of the additional items regarding tangible features that related to aesthetic and functional dimensions and is considered to have accurately captured the overall construct of service quality in restaurants(Raajpoot, 2002). Within DINESERV, there are ten items used to measure tangibles, four items to measure reliability, two items that measure responsiveness, three items that measure assurance and four items that measure empathy (Stevens *et al.*, 1995). The instrument has a high reliability and validity when applied to research in the food-service industry (Keith and Simmers, 2011). Indeed, most research and models fall into these five dimensions of service quality (Kim and Moon, 2009, Ryu *et al.*, 2012; Liu and Jang, 2009; Raajpoot, 2002). Therefore, due to the aim of this research, the model of DINESERV will be applied to analyse customer perception on service quality of full-service restaurants.

Based on the above literature, the following hypotheses are proposed:

H1: Food Quality influences Perceived Service Quality.

H2: Employee Quality influences Perceived Service Quality.

H3: Atmosphere Quality influences Perceived Service Quality.

H4: Cleanliness Quality influences Perceived Service Quality.

2.4 Customer Perception and Customer Satisfaction

Customers' perceptions of service quality have been studied by many scholars and practitioners who have shown that they are positively related to satisfaction (Marinkovic *et al.*, 2014; Baber *et al.*, 2011; Berry and Wall, 2007; Cronin *et al.*, 2000; Farrell *et al.*, 2001; Berry *et al.*, 2006). Some scholars believe that satisfaction is determined by a cognitive process, being

what customers had expected to receive as opposed to what they actually received, which is called 'disconfirmation' (Oliver, 1980); or perceived performance (Tse and Wilton, 1998). While, there is an opposing view that satisfaction is an emotional process that is affected by their evaluation of service quality attributes (Martin et al., 2008; Chitturi et al., 2008; Ladhari, 2009).

Oliver (1996) described customer satisfaction as a level between a positive and negative feeling, which is comfortable but not excited, and called it a level of contentment. In the service context, Parasuraman *et al.* (1988) believed that customer satisfaction is dependent on a specific transaction and the service offered. Specifically, each service attribute will affect the customer's emotions before, during and after the consumption experience (Oliver, 1996). The level of satisfaction will influence how customers judge the whole service quality of an organization (Bitner, 1990; Bolton and Drew, 1991). However, Jones and Suh (2000) believe that there is the other type of satisfaction, which is overall satisfaction. Overall satisfaction is based on information updated after accumulating the transaction-specific satisfaction every time customers experience the service of a particular organization (Jones and Suh, 2000; Boulding *et al.*, 1993; Spreng *et al.*, 1996). By this definition, overall satisfaction is understood as a global evaluation or attitude that evolves over time (Parasuraman *et al.*, 1985). Customers with overall satisfaction are more likely to have positive behavioural intentions with the service organization than customers with transaction-specific satisfaction (Lee *et al.*, 2009). As part of the aim of this study, the overall satisfaction will be investigated and the next hypothesis is therefore proposed:

  H5: There is a positive relationship between Perceived Service Quality and Customer Satisfaction.

Customer Satisfaction and Behavioural Intentions

Customer behavioural intention is the result of customer satisfaction that can predict the future consumption behaviour of customers (Rajic and Dado, 2013, Barber *et al.*, 2011; Jani and Han, 2011; Kangdampully, 1998). Understanding customer behavioural intentions is vital to keeping a relationship with potential customers, which is believed to be the key to the ability of a service provider to generate profits (Zeithaml *et al.*, 1996, Hallowell, 1996; Jani and Han, 2011; Kangdampully, 1998). Trying to define customer behavioural intentions after experiencing service, Warshaw and Davis (1985, p.214) stated that it is "the degree to which a person has formulated conscious plans to perform or not perform some specified future behaviour".

There are two types of customer behavioural intentions, which are favourable and unfavourable, generated by satisfied and unsatisfied customers. Certain behavioural trends reveal that satisfied customers are bonding with an organization. Specifically, according to Zeithaml *et al.* (1996) a service provider can affect customers such that they say positive things about the service, recommend to other customers, repurchase, spend more for the service or pay price premiums as favourable behavioural intentions which are signals of being and remaining loyalty to an organization (Rust and Zahorik, 1993, Woodside *et al.*, 1989). In contrast, Hirschman (1970) recognized that dissatisfied customers would have negative

behavioural intentions such as complaining or switching off. Such unfavourable behaviour includes different types of complaining (e.g., complaining to sellers, friends, or external agencies), considering switching to competitors, and decreasing the amount of business with an organization (Fornell and Wernerfelt, 1987; Zeithaml *et al.*, 1996). Apurpose within this research is to investigate customers' favourable intentions towards service organizations and, based on the discussion above, the next hypothesis is proposed:

H6: There is a positive relationship between Customer Satisfaction and Behavioural Intentions.

2.5   Customer Perception of Service Quality and Behavioural Intentions

Many authors have examined the relationship between service quality perception and behavioural intentions (Taylor and Baker, 1994; Boulding *et al.*, 1993; Choudhury, 2015; Festus *et al.*, 2006; Mittal and Gera, 2012; Chow *et al.*, 2007); however, the results seem to be controversial in some cases. Taylor and Baker (1994) focused mainly on repurchase intentions and concluded that there was no significant relationship between the two underlying constructs. In contrast, other studies that had a wider consideration of behavioural intentions were able to indicate more significant relationships. Zeithaml *et al.* (1996) suggested that service quality perception was related to behavioural intentions, which could imply a level of loyalty. Studies in the restaurant industry have shown different relationships between customer perception and the dimensions of customer's behavioural intentions. Most of them showed that perception of service quality is positively related to word-of-mouth (WOM) and purchase intentions, and negatively to unfavourable intentions such as complaining. This study will also test the relationship between customer perception of service quality and favourable intentions, which are WOM and purchase intentions.

H7: There is a positive relationship between Perceived Service Quality and Behavioural Intentions

The model (**Error! Reference source not found.**) as hypothesised is shown below

3   Methodology

3.1   Research Design

The underlying research questions and hypotheses of the Customer Service Perception Model will be answered based on the use of a quantitative research approach with a distribution of web-based survey questionnaires that have been utilisedin this research. The questionnaire form was built to include 23 questions, which was divided into two main parts covering the respondent's demographic characteristics and the key variables of the Customer Service Perception model. The questionnaire form began with a general questions part, asking respondents to provide basic information relating to age, gender and occupation; In this part, the questions relate to the respondent's eating habits such as the frequency and nature of dining out. The second part of the questionnaire requested that the respondents rate their opinions on 18 items regarding the model of Customer Service Perception, which were constructed by six major categories: Food Quality,

Atmosphere Quality, Cleanliness Quality, Employee Quality, Customer Satisfaction, and Behavioural Intentions. It is worth noting that the variables in the construct of Customer Perception on full-service restaurants are conceptualised as a latent construct since they are not directly observable, therefore, all constructs are operationalized and measured with multiple observable indicators based on DINESERV (Stevens *et al.*, 1995) and Service Clues (Berry *et al.*, 2006).

The proposed Customer Service Perception Model employed the use of the five-point Likert scale ranging from "strongly disagree" to "strongly agree" to measure the five constructs, which are Food Quality, Ambient Quality, Cleanliness Quality, Employee Quality and Customer Satisfaction. The Service Quality of full-service restaurants will, therefore, be described by customers assessing each of these attributes. The dimension of Behavioural Intentions also has a similar scale-point Likert but ranges from "very unlikely" to "very likely".

3.2 Research Population

The research was conducted by means of the distribution of a questionnaire survey to diners with experiences of selected restaurants in one urban area in Vietnam. The selection of restaurants was based upon the size and profile of the establishments, and determined by issues of access such as the willingness of business owners to participate in the research. Ultimately, four restaurants in the area were chosen as the sites of the empirical research. These four restaurants are all located in Bien Hoa City, an urban area in southern Vietnam. Thanks to the permission and co-operation of restaurant owners, the customers of those restaurants were asked to complete the online questionnaire after they had finished dining and were waiting for their bills. Restaurant staff were able to guide diners in the use of the technology and navigation of the survey, but were explicitly briefed not to guide diners in relation to their responses to the questions in order to ensure that no bias was introduced at this stage. The same survey was also administered in an online-only capacity through the targeting of customers that have dining experiences in those restaurants via social media. The two subgroups within the sample differ only in regard to the period of time elapsed between the service experience and their evaluation of such.

3.3 Model Specification

To construct and measure variables accurately, this research employed the use of latent variable structural equation modelling (SEM). In the SEM context, the underlying constructs (or factors) are treated as unobservable directly and can be measured by multiple observable indicators (Diamantopoulos *et al.*, 2008). The SEM procedures have been developed and used frequently for two reasons. Firstly, they distinguish the *measurement model* from *the structural model*. Secondly, they provide much more rigorous tests of construct reliability, convergent validity, and discriminant validity (Jarvis *et al.*, 2003).

INSERT Figure 1 here

The Customer Service Perception model consists of two parts, which are the *structural model* and the *measurement model*. The structural model shows the relationships among constructs (Perceived Service Quality, Customer Satisfaction and Behavioural Intentions), while the measurement model refers to the relationships of indicators with their respective constructs. In the context of Perceived Service Quality, the aim is to investigate how customers assess the service quality in full-service restaurants and to identify the factors that most influence their perception based on four dimensions: Food Quality, Ambient Quality, Cleanliness Quality and Employee Quality. Customer Perception is assumed to be the second-order latent construct, which is operationalized by the underlying first-level dimensions with their observable indicators (Bruhn *et al*., 2008), based on type II – Reflective First-Order, Formative Second-order (Jarvis *et al*., 2003). To be specific, Customer Perception consists of "mega concepts" that have a number of interrelated dimensions, according to the definition given by Law *et al*. (1998). On the other hand, Customer satisfaction and Behavioural Intentions are the two constructs that are conceptualised as first-order constructs because "they can be directly measured by manifest indicators, which are observable" (Diamantopoulos *et al*., 2008).

3.4   Data Collection and Plan for Analysis

The questionnaires were distributed online to respondents. Ultimately, there was a total of 245 responses but only 172 were valid for analysis. First of all, frequencies were be computed in an attempt to describe respondents' demographic and dining profiles. Next, it is worth noting that there are 13 underlying variables regarding Food Quality, Atmosphere Quality, Cleanliness Quality and Employee Quality; some of them may certainly measure the characteristics of dimensions that construct Customer Perception while some may not; therefore, to ensure the validity of the constructs, SPSS 22.0 software with the use of Factor Analysis will be used to adjust measurement variables. Furthermore, SmartPLS 3.0 software with Partial Least Square (PLS) algorithms will help to estimate the validity and reliability of the measurement model and the assessment of the structural model. Firstly, the reliability of items will be examined by measurement loadings with their respective construct. Secondly, the convergent validity and discriminant validity of constructs will also be tested by the analyses of Cronbach's Alpha, Composite Reliability and Average Variance Extracted (AVE).

4   Results

4.1   Sample Characteristics

There were 172 valid responses received from two groups of people: people who had just finished dining at the four restaurants (N=110), and people who have experience of dining in those restaurants who were invited to be surveyed via social media (N=62). The questionnaires were all distributed and collected online within two weeks. The respondents' demographic and dining profiles are shown in the table below. According to the table, the number of female customers is approximately twice that of male customers, which is 108 and 64 respectively. The respondents' ages range from 18 to 55 years and the results tell us that most of them are from 18 to 35 years old, which accounts for 84.9% of all respondents. Besides, the statistics also show that 52.9% of respondents are employed and 37.2% are students. People answered that they dined out quite frequently in restaurants from two to three times a month (34.9%), once a week (17.4%) and 2-3 times a week (28.5%). In addition, most of people agreed that the main motivation for dining-out is to have good time with friends and family.

INSERT Table 1 here

4.2   Factor Analysis Results

First of all, the KMO and Bartlett's Test statistic shows the degree of common variance among variables. Kaiser (1974) recommends that the values between 0.8 and 0.9 are great. In this study, the value of KMO is 0.854, which is strong enough for conducting a Factor Analysis (**see table 2**). Furthermore, a Principal Component Analysis with a Varimax rotation gave the result that the 14 variables were reduced to four factors, which explained 67.23% of the total variance. In this stage, it satisfied the assumption that there are four factors (dimensions) that construct Customer Perception. The next stage clarifies which variables construct which factor. Stevens (1992) suggests that the significance of a factor loading will depend on the sample size. He recommends that one should suppress loadings of less than 0.4 and suggests that this cut-off point is appropriate for interpretative purposes. This cut-off point is commonly used to identify high loadings by researchers Gaur and Gaur (2009). After analysis, items for measuring the four factors still remained for later PLS analysis as no item had a loading of less than 0.4. The communality of each variable is considerably high, which is from 0.55 to 0.82, excepting for the Presentation item with only 0.45. This indicates that the variances of all the items are explained modestly well by the four factors (dimensions), which are Food Quality, Atmosphere Quality, Cleanliness Quality and Employee Quality. However, it is worth considering that the item "Cleanliness of Dining Areas" is listed in both Atmosphere Quality

and Cleanliness Quality with loadings of 0.50 and 0.426 respectively (**see** Error! Reference source not found.). As the purpose of using the "Cleanliness of Dining Areas" item is to measure Cleanliness Quality, the other factor should not consider that item as its attribute. Based on statistical results, we can conclude that the proposed model operated quite reasonably and acceptably.

INSERT Table 2 here

4.3   PLS Results

4.3.1   Loading of Items

Many researchers employ a rule of thumb to accept items with loadings of 0.7 or higher for more desirable results, which indicates that there is more shared variance between the construct and its measure than error variance (Carmines and Zeller, 1979). In this research, most of the reflective items have relatively high loadings ranging from 0.73 to 0.91, except for "Presentation" in the Food Quality construct and "Cleanliness of Eating Utensil" in the Cleanliness construct, which are 0.52 and 0.59 respectively (**Error! Reference source not found.**). However, those two items can be kept for further analysis because they are still within the acceptable range, which is from 0.5 to 0.6 (Chin, 1998; Hulland, 1999).

4.3.2   Cronbach's Alpha and Composite Reliability

Cronbach's Alpha and Composite Reliability results are a measurement of internal consistency, which can describe the convergent validity of constructs (Hulland, 1999; Tavakol and Dennick, 2011). Firstly, as shown in **Error! Reference source not found.**, the common acceptable threshold of Cronbach's Alpha is in the range of 0.7 to 0.95, and the higher alpha is believed that it presents the more consistent and reliable of items within their construct (Tavakol and Dennick, 2011). In this research, there are four out of six constructs that have Cronbach's Alpha from 0.71 to 0.85 which indicates the high reliability of the items measurement in the reflective form. However, not as good as other constructs, "Cleanliness Quality" and "Behavioural Intentions" have lower alpha, which are 0.63 and 0.66 respectively. Those two constructs are still acceptable and can be kept for further research (Nunnally and Bernstein, 1994; Cho and Kim, 2015). Secondly, Nunnally (1978) suggests that the modest composite reliability should be 0.7 (Holland, 1999). The results show that all the

constructs are higher than the recommendation which are within 0.8 to 0.91. In short, the convergent validity of constructs seems to be relatively strong and can be kept for further research.

INSERT Table 3 here

4.3.3   Fornell-Lacker criterion and Cross-loadings

Following convergent validity is discriminant validity, which represents the extent to which measures of a given construct differ from measures of other constructs in the same model (Chin, 1998; Holland, 1999). There are two methods of discriminant validity in PLS: The Fornell-Lacker criterion (Fornell and Larcker, 1981) and the cross-loading criterion (Chin, 1998). Firstly, according to Fornell and Larcker (1981), AVE is the average variance shared between a construct and its measures that should be at least 0.5; moreover, AVE's root of each construct should be greater than the construct's correlation with other constructs. In this study, all the constructs have a good value of AVE and satisfy the recommended parameters (----------------

INSERT Table 4, 5 here

). Secondly, the cross-loadings criterion suggests that the loadings of indicators in their intended construct should be higher than any loadings of other cross indicators. As shown in ----------------

INSERT Table 4, 5 here

, all the constructs have their intended indicators whose loadings are higher than others. From the two methods, we can conclude that all the constructs have acceptable discriminant validity.

The t-value, p-value and weights of each dimension were determined by the boot-strapping approach ($p<0.05$; t-value> 1.97). As we can see in **Error! Reference source not found.**, the values illustrate that the four dimensions significantly form the Customer Perception latent variable. However, their weights are relatively low with 0.263 and 0.386 for the least and the most important dimension respectively. This result supports the hypothesis H1, H2, H3 and H4 that Food Quality, Atmosphere Quality, Cleanliness Quality and Employee Quality positively influence Customer Perception.

INSERT Table 4, 5 here

Finally, the statistical results for the structural model also support the hypotheses H5, H6 and H7 in **Error! Reference source not found.**. The structural model represents the relationships between Perceived Service Quality, Customer Satisfaction and Behavioural Intentions which would be evaluated by the Coefficient of determination (R square), Path Coefficients and t-values. The R square is a measure of the model's predictive accuracy, which represents the independent construct's combined effect on the dependent constructs. The effect ranges from 0 to 1 with 1 indicating complete predictive accuracy (Hair *et al.*, 2014). There is a rule of thumb that indicates the acceptable level of predictive accuracy: 0.75, 0.5, and 0.25 regarding substantial, moderate and weak respectively (Hair *et al.*, 2011; Henseler *et al.*, 2009). Besides, the Path Coefficients represent the hypothesised relationships linking the constructs. The values of Path Coefficients range from -1 to +1, in which the coefficients that are close to +1 indicate strong positive relationships; while those that are close to -1 show a strong negative relationship (Hair *et al.*, 2014). Lastly, the use of the t-value approach by bootstrapping must be employed to ensure the significance (Helm *et al.*, 2009).

The final results are shown in the **Error! Reference source not found.** and clearly explain the relationships among the constructs as well as supporting the hypotheses. Firstly, Perceived Service Quality strongly and significantly influences Customer Satisfaction with the Path Coefficient of 0.74 and t-value of 20.7. Besides, R Square shows that there is a 55% variance in the Satisfaction construct explained by Customer Perception or perceived service quality. Secondly, Perceived Service Quality also influences the Behavioural Intentions construct positively but with less significance as the Path Coefficient is 0.5, and explains the 57% variance. Lastly, even though there is a relationship between Customer Satisfaction and Behavioural Intention it seems not to be very significant as the Coefficient is 0.31.

INSERT Table 6, 7 here

----

5   Discussion and Applications

Developed by building uponDINESERV (Stevens *et al.*, 1995) and Service Clues (Berry *et al.*, 2006) as established research instruments, this study attempts to apply an effective model for service quality to measure the impact of these factors on customers' perceived service quality, which subsequently influences customer satisfaction and behavioural intentions. The Customer Service Perception model was generated based on existing research in order to ensure the capture of all possible aspects, which could be perceived by customers after dining in restaurants. Within the model, the service aspect of the CSP model was presented with its contribution to the literature being the importance of separating out Cleanliness as an influential component of the service environment that has been mostly ignored by the existing measurement measure models.

This research found that Customer Perception has a significant positive impact on Customer Satisfaction, and moderately affects customer intentions about supporting the service organization. Besides, the analysis also shows (figure 2) a clear relationship between Customer Satisfaction and Customer Behavioural Intentions, however, the influence is not hugely significant and further exploration is required. Furthermore, there is a suggestion that managers should realise the great advantages which can be gained if customers have better perceptions in relation to key factors in service quality, which are Employee Quality, Atmosphere Quality, Food Quality and Cleanliness Quality. According to the results, the Employee Quality factor present as the most effective factor in customer perception, satisfaction and positive behavioural intentions.

This finding has clear implications for the restaurant industry in Vietnam such that managers should consider reinforcing both the social skills and technical skills of their employees given that they are an important value-adding element of the businesses. Social skills are an employee's ability to communicate positively, warmly and in a friendly manner so that customers can feel that they are welcomed and respected (Lemmink and Mattsson, 2002; Wu *et al.*, 2015; Henning-Thrurau, 2004). On the other hand, technical skills are the employees' ability to deliver prompt service to customers, to deliver responsive and dynamic service that delivers a service order to customers correctly and as they expected (Parasuraman *et al.*, 1985; Hochschild, 1983; Specth et al., 2007; Henning-Thrurau, 2004). It is worth noting that the better employees are satisfied, the more employees are motivated to show their positive behaviours to customers (Gil *et al.*, 2008; Grandey *et al.*, 2013) so there are likely to be implications for human resource management in the dining sector too. Due to the shortage of well-trained and highly skilled employees in developing countries, the importance of managing and improving this employee quality aspect must be of concern to restaurant managers.

Secondly, customers decide to dine out not only for food but also to meet their need for entertainment and to socialise. They spend most of the dining time at the service place, and managers should consider improving the service environment to better match their expectations. The service competences of restaurants should not be limited by the size of the operation since the arrangement and design of an operation can help to enhance a customer's sensory perceptions (Gu and Heung, 2012; Yildirim and Akalin-Baskaya, 2007). Furthermore, restaurant operations should be concerned to ensure that there is a reasonable temperature and to manage other climatic aspects so that customers can best enjoy the dining experience (Gu and Heung, 2012). In addition, customers' satisfaction is also influenced significantly by the noise level of the operational environment, which can be caused by other people's loudness or non-human loudness such as facilities and so on. Even though people associate the need to go out to a restaurant with the desire to be entertained and to socialise, too much noise would negatively affect the customer's perception of service quality and thus their overall satisfaction. Therefore, managers should pay attention to keeping the noise at an acceptable level, especially at busy times.

Thirdly, regarding to the results on Food Quality, customers are concerned mostly about the taste of food. This indicates that customers do tend to notice materials in their food, and are sensitive about how well their food is cooked (Berry and Wall, 2007); there is a suggestion that the greater the taste of food the better customers' perception of the service quality, which results in high satisfaction and positive purchasing intentions. Therefore, in order to be a successful service, the restaurants should firstly serve food that has a great taste as defined by their customer base. Importantly, the freshness of foods not only leverages a customer's joy in dining but may also show the caring side of the restaurant owners towards their customers. In addition, due to the popularity of restaurants today, customers are easily able to find different types of food. Increasing the menu choices provided to customers can help an organization gain more competitive advantages. The effect of food presentation seems not to be very important yet improving this attribute may gain extra perceptions on the quality of the service.

Finally, the concern about hygiene and cleanliness is emerging internationally and is currently well-established in developed nations with some signs of interest growing in developing country contexts, at least in relation to legislation. Due to potentially high levels of concern among customers concerning the food safety in developing countries, managers should pay attention to improving and ensuring the cleanliness and safety of resource preparation, which can be represented by the cleanliness of seen-attributes. Firstly, managers should inspire employees so that they know that their responsibility is to keep the service areas clean and tidy in order to please customers and manage their perceptions of the organizational hygiene policies. Secondly, staff who are well-dressed and in presentable physical condition would help the general operation to be more attractive in the customers' perception. Thirdly, the table and dining utensils are what are directly used for consuming and should not be ignored due to their helpfulness in assuring customers of an organization's general hygiene practices. It would not be surprising if customers were to find it hard to say positive things about a restaurant where there is a poor hygiene condition of basic facilities. Therefore, in order to gain customers' trust,

restaurant owners must consider improving customer perception on the cleanliness of operation, which is a relatively easy strategy to use in contributing to achievement of a competitive advantage.

6   Limitations and directions for further research

This research has been conducted with every effort to provide valid and reliable results, but recognising limitations will help in developing future research projects.

INSERT Figure 2 here

First of all, this study was developed and investigated only on the basis of a specific area, which is a southern Vietnamese city the generalizability of this study may be limited and future research should consider wider geographical areas as well as different developing nation contexts. The model was conducted based on well-established instruments and academic theories, but there may be a restriction based upon differing customer psychology and consumption habits in different geographic areas. Therefore, it is unclear whether the application of the model and the findings of attributes may be used in other geographical areas. It is a suggestion that further researchers could explore the key constructs of this study in other regions as well as building upon findings to further develop research in Vietnam and other Asian developing countries.

Second, the number of measurement variables for each construct is another potential limitation of this research. There were three reflective items for each dimension of the Customer Perception construct in the model, which is considered as an acceptable amount for statistical analysis to provide a reliable and valid result for the research. However, expanding the number of variables together with a larger sample size is a suggestion for further research so that the meaning of each dimension could be described more clearly and potentially enable more nuanced accounts.

Third, this study applied the use of the five-point Likert scale to measure the constructs, which is a force-choice format with a five points scale and supposed to provide "preference uncertainty". The five-points scale was employed because of its suitability for the research sample size, yet the mid-point "Neutral" allowed respondents to choose a safer answer when they were not sure about their understanding of the questions (Li and Mattsson, 1995) or when there were no alternative options (Dhar, 1997). Indeed, several questions in this research received answers with "Neutral". Therefore, the author of this research suggests that further research could consider a scale with more points or a combination of survey and interview methodology to help explain the case in more detail. In summary, this research paper has outlined the relationships between Perceived Service Quality, Customer Satisfaction and Behavioural Intentions specifically in Vietnam,

and contributes to the development of service quality research by extending into new geographical territories and new cultural settings. This is likely to prove to be a rich domain for future research and especially so where combined with a focus on cleanliness as a dimension within established service quality models.

References

Agriculture and Agri-Food Canada (2014) Foodservice Profile: Vietnam. [Online]. Available at:

http://www5.agr.gc.ca/resources/prod/Internet-Internet/MISB-DGSIM/ATS-SEA/PDF/6521-eng.pdf [Accessed 11 November 2015].

Barber, N. and Scarcelli, J. (2010) Enhancing The Assessment of Tangible Service Quality Through the Creation of a Cleanliness Measurement Scale. *Managing Service Quality*. 20 (1), pp.70-88.

Barber, N., Goodman, R. and Goh, B. (2011) Restaurant Consumers Repeat Patronage: A Service Quality Concern. *International Journal of Hospitality Management*. 30 pp.329-336.

Berry, L. and Wall, E. (2007) The Combined Effects of the Physical Environment and Employee Behaviour on Customer Perception of Restaurant Service Quality. *Cornell Hotel and Restaurant Administration Quarterly*. 48 (1), pp.59-69.

Berry, L., Wall, E. and Carbone, B. (2006) Service Clues and Customer Assessment of the Service Experience: Lessons from Marketing. *Academy of Management Perspectives*. 20 (2), pp.43-57.

Bitner, M. (1990) Evaluating Service Encounters: The Effects of Service Surroundings and Employee Responses. *Journal of Marketing*. 54 (2), pp.69-82.

Bolton, R. and Drew, J. (1991) A Multistage Model's of Customers' Assessments of Service Quality and Value. *Journal of Consumer Research*. 17 pp.375-384.

Bougure, U. and Neu, M. (2010) Service Quality in the Malaysia Fast Food Industry: An Examination Using DINESERV. *Services Marketing Quarterly*. 31 (2), pp.194-212. **Boulding, W., Kalra, A., Staelin, R. and Zeithaml, V. (1993)** A Dynamic Process Model of Service Quality: From Expectations to Behavioural Intentions. *Journal of Marketing Research*. 30 (1), pp.7-27.

Bruhn, M., Georgi, D. and Hadwich, K. (2008) Customer Equity Management as Formative Second-order Construct. *Journal of Consumer Research*. 61 pp.1292-1301. Bujisic, M., **Hutchinson, M. and Parsa, H. (2014)** The Effects of Restaurant Quality Attributes on Customer Behavioural Intentions. *International Journal of Contemporary Hospitality Management*. 26 (8), pp.1270-1291.

Carmines, E. and Zeller, R. (1979) Reliability and Validity Assessment. In: Sullivan, J. and Niemi, R., eds. (1979) *Series: Quantitative Applications in the Social Sciences*. USA: Sage Publications, pp.5-71.

Chin, W. (1998) The Partial Least Squares Approach to Structural Equation Modeling. In: Marcoulides, G., ed. (1998) *Modern Methods for Business Research*. New Jersey, London: Lawrence Erlbaum Associates, pp.295-336.

Chitturi, R., Raghunathan, R. and Mahajan, V. (2008) Delight by Design: The Role of Hedonic versus Utilitarian Benefits. *Journal of Marketing*. 72 (3), pp. 48-63.

Cho, E. and Kim, S. (2015) Cronbach's Coefficient Alpha: Well Known but Poorly Understood. *Organizational Research Methods*. 8 (207), pp.230.

Choudhury, K. Service (2015) Quality and Customers' Behavioural Intenions: Class and Mass Banking and Implications for The Consumer and Society. *Asia Pacific Journal of Marketing and Logistics*. 27 (5), pp.735-757.

Chow, I., Lau, V., Lo, T., Sha, Z. and Yun, H. (2007) Service Quality in Restaurant Operations in China: Decision- and Experiental-Oriented Perspectives. *Hospitality Management*. 26, pp.698-710.

Chua, B., Jin, N., Lee, S. and Goh, B. (2014) Influence of Mechanic, Functional and Humanic Clues on Customer's Experiential Values and Behavioural Intentions in Full-Service Restaurants. *Journal of Foodservice Business Research*. 17, pp.67-84.

Cronin, J., Brady, M. and and Hult, G. (2000) Assessing The Effects of Quality, Value and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments. *Journal of Retailing*. 76 (2), pp.193-218.

Dhar, R. (1997) Consumer Preference for a No-Choice Option. *The Journal of Consumer Research*. 24 (2), pp.215-231.

Diamantopoulos, A., Riefler, P. and Roth, K. (2008) Advancing Formative Measurement Models. *Journal of Business Research*. 61 pp.1203-1218.

Dube, L., Renaghan, M. and Miller, M. (1994) Measuring Customer Satisfaction For Strategic Management. *Cornell Hotel and Restaurant Administration Quarterly*. 35 (1), pp.39-47.

Duff, A., Gou, X. and Hair, M. (2008) Service Quality Measurement in the Chinese Corporate Banking Market. *International Journal of Bank Marketing*. 26 (5), pp.305-327.

Euromonitor International (2013) *The Other Asia Pacific: Long-term Growth Prospects in Southeast*. [Online]. Available at: Passport Database. [Accessed 11 November 2015].

Euromonitor International (2014) *Consumer FoodService 2014: New Insights and System Refresher.* Available from: https://www.portal.euromonitor.com/portal/analysis/tab .

Euromonitor International (2015) *Full-Service Restaurants in Vietnam*. [Online]. Available at: Passport Database. [Accessed 11 November 2015].

Farrell, A., Souchon, A. and Durden, G. (2001) Service Encounter Conceptualisation: Employees' Service Behaviours and Customers' Service Quality Perception. *Journal of Marketing Management*. 17 (5-6), pp.577-593.

Festus, O., Hsu, M. and Udo, G. (2006) Service Quality, Customer Satisfaction, and Behavioural Intentions in the Service Factory. *Journal of Services Marketing*. 20 (1), pp.59-72.

Fornell, C. and Larcker, F. (1981) Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*. 18 pp.39-50.

Fornell, C. and Wernerfelt, B. (1987) Defensive Marketing Strategy by Customer Complaint Management: A Theorical Analysis. *Journal of Marketing Research*. 24 (4), pp.337-346.

Gaur, A. and Gaur, S. (2009) *Statistical Method for Practice and Research: A Guide to Data Analysis using SPSS*. 2 nd ed. New Delhi, India: Sage Publication.

Gil, I., Berenguer, G. and Cervera, A. (2008) The Roles of Service Encounters, Service Value, And Job Satisfaction in Achieving Customer Satsfaction in Business Relationship. *Industrial Marketing Management*. 37 pp.921-939.

Gilmore, A. and McMullan, R. (2009) Scales in Services Marketing Research: A Critical and Way Forward European *Journal of Marketing*. 43 (5/6), pp.640-651.

Grandey, A., Goldberg, L. and Pugh, S. (2013) Why and When Do Stores with Satisfied Employees Have Satisfied Customers? The Roles of Responsiveness and Store Busyness. *Journal of Service Research*. 14 (4), pp.397-409.

Gronroos, c. (1984) A Service Quality Model and Its Marketing Implications. *European Journal of Marketing*. 18 (4), pp.36-44.

Gu, T. and Heung, V. (2012) Influence of Restaurant Atmospherics On Patron Satisfaction and Behavioural Intentions. *International Journal of Hospitality Management*. 31 pp.1167-1177.

Ha, J. and Jang, S. (2010) Effects of Service Quality and Food Quality: The Moderating Role of Atmospherics in an Ethnic Restaurant Segment. *International Journal of Hospitality Management*. 29 pp.520-529.

Haeckel, H., Carbone, B. and Berry, L. (2003) How to Lead the Customer Experience. *Marketing Management*. 12 (1), pp.18-23.

Hair, J., Ringle, C. and Sarstedt, M. (2011) PLS-SEM: Indeed A Silver Bullet. *Journal of Marketing Theory and Practice*. 19 (2), pp.139-151.

Hair, J., Sarstedt, M., Hopkins, L. and Kuppelwieser, V. (2014) Partial Least Squares Structural Equation Modeling (PLS-SEM): An Emerging Tool in Business Research. *European Business Review*. 26 (2), pp.106-121.

Hallowell, R. (1996) The relationship of customer satisfaction, customer loyalty and profitability: An empirical study. *International Journal of Service Industry Management*. 7 (4), pp.27-42.

Helm, S., Eggert, A. and Garnefeld, I. (2009) Modelling The Impact of Corporate Reputation on Customer Satisfaction and Loyalty Using PLS. In: Esposito, V.V., Chin, W.W., Henseler, J. and Wang, H., eds. (2009) *Hanbook of Partial Least Squares:Concepts, Methods and Applications*. Berlin: Springer, pp.515-534.

Henning-Thurau, T. (2004) Customer orientation of service employees: its impact on customer satisfaction, commitment, and retention. *International Journal of Service Industry Management*. 15 (5), pp.460-478.

Henseler, J., Ringle, C.M. and Sinkovics, R.R. (2009) The Use of Partial Least Squares Path Modeling in International Marketing. *Advances in International Marketing*. 20 pp.277-320.

Hirschman, O. (1970) *Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States*. Cambridge,MA: Harvard University Press.

Hochschild, R. (1983) *The Managed Heart: Commercialization of Human Feeling*. CA: University of California Press.

Hulland, J. (1999) Use of Partial Least Squares (PLS) in Strategic Management Reserach: A Review of Four Recent Strudies. *Strategic Management Journal*. 20 pp.195-204.

Jani, D. and Han, H. (2011) Investigating the key factors affecting behavioral intentions: Evidence from full service-restaurant setting. *International Journal of Contemporary Hospitality Management*. 23 (7), pp.1000-1018.

Jarvis, C., MacKenzie, S. and Podsakoff, P. (2003) A Critical Review of Construct Indicators and Measurement Model Misspecification in Marketing and Consumer Research. *Journal of Consumer Research*. 30 pp.199-218.

Jones, M. and Suh, J. (2000) Transaction-Specific Satisfaction and Overall Satisfaction: An Empirical Analysis. *Journal of Services Marketing*. 14 (2), pp.147-159.

Kangdampully, J. (1998) Service Quality to Service Loyalty. A Relationship Which Goes Beyond Customer Services. *Total Quality Management*. 9 (6), pp.431-443.

Keith, N. and Simmers, C. (2011) Measurement Serive Quality Perceptions of Restaurant Experiences: The Disparity Between Comment Cards and DINESERV. *Journal of Foodservice Business Research*. 14 pp.20-32.

Kim, W. and Moon, Y. (2009) Customers' Cognitive, Emotional and Actionable Reponse to The Servicescape: A Test of the Moderating Effect of the Restaurant Type. *International Journal of Hospitality Management*. 28 pp.144-156.

Kueh, K. and Voon, B. (2007) Culture and service quality expectations: Evidence from generation Y consumers in Malaysia. *Managing Service Quality*. 17 (6), pp.656-680.

Ladhari, R. (2009) A Review of 20 Years of SERVQUAL Research. *International Journal of Quality and Service Science*. 2 (3), pp.172-198.

Law, K., Wong, C. and Mobley, W. (1998) Toward A Toxomony of Multidimentional Constructs. *Academy of Management Review*. 23 (4), pp.741-755.

Lee, T., Cho, H. and Ahn, T. (2012) Senior Citizen Satisfaction with Restaurant Service Quality. *Journal of Hospitality Marketing & Management*. 21 pp.215-226.

Lee, Y., Back, K. and Kim, J. (2009) Family Restaurant Brand Personality and Its Impact on Customer's Emotion, Satisfaction and Brand Loyalty. *Journal of Hospitality & Tourism Research*. 33 (3), pp.305-328.

Lehtinen, J. and Lehtinen, U. (1982) Service quality: a study of quality dimensions. *Service Management Institute.*

Lemmink, J. and Mattsson, J. (2002) Employee Behaviour, Feelings of Warmth and Customer Perception in Service Encounters. *International Journal of Retail & Distribution Management*. 30 (1), pp.18-33.

Li, C. and Mattsson, L. (1995) Discrete Choice Under Preference Uncertainty: An Improved Structural Model for Contingent Valuation. *Journal of Environmental Economics and Management*. 28 pp.256-269.

Liu, Y. and Jang, S. (2009) Perceptions of Chinese Restaurants in The U.S: What Effects Customer Satisfaction and Behavioural Intentions? *International Journal of Hospitality Management*. 28 pp.338-348.

Marinkovic, V., Senic, V., Ivkov, D., Dimitrovski, D. and Bjelic, M. (2014) The antecedents of satisfaction and revisit intentions for full-service restaurants. *Marketing Intelligence and Planning*. 32 (3), pp.311-327.

Marketline (2015) *Asia-Pacific – Restaurants*. [Online]. Available at : Marketline Advantage Database. [Accessed 11 November 2015].

Marketline (2015) *Restaurants in Europe*. [Online]. Available at: Marketline Advantage Database. [Accessed 11 November 2015].

Martin, D., O'Neill, M., Hubbard, S. and Palmer, A. (2008) The Role of Emotion in Explaining Consumer Satisfaction and Future Behavioural Intention. *Journal of Service Marketing*. 22 (2/3), pp.224-236.

Mehta, C., Lalwani, K. and Han, L. (2000) Service Quality in Retailing: Relative Efficiency of Alternative Measurement Scales for Different Product Service Environments. *International Journal of Retail & Distribution Management*. 28 (2), pp.62-72.

Mittal, S. and Gera, R. (2012) Relationship between Service Quality Dimensions and Behavioural Intentions An Sem Study of Public Sector Retail Banking Customers In India. *Journal of Services Research*. 12 (2), pp.147-171.

Namkung, Y. and Jang, S. (2007) Does Food Quality Really Matter in Restaurants? Its Impact On Customer Satisfaction and Behavioural Intentions. *Journal of Hospitality & Tourism Research*. 31 (3), pp.387-410.

Nunnally, C. (1978) *Psychometric Theory*. New York: McGraw-Hill.

Nunnally, C. and Bernstein, H. (1994) *Psychometric Theory*. 3 rd ed. USA: McGraw-Hill.

Oliver, R. (1980) A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*. 17 (4), pp.460-469.

Oliver, R. (1996) *Satisfaction: A Behavioural Perspective in the Consumer.* New York: McGraw-Hill.

Parasuraman, A., Zeithaml, V. and and Berry, L. (1985) A Conceptual Model of Service Quality and Its Implications For Future Research. *Journal of Marketing*. 49 (4), pp.41-50.

Parasuraman, A., Zeithaml, V. and and Berry, L. (1990) *Delivering Quality Service: Balancing Customer Perceptions and Expectations*. New York: Free Press.

Parasuraman, A., Zeithaml, V. and Berry, L. (1988) SERVQUAL: A Multi-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*. 64 (1), pp.12-40.

Prabhakar, S., Sano, D. and Srivastava, N. (2010) Food Safety in The Asia-Pacific Region: Current Status, Policy Perspectives, and A Way Forward. In: Anon.(2010) *Sustainable Consumption and Production in the Asia-Pacific Region: Effective Responses in a Resource Contained World.* Japan: Institute for Global Environmental Strategies, pp.215-238.

Raajpoot, A. (2002) TANGSERV: A Multiple Item Scale for Measuring Tangible Quality in FoodSerivce Industry. *Journal of Foodservice Business Research*. 5 (2), pp.109-127.

Rajic, T. and Dado, J. (2013) Modelling the relationships among retail atmospherics, service quality, satisfaction and customer behavioral intentions in an emerging economy context. *Total Quality Management*. 24 (9), pp.1096-1110.

Rosenbaum, M. and Massiah, C. (2011) An Expanded Servicescape Perspective. Journal of Service Management. 22 (4), pp.471-490.

Rust, T. and Zahorik, J. (1993) Customer Satisfaction, Customer Retention, and Market Share. *Journal of Retailing*. 69 (2), pp.193-215.

Ryu, K. and Han, H. (2011) New or Repeat Customers: How Does Physical Environment Influence Their Restaurant Experience? *International Journal of Hospitality Management*. 30 pp.599-611.

Ryu, K., Lee, H. and Kim, W. (2012) The Influence of the Quality of the Physical Environment, Food, and Service on Restaurant Image, Customer Percepceive Value, Customer Satisfaction and Behavioural Intentions. *International Journal of Contemporary Hospitality Management*. 24 (2), pp.200-223.

Schaefer, M. (2013) *Lastest Research: Consumer Foodservice 2013 Now Live*. [Online]. Available at: Passport Database. [Accessed 11 November 2015].

Spreng, R., MacKenzie, S. and Olshavsky, R. (1996) A Re-Examination of the Determinants of Consumer Satisfaction. *Journal of Marketing*. 60 (3), pp.15-32.

Stevens, P. (1992) *Applied Multivariate Statistics for the Social Sciences*. 2 nd ed. Hillsdale, NJ: Erlbaum. Stevens, P., Knutson, B. and Patton, M. (1995) DINESERV: A tool for Measuring Service Quality in Restaurants. *The Cornell Hotel and Restaurant Administration Quarterly*. 36 (2), pp.56-60.

Subramaniam, S., Mohre, R. and Kawde, D. (2014) Customer's Perception: Towards Brand. *SCMS Journal of Indian Management*. 11 (2), pp.93-101.

Tavakol, M. and Dennick, R. (2011) Making Sense of Cronbach's Alpha. *International Journal of Medical Education*. 2 pp.53-55.

Taylor, S.A. and Baker, T.L. (1994) An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions. *Journal of Retailing*. 70 (2), pp.163-178.

Tse, K. and Wilton, C. (1998) Models of consumer satisfaction formation: an extension. *Journal of Marketing Research*. 24 (3), pp.204-212.

USDA (2012) Vietnam: FAIRS Country Report. [Online] Available at: https://www.fas.usda.gov/data/vietnam-fairs-country-report [Accessed 06th June 2017].

Van M., K., Masurel, E. and Van Rijin, I. (2000) Service Satisfaction: An Empirical Analysis of Consumer Satisfaction in Financial Services. *The Service Industries Journal*. 20 (3), pp.81-94.

Warde, A. and Martens, L. (2000) *Eating Out: Social Differentiation, Consumption and Pleasure*. Cambridge: Cambridge University Press.

Warshaw, R. and Davis, D. (1985) Disentangling behavioural intention and behavioural expectation. *Journal of Experimental Social Psychology*. 21, pp.213-228.

Woodside, A., Frey, L. and Daly, R. (1989) Linking Service Quality, Customer Satisfaction, and Behavioral Intention. *Journal of Healthcare Marketing*. 9 (4), pp.5-17.

Wu, C., Tsai, C., Hsiung, W. and Chen, Y. (2015) Linkage between frontline employee service competence scale and customer perception of service quality. *Journal of Services Marketing*. 29 (3), pp.224-234.

Yavetz, I. and Gilboa, S. (2010) The Effect of Servicescape Cleanliness on Customer Reaction. *Services Marketing Quarterly*. 31 pp.213-234.

Yildirim, K. and Akalin-Baskaya, A. (2007) Perceived Crowding In a Café/Restaurant With Different Seating Densities. *Building and Environment*. 42, pp. 3410-3417.

Zeithaml, V. (1988) Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*. 52 pp.2-22.

Zeithaml, V., Berry, L. and Parasuraman, A. (1996) The Behavioural Consequences of Service Quality. *Journal of Marketing*. 60 pp.31-46.

Zeithaml, V., Bitner, M. and and Gremler, D. (2012) Customer Perceptions of Service. In: Zeithaml, V., Bitner, M. and and Gremler, D. (2012) *Services Marketing: Integrating Customer Focus Across the Firm*. London: McGraw-Hill Higher Education, pp.71-93.

Tables

Table 1: Sample Characteristics

	Frequency	Percentage
Gender		
Male	64	37.2%
Female	108	62.8%
Age Range		
18-25	110	64%
26-35	36	20.9%
36-55	26	15.1%
Occupation		
Student	64	37.2%
Blue-collar worker	14	8.1%
Office worker	53	30.8%
Unemployed	17	9.9%
Other employment categories	24	14%
Dining-out Frequency		
Less than once a month	10	5.8%
Once a month	23	13.4%
2-3 times a month	60	34.9%
Once a week	30	17.4%
2-3 times a week	49	28.5%
Ideas for eating out in restaurants		
For saving cooking time	14	8.1%
For having funs with friends and family	134	77.9%
For quality of food	23	13.4%

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.854
Bartlett's Test of Sphericity	Approx. Chi-Square	882.822
	df	78
	Sig.	0.000

Table 3: Rotated Component Matrix

	Component			
	AQ	EQ	FQ	CQ
Taste			0.739	
Variety of Menu			0.718	
Fresh			0.788	
Presentation			0.475	
Reliability		0.851		
Welcomeness		0.789		
Responsiveness		0.828		
Noise Level	0.808			
Temperature	0.786			
Layout/Setting	0.87			
Staff's hygiene				0.509
Dining Areas	0.5			0.426
Cleanliness of Tables and eating utensils				0.802

Table 4: Discriminant validity

	AQ	BI	CQ	CS	EQ	FQ
AQ	0.859					
BI	0.492	0.864				
CQ	0.551	0.542	0.757			
CS	0.561	0.681	0.644	0.88		
EQ	0.408	0.678	0.517	0.616	0.878	
FQ	0.391	0.534	0.501	0.506	0.527	0.736

Table 5: Overall reliability of the constructs and factor loadings of indicators

	AQ	BI	CQ	CS	EQ	FQ
Reliability	0.348	0.63	0.469	0.564	**0.905**	0.486
Word-of-Mouth	0.446	**0.86**	0.459	0.609	0.518	0.44
Willingness to Pay more	0.405	**0.869**	0.478	0.57	0.652	0.483
Enjoyment	0.48	0.606	0.603	**0.858**	0.534	0.504
Happiness	0.512	0.606	0.544	**0.903**	0.49	0.422
Overall Satisfaction	0.49	0.586	0.551	**0.879**	0.601	0.407
Cleanliness of Dining areas	0.561	0.526	**0.849**	0.632	0.454	0.464
Cleanliness of Table and utensils	0.256	0.198	0.592	0.247	0.185	0.175
Freshness	0.347	0.464	0.369	0.391	0.43	**0.831**
Seating Arrangement	**0.908**	0.419	0.529	0.482	0.332	0.356
Noise Level	**0.797**	0.444	0.372	0.409	0.322	0.255
Presentation	0.181	0.257	0.174	0.266	0.312	0.521
Responsiveness	0.391	0.619	0.441	0.535	**0.86**	0.398
Staff Hygiene	0.377	0.43	**0.804**	0.497	0.465	0.427
Taste	0.35	0.464	0.476	0.487	0.441	**0.823**
Temperature	**0.869**	0.412	0.505	0.547	0.394	0.386
Variety of Menu	0.242	0.351	0.401	0.314	0.356	**0.726**
Welcomeness	0.337	0.537	0.451	0.522	**0.869**	0.502

Construct	Loadings of items	Cronbach's Alpha	Composite Reliability	AVE
Food Quality	0.52 – 0.83	0.71	0.82	0.54
Atmosphere Quality	0.8 – 0.91	0.82	0.89	0.74
Cleanliness Quality	0.59 – 0.85	0.63	0.8	0.57
Employee Quality	0.86 – 0.91	0.85	0.91	0.77
Satisfaction	0.86 – 0.90	0.85	0.91	0.77
Behavioural Intentions	0.86 – 0.87	0.66	0.85	0.75

Table 6: Weights for Formative Dimensions of Customer Perception

Construct	Dimension	Weights	t-value	p-value	Hypothesis
	Food Quality	0.31	13.08	0	H1 Supported
Customer	Atmosphere Quality	0.32	18.30	0	H2 Supported
Perception	Cleanliness Quality	0.26	16.69	0	H3 Supported
	Employee Quality	0.39	17.70	0	H4 Supported

(Significant if p<0.05; t-value> 1.97)

Table 7: Results of the Structural Model

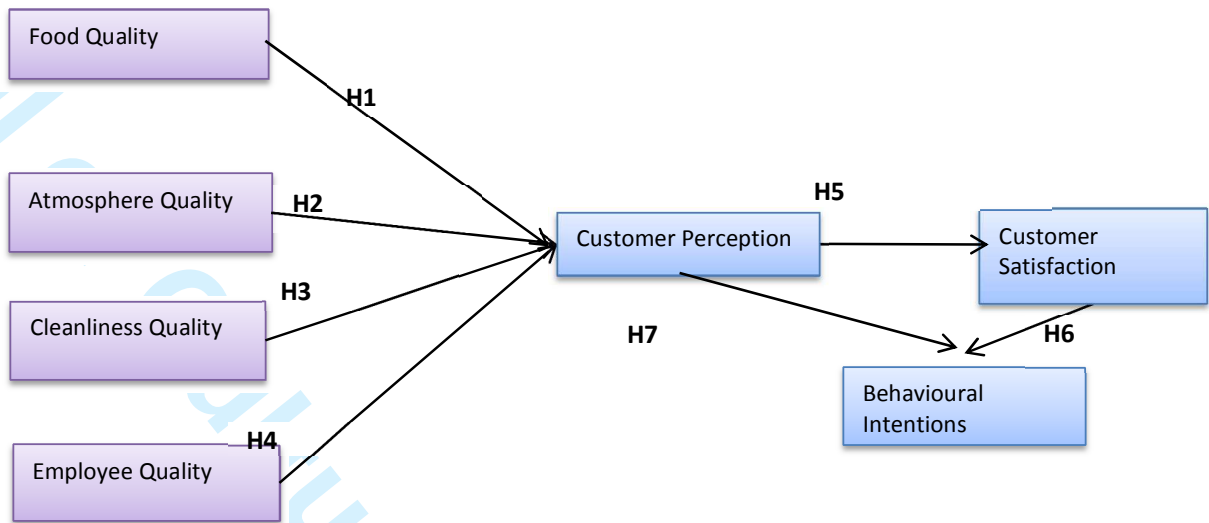| Predicted Construct	Predictor Construct	Hypothesis	R Square	Path Coefficient	t-value	p-value
Satisfaction	Customer Perception	H5 Supported	0.55	0.74	20.7	0
Behavioural Intentions	Customer Perception	H7 Supported	0.57	0.5	5.95	0.003
	Satisfaction	H6 Supported		0.31	3.02	0

(Significant if p<0.05; t-value> 1.97)

Figures
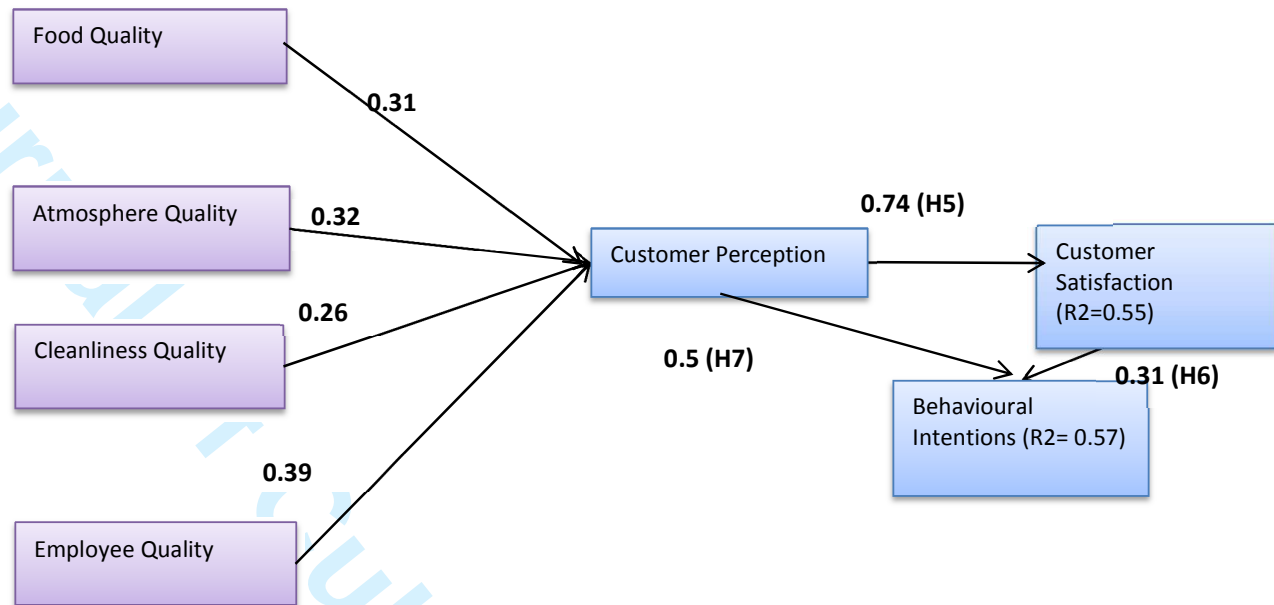

Figure 1: Customer Service Perception Proposed Model

Figure 2: Customer Service Perception model with PLS results

1 Introduction

Issues of service quality, and consumer perception of quality, pervade practice and research in the restaurant industry internationally, and are important determinants of success within this significant economic sector. The ~~importance of the~~ restaurant industry~~, which~~ contributes much~~significantly~~ to the market values of developed and developing countries, and is ~~of~~ undeniable importance to wider economic performance as well as being indicative of the development of the high-value experience and leisure-based service industries that characterise twenty-first century economies. In the European market, the restaurant industry grew by 2.6% to reach a value of $514.9 billion with an increase of 0.7% in the market volume to reach 13,384 thousand employees in 2014 (Marketline, 2015). Meanwhile, in the Asian market the value and volume of the industry is double that of Europe, according to the latest figures (Marketline, 2015). It is the fact that, since 2013, the restaurant industry has seen a tepid growth in values that suffered from the freefall of economic growth in most developed countries. Specifically, the global restaurant industry expanded by only 1% compared with the previous years due to the stagnation of the North American and Western European economies (Schaefer, 2013). Similarly, Asia, which has ~~been seen as~~been characterised as the engine of global spending on eating out, also saw a low rate of growth in markets such as~~across the regions such as~~ Japan and ~~China while~~China, while growth stalwarts like Vietnam also struggled (Schaefer, 2013).

This study seeks to redress the shortage~~Recognising that there is a shortage~~ of service quality studies ~~o~~in Asian developing countr~~y~~ies contexts and to incorporate the dimension of cleanliness into the conceptual framework as a means of contributing to the international development of such studies. It is recognised that ~~as~~most of the investigations conducted to date have paid more attention to developed and Western countries (Bougure and Neu, 2010; Kueh and Voon, 2007), and so the specific case-study here ~~this study chose to~~investigates the service quality of full-service restaurants in Vietnam, where there has been robust economic growth recently. Established models in service quality studies originated in Western, developed world contexts, and there is a need to explore their validity in alternative settings rather than to simply assume that the same expectations and outcomes would apply in very different economies and cultures.

Marinkovic *et al*. (2014) believe that the restaurant business relies on factors that are constantly responding to changes in social and economic status. In that situation, restaurants may have to consider their strategy to match customer preferences in order to satisfy customers with a quality service, which may help organizations to gain more customers with their favourable intentions. Warde and Martens (2000) suggested that examining the restaurant dining experience from the customer perspective could help restaurants to improve their professional knowledge and ability which in turn would enable greater success in meeting customer needs whilst also working to enhance business success.

Many researchers have investigated the dimensions of service quality in the restaurant industry ~~to varying extents~~ in order to improve ~~the~~ service quality management (Berry *et al.*, 2006; Berry and Wall, 2007; Gu and Heung, 2012; Barber *et al.*, 2011; Ryu and Han, 2011). They have studied customers' perceptions of many aspects of service quality, and concluded that the overall judgement of a restaurant's service quality is significantly influenced by customers' perceptions of the quality of the physical environment, cleanliness, food quality and the behaviour of the employees. Berry and Wall (2007) suggested that ~~pointed out that~~ food quality and employee behaviour are likely to ~~must~~ be of more concern to customers than the physical environment in which the dining experience takes place. Namkung and Jang (2007) emphasised that: "Food is a fundamental component of restaurant experiences. There can be no doubt that the food has, and will continue to have, a major impact on consumer satisfaction and return patronage". Even more importantly, Berry and Wall (2007) emphasized that restaurants would be best to be strong in relation to the attributes of their service employees. It is believed that service employees' behaviour affects the customers' perception of the service quality as "they present the behaviours associated with the implementation of an organisation's service quality provision policy" (Farrell *et al.*, 2001). Others, such as ~~n the other hand,~~ Ryu and Han (2011), however, indicate ~~are convinced~~ that the physical environment element does ~~plays~~ an important role in shaping customers' perceptions that lead~~s~~ to a positive reaction from new customers and enhances the loyalty of repeat customers. Regarding the physical environment, the atmosphere of restaurants, which strongly influences the customer's first impression before experiencing employee services and food in restaurants, ~~the atmosphere~~ may change the degree of the impact of quality perception on consumption behaviour (Ha and Jang, 2010) as the multiple aspects of the restaurant setting interact. Within such analyses of physical settings, ~~Besides,~~ the importance of cleanliness should not be neglected. In ~~most studies~~most studies, cleanliness quality is considered as an attribute of environmental quality or of tangible quality (Liu and Jang, 2009; Lee *et al.*, 2012; Bujisic *et al.*, 2014). Recently, however, some research ~~everal~~ reports have suggested that cleanliness should be treated as a separate dimension due to its significant importance and impact on customer perception (Barber and Scarcelli, 2010). The cleanliness of restaurants must be considered for the importance of personal hygiene and safety w~~; w~~hich can ~~measure the~~ influence ~~on~~ service quality and the perception of service quality (Barber *et al.*, 2011). Cleanliness can work as a motivator, ~~can~~ and improve positive reactions and modify the behaviour of customers, by way of dimensions such as ~~which are~~ the pleasantness of the experience, trust in the service and prestige attribution (Yavetz and Gilboa, 2010). Hence, the main purpose of this research is to investigate factors that impact ~~to~~ customer perception, and to explore ~~a further investigation on its~~ their relationship with satisfaction and behavioural intentions, specifically incorporating cleanliness as a dimension, and in a Vietnamese context.

~~Recognising that there is a shortage of service quality studies on Asian developing countries as most of the investigations conducted have paid more attention to developed and Western countries (Bougure and Neu, 2010; Kueh and Voon, 2007),~~

this study chose to investigate the service quality of full-service restaurants in Vietnam, where there has been robust economic growth recently.

Vietnam's restaurant industry has seen a considerably strong growth in values and in the number of outletsoutlets, which has resulted from an increase in the standard of living in the country. From 2001 to 2007, Vietnam was the country that had the second highest growth rate in Asia, which was 7% per year (USDA, 2012). At that time, the strong economic and tourist growth together created an increase of disposable income, a growing middle-class; people were impacted by Western lifestyles rapidly and this resulted in the change and development of the food service industry (AAFC, 2014). In the category of full-service restaurants, there is a diverse range of products, format/theme, prices, menus and age-targeted products, which creates a very competitive service environment (Euromonitor International, 2014). Up-scale full-service restaurants have tended to standardise their food-making process, hire well-trained staff and develop chains of outlets. These restaurants target middle- and high-income consumers who prefer to dine in a modern and elegant environment. On the other hand, value-priced operators are more popular, they offer a full-service but with lower price by hiring relatively unskilled labours (Euromonitor International, 2015).

The small percentage of urban dwellers in Vietnam has started to increase due to the migration from dramatically increased rural to urban migration as the economy becomes more industrialised and urbanised (AAFC, 2014), which in turn increases the potential for people's concerns about the service quality of restaurants to grow in those urban areas. These concerns represent both the risks of poor hygiene and safety as well as customer perception of the issues. Due to the efforts of the Vietnamese Government, national and local and media, and together with tthe easing of access to the iInternet restrictions, contemporary Vietnamese consumers pay more attention to food hygiene and food safety, which is one of the main factors that affects the purchase decisions of consumers (USDA, 2012). This is understandable, since the hygiene and food safety areis a global problems that threatening the food security of millions of people, particularly in developing countries in Asia (Prabhakar et al., 2010). In many Asian contexts, tThe prevalence of the issue of food safety has increased mainly due to the poorly managed post-harvest food supply chains, and the way that resources are employed in production (Prabhakar et al., 2010). Furthermore, according to the report from Euromonitor International (2013), Vietnam is a country that one of the countries in Southeast Asia which has a population characterised by a high proportion level of young people, with more than half being belowless than 30 years of age. This consumer group are ey are more open to food service experiences and demanding for informal full-service restaurants that offer social elements, especially in terms of places where young people can meet for food and conversation with friends (Euromonitor International, 2013).

Due to the important role of local full-service restaurants in leading the overall dining category in Vietnam (AAFC, 2014), this study will investigate full-service restaurants in an urban local area, where there is a considerablebig effort by

operators to try to improve service quality in order to satisfy customers' requirements in food and service as the attitudes of customers' change (AAFC, 2014). A literature review supporting the model is given below.

2 Theoretical foundation and hypothesis formulation

2.1 Customer Perception

There are two key schools of thought about customer perception. Looking at the point of view of European researchers, Gronroos (1984) and Lehtinen and Lehtinen (1982), have stated that customer expectation is just the element that influences customer perception of the service quality, and that the perception of service quality is the antecedent of satisfaction. In contrast, what could be characterised as an the American attitude has it that is that customer perception can also be used to reflect upon the whole service quality of an industry. Service organizations therefore need to be concerned about customers' expectations and how they perceive the actual value of organizations so that product and promotion strategies can be aligned more efficiently (Zeithaml, 1988). According to Parasuraman *et al*. (1985), customers' expectations are gained by accumulated experiences through the many times they avail of or participate in different service organisations (Zeithaml *et al*., 2012). Expectations reflect customers' needs, and if their needs are well satisfied then their perception of the service quality will be more positive and *vice versa* (Van *et al*., 2000). Traditionally, the point of view of American researchers has been more widely agreed upon and supported more popular (Gilmore and McMullan, 2009; Duff et al., 2008; Ladhari, 2009, Stevens et al., 1995; Mehta et al., 2000) but there is value in both approaches in unpacking complex processes.

 Perception is believed to be measured by cognition. Subramaniam *et al*. (2014) stated that customer perception is a cognitive outcome which could be described as a process by which an individual selects, organizes and interprets the product with a combination of surrounding factors into a meaningful and coherent picture of the world. When participating in a service organization, customers' perception may be influenced not only by the nature of the product and its physical attributes but also by the attributes of the service-delivery process (Bolton and Drew, 1991; Parasuraman *et al*., 1990).

2.2 Service Celues

Berry *et al*. (2006) stated that customers have the ability to see more and receive more information than service providers, and that "they frequently behave like detectives in the way they process and organize 'clues' embedded" (Berry and Wall, 2007). They emphasised that there are three main clues that affect customer perception of service quality: Functional clues, Mechanic clues, and Humanic clues. Specifically, Functional clues concern the technical quality of the offering, "anything that indicates or suggests the technical quality of the service, its presence or absence" (Haeckel *et al*, 2003). In the concept of restaurant organization, Functional Clues refer to the food itself and the accuracy or efficiency of the

4

service; for example, the taste and textures, the size of portions or variety of menu choices. Meanwhile Mechanic clues refer to the ~~physical~~actual objects and non-human elements in the service environment, for example, sights, smells, sounds, facility layout, lighting and so on. It is ~~They~~ also emphasised that ~~the~~ importance should be attached to ~~of~~ employee factors within the Humanic Clues, and that these ~~which~~ emerged from the behaviour and appearance of service providers such as level of enthusiasm, neatness, and civility. They suggested that Functional Clues influence a customer's calculative perception of quality, while Mechanic and Humanic clues together influence a customer's emotional perception of quality. So far, it is important for restaurant organizations to be concerned about Product Quality, Atmosphere Quality and Employee Quality to leverage their customers' perceptions of service quality and to consider how all of these together create the overall servicescape. ~~The empirical study of service clues (Berry et al., 2006) has been concerned and agreed by many scholars~~ (Ha and Jang, 2010; Chua *et al.*, 2014; Bujisic *et al.*, 2014; Rosenbaum and Massiah, 2011). Supporting the results of service clues studies~~y~~, Barber and Scacelli (2010) point out that even though the Cleanliness of a service organization is a dimension that represents the condition of physical surroundings, it is an important factor that impacts onto customer perception of~~n~~ service quality and should be considered~~cerned~~ as a separate dimension. They argue that considering Cleanliness Quality can help to enhance the tangible quality construct and better understanding ~~on~~ how customers assess the service of an organization.

2.3   Service Quality Measurement

Customers not only evaluate service quality by its outcome but also consider the process of service delivery (Parasuraman *et al.,* 1990). Gronroos (1984), and Lehtinen and Lehtinen (1982) suggested that there are two main dimensions which can influence customer perception of service quality, which are technical and functional quality. Technical quality refers to "what" the customer is delivered, while functional quality indicates "how" this is delivered to the customer which is associated with psychological and behavioural aspects perceived through interaction and atmosphere. The functional quality is considered to be more important than the technical quality (Chow *et al.*, 2007).

~~Several years after, Parasuraman *et al.* (1988) presented five dimensions on a framework to determine service quality in more detail, namely, intangibles, reliability, responsiveness, assurance and empathy. The framework is called SERVQUAL and it measures service quality by 22 items.~~

~~Several years after,~~ Parasuraman et al. (1988) presented five dimensions within the SERVQUAL ~~on a~~ framework to determine service quality in more detail and these were ~~, namely,~~ intangibles, reliability, responsiveness, assurance and empathy. ~~The framework is called~~ SERVQUAL ~~and it~~ measures service quality by way of 22 standardised items ~~but, i.~~ In the context of restaurant service, SERVQUAL is inadequate for the "unique" features of a restaurant service environment (Dube *et al.*, 1994). Stevens *et al.* (1995) retained SERVQUAL's five dimensions and adapted seven extra restaurant-specific items to measure restaurant service quality more accurately within the . ~~They developed an instrument called~~

DINESERV instrument which utiliseswith 29 items. The DINESERV passed the test on content validity with most of the additional items regarding tangible features that related to aesthetic and functional dimensions and is considered to have accurately. It captured the overall construct of service quality in restaurants concept (Raajpoot, 2002). Within the DINESERV, there are ten items used to measure tangibles, four items to measure reliability, two items that measure responsiveness, three items that measure assurance and four items that measure empathy (Stevens *et al.*, 1995). The instrument has a seems to have a high reliability and validity when applied to research in the food-service industry (Keith and Simmers, 2011). Indeed, most research and models fall into these five dimensions of service quality (Kim and Moon, 2009, Ryu *et al.*, 2012; Liu and Jang, 2009; Raajpoot, 2002). Therefore, due to the aim of this research, the model of DINESERV will be applied to analyse customer perception on service quality of full-service restaurants.

Based on the above literature, the following hypotheses are proposed:

H1: Food Quality influences Perceived Service QualityCustomer Perception on service quality.

H2: Employee Quality influences Perceived Service QualityCustomer Perception on service quality.

H3: Atmosphere Quality influences Perceived Service QualityCustomer Perception on service quality.

H4: Cleanliness Quality influences Perceived Service QualityCustomer Perception on service quality.

2.4   Customer Perception and Customer Satisfaction

Customers' perceptions of service quality have been studied by many scholars and practitioners who have . They have shown that they are positively related to satisfaction (Marinkovic *et al.*, 2014; Baber *et al.*, 2011; Berry and Wall, 2007; Cronin *et al.*, 2000; Farrell *et al.*, 2001; Berry *et al.*, 2006). Some There are several scholars believe that satisfaction is determined by a cognitive process, being what customers had expected to receive as opposed to what they actually received, which is called 'disconfirmation' (Oliver, 1980); or perceived performance (Tse and Wilton, 1998), need fulfilment (Oliver, 1996). While, there is an opposing opponent views that satisfaction is an emotional process that is affected by their evaluation ofin service quality attributes (Martin et al., 2008; Chitturi et al., 2008; Ladhari, 2009).

Oliver (1996) described customer satisfaction as a level between a positive and negative feeling, which is comfortable but not excited, and called it as a level of contentment. In the service context, Parasuraman *et al.* (1988) believed that customer satisfaction is dependent on a specific transaction and the service offered. Specifically, each service attribute will affect the customer's emotions before, during and after the consumption experience (Oliver, 1996). The level of satisfaction will influence how customers judge the whole service quality of an organization (Bitner, 1990; Bolton and Drew, 1991). However, Jones and Suh (2000) believe that there is the other type of satisfaction, which is overall satisfaction. Ooverall satisfaction is based on information updated after accumulating the transaction-specific satisfactions every time customers experience the service of a particular organization (Jones and Suh, 2000; Boulding *et al.*, 1993;

Spreng *et al.*, 1996). By this definition, overall satisfaction is understood as a global evaluation or attitude that evolves over time (Parasuraman *et al.*, 1985). Customers with overall satisfaction are more likely to have positive behavioural intentions with the service organization than customers with transaction-specific satisfaction (Lee *et al.*, 2009). As part of the aim of this study, the overall satisfaction will be investigated and the next hypothesis is therefore proposed:

H5: There is a positive relationship between Perceived Service Quality and Customer Perception and Customer Satisfaction.

Customer Satisfaction and Behavioural Intentions

Customer behavioural intention is a topic that has been examined by many studies in the field of marketing. It is the result of customer satisfaction that can predict the future consumption behaviour of customers (Rajic and Dado, 2013, Barber *et al.*, 2011; Jani and Han, 2011; Kangdampully, 1998). Understanding customer behavioural intentions is vital to keeping a relationship with potential customers, which is believed to be the key to the ability of a service provider to generate profits (Zeithaml *et al.*, 1996, Hallowell, 1996; Jani and Han, 2011; Kangdampully, 1998). Trying to define customer behavioural intentions after experiencing service, Warshaw and Davis (1985, p.214) stated that it is "the degree to which a person has formulated conscious plans to perform or not perform some specified future behaviour".

There are two types of customer behavioural intentions, which are favourable and unfavourable, generated by satisfied and unsatisfied customers. Certain behavioural trends reveal that satisfied customers are bonding with an organization. Specifically, according to Zeithaml *et al.* (1996) a service provider can affect customers such that they to say positive things about the service, recommend to other customers, repurchase, spend more for the service or pay price premiums as favourable behavioural intentions which are signals of being and remaining loyalty to an organization (Rust and Zahorik, 1993, Woodside *et al.*, 1989). In contrast, Hirschman (1970) recognized that dissatisfied customers would have negative behavioural intentions such as complaining or switching off. Such unfavourable behaviour includes different types of complaining (e.g., complaining to sellers, friends, or external agencies), considering switching to competitors, and decreasing the amount of business with an organization (Fornell and Wernerfelt, 1987; Zeithaml *et al.*, 1996). AThe purpose within of this research is to investigate customers' favourable intentions towards service organizations and, b. Based on the discussion above, the next hypothesis is proposed:

H6: There is a positive relationship between Customer Satisfaction and Behavioural Intentions.

2.5　Customer Perception of Service Quality and Behavioural Intentions

Many authors have examined the relationship between service quality perception and behavioural intentions (Taylor and Baker, 1994; Boulding *et al.*, 1993; Choudhury, 2015; Festus *et al.*, 2006; Mittal and Gera, 2012; Chow *et al.*, 2007); however, the results seem to be controversial in some cases. Taylor and Baker (1994) focused mainly on repurchase

intentions and concluded that there was no significant relationship between the two underlying constructs. In contrast, other studies that had a wider consideration of behavioural intentions were able to indicate moregave better significant relationships. Zeithaml *et al.* (1996) suggested that service quality perception was related to behavioural intentions, which could imply a level of loyalty. Studies in the restaurant industry have shown different relationships between customer perception and the dimensions of customer's behavioural intentions. Most of them showed that perception of service quality is positively related to word-of-mouth (WOM) and ,purchase intentions, and negatively to unfavourable intentions such as complaining. Therefore, this study will also test the relationship between customer perception of service quality and favourable intentions, which are WOM and purchase intentions.

H7: There is a positive relationship between Perceived Service Quality Customer Perception and Behavioural Intentions

The model (**Error! Reference source not found.**Figure 1) as hypothesised is shown below

3 Methodology

3.1 Research Design

The underlying research questions and hypotheses of the Customer Service Perception Model will be answered based on the use of a quantitative research approach with a distribution of web-based survey questionnaires that have been utilisedapplied in this research. The questionnaire form was built to include 23 questions, which was divided into two main parts covering the respondent's demographic characteristics and the key variables of the Customer Service Perception model. The questionnaire form began with a general questions part, asking respondents to provide basic information relating to age, gender and occupation; In this part, the questions relate to the respondent's eating habits such as the frequency and nature of dining outideas for dining out were also provided. The second part of the questionnaire requested that the respondentsrs rate their opinions on 18 items regarding the model of Customer Service Perception, which were constructed by six major categories: Food Quality, Atmosphere Quality, Cleanliness Quality, Employee Quality, Customer Satisfaction, and Behavioural Intentions. It is worth noting that the variables in the construct of Customer Perception on full-service restaurants are conceptualised as a latent construct since they are not directly observable, therefore, all constructs are operationalized and measured with multiple observable indicators based on DINESERV (Stevens *et al.*, 1995) and Service Clues (Berry *et al.*, 2006).

The proposed Customer Service Perception Model employed the use of the five-point Likert scale ranging from "strongly disagree" to "strongly agree" to measure the five constructs, which are Food Quality, Ambient Quality, Cleanliness Quality, Employee Quality and Customer Satisfaction. The Service Quality of full-service restaurants will be, therefore, be described by customers assessing each of theseevery attributes. The dimension of Behavioural Intentions also has a similar scale-point Likert but ranges from "very unlikely" to "very likely".

3.2   Research Population

The research was conducted by means of the distribution of a questionnaire survey to diners with ~~It was decided to conduct the investigation with questionnaires survey and distribute the form to customers that have dining~~ experiences of selected restaurants in one urban ~~local~~ area in Vietnam. The selection of restaurants was based upon the size and profile of the establishments, and determined by issues of access such as the willingness of business owners to participate in the research. Ultimately, four restaurants ~~best known restaurants in~~ in the area were chosen as the sites of the empirical ~~to do the~~ research. These four restaurants are all located in ~~Specifically, they are all locating in~~ Bien Hoa City, an urban area in ~~which is one of the urban areas in~~ southern Vietnam. Thanks to the permission and co-operation of restaurant owners, the customers of those restaurants were asked to complete~~answer~~ the online questionnaire~~s~~ after they had finished dining and were waiting for their bills. Restaurant staff were able to guide diners in the use of the technology and navigation of the survey, but were explicitly briefed not to guide diners in relation to their responses to the questions in order to ensure that no bias was introduced at this stage. ~~, with the help of the restaurant staff for guiding them in answering accurately.~~ The same survey was also administered in an online-only capacity through the targeting of ~~Also, to ensure that the survey received as many responses as possible, the same version of the questionnaires was also sent to~~ customers that have dining experiences in those restaurants via social media. The two subgroups within the sample differ only in regard to the period of time elapsed between the service experience and their evaluation of such.

3.3   Model Specification

To construct and measure variables accurately, this research employed the use of latent variable structural equation modelling (SEM). In the SEM context, the underlying constructs (or factors) are treated as unobservable directly and can be measured by multiple observable indicators (Diamantopoulos *et al.*, 2008). The SEM procedures have been developed and used frequently for two reasons. Firstly, they distinguish the *measurement model* from *the structural model*. Secondly, they provide much more rigorous tests of construct reliability, convergent validity, and discriminant validity (Jarvis *et al.*, 2003).

INSERT Figure 1 here

The Customer Service Perception model consists of two parts, which are the *structural model* and the *measurement model*. The structural model shows the relationships among constructs (Perceived Service Quality~~Customer Perception~~, Customer Satisfaction and Behavioural Intentions), while the measurement model refers to the relationships of indicators with their

respective constructs. In the context of ~~Customer Perception~~Perceived Service Quality, the aim is to investigate how customers assess the service quality in full-service restaurants and to identify the factor~~s~~ that most influence~~s~~ their perception based on four dimensions: Food Quality, Ambient Quality, Cleanliness Quality and Employee Quality~~, those dimensions cannot be observed directly hence they can be considered latent constructs~~. ~~As such, CC~~ustomer Perception is assumed to be the second-order latent construct, which is operationalized by the underlying first-level dimensions with their observable indicators (Bruhn *et al.*, 2008), based on type II – Reflective First-Order, Formative Second-order (Ja~~r~~vis *et al.*, 2003). To be specific, Customer Perception consists of "mega concepts" that have a number of interrelated dimensions, according to the definition given by Law *et al.* (1998). On the other hand, Customer satisfaction and Behavioural Intentions are the two constructs that are conceptualised as first-order constructs because "they can be directly measured by manifest indicators, which are observable" (Diamantopoulos *et al.*, 2008).

3.4   Data Collection and Plan for Analys~~is~~e

The questionnaires were distributed online to respondents. Ultimately, there was a total of 245 responses but only 172 were valid for analysis. First of all, frequencies ~~were~~~~will~~ be computed in an attempt to describe respondents' demographic and dining profiles. Next, it is worth noting that there are 13 underlying variables regarding Food Quality, Atmosphere Quality, Cleanliness Quality and Employee Quality; some of them may certainly measure the characteristics of dimensions that construct Customer Perception while some may not; therefore, to ensure the validity of the constructs, SPSS 22.0 software with the use of Factor Analysis will be used to adjust measure~~ment~~ variables. Furthermore, SmartPLS 3.0 software with Partial Least Square (PLS) algorithms will help to estimate the validity and reliability of the measurement model and the assessment of the structural model. Firstly, the reliability of items will be examined by measurement loadings with their respective construct. Secondly, the convergent validity and discriminant validity of constructs will also be tested by the analyses of Cronbach's Alpha, Composite ~~R~~~~r~~eliability and Average Variance Extracted (AVE).

4   Results

4.1   Sample Characteristics

There were 172 valid responses received from two groups of people: people who had just finished dining at the four restaurants (N=110), and people who have experience of dining in those restaurants who were invited to be surveyed via social media (N=62). The questionnaires were all distributed and collected online within two weeks. The respondents' demographic and dining profiles are shown in the table below. According to the table, the number of female customers is approximately twice that of male customers, which is 108 and 64 respectively. The respondents' ages range from 18 to 55 years and the results tell us that most of them are from 18 to 35 years old, which accounts for 84.9% of all respondents.

Besides, the statistics also show that 52.9% of respondents are employed and 37.2% are students. People answered that they dined out quite frequently in restaurants from two to three times a month (34.9%), once a week (17.4%) and 2-3 times a week (28.5%). In addition, most of people agreed that the main motivationidea for dining-out is to have good time with friends and family.

INSERT Table 1 here

4.2 Factor Analysis Results

First of all, the KMO and Bartlett's Test statistic shows the degree of common variance among variables. Kaiser (1974) recommends that the values between 0.8 and 0.9 are great. In this study, the value of KMO is 0.854, which is strong enough for conducting a Factor Analysis (**see table 2**). Furthermore, a Principal Component Analysis with a Varimax rotation gave the result that the 14 variables were reduced to four factors, which explained 67.23% of the total variance. In this stage, it satisfied the assumption that there are four factors (dimensions) that construct Customer Perception. The next stage clarifies which variables construct which factor. Stevens (1992) suggests that the significance of a factor loading will depend on the sample size. He recommends that one should suppress loadings of less than 0.4 and suggests that this cut-off point is appropriate for interpretative purposes. This cut-off point is commonly used to identify high loadings by the researchers Gaur and Gaur (2009). After analysis, items for measuring the four factors still remained for later PLS analysis as no item had a loading of less thenthan 0.4. The communality of each variable is considerably high, which is from 0.55 to 0.82, excepting for the Presentation item with only 0.45. This indicates that the variances of all ofall the items are all explained modestlyquite well by the four factors (dimensions), which are Food Quality, Atmosphere Quality, Cleanliness Quality and Employee Quality. However, it is worth considering that the item "Cleanliness of Dining Areas" is listed in both Atmosphere Quality and Cleanliness Quality with loadings of 0.50 and 0.426 respectively (**see** Error! Reference source not found.Table 3). As the purpose of using the "Cleanliness of Dining Areas" item is to measure Cleanliness Quality, the other factor should not consider that item as its attribute. Based on statistical results, we can conclude that the proposed model was operated quite reasonably and acceptably.

INSERT Table 2 here

4.3   PLS Results

4.3.1   Loading of Items

Many researchers employ a rule of thumb to accept items with loadings of 0.7 or higher for more desirable results, which indicates that there is more shared variance between the construct and its measure than error variance (Carmines and Zeller, 1979). In this research, most of the reflective items have relatively high loadings ranging from 0.73 to 0.91, except for "Presentation" in the Food Quality construct and "Cleanliness of Eating Utensil" in the Cleanliness construct, which are 0.52 and 0.59 respectively (**Error! Reference source not found.**Table 5). However, those two items can be kept for further analysis because they are still within the acceptable range, which is from 0.5 to 0.6 (Chin, 1998; Hulland, 1999).

4.3.2   Cronbach's Alpha and Composite Reliability

Cronbach's Alpha and Composite Reliability results are a measurement of internal consistency, which can describe the convergent validity of constructs (Hulland, 1999; Tavakol and Dennick, 2011). Firstly, as shown in **Error! Reference source not found.**Table 5, the common acceptable threshold of Cronbach's Alpha is in the range of 0.7 to 0.95, and the higher alpha is believed that it presents the more consistent and reliable of items within their construct (Tavakol and Dennick, 2011). In this research, there are four out of six constructs that have Cronbach's Alpha from 0.71 to 0.85 which indicates the high reliability of the items measurement in the reflective form. However, not as good as other constructs, "Cleanliness Quality" and "Behavioural Intentions" have lower alpha, which are 0.63 and 0.66 respectively. Those two constructs are still acceptable and can be kept for further research (Nunnally and Bernstein, 1994; Cho and Kim, 2015). Secondly, Nunnally (1978) suggests that the modest composite reliability should be 0.7 (Holland, 1999). The results show that all the constructs are higher than the recommendation which are within 0.8 to 0.91. In short, the convergent validity of constructs seems to be relatively strong and can be kept for further research.

INSERT Table 3 here

4.3.3 Fornell-Lacker criterion and Cross-loadings

Following convergent validity is discriminant validity, which represents the extent to which measures of a given construct differ from measures of other constructs in the same model (Chin, 1998; Holland, 1999). There are two methods of discriminant validity in PLS: The Fornell-Lacker criterion (Fornell and Larcker, 1981) and the cross-loading criterion (Chin, 1998). Firstly, according to Fornell and Larcker (1981), AVE is the average variance shared between a construct and its measures that should be at least 0.5; moreover, AVE's root of each construct should be greater than the construct's correlation with other constructs. In this study, all the constructs have a good value of AVE and satisfy the recommended parameters (------------------

INSERT Table 4, 5 here

Table 4). Secondly, the cross-loadings criterion suggests that the loadings of indicators in their intended construct should be higher than any loadings of other cross indicators. As shown in ------------------

INSERT Table 4, 5 here

Table 4, all the constructs have their intended indicators whose loadings are higher than others. From the two methods, we can conclude that all the constructs have acceptable discriminant validity.

The t-value, p-value and weights of each dimension were determined by the boot-strapping approach ($p<0.05$; t-value> 1.97). As we can see in **Error! Reference source not found.**Table 6, the values illustrate that the four dimensions significantly form the Customer Perception latent variable. However, their weights areseem to be relatively low with 0.263 and 0.386 for the least and the most important dimension respectively. This result supports the hypothesis H1, H2, H3 and

H4 that Food Quality, Atmosphere Quality, Cleanliness Quality and Employee Quality positively influence Customer Perception.

INSERT Table 4, 5 here

Finally, the statistical results for the structural model also support the hypothese~~i~~s H5, H6 and H7 in **Error! Reference source not found.**~~Table 7~~. The structural model represents the relationships between ~~Customer Perception~~Perceived Service Quality, Customer Satisfaction and Behavioural Intentions which would be evaluated by the Coefficient of determination (R square), Path Coefficients and t-values. The R square is a measure of the model's predictive accuracy, which represents the independent construct's combined effect on the dependent constructs. The effect ranges from 0 to 1 with 1 indicating complete predictive accuracy (Hair *et al*., 2014). There is a rule of thumb that indicates the acceptable level of predictive accuracy: 0.75, 0.5, and 0.25 regarding substantial, moderate and weak respectively (Hair *et al*., 2011; Henseler *et al*., 2009). Besides, the Path Coefficients represent the hypothesised relationships linking the constructs. The values of Path Coefficients range from -1 to +1, in which the coefficients that are close to +1 indicate strong positive relationships; while those that are close to -1 show a strong negative relationship (Hair *et al*., 2014). Lastly, the use of the t-value approach by bootstrapping must be employed to ensure the significance (Helm *et al*., 2009).

The final results are shown in the **Error! Reference source not found.**~~Table 7~~ and clearly explain the relationships among the constructs as well as supporting the hypothese~~i~~s. Firstly, ~~Customer Perception~~Perceived Service Quality strongly and significantly influences Customer Satisfaction with the Path Coefficient of 0.74 and t-value of 20.7. Besides, R Square shows that there is a 55% variance in the Satisfaction construct explained by Customer Perception or perceived service quality. Secondly, ~~Customer Perception~~Perceived Service Quality also influences the Behavioural Intentions construct positively but with less significance as the Path Coefficient is 0.5, and explains the 57% variance. Lastly, even though there is a relationship between Customer Satisfaction and Behavioural Intention it seems not to be very significant as the Coefficient is 0.31.

INSERT Table 6, 7 here

----

5   Discussion and Applications

Developed by building upon from DINESERV (Stevens *et al.*, 1995) and Service Clues (Berry *et al.*, 2006) as established research instruments, nd many relevant theoretical academies, this study attempts to apply an effective model for service quality to measure the impact of these factors on customers' perceived service qualityption, which subsequently influences customer satisfaction and behavioural intentions. The Customer Service Perception model was generated based on existing research academic literature review in order toto ensure the capture of all possible aspects, which could be perceived by customers' after- dining in restaurants. Within the model, the service aspect of the CSP model was presented with its contribution to the literature being about the importance of separating out Cleanliness as an influential component of the service environment that has been mostly ignored by the existing measurement measure models.

This research found that The Customer Perception has a significant positive seems to have a great impact on Customer Satisfaction, and moderately affects customer intentions about supporting the service organization. Besides, the analysis data also shows (figure 2) a clear relationship between Customer Satisfaction and Customer Behavioural Intentions, however, the influence is not hugely very significant and further exploration is required. Furthermore, there is a suggestion that managers should realise the great advantages which can be gained if customers have better perceptions in relation to on key factors in service quality, which are Employee Quality, Atmosphere Quality, Food Quality and Cleanliness Quality. According to the results, the Employee Quality factor presents asto be the most effective factor in customer perception, satisfaction and positive behavioural intentions.

This finding has clear implications for the restaurant industry in Vietnam such that First of all, managers should consider reinforcing both the social skills and technical skills of their employees given that they are an important value-adding element of the businesses. Social skills are an employee's ability to communicate positively, nicely and warmly and in a friendly manner so that customers can feel that they are welcomed and respected (Lemmink and Mattsson, 2002; Wu *et al.*, 2015; Henning-Thrurau, 2004). On the other hand, technical skills are the employees' ability to deliver prompt service to customers, to deliver responsive and dynamic service that that respond quickly as well as deliversing a service order to customers correctly and as they expected (Parasuraman *et al.*, 1985; Hochschild, 1983; Specth et al., 2007; Henning-Thrurau, 2004). It is worth noting that the better employees are satisfied, the more employees are motivated to show their positive behaviours to customers (Gil *et al.*, 2008; Grandey *et al.*, 2013) so there are likely to be implications for human resource management in the dining sector too. Due to the shortage of well-trained and highly skilled employees in developing countries, the importance of managing and improving this employee quality aspect must be of concern to restaurant managers.

Secondly, customers decide to dine out not only for food but also to meet their ~~for the~~ need for entertainment and to socialise. They spend most of the dining time at the service place, and managers should consider improving the service environment to better match their expectations. The service competences of restaurants should not be limited by the size of the ~~its~~ operation ~~size~~ since the ~~reasonable~~ arrangement and design of an operation can help to enhance a customer's sensory perceptions (Gu and Heung, 2012; Yildirim and Akalin-Baskaya, 2007). Furthermore, restaurant operations should be concerned to ensure that there is a reasonable temperature and to manage other climatic aspects so that customers can best enjoy the dining experience (Gu and Heung, 2012). In addition, customers' satisfaction is also influenced significantly by the noise level of the operational environment, which can be caused by other people's loudness or non-human loudness such as facilities and so on. Even though people associate the need to go out to a restaurant with the desire to be entertained and to socialise, too much noise would ~~affect~~ negatively affect the customer's perception of service quality and thus their overall satisfaction. Therefore, managers should pay attention to keeping the noise at an acceptable level, especially at ~~a~~ busy times.

Thirdly, regarding to the results on Food Quality, customers are concerned mostly about the taste of food. This indicates that customers do tend to notice materials in their food, and are sensitive about how well their food is cooked (Berry and Wall, 2007); there is a suggestion that the greater the taste of food the better customers' perception of the service quality, which results in high satisfaction and positive purchasing intentions. Therefore, in order to be a successful service, the restaurants should firstly serve food that has a great taste as defined by their customer base. Importantly, the freshness of foods not only leverages a customer's joy in dining but ~~also~~ may also show the caring side of the restaurant owners towards their customers. In addition, due to the popularity of restaurants today~~recently~~, customers are ~~could~~ easily able to find different types of food. I~~t has also been suggested that i~~ncreasing the menu choices provided to customers can help an organization gain more competitive advantages. The effect of food presentation seems not to be very important yet improving this attribute may gain extra perceptions on the quality of the service.

Finally, ~~Last but not least,~~ the concern about hygiene and cleanliness is emerging internationally and is currently well-established in developed nations with some signs of interest growing in developing country contexts, at least in relation to legislation. ~~around the globe is obvious. What is more, d~~Due to ~~the~~ potentially high level~~s~~ of concern among~~of~~ customers concerning~~on~~ the food safety in developing countries, managers should pay attention to improving and ensuring the cleanliness and safety~~goodness~~ of resource~~s~~ preparation, which can be represented by the cleanliness of seen-attributes. Firstly, managers should inspire employees so that they know th~~at th~~eir responsibility is to keep the service areas ~~always as highly~~ clean and tidy in order to please customers and manage their perceptions of the organizational ~~with the organization's~~ hygiene policies. Secondly, staff who are well-dressed and in presentable physical ~~good~~ condition would help the general operation to be more attractive in the customers' perception. Thirdly, the table and dining utensils are what are directly used for consuming and should not be ignored due to their helpfulness in assuring customers of an

16

organization's general hygiene practices. It would not be is not surprising if that customers were to find it hard to say positive things about a restaurant whereif there is a poor very bad hygiene condition of basic facilities. Therefore, in order to gain customers' trust, restaurant owners must consider improving customer perception on the cleanliness of operation, which it is an relatively easy strategy to use in contributing to achievement of a competitive advantage.

6   Limitations and directions for further research

This research has been conducted made with every effort to provide valid and reliable results, but recognising limitations will help; however, limitations and gaps cannot be absolutely avoided. Positively, the limitations and gaps of this research may help in developing providing more comprehensive and complete results in the future research projects.

INSERT Figure 2 here

First of all, this study was developed and investigated only on the basis of a specific area, which is a southern Vietnamese urban city of Vietnam; therefore, the generalizability of this study may be limited and future research should consider wider geographical areas as well as different developing nation contexts. Nonetheless, Tthe model was conducted based on well-establishedknown instruments and academic theories, but there may be a restriction based upon differing is customers' psychology and consumption habits in different geographic areas. Therefore, it is unclear doubtful whether the application of the model and the findings of attributes may be used in other geographical areas. It is a suggestion that further researchers could explore the key constructs of this study in other regions as well as building upon findings to further develop research in Vietnam and other Asian developing countries.

Second, the number of measurement variables for each construct iseems to be another potential limitation of this research. There were three reflective items for each dimension of the Customer Perception construct in the model, which is considered as an acceptable amount for statistical analysis to provide a reliable and valid result for the research. However, expanding the number amount of variables together with a larger sample size is a suggestion for further research so that the meaning of each dimension could be described more clearly and potentially enable more nuanced accountsr with more details.

Third, this study applied the use of the five-point Likert scale to measure the constructs, which is a force-choice format with a five points scale and supposed to provide "preference uncertainty". The five-points scale was employed because of its suitability for the research sample size, yet the mid-point "Neutral" allowed respondents to choose a safer answer when they were not sure about their understanding of the questions (Li and Mattsson, 1995) or when there were no alternative

options (Dhar, 1997). Indeed, several questions in this research received answers with "Neutral". Therefore, the author of this research suggests that further research could consider a ~~on a~~ scale with more points or a combination of ~~a~~ survey and interview methodology ~~in order to~~to help explain the case in more detail. In summary, this research paper has outlined the relationships between Perceived Service Quality, Customer Satisfaction and Behavioural Intentions specifically in Vietnam, and contributes to the development of service quality research by extending into new geographical territories and new cultural settings. This is likely to prove to be a rich domain for future research and especially so where combined with a focus on cleanliness as a dimension within established service quality models.

References

Agriculture and Agri-Food Canada (2014) Foodservice Profile: Vietnam. [Online]. Available at:

http://www5.agr.gc.ca/resources/prod/Internet-Internet/MISB-DGSIM/ATS-SEA/PDF/6521-eng.pdf [Accessed 11 November 2015].

Barber, N. and Scarcelli, J. (2010) Enhancing The Assessment of Tangible Service Quality Through the Creation of a Cleanliness Measurement Scale. *Managing Service Quality*. 20 (1), pp.70-88.

Barber, N., Goodman, R. and Goh, B. **(2011)** Restaurant Consumers Repeat Patronage: A Service Quality Concern. *International Journal of Hospitality Management*. 30 pp.329-336.

Berry, L. and Wall, E. (2007) The Combined Effects of the Physical Environment and Employee Behaviour on Customer Perception of Restaurant Service Quality. *Cornell Hotel and Restaurant Administration Quarterly*. 48 (1), pp.59-69.

Berry, L., Wall, E. and Carbone, B. (2006) Service Clues and Customer Assessment of the Service Experience: Lessons from Marketing. *Academy of Management Perspectives*. 20 (2), pp.43-57.

Bitner, M. (1990) Evaluating Service Encounters: The Effects of Service Surroundings and Employee Responses. *Journal of Marketing*. 54 (2), pp.69-82.

Bolton, R. and Drew, J. (1991) A Multistage Model's of Customers' Assessments of Service Quality and Value. *Journal of Consumer Research*. 17 pp.375-384.

Bougure, U. and Neu, M. (2010) Service Quality in the Malaysia Fast Food Industry: An Examination Using DINESERV. *Services Marketing Quarterly*. 31 (2), pp.194-212. **Boulding, W., Kalra, A., Staelin, R. and Zeithaml, V. (1993)** A Dynamic Process Model of Service Quality: From Expectations to Behavioural Intentions. *Journal of Marketing Research*. 30 (1), pp.7-27.

Bruhn, M., Georgi, D. and Hadwich, K. (2008) Customer Equity Management as Formative Second-order Construct. *Journal of Consumer Research*. 61 pp.1292-1301. Bujisic, M., **Hutchinson, M. and Parsa, H. (2014)** The Effects of Restaurant Quality

Attributes on Customer Behavioural Intentions. *International Journal of Contemporary Hospitality Management*. 26 (8), pp.1270-1291.

Carmines, E. and Zeller, R. (1979) Reliability and Validity Assessment. In: Sullivan, J. and Niemi, R., eds. (1979) *Series: Quantitative Applications in the Social Sciences*. USA: Sage Publications, pp.5-71.

Chin, W. (1998) The Partial Least Squares Approach to Structural Equation Modeling. In: Marcoulides, G., ed. (1998) *Modern Methods for Business Research*. New Jersey, London: Lawrence Erlbaum Associates, pp.295-336.

Chitturi, R., Raghunathan, R. and Mahajan, V. (2008) Delight by Design: The Role of Hedonic versus Utilitarian Benefits. *Journal of Marketing*. 72 (3), pp. 48-63.

Cho, E. and Kim, S. (2015) Cronbach's Coefficient Alpha: Well Known but Poorly Understood. *Organizational Research Methods*. 8 (207), pp.230.

Choudhury, K. Service (2015) Quality and Customers' Behavioural Intenions: Class and Mass Banking and Implications for The Consumer and Society. *Asia Pacific Journal of Marketing and Logistics*. 27 (5), pp.735-757.

Chow, I., Lau, V., Lo, T., Sha, Z. and Yun, H. (2007) Service Quality in Restaurant Operations in China: Decision- and Experiental-Oriented Perspectives. *Hospitality Management*. 26, pp.698-710.

Chua, B., Jin, N., Lee, S. and Goh, B. (2014) Influence of Mechanic, Functional and Humanic Clues on Customer's Experiential Values and Behavioural Intentions in Full-Service Restaurants. *Journal of Foodservice Business Research*. 17, pp.67-84.

Cronin, J., Brady, M. and and Hult, G. (2000) Assessing The Effects of Quality, Value and Customer Satisfaction on Consumer Behavioral Intentions in Service Environments. *Journal of Retailing*. 76 (2), pp.193-218.

Dhar, R. (1997) Consumer Preference for a No-Choice Option. *The Journal of Consumer Research*. 24 (2), pp.215-231.

Diamantopoulos, A., Riefler, P. and Roth, K. (2008) Advancing Formative Measurement Models. *Journal of Business Research*. 61 pp.1203-1218.

Dube, L., Renaghan, M. and Miller, M. (1994) Measuring Customer Satisfaction For Strategic Management. *Cornell Hotel and Restaurant Administration Quarterly*. 35 (1), pp.39-47.

Duff, A., Gou, X. and Hair, M. (2008) Service Quality Measurement in the Chinese Corporate Banking Market. *International Journal of Bank Marketing*. 26 (5), pp.305-327.

Euromonitor International (2013) *The Other Asia Pacific: Long-term Growth Prospects in Southeast*. [Online]. Available at: Passport Database. [Accessed 11 November 2015].

Euromonitor International (2014) *Consumer FoodService 2014: New Insights and System Refresher.* Available from:

https://www.portal.euromonitor.com/portal/analysis/tab .

Euromonitor International (2015) *Full-Service Restaurants in Vietnam*. [Online]. Available at: Passport Database. [Accessed 11

November 2015].

Farrell, A., Souchon, A. and Durden, G. (2001) Service Encounter Conceptualisation: Employees' Service Behaviours and

Customers' Service Quality Perception. *Journal of Marketing Management*. 17 (5-6), pp.577-593.

Festus, O., Hsu, M. and Udo, G. (2006) Service Quality, Customer Satisfaction, and Behavioural Intentions in the Service Factory.

Journal of Services Marketing. 20 (1), pp.59-72.

Fornell, C. and Larcker, F. (1981) Evaluating Structural Equation Models with Unobservable Variables and Measurement Error.

Journal of Marketing Research. 18 pp.39-50.

Fornell, C. and Wernerfelt, B. (1987) Defensive Marketing Strategy by Customer Complaint Management: A Theorical Analysis.

Journal of Marketing Research. 24 (4), pp.337-346.

Gaur, A. and Gaur, S. (2009) *Statistical Method for Practice and Research: A Guide to Data Analysis using SPSS*. 2 nd ed. New

Delhi, India: Sage Publication.

Gil, I., Berenguer, G. and Cervera, A. (2008) The Roles of Service Encounters, Service Value, And Job Satisfaction in Achieving

Customer Satsfaction in Business Relationship. *Industrial Marketing Management*. 37 pp.921-939.

Gilmore, A. and McMullan, R. (2009) Scales in Services Marketing Research: A Critical and Way Forward European *Journal of*

Marketing. 43 (5/6), pp.640-651.

Grandey, A., Goldberg, L. and Pugh, S. (2013) Why and When Do Stores with Satisfied Employees Have Satisfied Customers?

The Roles of Responsiveness and Store Busyness. *Journal of Service Research*. 14 (4), pp.397-409.

Gronroos, c. (1984) A Service Quality Model and Its Marketing Implications. *European Journal of Marketing*. 18 (4), pp.36-44.

Gu, T. and Heung, V. (2012) Influence of Restaurant Atmospherics On Patron Satisfaction and Behavioural Intentions.

International Journal of Hospitality Management. 31 pp.1167-1177.

Ha, J. and Jang, S. (2010) Effects of Service Quality and Food Quality: The Moderating Role of Atmospherics in an Ethnic

Restaurant Segment. *International Journal of Hospitality Management*. 29 pp.520-529.

Haeckel, H., Carbone, B. and Berry, L. (2003) How to Lead the Customer Experience. *Marketing Management*. 12 (1), pp.18-23.

Hair, J., Ringle, C. and Sarstedt, M. (2011) PLS-SEM: Indeed A Silver Bullet. *Journal of Marketing Theory and Practice*. 19 (2),

pp.139-151.

20

Hair, J., Sarstedt, M., Hopkins, L. and Kuppelwieser, V. (2014) Partial Least Squares Structural Equation Modeling (PLS-SEM): An Emerging Tool in Business Research. *European Business Review*. 26 (2), pp.106-121.

Hallowell, R. (1996) The relationship of customer satisfaction, customer loyalty and profitability: An empirical study. *International Journal of Service Industry Management*. 7 (4), pp.27-42.

Helm, S., Eggert, A. and Garnefeld, I. (2009) Modelling The Impact of Corporate Reputation on Customer Satisfaction and Loyalty Using PLS. In: Esposito, V.V., Chin, W.W., Henseler, J. and Wang, H., eds. (2009) *Hanbook of Partial Least Squares:Concepts, Methods and Applications*. Berlin: Springer, pp.515-534.

Henning-Thurau, T. (2004) Customer orientation of service employees: its impact on customer satisfaction, commitment, and retention. *International Journal of Service Industry Management*. 15 (5), pp.460-478.

Henseler, J., Ringle, C.M. and Sinkovics, R.R. (2009) The Use of Partial Least Squares Path Modeling in International Marketing. *Advances in International Marketing*. 20 pp.277-320.

Hirschman, O. (1970) *Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States*. Cambridge,MA: Harvard University Press.

Hochschild, R. (1983) *The Managed Heart: Commercialization of Human Feeling*. CA: University of California Press.

Hulland, J. (1999) Use of Partial Least Squares (PLS) in Strategic Management Reserach: A Review of Four Recent Strudies. *Strategic Management Journal*. 20 pp.195-204.

Jani, D. and Han, H. (2011) Investigating the key factors affecting behavioral intentions: Evidence from full service-restaurant setting. *International Journal of Contemporary Hospitality Management*. 23 (7), pp.1000-1018.

Jarvis, C., MacKenzie, S. and Podsakoff, P. (2003) A Critical Review of Construct Indicators and Measurement Model Misspecification in Marketing and Consumer Research. *Journal of Consumer Research*. 30 pp.199-218.

Jones, M. and Suh, J. (2000) Transaction-Specific Satisfaction and Overall Satisfaction: An Empirical Analysis. *Journal of Services Marketing*. 14 (2), pp.147-159.

Kangdampully, J. (1998) Service Quality to Service Loyalty. A Relationship Which Goes Beyond Customer Services. *Total Quality Management*. 9 (6), pp.431-443.

Keith, N. and Simmers, C. (2011) Measurement Serive Quality Perceptions of Restaurant Experiences: The Disparity Between Comment Cards and DINESERV. *Journal of Foodservice Business Research*. 14 pp.20-32.

Kim, W. and Moon, Y. (2009) Customers' Cognitive, Emotional and Actionable Reponse to The Servicescape: A Test of the Moderating Effect of the Restaurant Type. *International Journal of Hospitality Management*. 28 pp.144-156.

21

Kueh, K. and Voon, B. (2007) Culture and service quality expectations: Evidence from generation Y consumers in Malaysia. *Managing Service Quality*. 17 (6), pp.656-680.

Ladhari, R. (2009) A Review of 20 Years of SERVQUAL Research. *International Journal of Quality and Service Science*. 2 (3), pp.172-198.

Law, K., Wong, C. and Mobley, W. (1998) Toward A Toxomony of Multidimentional Constructs. *Academy of Management Review*. 23 (4), pp.741-755.

Lee, T., Cho, H. and Ahn, T. (2012) Senior Citizen Satisfaction with Restaurant Service Quality. *Journal of Hospitality Marketing & Management*. 21 pp.215-226.

Lee, Y., Back, K. and Kim, J. (2009) Family Restaurant Brand Personality and Its Impact on Customer's Emotion, Satisfaction and Brand Loyalty. *Journal of Hospitality & Tourism Research*. 33 (3), pp.305-328.

Lehtinen, J. and Lehtinen, U. (1982) Service quality: a study of quality dimensions. *Service Management Institute.*

Lemmink, J. and Mattsson, J. (2002) Employee Behaviour, Feelings of Warmth and Customer Perception in Service Encounters. *International Journal of Retail & Distribution Management.* 30 (1), pp.18-33.

Li, C. and Mattsson, L. (1995) Discrete Choice Under Preference Uncertainty: An Improved Structural Model for Contingent Valuation. *Journal of Environmental Economics and Management*. 28 pp.256-269.

Liu, Y. and Jang, S. (2009) Perceptions of Chinese Restaurants in The U.S: What Effects Customer Satisfaction and Behavioural Intentions? *International Journal of Hospitality Management*. 28 pp.338-348.

Marinkovic, V., Senic, V., Ivkov, D., Dimitrovski, D. and Bjelic, M. (2014) The antecedents of satisfaction and revisit intentions for full-service restaurants. *Marketing Intelligence and Planning*. 32 (3), pp.311-327.

Marketline (2015) *Asia-Pacific – Restaurants*. [Online]. Available at : Marketline Advantage Database. [Accessed 11 November 2015].

Marketline (2015) *Restaurants in Europe*. [Online]. Available at: Marketline Advantage Database. [Accessed 11 November 2015].

Martin, D., O'Neill, M., Hubbard, S. and Palmer, A. (2008) The Role of Emotion in Explaining Consumer Satisfaction and Future Behavioural Intention. *Journal of Service Marketing*. 22 (2/3), pp.224-236.

Mehta, C., Lalwani, K. and Han, L. (2000) Service Quality in Retailing: Relative Efficiency of Alternative Measurement Scales for Different Product Service Environments. *International Journal of Retail & Distribution Management*. 28 (2), pp.62-72.

Mittal, S. and Gera, R. (2012) Relationship between Service Quality Dimensions and Behavioural Intentions An Sem Study of Public Sector Retail Banking Customers In India. *Journal of Services Research*. 12 (2), pp.147-171.

Namkung, Y. and Jang, S. (2007) Does Food Quality Really Matter in Restaurants? Its Impact On Customer Satisfaction and Behavioural Intentions. *Journal of Hospitality & Tourism Research*. 31 (3), pp.387-410.

Nunnally, C. (1978) *Psychometric Theory*. New York: McGraw-Hill.

Nunnally, C. and Bernstein, H. (1994) *Psychometric Theory*. 3 rd ed. USA: McGraw-Hill.

Oliver, R. (1980) A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*. 17 (4), pp.460-469.

Oliver, R. (1996) *Satisfaction: A Behavioural Perspective in the Consumer.* New York: McGraw-Hill.

Parasuraman, A., Zeithaml, V. and and Berry, L. (1985) A Conceptual Model of Service Quality and Its Implications For Future Research. *Journal of Marketing*. 49 (4), pp.41-50.

Parasuraman, A., Zeithaml, V. and and Berry, L. (1990) *Delivering Quality Service: Balancing Customer Perceptions and Expectations*. New York: Free Press.

Parasuraman, A., Zeithaml, V. and Berry, L. (1988) SERVQUAL: A Multi-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*. 64 (1), pp.12-40.

Prabhakar, S., Sano, D. and Srivastava, N. (2010) Food Safety in The Asia-Pacific Region: Current Status, Policy Perspectives, and A Way Forward. In: Anon.(2010) *Sustainable Consumption and Production in the Asia-Pacific Region: Effective Responses in a Resource Contained World.* Japan: Institute for Global Environmental Strategies, pp.215-238.

Raajpoot, A. (2002) TANGSERV: A Multiple Item Scale for Measuring Tangible Quality in FoodSerivce Industry. *Journal of Foodservice Business Research*. 5 (2), pp.109-127.

Rajic, T. and Dado, J. (2013) Modelling the relationships among retail atmospherics, service quality, satisfaction and customer behavioral intentions in an emerging economy context. *Total Quality Management*. 24 (9), pp.1096-1110.

Rosenbaum, M. and Massiah, C. (2011) An Expanded Servicescape Perspective. Journal of Service Management. 22 (4), pp.471-490.

Rust, T. and Zahorik, J. (1993) Customer Satisfaction, Customer Retention, and Market Share. *Journal of Retailing*. 69 (2), pp.193-215.

Ryu, K. and Han, H. (2011) New or Repeat Customers: How Does Physical Environment Influence Their Restaurant Experience? *International Journal of Hospitality Management*. 30 pp.599-611.

Ryu, K., Lee, H. and Kim, W. (2012) The Influence of the Quality of the Physical Environment, Food, and Service on Restaurant Image, Customer Percepceive Value, Customer Satisfaction and Behavioural Intentions. *International Journal of Contemporary Hospitality Management*. 24 (2), pp.200-223.

Schaefer, M. (2013) *Lastest Research: Consumer Foodservice 2013 Now Live*. [Online]. Available at: Passport Database. [Accessed 11 November 2015].

Spreng, R., MacKenzie, S. and Olshavsky, R. (1996) A Re-Examination of the Determinants of Consumer Satisfaction. *Journal of Marketing*. 60 (3), pp.15-32.

Stevens, P. (1992) *Applied Multivariate Statistics for the Social Sciences*. 2 nd ed. Hillsdale, NJ: Erlbaum. Stevens, P., Knutson, B. and Patton, M. (1995) DINESERV: A tool for Measuring Service Quality in Restaurants. *The Cornell Hotel and Restaurant Administration Quarterly*. 36 (2), pp.56-60.

Subramaniam, S., Mohre, R. and Kawde, D. (2014) Customer's Perception: Towards Brand. *SCMS Journal of Indian Management*. 11 (2), pp.93-101.

Tavakol, M. and Dennick, R. (2011) Making Sense of Cronbach's Alpha. *International Journal of Medical Education*. 2 pp.53-55.

Taylor, S.A. and Baker, T.L. (1994) An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions. *Journal of Retailing*. 70 (2), pp.163-178.

Tse, K. and Wilton, C. (1998) Models of consumer satisfaction formation: an extension. *Journal of Marketing Research*. 24 (3), pp.204-212.

USDA (2012) Vietnam: FAIRS Country Report. [Online] Available at: https://www.fas.usda.gov/data/vietnam-fairs-country-report [Accessed 06th June 2017].

Van M., K., Masurel, E. and Van Rijin, I. (2000) Service Satisfaction: An Empirical Analysis of Consumer Satisfaction in Financial Services. *The Service Industries Journal*. 20 (3), pp.81-94.

Warde, A. and Martens, L. (2000) *Eating Out: Social Differentiation, Consumption and Pleasure*. Cambridge: Cambridge University Press.

Warshaw, R. and Davis, D. (1985) Disentangling behavioural intention and behavioural expectation. *Journal of Experimental Social Psychology*. 21, pp.213-228.

Woodside, A., Frey, L. and Daly, R. (1989) Linking Service Quality, Customer Satisfaction, and Behavioral Intention. *Journal of Healthcare Marketing*. 9 (4), pp.5-17.

Wu, C., Tsai, C., Hsiung, W. and Chen, Y. (2015) Linkage between frontline employee service competence scale and customer perception of service quality. *Journal of Services Marketing*. 29 (3), pp.224-234.

Yavetz, I. and Gilboa, S. (2010) The Effect of Servicescape Cleanliness on Customer Reaction. *Services Marketing Quarterly*. 31 pp.213-234.

Yildirim, K. and Akalin-Baskaya, A. (2007) Perceived Crowding In a Café/Restaurant With Different Seating Densities. *Building and Environment*. 42, pp. 3410-3417.

Zeithaml, V. (1988) Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*. 52 pp.2-22.

Zeithaml, V., Berry, L. and Parasuraman, A. (1996) The Behavioural Consequences of Service Quality. *Journal of Marketing*. 60 pp.31-46.

Zeithaml, V., Bitner, M. and and Gremler, D. (2012) Customer Perceptions of Service. In: Zeithaml, V., Bitner, M. and and Gremler, D. (2012) *Services Marketing: Integrating Customer Focus Across the Firm*. London: McGraw-Hill Higher Education, pp.71-93.

Highlights:

- This research found that The Customer Perception has a significant impact on Customer Satisfaction
- This research was conducted in a developing country context, specifically Vietnam, and contributes to the development of service quality literature in emerging economies
- Data also shows a clear relationship between Customer Satisfaction and Customer Behavioural Intentions
- Data suggests that managers should realise the great advantages which can be gained if customers have better perception on key factors in service quality, which are Employee Quality, Atmosphere Quality, Food Quality and Cleanliness Quality
- Employee Quality factor presents to be the most effective factor in customer perception, satisfaction and positive behavioural intentions
- Data suggests that cleanliness should be incorporated as a dimension in analyses of restaurant service quality perceptions.
- Managers should consider reinforcing both the social skills and technical skills of employees