

**A structural equation model of customers' behavioural  
intentions in the Chinese restaurant sector**

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## **Abstract**

The aim of this study is to develop a structural equation model (SEM) of customers' behavioural intentions towards restaurant patronage in China. The study is set in the economic context of the Chinese open door policy of 1978 and the emergence of a service sector and middle class consumers with higher disposable incomes.

The conceptual SEM is developed from the existing literature on customer loyalty, which includes constructs of perceived quality, sacrifice, perceived risk, perceived value, the Chinese cultural value of face, satisfaction, reputation, trust and behavioural intentions. A set of hypotheses concerning direct and indirect links between constructs is derived from the literature.

The research methodology employs a self completion survey of customers of targeted restaurants that generated 489 valid responses. The questionnaire was designed with three thematic sections concerning restaurant visit behaviour, measures for each of the constructs, and respondents' characteristics.

Measurement scales for the constructs satisfied the minimum requirements of Cronbach's alpha coefficient. The measurement models of the SEM constructs were evaluated using confirmatory factor analysis (CFA). They were accepted on the basis of measures of fit, the statistical significance and the signs of the coefficients.

Preliminary analysis led to the modification of the conceptual SEM. The modified SEM was accepted on the basis of measures of fit, statistical significance and signs of coefficients, composite reliability, variance extracted and squared multiple correlation coefficients. Tests of hypotheses and tests for mediation provided for the analysis and decomposition of total effects on dependent constructs.

The study establishes the relevance of traditional loyalty constructs, such as perceived quality, sacrifice, perceived risk, perceived value, satisfaction and reputation, and confirms the relevance of the Chinese cultural value of face. Total effect analysis reveals the importance of satisfaction, perceived value and perceived quality on customers' behavioural intentions with associated benefits to commercial marketers in the hospitality sector.

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# Chapter 1 Introduction

## 1.1 Introduction

The aim of this chapter is to present an outline of the research. It provides a description of the research background including both the social and the academic research backgrounds, and then identifies the research gap. This is followed by an explanation of the research aims and objectives, the methodology, and the structure of the dissertation in terms of the themes of subsequent chapters.

## 1.2 The Economic and Social Research Background

The material in this section explains the economic growth of China from 1978, the potential of the growing consumer market and the rise of an emerging middle-class consumer.

### *1.2.1 The economic growth of China since 1978*

The rapid economic growth of China since the beginning of economic reform in 1978 has captured the imagination of Western commentators and researchers (Holz, 2007). In 1978, after years of state control of all productive assets, the government of China embarked on a major program of economic reform (Hu and Khan, 1997). The Chinese government encouraged the formation of rural enterprises and private business, liberalised foreign trade and investment, relaxed state control over some prices, and invested in industrial production and the education of the workforce (Hu and Khan, 1997). A report on the state of the economy in 2005 noted that China's economy had enjoyed average annual growth rates in excess of 9% over the previous two decades and it was estimated the country's gross domestic product (GDP) would reach US\$2.3 trillion or US\$1,700 per capita by 2010 based on the prices and exchange rates in 2000; after decades of rapid economic development, China's overall GDP ranked sixth in the world, with the nation's per capita GDP exceeding US\$1,200 (Xu, 2005).

Table 1.1 documents the change in China's economy as a comparison between the periods 1978-1995 and 1996-2001. In the 6 years from 1996 to 2001, China's GDP

grew at an average annual rate of 8.2 %, which is lower than the 9.8 % growth rate during 1978–95. The annual growth rate of labour productivity was 7.0 % in 1996–2001, slightly lower than the 7.2 % of 1978–95. Capital stock grew at 11.8 % per annum in 1996–2001 versus 9.3 % in 1978–95, and the human-capital growth rate (measured by the number of years of education received by people over 15 years of age) was 2.8 % and 2.2 % during these two periods respectively. The annual growth rate of the capital stock per worker of 10.6 % in 1996–2001 was the highest and the fastest-growing since the founding of the People’s Republic of China in 1949; this indicates an acceleration of “capital deepening” (Hu, 2005, p.167). Total factor productivity growth averaged 2.3 % annually in 1996–2001 compared with 4.6 % in 1978–95. From the beginning of the economic reforms in 1978-2005, gross domestic product (GDP) showed an average growth of 9.6% per year (Holz, 2007).

**Table 1-1 Sources of China’s economic growth during 1978-2001**  
(average annual % age change)

<b>Economic Indicator</b>	<b>1978-1995</b>	<b>1996-2001</b>
	<b>%</b>	<b>%</b>
Population	1.4	0.9
GDP	9.8	8.2
Per capita GDP	8.4	7.3
Number of employees	2.6	1.2
Labor productivity	7.2	7.0
Capital stock	9.3	11.8
Human capital	2.2	2.8
Capital productivity	0.5	-3.6
Capital stock per labor	6.7	10.6
Total factor productivity	4.6	2.3

**Sources:** Comprehensive Statistical Data and Materials on 50 Years of New China (1999), China Statistical Yearbook 2003, and China Statistical Abstract 2004. (Cited in Hu, 2005, p. 168).

**Note:** When calculating total factor productivity, the weight of capital input is taken as 0.4, the weight of labour input is 0.3, and the weight of human capital input is 0.3.

The Chinese economy achieved an annual GDP growth rate of 11.1% during the period of the 11<sup>th</sup> Five-Year Plan 2006-2010 (James, 2010). In October 2010, the Central

Committee of the Communist Party of China (CPC) approved the guiding principles of China's 12<sup>th</sup> Five-Year Plan for National, Economic and Social Development (FYP) (2011-2015). The 12<sup>th</sup> FYP's guiding principles will promote the government's focus on "inclusive growth", which means ensuring the benefits of economic growth are spread among a greater proportion of Chinese citizens. The plan's key themes are rebalancing the economy, ameliorating social inequality and protecting the environment. The 12<sup>th</sup> FYP includes a national GDP growth rate target of 7%, promoting consumerism over investments and exports, closing the income gap through minimum wage hikes and an increased social safety net, and a range of energy efficiency targets (Xinhua, 2010).

China's economic development in the reform period fits well with the broad development patterns of structural change, catching up, and factor price equalisation. Following all three patterns, China faces another 30 years of continued growth (Holz, 2007).

### ***1.2.2 The potential of the consumer market in China***

China's size, the abundance of its resources, and its having about 20% of the world's population living within its borders for the last two centuries means its role in the world economy will continue to grow. The consumer revolution that began in the 1980s could be seen as a revolution taking place at the heart of the pre-existing mass consumer structure with strong homogeneous tendencies. The Chinese government announced on 20 July 2005 that the purchasing power by Chinese consumers had increased by 2.3% in 2004 compared with 2003. In the first six months of 2005, the total sales of the retail and service industry were US\$461.7 billion, an increase of 13.2% compared to the first six months of 2004. Up to July 2005, people's income in the cities had increased by 9.5%, and in the countryside had increased by 12.5% compared to 2004 (Zheng, 2005). Today, 77% of urban Chinese households live on less than 25,000 Yuan a year; according to the data from the McKinsey Global Institute analysis, by 2025, that figure will have dropped to 10%. By then, urban households in China will make up one of the largest consumer markets in the world, spending about 20 trillion Yuan annually (Farrell *et al.*, 2006).

The rising economy in China has lifted hundreds of millions of households out of poverty. As an increasing number of Chinese households began to enjoy disposable

incomes in excess of their basic necessities, they began spending a substantial proportion on food, apparel, household products, and personal products. Between 1990 and 2009, the basic economic condition of urban households in China underwent rapid growth (Table 1.2). In 2009, the urban household annual income was 12382.11 Yuan, which was more than 10 times higher than the figure of 1149.70 Yuan in 1990. Comparing the disposal income between 1990 and 2009, the figure increased from 1510.16 Yuan to 17174.65 Yuan and the net business income of 1528.68 Yuan in 2009 was 70 times more than the figure in 1990 (22.50 Yuan). Consumption expenditure grew dramatically from 1278.89 Yuan (1990) to 12,264.55 Yuan (2009). Expenditure on food was the largest component of household expenditure, accounting for almost 37% of total consumption expenditure and grew from 693.77 Yuan in 1990 to 4478.54 Yuan in 2009.

**Table 1-2 Basic conditions of urban household**

Items	1990	2000	2005	2008	2009
<b>Per Capita Annual Income (Yuan)</b>	1516.21	4279.02	6295.91	17067.78	18858.09
Income from Wages and Salaries	1149.70	3390.21	4480.50	11298.96	12382.11
Net Business Income	22.50	72.62	246.24	1453.57	1528.68
Income from Properties	15.60	90.43	128.38	387.02	431.84
Income from Transfer	328.41	725.76	1440.78	3928.23	4515.45
Disposable Income	1510.16	4282.95	6279.98	15780.76	17174.65
<b>Per Capita Annual Consumption Expenditure (Yuan)</b>	1278.89	3537.57	4998.00	11242.85	12264.55
Food	693.77	1771.99	1971.32	4259.81	4478.54
Clothing	170.90	479.20	500.46	1165.91	1284.20
Residence	60.86	283.76	565.29	1145.41	1228.91
Household Facilities, Articles and Service	108.45	263.36	374.49	691.83	786.94
Health Care and Medical Services	25.67	110.11	318.07	786.20	856.41
Transport and Communication	40.51	183.22	426.95	1417.12	1682.57
Education, Cultural and Recreation Services	112.26	331.01	669.58	1358.26	1472.76
Miscellaneous Goods and Services	66.57	114.92	171.83	418.31	474.21

**Sources:** 'Basic conditions of urban households'. National Bureau of statistics of China (2010) Available at: <http://www.stats.gov.cn/tjsj/ndsj/2010/indexeh.htm>.

There are four categories, namely, food, apparel, household products, and personal products, that are predicted to triple in size from a market of 1.9 trillion Yuan (\$232 billion) in 2006 to a market size of 7.7 trillion Yuan in 2025 ([http://www.wikinvest.com/concept/Rise of China%27s Middle Class](http://www.wikinvest.com/concept/Rise%20of%20China%27s%20Middle%20Class), no date). The

potential consumer market for business is substantial, as retailers such as Carrefour, B&Q and IKEA have discovered. They have expanded into China by investing in or establishing a joint venture with local retail chains. Carrefour already has more than 200 stores in China and, in 2005, had sales of about \$2.4 billion. As China's home improvement market is the fastest growing in the world, with \$50 billion in sales in 2005 and increasing by 12% a year, this has created great success for B&Q, which is the largest Do-It-Yourself retailer in Europe and the third-largest in the world. In 2005, B&Q sales rose by nearly 48% to £313 million (\$611 million), its sixth consecutive year of double-digit growth since it entered China in 1999. The IKEA group entered China in 1998 as a joint venture; IKEA's China sales increased by 35% in 2003 and by 50% in the first quarter of 2004 after they had lowered prices by nearly 10%. The above retailers are reliable proof of the huge potential consumer market in China that is creating excellent business opportunities, meaning businesses can profit, regardless of the source of their goods.

### ***1.2.3 The emergence of middle class consumers***

The expanding middle class in China is indicative of the country's economic success and is extremely important to both local and international companies due to their significant purchasing power.

The new middle class denotes the section of the population that relies on knowledge, acquired skills and intelligence to achieve a stable standard of living as opposed to other sections of the population that rely either on physical strength, capital or assets to earn a living. They are educated to degree level and either already own a home and car or are in a position to be able to do so. Monthly household income for this group is in excess of 5000 Yuan, and personal income exceeds 3000 Yuan (Wang [http://docs.china-europa-forum.net/doc\\_669.pdf](http://docs.china-europa-forum.net/doc_669.pdf) no date).

Present estimates of the size of the middle class in China range from 100 million to 247 million, depending on how the group is defined according to annual disposable income ([http://www.wikinvest.com/concept/Rise\\_of\\_China%27s\\_Middle\\_Class](http://www.wikinvest.com/concept/Rise_of_China%27s_Middle_Class), no date).

There are several reasons for targeting middle-class consumers. First, it was estimated that by around 2011, the lower middle class would number some 290 million people,

representing the largest segment in urban China and accounting for about 44% of the urban population. Growth in this group should peak around 2015, with a total spending power of 4.8 trillion Yuan. By 2025, this segment will comprise a staggering 520 million people, which is more than half of the expected urban population of China, and will have a combined total disposable income of 13.3 trillion Yuan (Farrell *et al.*, 2006). Second, the meteoric rise in China's middle class is tied to dramatic increases in its per capita income, which is growing at an incredible rate. The first industrial revolution created a 250% increase in per capita income over a 100-year period. The second industrial revolution triggered 350% per capita income growth over 60 years. In comparison, China is on track to create a 700% growth in per capita income in just 20 years ([http://www.wikinvest.com/concept/Rise\\_of\\_China%27s\\_Middle\\_Class](http://www.wikinvest.com/concept/Rise_of_China%27s_Middle_Class), no date). Third, the middle-class consumers command 500 billion Yuan, which represents nearly 10% of urban disposable income despite accounting for just 1% of the total population. They consume globally branded luxury goods voraciously, allowing many companies to succeed in China without significantly modifying their product offerings or the business systems behind them. In addition, since this segment is currently concentrated in the biggest cities, it is easy to serve, both for companies now entering the Chinese market and for established firms seeking a steady revenue stream (Farrell *et al.*, 2006). Fourth, the growing middle class in China will open up opportunities for companies in a range of sectors, For example, in 2006, the proportion of private consumption in China's total GDP was 38.0%, well below the world's average of 59.2%. The expansion of the middle class will help to boost the role of private consumption in the Chinese economy, turning it into a key driver of economic growth. This will reduce the reliance on exports for China's economic expansion (Hodgson, 2007).

In conclusion, the biggest opportunity for companies selling mass-consumer goods and services will be the newly empowered middle class (Farrell *et al.*, 2006) and the substantial and rising number of middle class consumers with their growing incomes will transform the Chinese consumer market (Hodgson, 2007).

#### ***1.2.4 The growth of food services in China***

Consumer food services in China have grown rapidly in recent years, driven primarily by the growth of the Chinese economy, which has led to rapid urbanisation and rising disposal income in China (My Decker Capital, 2010). The economic growth, although

not indicative of future growth, has in turn led to changes in consumption patterns in China, including growing numbers of consumers dining out for convenience or for the dining experience. According to Euromonitor, the Chinese consumer food service market grew from RMB 1,106.0 billion (\$133.6 billion) in 2004 to RMB 1,996.6 billion (\$294.4 billion) in 2009, representing a compound annual growth rate, or CAGR, of 12.5% over the five-year period (My Decker Capital, 2010). Euromonitor estimated that this market would continue to grow to RMB 3,047.0 billion (\$449.3 billion) in 2014, representing a CAGR of 8.8% from 2009 (My Decker Capital, 2010). Urban Chinese consumers have changed their consumption patterns amid China's robust economic growth and the increasing affluence of its urban middle-class. Both the number and the frequency of people dining out have increased. In the past, most people in China dined out only on special occasions, but today, many people dine out multiple times a week for convenience. Urban residents tend to spend more time at work and participating in social activities, and they put increasingly more value on the time saved from preparing meals in the kitchen, which outweighs the added cost of dining out. In addition, dining out in groups has become a social event for many people in China (My Decker Capital, 2010).

There are several types of restaurant in China including hotpot restaurants, full-service restaurants, Western cuisine and quick-food services. Full-service restaurants in China provide food services to patrons who order and are served while seated and pay after eating (i.e., table service) (IBIS world, 2012). Full-service restaurants in China account for the largest share of revenue of all the industries in China's catering subsector. Revenue for this subsector is expected to total \$471.8 billion in 2012, of which 61.0% or \$287.8 billion will be generated by the full-service restaurant industry (IBIS world, 2012).

### **1.3 The Academic Research Background**

This section explains the academic research background of this thesis, which included the importance of loyalty research, the link between customer loyalty and behavioural intentions and the Q-V-S-L model.

#### ***1.3.1 The importance of loyalty research***

Loyalty marketing is a popular topic among marketers (Duffy, 1998). In an increasingly competitive environment, companies must be customer oriented. Loyalty customers can bring benefits to a company (Brunner *et al.*, 2007); repeat patronage through loyalty enhancement contributes to a firm's increased profits, increased purchasing, lowered price sensitivity, and recommendations as well as making it immune to competitors' promotion efforts (Reichheld and Scheffer, 2000). It is better for a company to spend resources to keep existing customers than to attract new ones (Athanasopoulos *et al.*, 2001; Fornell and Wernerfelt, 1987; Olorunniwo *et al.*, 2006). This is because when customers are lost, new ones must be captured to replace them, which is expensive for the following two reasons: first, costs for advertising, promotion, sales, and discovering new customers' needs are high; and second, new customers need a "grace" period until they become profitable (Athanasopoulos *et al.*, 2001). Both researchers and practitioners in business and marketing have attempted to find more effective ways to generate customer loyalty and uncover the factors contributing to loyalty enhancement (Lee and Feick, 2001; Yang and Peterson, 2004).

Regarding the current competitive restaurant market, generating customer loyalty has become an important goal for every restaurant operation (Jang and Mattila, 2005; Ladhari *et al.*, 2007; Mattila, 2002). Loyal customers offer repeat business and generate income for the companies to whom they are loyal. In this regard, hospitality professionals in both academia and industry have attempted to identify the major factors that influence and enhance customer loyalty (Kim and Han, 2008).

### ***1.3.2 Definition of customer loyalty through behavioural intentions***

Traditionally, the concept of loyalty may be understood as the consumer expectations or the predisposition to repurchase a product or service (Auh and Johnson, 2005). One means of assessing customer loyalty, and hence the likelihood of customers returning, is through customers' behavioural intentions (Jones and Sasser, 1995; Nijssen *et al.*, 2003; Pritchard *et al.*, 1999). When the behavioural components are favourable, which is the goal of service providers, customers positively affirm their likelihood of revisiting the provider and then spread positive reviews to others with whom they are in contact (Jani and Han, 2011).

The majority of researchers agree that customer loyalty includes both intentional and

behavioural dimensions (e.g., Dick and Basu, 1994; Guenzi and Pelloni, 2004; Kim and Han, 2008). The intentional dimension is also described as loyalty intentions (Chiou and Shen, 2006; Guenzi and Pelloni, 2004) and focuses on a customer's willingness to repurchase and recommend; the behavioural dimension focuses on the repeated purchase of products/services and usage frequency (Baldinger and Robinson, 1996; Wong and Sohal, 2003). A good example of the intentional dimension is how existing customers and loyal customers create positive word-of-mouth (WOM), which is outstanding as a highly trusted information source, such as giving recommendations about a service provider, passing along positive comments about particular service aspects and encouraging friends and family to purchase from a particular provider (Jani and Han, 2011; Ng *et al.*, 2011). WOM assists in attracting new customers, which is important for a firm's long-term economic success (Hennig-Thurau *et al.*, 2002). Moreover, customers who remain loyal to the company are likely to engage in favourable WOM behavioural responses. In addition, the company may be able to cross-sell to these customers or even charge them a premium price (Athanasopoulos *et al.*, 2001). With regard to a customer's decision to re-purchase a product or service for convenience, repeat purchase may not always be an adequate indicator of loyalty (Chiou and Shen, 2006). Accordingly, the scales used in this study were considered only for the intentional dimension of customer loyalty (loyalty intentions).

### ***1.3.3 The Q-V-S-L model***

The behavioural intentions of customers are recognised in the literature as an important predictor of the profitability of service firms (Reichheld and Sasser, 1990; Slater and Narver, 1995). To date, the study of service quality, service value, and satisfaction issues have dominated the services literature (Cronin *et al.*, 2000). With economic development and increasing personal disposable income, competition in the service market has changed from a focus on price to a focus on quality. The characteristics of service marketing, including intangibility, separability, perishability and consumer loyalty, are not directly measurable, so the Q-V-S-L model (Cronin *et al.*, 2000) is widely used in the service marketing research field.

Perceived quality, perceived value, and customer satisfaction have a direct effect and an indirect effect through their potential linkage to consumer loyalty (Cronin *et al.*, 2000). These three factors are considered as the determinant factors that influence consumer

loyalty. Customer loyalty research has led to substantial research in service marketing in the USA and Europe for many years and numerous empirical studies have investigated the relationships among the constructs of service quality, perceived value, customer satisfaction, and behavioural intentions in a variety of industries and cultures. These include studies of the low-cost airline carriers in Thailand (Saha and Theingi, 2009), on-line purchasing in Australia (Hackham *et al.*, 2006), the restaurant industry in the US (Jani and Han, 2011), health care providers in South Korea (Choi *et al.*, 2002), and food quality and preference in Europe (Ness *et al.*, 2009).

#### **1.4 Identification of the Research Gap**

Chinese consumer loyalty research has received much attention in the popular press but research literature is scarce and more limited in scope. Though consumer perceptions of price, quality and value are considered pivotal determinants of shopping behaviour and product choice, research on these concepts and their linkages has provided few conclusive findings (Zeithaml, 1988). Cronin *et al.* (2000) examine the effects of quality, value and customer satisfaction on consumer behavioural intentions in the service environment; in their view, even a cursory evaluation of the literature reveals a myriad of conflicting results, as no research has simultaneously compared the relative influence of these three important constructs on service encounter outcomes. This gap in the literature has generated a new call for research, referring to the effects of quality, value, and satisfaction on consumer purchase intentions as well as consumer loyalty to a particular service environment. There exists a large body of literature including models and theories of consumer behaviour, but most of the studies were conducted within the European and US market. The Q-V-S-L model was created and developed in a Western cultural environment and, due to cultural differences, it is likely that cultural factors will influence its applicability. Consequently, the stability and applicability of past findings across different national/cultural settings remain largely untested.

As a developing country, the Chinese economic environment has a degree of uncertainty; in addition, the cultural factor of face is considered an important factor which can influence Chinese customer loyalty. Face has been the focus of many scholars' research interests (Gilbert and Tsao, 2000; Hoare and Butcher, 2008; Imrie *et al.*, 2002) but none of them has tested face as a construct in a Q-V-S-L model and using a structural equation model (SEM) approach. Cronin *et al.* (2000) stress that the Q-V-S-L model is

not designed to include all possible influences on consumer decision-making for services. Snoj *et al.* (2004) also suggest that researchers should expand the model with more indicators on perceived value and perhaps study relationships between perceived value, intentions to buy, customer satisfaction and loyalty. It is widely accepted that there is an effect on perceived value by perceived risk (Agarwal and Teas, 2004; Snoj *et al.*, 2004; Teas and Agarwal, 2000); thus, perceived risk is considered to add to the Conceptual Model. The significant link between reputation and trust is confirmed by Tian *et al.* (2008), Martín and Camarero (2008) and Kim and Han (2008). Keh and Xie (2009) suggest that customer satisfaction can be considered as an antecedent of reputation in future studies to form a more comprehensive framework and provide additional insights into the development, management and benefits of reputation. Consequently, perceived risk, face, reputation, and trust should be added to the Q-V-S-L model according to Cronin *et al.*'s (2000) suggestion for future research. Testing the new expanded model for consumer loyalty and the constructs' interrelationships in Chinese restaurant industry will generate a new call for research.

### **1.5 Research Aims and Objectives**

To date, the study of service quality, service value, and satisfaction issues has dominated the services literature. The focus of these discussions has been both operational and conceptual, with particular attention being given to identifying the relationships among and between these constructs (Cronin *et al.*, 2000). These efforts have enabled us to discriminate better between the variables, resulting in an emerging consensus as to their interrelationships, and have included the integration of these factors to identify consumer loyalty under different cultural backgrounds. The aim of this study was to develop a structural equation model (SEM) of customers' behavioural intentions towards restaurant patronage in China. Customer loyalty is defined in terms of behavioural intentions. The determinants of customer loyalty are defined as perceived quality, perceived value, sacrifice, perceived risk, face, satisfaction, reputation, trust and behavioural intentions. In accordance with the research aim, seven research objectives were specified, as follows:

1. to identify the determinants of customer loyalty in the context of the Chinese culture from a review of the existing literatures

2. to formulate hypotheses concerning the interrelationship between the determinants of customer loyalty from a review of the existing literature
3. to develop a structural model to explain the interrelationships between constructs
4. to develop scales for each of the constructs in the structural model and evaluate them in terms of reliability and validity to estimate measurement models for each of the constructs in the model and evaluate them in terms of measures of fit and interpretation
5. to estimate a structural equation model for the determination of customer loyalty and evaluate it in terms of measures of fit and interpretation
6. to test hypotheses concerning the interrelationships among constructs
7. to estimate the direct and indirect effects of relevant constructs on behavioural intention.

### **1.6 Outline of the Thesis**

The study is presented in five chapters. A literature review is presented in Chapter 2. Chapter 3 explains the methodology used in this research, including the hypotheses associated with the Conceptual Model, and presents detail of the model framework that is employed in the analysis. This is followed by the presentation of the results of the analysis in Chapter 4. Chapter 5 is the discussion of the research results and the implications of the results. The final section, Chapter 6, provides a summary of the work, limitations of the research and suggestions for future research.

## Chapter 2 Literature review

### 2.1 Introduction

The aim of this chapter is to review the literature on research in the restaurant sector regarding customer loyalty and the Q-V-S-L model. The review establishes the foundation on which a conceptual structural model is developed and focuses on the constructs that are relevant to the issue of loyalty. Consequently, the structure of the chapter is organised in sections 2.2-2.12 that review issues of important factors in restaurant sector research, namely, perceived service quality, perceived value, satisfaction, sacrifice, perceived risk, face, corporate reputation, trust, loyalty and the Q-V-S-L model respectively.

### 2.2 Important Factors in Restaurant Sector Research

Today, customers are no longer willing to sacrifice poor service or dining environment (atmosphere) to good tasting food when they seek an exotic experience in ethnic restaurants. An excellent overall dining experience via excellent food in conjunction with a good atmosphere and high-quality service needs to be achieved to ensure their satisfaction (Ryu *et al.* 2012).

Like most service industries, the importance of perceived quality has been recognised in the restaurant industry (McCollough, 2000; Oh, 2000). Previous researchers have generally agreed that those who evaluate perceived quality as being high are more likely to be satisfied with restaurant services (Namkung and Jang, 2008). In a restaurant setting, there are many quality factors that could influence the customer's satisfaction (Dulen, 1999; Susskind and Chan, 2000). Dulen (1999) asserts that food, physical environment and service are the major features in increasing the accuracy of customer assessments of a restaurant's quality. In addition, Susskind and Chan (2000) claim that food, physical environment, and service are significant determinants that can boost guest check averages and set restaurants apart from competitors in the consumer's estimation; these factors are key components of the restaurant experience in evaluating restaurant service quality (Chow *et al.*, 2007; Namkung and Jang, 2008; Ryu *et al.*, 2010). A proper combination of these vital attributes should result in customers'

perceptions of high restaurant service quality, which in turn, should enhance customer satisfaction and customer loyalty in the restaurant industry (Ryu *et al.*, 2012).

That food is the most essential part of the overall restaurant experience is confirmed by many scholars (Kivela *et al.*, 1999; Sulek and Hensley, 2004). According to Peri (2006), food quality is an absolute requirement to satisfy the needs and expectations of restaurant customers.

The physical environment itself may produce feelings of excitement, pleasure, or relaxation. Consequently, various aspects of atmospherics may be used by customers as tangible cues to assess the quality of services provided (Aubert-Gamet and Cova, 1999). Maintaining a differentiated restaurant image compared to the competition is an important task of restaurant operators. Managing a consistent and distinct restaurant image is an important marketing strategy component for them, which in turn, has an influence on customer perceived value and satisfaction (Ryu *et al.*, 2012).

Service quality is the single most researched subject in services marketing (Fisk *et al.*, 1993), and the SERVQUAL scale introduced by Parasuraman *et al.* (1988) has dominated the study of the conceptualisation and measurement of service quality constructs (Brady *et al.*, 2002). Despite its broad applicability across all service sectors, attention should be paid to adapting SERVQUAL to a specific setting.

Customer satisfaction is also considered as an important factor in restaurant sector research (Kivela *et al.*, 1999; Qu, 1997; Yau and Lee, 1996). Exacting customer demands mean that restaurant organisations must endeavour to deliver not only quality products and services, but also a high level of dining satisfaction that will lead to increased customer return and a greater market share (Kivela *et al.*, 1999). The importance of customer satisfaction in relation to occupancy rates and return rates is clear and both management experts and researchers in the hospitality field have long exhorted profitability (Kivela *et al.*, 1999). Customer satisfaction is equally important for marketers, who are responsible for measuring dining satisfaction, and who must position restaurant operations competitively in the existing and future marketplace (Almanza *et al.*, 1994; Lee and Hing, 1995; Oh and Jeong, 1996; Qu, 1997; Yau and Lee, 1996).

## 2.3 Perceived Service Quality

The most important characteristic of services, and probably the only really unique one, is the fact that services are processes, not things (Grönroos, 1984). Quality is defined as conformance with a customer's specifications (Berry *et al.*, 1994). Because of its critical role in the customer's evaluation and decision-making process, perceived quality is considered to be a critical concept in business and marketing (Kim and Han, 2008). Zeithaml (1988) described perceived quality as customers' evaluation of the overall excellence of a product or service; it concerns personal responses to product or service attributes from the customer's viewpoint (Holbrook and Corfman, 1985). Lee *et al.* (2000) suggest perceived service quality should be treated strictly as a relativistic (not absolute), cognitive (not affective), product-related (not consumer-related), post-purchase (not pre-purchase) evaluation of get-components (not sacrifices).

Service quality has been assigned various definitions (Ozdemir and Hewett, 2010). Traditionally, definitions of service quality revolve around the idea that it is the result of the comparison that customers make between their expectations about a service and their perception of the way the service has been performed (Lewis and Booms, 1983; Grönroos, 1984; Parasuraman *et al.*, 1985, 1988, 1991, 1994). Cronin and Taylor (1992) argued it is appropriate to use a perceptions-only operationalisation instead of conceptualizing a gap between expectations and performance, and this is supported by some researchers, who viewed service quality as an overall evaluation of services (Taylor and Baker, 1994).

The way to achieve quality service has been investigated in the service marketing literature by several scholars. For example, Lee *et al.* (2000) note that service managers should place emphasis on the performance perceived by customers rather than the difference between perceived performance and prior expectations. Iglesias and Guillén (2004) identify that a service manager should manage customers' predictive expectations to increase customer perceptions of overall service quality. This view was followed by Hamer (2006), who indicates that perceived service quality is a weighted average of perceived performance and expectations.

In the restaurant and food services sector, research evidence has been inconclusive regarding which service quality dimension is important to customer loyalty (Hoare and

Butcher, 2008). Lehtinen and Lehtinen (1982) give a three-dimensional view of service quality; they see it as consisting of what they term 'interaction', 'physical' and 'corporate' quality. This view is improved by Caruana *et al.* (2000), who investigate the issue at a higher level, and essentially from a customer's perspective; they see quality as being two dimensional, consisting of "process" and "output" quality. Caruana *et al.*'s (2000) view of quality is supported by Swanson and Davis (2003); they conclude that service quality can be divided into two types. The first type is technical quality, which relates to what is delivered, and the second quality dimension is how the service is delivered (i.e., functional or process) and is evaluated during the service delivery. The direct effects of functional and technical quality on overall service quality are comparable; however, the effect of functional (process) quality on image is larger than the effect of technical quality (Kang and James, 2004). How the service is delivered (functional or process quality) is essential to consumers' subsequent evaluations (Swanson and Davis, 2003).

Service quality is considered a very important factor in the corporate environment; financial performance, costs, customer satisfaction and customer retention are all closely linked to service quality (Bowbrick, 1980). Improving service quality is thought to lead ultimately to firms gaining new, as well as retaining current, customers (Swanson and Davis, 2003). Service quality is also considered as an important decision-making criterion for service consumers (Cronin *et al.*, 2000).

## **2.4 Perceived Value**

Customer perceived value has been discussed in marketing research for a long time (Chang and Wang, 2010). Indeed, understanding and delivering customer value is seen as a cornerstone of marketing and competitive strategy (Lindgreen and Wynstra, 2005).

Value is the determinant of several aspects of social behaviour including attitude, ideology, beliefs and justifications (Boksberger and Melsen, 2009) and is regarded as a key determinant of loyalty (Sweeney and Soutar, 2001). Value is a cognitive construct (Choi *et al.*, 2002); it has its origin in equity theory (Chang and Wang, 2010) and is based on a trade off between the quality/benefits customers receive and customers' sacrifice to obtain such quality/benefits (Agarwal and Teas, 2004; Choi *et al.*, 2002; Dodds *et al.*, 1991; Fornell *et al.*, 1996; Iglesias and Guillén, 2004; Oh, 2000; Slater,

1997; Yang and Peterson, 2004; Zeithaml, 1988). Zeithaml (1988) identifies four consumer definitions of product value: (1) value is low price, (2) value is whatever I want in a product, (3) value is the quality I get for the price I pay, and (4) value is what I get for what I give. These four definitions have been brought together, and perceived value has been defined as the consumers' overall assessment of the utility of a product based on perceptions of what is received and what is given (Caruana *et al.*, 2000; Choi *et al.*, 2002; Zeithaml, 1988).

The importance of the perceived value of the product centres on the fact that it will determine the greater or lesser willingness shown by consumers to purchase the products, such that the greater the perceived value, the greater the purchase intent shown by consumers (Dodds and Monroe, 1985, p. 88). When customer perceived value is high, customers have positive evaluations and affective attitudes towards the product (Fornell *et al.*, 1996); therefore, customers will always search for a business that can provide better customer value (Chang and Wang, 2010). Researchers agree that perceived value is a major influence on customer loyalty (e.g., Fornell *et al.*, 1996; Oh, 2000; Yang and Peterson, 2004). High value provides a customer with a strong motivation to repeat patronage (Yang and Peterson, 2004) and ensures successful long-term business performance (Woodruff, 1997).

## **2.5 Satisfaction**

Customers will buy services that provide more satisfaction rather than the highest quality of service (Høst and Andersen, 2004) so customer satisfaction has long been recognised as playing an essential role in success and survival in today's competitive environment (Athanasopoulos *et al.*, 2001); furthermore, it reflects customers' overall feelings, derived from the value of services they have received (Woodruff, 1997).

Customer satisfaction has also been defined in various ways (Brunner *et al.*, 2008). Traditionally, satisfaction has been defined as an evaluation process in which the customer compares prior expectations of the service (or perceived service) to the experience of the service (Gilbert *et al.*, 2004) and it is an effective response following an expectancy-disconfirmation experience that involves a cognitive process (Oliver, 1980). Olsen (2002) argued that several studies seemed to have concluded that satisfaction is an affective construct rather than a cognitive construct. Most recently,

customer satisfaction has been defined as the consumers' overall evaluation based on their overall experience (Bontis *et al.*, 2007).

The measures of satisfaction have attracted the interest of many researchers. Cronin and Taylor (1992) defined and measured customer satisfaction as a one-item scale that asks for the customers' overall feelings towards an organisation. The weakness of the measure was obvious, and was improved by Bitner and Hubert (1994, p. 85), who used four items to measure the customers' overall satisfaction with the service provider. Their research was followed by Price *et al.* (1995), who used a six-item scale, and this was further improved by Shemwell *et al.* (1998), who used a five-item scale to model customer satisfaction. Cronin *et al.* (2000) assessed service satisfaction using items that include interest, enjoyment, surprise, anger, wise choice, and doing the right thing. Researchers have also acknowledged the multi-dimensional nature of customer satisfaction and have established global measures (capturing the satisfaction at multiple levels in the organisation) that view overall satisfaction as a function of satisfaction with multiple experiences or encounters with the service providers (Sureshchandar *et al.*, 2002).

Satisfied customers will repeat their purchases, will be more loyal to the firm and moreover, will become the most efficient and effective communication resource of the firm by generating favourable communication (Iglesias *et al.*, 2004), so satisfaction is a key variable influencing customer brand loyalty (Ha *et al.*, 2009). However, satisfaction in itself will not translate into loyalty (Jones and Sasser, 1995) but will foster loyalty to the extent that it is a prerequisite for maintaining a favourable relative attitude and for recommending and repurchasing from the store (Jones and Sasser, 1995). Bowen and Chan (2001) note that a small increase in customer satisfaction boosts customer loyalty dramatically.

Satisfaction is also recognised as an antecedent of brand trust and it is accepted that there exists a moderate effect of customer involvement in the overall satisfaction-brand trust relationship (Ballester and Alemán, 2001). Satisfaction is essential to reduce the consumer's uncertainty about the virtual firm's honesty and its ability to provide products and services efficiently (Martín and Camarero 2009).

## **2.6 Sacrifice**

Sacrifice is defined as what is given up in the process of acquiring a product or service (Zeithaml, 1988). Consumers sacrifice both money (Agarwal and Teas, 2004) and other resources (e.g., time, energy, effort) to obtain products and services (Zeithaml, 1988) and the perceived sacrifice has a negative effect on the perceived value of products (Snoj *et al.*, 2004).

The multidimensional concept expresses sacrifice in terms of measures of monetary and non-monetary costs with the acquisition of a product or service (Agarwal and Teas, 2004; Dodds *et al.*, 1991; Snoj *et al.*, 2004; Zeithaml, 1988). Perceived sacrifice refers to the (typically) non-monetary costs, such as the psychic cost, which represents customers' mental stress or emotional labour during the shopping experience (Baker *et al.*, 2002); convenience, which is the trade-off between what is delivered and the effort required to obtain it (Butcher *et al.*, 2002); and time/effort costs, which involve customers' perceptions of the time and effort they are likely to expend at a store (Baker *et al.*, 2002). Items that represent consumers' perception of the monetary and the non-monetary price associated with the acquisition and use of a service were used as indicators of the sacrifice constructs (Cronin *et al.*, 2000).

## **2.7 Perceived Risk**

Risk plays an essential role in consumer behaviour, and it makes a valuable contribution towards explaining information-searching behaviour and consumer purchase decision making (Barnes *et al.*, 2007; Corbitt *et al.*, 2003; Mayer *et al.*, 1995). Stone and Winter (1985) view risk as an expectation of loss, and the more certain one is about this expectation, the greater the risk for the individual. Though there is no consensus on the definition of risk (Gefen *et al.*, 2002), in general, perceived risk is considered to be a multi-aspect construct, influenced by many variables of benefits and sacrifices, which has a very dynamic nature (Snoj *et al.*, 2004). The multi-dimensional concept includes potential financial (losing or wasting income) performance (does not meet the need) and physical (personal illness, injury or health risk), psychological (emotional pressure) or social losses (being seen as unfashionable or having a lower status) (Stone and Gronhaug, 1993) as well as time risk, which is a risk that time spent in searching for a product will be lost if a product does not perform according to a consumer's

expectations (Mumel, 1999, cited in Snoj *et al.*, 2004). All of these factors are associated with a purchase decision (Yuksel and Yuksel, 2007), although applications do not always include all these components (Ness *et al.*, 2010). In disciplines such as economics, psychology, statistical decision theory and game theory, the concept of risk is related to choice situations involving both potentially positive and potentially negative outcomes (Stone and Gronhaug, 1993).

The risk perceived in purchases varies across people and products (Stone and Gronhaug, 1993), and consumer behaviour involves risks in a sense that any action by a consumer will produce consequences which s/he cannot anticipate with anything approximating certainty, and some of those at least are likely to be unpleasant (Snoj *et al.*, 2004). A number of authors have shown that services are riskier than products (Guseman, 1981; Mitchell and Groatorex 1993); this is because the inherent properties of services, i.e., heterogeneity, perishability, inseparability and intangibility, undermine consumer confidence and increase the perceived risk, mainly by augmenting the degree of uncertainty in the decision (Mitchell, 1999). These all result in perceived risk, in practice and theory, and are a neglected field of research that needs to be examined as much in research activity as in the resolution of managers (Sonj *et al.*, 2004).

## **2.8 Face**

### ***2.8.1 Why face***

Research on cross-cultural psychology, sociology, and anthropology suggests that the influence of face on social interactions is both pervasive and powerful in Asia (Kim and Nam, 1998). Face is an important Chinese cultural concept that has penetrated every aspect of Chinese life. It is also a cultural concept that has been influencing Chinese life for thousands of years (Dong and Lee, 2007). The mutual nature of face is probably its most important characteristic. Saving one's own face and giving face to one's partners are effective strategies to enhance communication and cooperation (Dong and Lee, 2007).

In China, face has to do with the image or credibility of the person you are dealing with. You should never insult, embarrass, shame, yell at or otherwise demean a person (China Unique, 2011). Applying the Chinese use of face, if someone is able to save his/her own *face* while giving *face* to his/her partners, s/he gains credibility and will build a

harmonious relationship in future interaction or communication (Dong and Lee, 2007). Face shows up in many ways and really begins early in life. Chinese children learn it as they are growing up; as the child grows, face exerts a strong pressure to encourage an individual to excel (China Unique, 2011).

As today's technology and economy transform the world into a global village, business people who currently operate/plan to launch businesses in the Asian market, specifically in China, must be aware of the influence of face on business communication (Dong and Lee, 2007). Negotiations should be conducted to ensure that the person at the other end of the negotiating table maintains face even if the deal should not be concluded successfully (China Unique, 2011). Face has a significant business impact (China Unique, 2011), as there is nothing more important than face in Chinese culture (Zhong, 2007).

### ***2.8.2 Characteristics of face***

Cross-cultural research presents many challenges, particularly in situations where the cultures studied are very different (Doran, 2002). China is a high context culture in which people are deeply involved with others and information is widely shared (Hall, 1976). Chinese culture is particularly characterised by a strong desire to gain or protect face (Hoare and Butcher, 2008). "Guanxi" and "mianzi" (face) are the dominating characteristics in Chinese business relationships (Gilbert and Tsao, 2000).

It is quite common for studies of customer loyalty in China to acknowledge issues of cultural values (Gilbert and Tsao, 2000; Hoare and Butcher, 2008; Imrie *et al.*, 2002). Face and harmony are the most significant factors which can affect customer loyalty (Hoare and Butcher, 2008). Although face is a human universal behaviour, the Chinese have developed sensitivity to it and use it as a reference point in behaviour in a much more sophisticated and developed way than do other cultural groups (Gilbert and Tsao, 2000). Face is found to be important in evaluating service delivery among Chinese consumers (Hoare and Butcher, 2008) and is something valuable that can be achieved; the amount of face a person has is a function of social status (Gilbert and Tsao, 2000). Service providers need to protect or give face to the host of a dining party in front of his family, friends or guests (Hoare and Butcher, 2008). By doing so, a customer feels that his status has been enhanced, consequently increasing satisfaction with the experience; as a result, a long-term relationship is more likely to be maintained when face is present

in the service encounter. It was also found that face is a strong predictor in affecting customer satisfaction (Hoare and Butcher, 2008).

## **2.9 Corporate Reputation**

Reputation can be used as an effective means of predicting the outcome of the service-production process, and can, perhaps, be considered the most reliable indicator of the ability of a service firm to satisfy a customer's desires (Nguyen and Leblanc, 2001). The formation of a good reputation is a long-term process in an organisation; thus, it is an intangible asset that is difficult for competitors to imitate (Keh and Xie, 2009) as well as from an accounting perspective (Chun, 2005). Tian *et al.* (2008) indicated that reputation operates as an extrinsic cue to the trustor to award trust to the trustee when situational factors make it impossible to judge the credibility of the trustee. High reputation can strengthen customers' confidence and reduce risk perceptions when they make a judgment on organizational performance and the quality of products or services (Keh and Xie 2009).

Corporate reputation affects the way in which various stakeholders behave towards an organisation, influencing, for example, employee retention, customer satisfaction and customer loyalty (Chun, 2005). The concept of corporate reputation has drawn academic attention from the management economic, sociology, and marketing areas (Brown *et al.*, 2006). From different perspectives, there are a variety of definitions of corporate reputation (Berens and Van Riel, 2004; Chun, 2005). Bontis *et al.* (2007) note a corporation does not have a single reputation, but has many, so no single definition of corporate reputation has been accepted as a uniform definition; it is described as a global valuation. Berens and Van Riel (2004) present three dominant conceptual streams based on previous research: (1) the different social expectations that people have regarding a company, (2) the different personality traits that people attribute to a company and (3) the different reasons they have to trust or not to trust a company.

Because positive corporate reputation is based on superior performance over a certain period of time (Keh and Xie 2009), building a reputation is a long-term behaviour and thus the influence is time-lagged (Tian *et al.*, 2008). As customers are more likely to perceive companies with highly favourable reputations as trustworthy (Keh and Xie 2009), a favourable corporate reputation can have a significant positive effect on

financial performance (Robert and Dowling, 1997).

## **2.10 Trust**

Trust in a person is a feeling of security based on the belief that his/her behaviour is guided and motivated by favourable and positive intentions towards the welfare and interests of his/her partner (Ballester and Alemán, 2001). It has recently become a popular issue in marketing literature because of the relational orientation emerging in marketing activities (Dywer *et al.*, 1987; Morgan and Hunt, 1994), and according to Ballester and Alemán (2001), trust is a feeling of security held by the consumer that the brand will meet his/her consumption expectations.

The importance of trust has been widely recognised and, traditionally, trust has been analysed from two different perspectives (Kumar *et al.*, 1995; Mayer *et al.*, 1995). On the one hand, trust is the willingness of a party (trustor) to be vulnerable to the actions of another party (trustee) based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party (Mayer *et al.*, 1995; Kumar *et al.*, 1995). On the other hand, trust may be analysed as a cognitive component, so that trust has also been associated with a set of beliefs (Anderson and Narus, 1990; Doney and Cannon, 1997). The cognitive perspective of trust is more usual in the literature and the cognitive component is considered as an outcome or a potential indicator of trust (Casaló *et al.*, 2007). When considering trust as a cognitive component, the literature has usually suggested that trust may be defined by three types of beliefs, namely, competence, honesty and benevolence (Mayer *et al.*, 1995; Ridings *et al.*, 2002), and based on three components: reliability, fairness, and goodwill (Dyer and Chu, 2000). Morgan and Hunt (1994) note that trust will occur when one party has confidence in an exchange partner's reliability and integrity.

Trust is increasingly developed between partners; they develop greater knowledge and appreciation for each other's contribution to the relationship (Corsten and Kumar, 2005) and are likely to become more satisfied with and dependent on one another (Tian *et al.*, 2008). Such increased knowledge, appreciation and dependency will strengthen their intention to continue in the relationship (Li *et al.*, 2006).

From a marketing point of view, trust has been considered as a key factor in order to establish successful long-term oriented relationships (Anderson and Narus, 1990; Dwyer *et al.*, 1987), and it is considered as the central factor that contributes to successful relationship marketing together with customer commitment because of their ability to lead indirectly to cooperative behaviour and produce outcomes that promote efficiency, productivity and effectiveness (Morgan and Hunt, 1994). Tian *et al.* (2008) suggest ways to cultivate trust, including creating and enhancing company reputation, and improving consumers' satisfaction level.

## **2.11 Loyalty**

### ***2.11.1 Consumer loyalty***

Increasing customer loyalty may be regarded as a fundamental goal of every business (Kim and Han, 2008). It is more cost effective to retain a customer than to attract a new one (Athanasopoulos *et al.*, 2001; Fornell and Wernerfelt 1987; Lee *et al.*, 2000) and loyalty is believed to be a prime determinant of long-term financial performance (Jones and Sasser, 1995). Brands with higher levels of loyalty may have higher consumer involvement and expectations (Aaker *et al.*, 2004; Thorbjørnsen and Supphellen, 2004) so all businesses should seek to boost loyalty and maximize their share of the customer base (Duffy 1998).

The definition of loyalty has been conceptualised in various ways (Kim and Han, 2008); for instance, Oliver (1997, p. 392) represented loyalty as “a deeply held commitment to repurchase a preferred product or service in the future”. Latterly, loyalty has been defined as an attitude and as a behaviour (Ball *et al.*, 2004), but the most widely accepted definition of loyalty is a behavioural response expressed over time (Dick and Basu, 1994). Combinations of past frequent behaviours and intention to repurchase (e.g., Nijssen *et al.*, 2003; Pritchard *et al.*, 1999) are also used to assess a global and cumulative loyalty (Tuu *et al.*, 2011).

Building customer loyalty is a business strategy, not just a marketing program (Duffy 1998). In general, loyalty development has been an objective traditionally aimed at by managers (Andreassen, 1999) since it results in higher future purchase intentions (Casaló *et al.*, 2007). More specifically, loyalty has been considered to be a key factor in

order to achieve company success and sustainability over time (Flavián *et al.*, 2006; Keating *et al.*, 2003). The pursuit of customer loyalty is a perpetual one (Duffy 1998).

### **2.11.2 Behavioural intentions**

Zeithaml *et al.* (1996) emphasize that behavioural intentions can be seen when a customer decides to remain with or defect from the company. The construct of behavioural intentions is considered to include revisit and WOM intentions (Han and Ryu, 2006; Kim and Han, 2008) that can predict the future consumption behaviour of the consumer and that of his or her WOM recipients. Positive behavioural intentions can yield customer loyalty (Han and Ryu 2006). According to Chaudhuri and Holbrook (2001), behavioural intentions, and not attitudinal intentions, can be linked to increased market share.

The construct of behavioural intentions is of importance to a service provider (Olorunniwo *et al.*, 2006). The specific favourable behavioural intentions include loyalty, switching intentions, willingness to pay more (WPM), external response, and internal response (Baker and Crompton, 2000; Zeithaml *et al.*, 1996). Ozdemir and Hewett (2010) conceptualised behavioural intentions as a higher-order construct consisting of (1) positive WOM, (2) willingness to recommend, and (3) intentions to continue buying from a particular service provider. In particular, the positive WOM is recognised as a very common and important form of communication for service marketers (Swanson and Davis, 2003); it is also a powerful input in decision making as an information source (Ng *et al.*, 2011). However, the information need not only be “positive”; the valence of these WOM activities may be negative or neutral (Swanson and Davis, 2003). WOM has attracted much research interest (Athanasopoulos *et al.*, 2001; Ng *et al.*, 2011; Swanson and Davis, 2003; Yang and Peterson, 2004). WOM intentions refer to the customer’s belief that he or she will discuss an incident with at least one person not directly related to the service encounter (Swan and Davis 2003).

### **2.12 Why Q-V-S-L model**

Over the years, many researchers have proposed and evaluated alternative service quality models and instruments for measuring service quality (Parasuraman *et al.*, 1985; Stevens *et al.*, 1995; Zeithaml, 1988) and consumer loyalty (Cronin *et al.*, 2000). The

SERVQUAL instrument has been applied in the study of service quality for many different types of service; however, it has been the subject of a number of criticisms (Cronin and Taylor, 1994; Parasuraman *et al.*, 1994; Reeves and Bednar, 1994; Teas, 1994). The generalisability of SERVQUAL in different service industries has also been questioned (Babakus and Boller, 1992) and its applicability across different cultures is also an issue. SERVQUAL was developed in a Western environment and due to cultural differences, it is likely that cultural factors will influence its applicability (Donthu and Yoo, 1998).

The Price-Quality-Value Model (Zeithaml, 1988) defines the concepts of price, quality and value from the consumer's perspective. This model examines the indicators of perceived quality, which are price and brand reputation, and it tests the interrelationship between perceived quality, perceived value and re-purchase. However, it considers only perceived quality and perceived value as the indicator of purchase while, as mentioned by many scholars (Bowen and Chan, 2001; Ha *et al.*, 2009; Iglesias *et al.*, 2004; Jones and Sasser, 1995), satisfaction is also an important factor which can directly (Athanassopoulos *et al.*, 2001; Bigné *et al.*, 2008; Swanson and Davis, 2003; Tuu *et al.*, 2011) and indirectly (Bontis *et al.*, 2007; Chun, 2005) affect repurchase and loyalty intentions.

Stevens *et al.* (1995) created a service quality scale, DINESERV, by adapting the most widely used service quality measure, SERVQUAL (Parasuraman *et al.*, 1988), to restaurant settings. Despite their endeavours, one of the essential components of the restaurant experience, "food quality", was not included as part of the DINESERV measure (Namkung and Jang, 2007). Hence, most quality studies in restaurant settings have concentrated on only a subset of quality, either atmospherics or employee services, but have not comprehensively examined all the vital components of restaurant quality (Namkung and Jang, 2008). Thus, these quality studies may not have appropriately captured the idiosyncratic nature of the restaurant experience.

This thesis aimed to examine customer loyalty in the Chinese restaurant sector, so the Q-V-S-L model (Cronin *et al.*, 2000) was adopted as the basic model.

## **Chapter 3      Methodology**

### **3.1 Introduction**

The aim of this chapter is to explain the research methodology adopted to address the research aim and objectives. The aim of the research is to test and examine the determinants of consumer loyalty and the causality relationship among the determinants in the context of the Chinese restaurant sector.

The key feature of the adopted methodology is the use of primary research to capture data concerning restaurant behaviour, attitudes to restaurants and customers' characteristics, in order to estimate the structural equation model. The research instrument is a questionnaire linked to the survey methodology administered to a sample of restaurant customers.

The structure of the chapter is as follows. Section 3.2 explains the development of a conceptual structural model developed from the literature. This is followed in Section 3.3 with an explanation of the structure and content of the questionnaire. The survey method used in this study is explained in Section 3.4. Section 3.5 is the theoretical knowledge of the sampling method. Section 3.6 is the analytical strategy used in this research, which includes descriptive analysis and statistical analysis. Factor analysis, confirmatory factor analysis and structural equation modelling (SEM) are presented in the statistical analysis section. This is followed in Section 3.7 by a discussion of the implementation of the data collection and the response rate of the survey. Finally, Section 3.8 deals with the reliability analysis of the constructs.

### **3.2 Development of the Conceptual Model**

Section 3.2.1 provides theoretical support for the interrelationship between all constructs and identifies the hypotheses based on the interrelationships. The Conceptual Model is presented at the end of this sub section. Section 3.2.2 explains the direct and indirect effect between the constructs of the Conceptual Model.

#### ***3.2.1 Interrelationship between all constructs***

Keng *et al.* (2007) suggested that the perceived value reflects the product performance and general consumer appreciation of a service provider who demonstrates expertise and maintains a reliable service performance. The value of a service product is defined largely by perceptions of quality (Cronin *et al.*, 2000). This is supported by Oh (2000), who found that a customer's quality perception is positively and significantly related to perceived value. Sweeney and Soutar (2001) noted that the perceived quality of small household appliances has a positive impact on the perceived value; this was also confirmed by Snoj *et al.* (2004) in their research on the mobile phone industry. A study by Teas and Agarwal (2000) revealed a positive linkage between perceptions of quality and value. Therefore, service quality becomes the indicator for determining perceived values. In the customer satisfaction index (CSI) model, the value perceptions will be directly influenced by perceived service quality (Chang and Wang, 2010). Therefore, we proposed the following hypothesis:

H1: Consumer perceived quality (pqual) has a direct and positive effect on perceived value (pval).

In accordance with Cronin *et al.* (2000) regarding the interrelationships leading to satisfaction, we modelled service quality and service value as direct determinants. Higher perceived quality positively affects satisfaction and brand loyalty for both South Korean and Chinese consumers (Ha *et al.*, 2009). Service quality perception is an important determinant of customer satisfaction (Cronin *et al.*, 2000) with regard to determinants of satisfaction. Again, the quality of service is a key factor in achieving online satisfaction (Martín and Camarero, 2009), so service quality is an antecedent to satisfaction (Brady and Robertson, 2001; Lee *et al.*, 2000; Sivadas and Prewitt, 2000). On the basis of this evidence, Hypothesis 2 was defined as follows:

H2: Consumer perceived quality (pqual) has a direct and positive effect on satisfaction (sat).

Cronin *et al.* (2000) provided evidence that quality directly influences behavioural intentions; this is supported by Swanson and Davis (2003), who indicate the causality relationship between service quality and behavioural intentions. Olorunniwo *et al.* (2006) investigated the relationship between satisfaction, service quality and behavioural intentions. They identify how service quality has a significant direct and

positive impact on behavioural intentions in some service contexts. Ha *et al.* (2009) suggested managers trying to understand customer loyalty toward their brands would benefit from researching customer perception of their brands, as well as their evaluations of service quality, which is based on the relationship between service quality and behavioural intentions. Therefore this led to the formulation of Hypothesis 3 as follows:

H3: Consumer perceived quality (pqual) has a direct and positive effect on behavioural intentions (behint).

Cronin *et al.* (2000) indicate that both service quality and service value lead to satisfaction, and the perceived value has a positive influence on satisfaction and intention to repurchase (Fornell *et al.*, 1996). The relationship between perceived value and satisfaction is also confirmed by Bontis *et al.* (2007), and Kim and Han (2008) note the perceived value was found to be a positive predictor of customer satisfaction and trust. From these studies the following hypothesis was formulated:

H4: Consumer perceived value (pval) has a direct and positive effect on satisfaction (sat).

Managers are interested in customer satisfaction because it is strongly associated with loyalty (Anderson and Sullivan, 1993; Bontis *et al.*, 2007; Cronin *et al.*, 2000; Sambandam and Lord, 1995). Satisfaction had a positive effect on loyalty (Bigné *et al.*, 2008; Tuu *et al.*, 2011) and it has a significant, positive relationship with both WOM and repurchase intentions (Swanson and Davis, 2003). Satisfaction is highly correlated with behavioural responses, such as complaining behaviour, negative/positive WOM, and repurchase intentions (Athanasopoulos *et al.*, 2001) and customer satisfaction is fundamental to the marketing concept, which holds that satisfying customer needs is the key to generating customer loyalty (Chang and Wang, 2010). Companies should re-evaluate their relative budget allocation to improve customer satisfaction (Spreng *et al.*, 1995) and, in turn, increase purchase intentions (Lee *et al.*, 2000). Thus, customer satisfaction exerts a stronger influence on purchase intentions than does service quality (Lee *et al.*, 2000). As a result of the above discussion, the following hypothesis was proposed:

H5: Consumer satisfaction (sat) has a direct and positive effect on behavioural intentions (behint).

Service value has a positive and significant effect on behavioural intentions (Brady and Robertson, 2001); Cronin *et al.* (2000) provided evidence that quality, value and satisfaction directly influence behavioural intentions. Perceived value has not just direct effects on behavioural intentions; it also has a positive influence on satisfaction and intention to repurchase (Fornell *et al.* (1996). This is very important, because customers' perceptions of service quality and its value can influence customer satisfaction, and in turn, purchase intentions (Lee *et al.*, 2000; Iglesias and Guillén, 2004). By extending this line of thinking, this study proposed and tested the following hypotheses:

H6: Consumer perceived value (pval) has a direct and positive effect on behavioural intentions (behint).

H7: Consumer perceived value (pval) has an indirect effect on behavioural intentions (behint) through satisfaction (sat) (pval→sat→behint).

Caruana *et al.* (2000) suggest that the effect of quality on satisfaction is not just direct but is also mediated by value; these variables have increasingly played a key role in services marketing generally and are believed to have a significant effect on customer retention and, ultimately, long-term profitability. Therefore, the following hypothesis was employed:

H8: Consumer perceived quality (pqual) has an indirect effect on satisfaction (sat) through the mediating effect of perceived value (pval) (pqual→pval→sat).

Brady and Robertson (2001) argue that since service quality is a cognitive evaluation, a positive service quality perception can lead to satisfaction, which may, in turn, lead to favourable behavioural intentions. Researchers have previously discussed satisfaction and value's mediating role in affecting brand loyalty (Bennett *et al.*, 2005; Bitner and Hubert, 1994; Cronin *et al.*, 2000; Olorunniwo *et al.*, 2006; Zeithaml *et al.*, 1996). Bitner and Hubert (1994, p. 82) point to this link by suggesting that improved service quality will result in a satisfied customer, and Zeithaml *et al.* (1996) note that a favourable assessment of service quality will lead to favourable behavioural intentions. While service quality is an important driver of behavioural intentions, its indirect effect

through customer satisfaction is overwhelmingly greater than the direct effect in generating favourable behavioural intentions (Olorunniwo *et al.*, 2006). Perceived value, acting as a mediator between service quality and behavioural intentions, appears to make the impact of service quality on behavioural intentions even greater (Cronin *et al.*, 2000). Accordingly, the following hypotheses were proposed:

H9: Consumer perceived quality (pqual) has an indirect effect on behavioural intentions (behint) through the mediating effect of satisfaction (sat) (pqual→sat→behint).

H10: Consumer perceived quality (pqual) has an indirect effect on behavioural intentions (behint) through the mediating effect of perceived value (pval) (pqual→pval→behint).

Time/effort and psychic costs have been proposed as determinants of perceived value (Barker *et al.*, 2002; Zeithaml, 1988). Regarding service value, we suggested that service quality has a positive effect on service value whereas sacrifice has a negative effect (Cronin *et al.*, 2000). This is also supported by Bolton and Drew (1991) and Agarwal and Teas (2004), who identify a negative linkage between perceptions of sacrifice and value. Agarwal and Teas (2004) also indicate the negative linkage between perceptions of risks and value and Snoj *et al.* (2004) support the idea that perceived risks strongly, though negatively, influence perceived value based on their mobile phone market research. Therefore, this led to the following hypotheses:

H11: Sacrifice (sac) has a direct and negative effect on perceived value (pval).

H12: Perceived risk (prisk) has a direct and negative effect on perceived value (pval).

Although face is correlated to customer satisfaction and loyalty, it has no direct effect on customer loyalty (Hoare and Butcher, 2007). Satisfaction is one of the most researched variables in marketing (Bagozzi *et al.*, 1999), but its mediating effect from a cross-cultural perspective has not been clearly identified (Ha *et al.*, 2009). Hoare and Butcher (2008) suggest face is a strong predictor in affecting customer satisfaction in Chinese service marketing research; the restaurant manager can use the face concept as a cultural strategy to improve customer satisfaction (Gilbert and Tsao, 2000; Hoare and Butcher, 2007; Imrie *et al.*, 2002). Thus, the following hypotheses were proposed:

- H13: Face (face) has a direct and positive effect on consumer satisfaction (sat).  
H14: Face (face) has an indirect effect on behavioural intentions (behint) through the mediating effect of satisfaction (sat) (face→sat→behint).

Higher satisfaction leads to higher reputation (Anderson and Sullivan, 1993; Bontis *et al.*, 2007). Bontis *et al.* (2007) suggest that corporate reputation among customers can be improved by focusing on customer satisfaction. Brand reputation can also be treated as a mediating variable between satisfaction and loyalty (Sandvik and Duhan, 1996; Selnes, 1993); customer loyalty and the likelihood of customer recommendation also can be enhanced by increasing reputation (Bontis *et al.*, 2007). Satisfaction and loyalty may be either antecedents to or consequences of reputation (Chun, 2005) so reputation serves as a partial mediator of two links: customer satisfaction and loyalty, and satisfaction and recommendation in the banking industry (Bontis *et al.*, 2007). Following from the discussion above, the following hypotheses were proposed:

- H15: Consumer satisfaction (sat) has a direct and positive effect on reputation (rep).  
H16: Reputation has a direct and positive effect on behavioural intentions (behint).  
H17: Consumer satisfaction (sat) has an indirect effect on behavioural intentions (behint) through the mediating effect of reputation (rep) (sat→rep→behint).

The degree of overall pleasure or satisfaction felt by consumers in previous exchanges (resulting from the ability of the service to fulfil the consumer's desires, expectations and needs in relation to the service) has been identified as an important antecedent of trust (Ravald and Grönroos, 1996; Selnes, 1998) and consumer attitude (Oliver, 1980). A series of positive encounters will increase consumer satisfaction and consequently will enhance trust and the probability of repeat purchasing (Morgan and Hunt, 1994; Selnes, 1998). All in all, overall satisfaction is an antecedent of brand trust (Ballester and Alemán 2001). Thus, the following hypothesis was proposed:

- H18: Consumer satisfaction (sat) has a direct and positive effect on trust (trust).

Corporate reputation has positive direct effects on both customer trust and customer identification (Keh and Xie, 2009). Doney and Cannon (1997) describe a seller's reputation as the collective memory of previous buyers regarding the seller's integrity and benevolence, two factors that play prominent roles in determining trust. This is also supported by Kwon and Suh (2005), who demonstrated that partner reputation has a significant and positive influence on the level of trust among supply chain members. Thus, this led to the formulation of the following hypothesis:

H19: Reputation (rep) has a direct and positive effect on trust (trust).

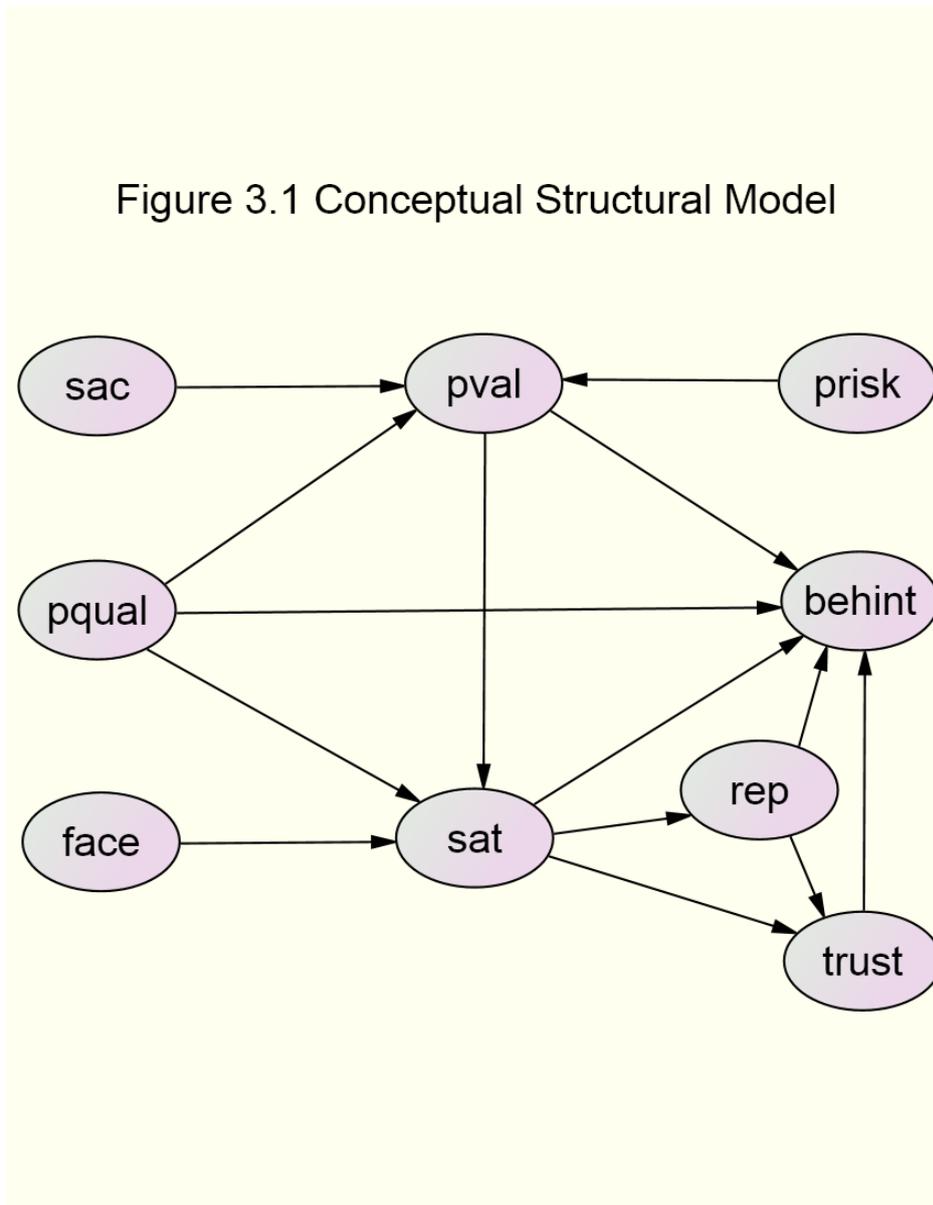
Trust has a significant influence on loyalty (Tian *et al.*, 2008; Casaló *et al.*, 2007); in addition, it creates positive attitudes about the future behaviour of the firm and influences the consumer's buying intentions, satisfaction and loyalty (Gefen, 2000; Yoon, 2002). As a component of a relationship, trust is a perfect mediator for the influence of customer satisfaction on commitment (Ok *et al.*, 2005) and on behavioural intentions (Jani and Han, 2011). Therefore, this led to the formulation of the following hypotheses:

H20: Trust (trust) has a direct and positive effect on behavioural intentions (behint).

H21: Satisfaction (sat) has an indirect effect on behavioural intentions (behint) through the mediating effect of trust (trust) (sat→trust→behint).

Figure 3.1 presents a Conceptual Model. The model was developed based on a thorough review of the existing literature. The Conceptual Structural Model includes nine constructs: perceived quality, perceived value, satisfaction, behavioural intentions, sacrifice, perceived risk, face, trust and reputation. All the constructs were integrated into the model to explain the formation of behavioural intentions clearly.

**Figure 3.1 Conceptual Structural Model**



### ***3.2.2 Direct and indirect effects between constructs***

The Conceptual Model demonstrates the direct and indirect effects among the constructs of perceived quality (pqual), perceived value (pval), satisfaction (sat), behavioural intentions (behint), sacrifice (sac), perceived risk (prisk), face (face), reputation (rep), and trust (trust). Perceived quality (pqual) has a direct effect on behavioural intentions (behint) (pqual→behint). It also has direct effects on perceived value (pval) and satisfaction (sat) (pqual→pval, pqual→sat). The construct of perceived value has a direct effect on satisfaction and behavioural intentions (pval→sat, pval→behint). The construct of satisfaction influences behavioural intentions directly (sat→behint) (Cronin *et al.*, 2000). The respective measures of sacrifice directly influence perceived value

( $\text{sac} \rightarrow \text{pval}$ ) (Cronin *et al.*, 2000), and perceived value is also directly influenced by perceived risk ( $\text{prisk} \rightarrow \text{pval}$ ) (Agarwal and Teas, 2004; Snoj *et al.*, 2004). The measure of face directly influences satisfaction ( $\text{face} \rightarrow \text{sat}$ ) (Hoare *et al.*, 2007) and the measure of reputation directly influences behavioural intentions ( $\text{rep} \rightarrow \text{behint}$ ) (Ballester and Alemán, 2001; Bontis *et al.*, 2007). There is also a direct influence on reputation by satisfaction ( $\text{sat} \rightarrow \text{rep}$ ) (Bontis *et al.*, 2007) while satisfaction has a direct effect on trust ( $\text{sat} \rightarrow \text{trust}$ ) (Ballester and Alemán, 2001; Martín and Camarero, 2009; Tian *et al.*, 2008). Finally, trust is directly influenced by reputation ( $\text{rep} \rightarrow \text{trust}$ ) (Jin *et al.*, 2008, Tian *et al.*, 2008; Keh and Xie 2009) and it has a direct effect on behavioural intentions ( $\text{trust} \rightarrow \text{behint}$ ) (Tian *et al.*, 2008, Jing *et al.*, 2008; Keh and Xie 2009).

There are also some indirect effects included in the Conceptual Model; for example, perceived quality on behavioural intentions through the mediating effects of perceived value and satisfaction ( $\text{pqual} \rightarrow \text{pval} \rightarrow \text{behint}$ ,  $\text{pqual} \rightarrow \text{sat} \rightarrow \text{behint}$ ,  $\text{pqual} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{behint}$ ). Perceived value has an indirect effect on behavioural intentions through the mediation of satisfaction ( $\text{pval} \rightarrow \text{sat} \rightarrow \text{behint}$ ). Sacrifice and perceived risk influences behavioural intentions indirectly through the mediation of perceived value and satisfaction ( $\text{sac} \rightarrow \text{pval} \rightarrow \text{behint}$ ,  $\text{sac} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{behint}$ ,  $\text{prisk} \rightarrow \text{pval} \rightarrow \text{behint}$ ,  $\text{prisk} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{behint}$ ). Face influences behavioural intentions indirectly through the mediation of satisfaction, reputation and trust ( $\text{face} \rightarrow \text{sat} \rightarrow \text{behint}$ ,  $\text{face} \rightarrow \text{sat} \rightarrow \text{rep} \rightarrow \text{behint}$ ,  $\text{face} \rightarrow \text{sat} \rightarrow \text{trust} \rightarrow \text{behint}$ ,  $\text{face} \rightarrow \text{sat} \rightarrow \text{rep} \rightarrow \text{trust} \rightarrow \text{behint}$ ). Reputation and trust are considered as very important not only in the mediation between face and behavioural intentions, but also in other indirect links, such as sacrifice, which indirectly influences behavioural intentions through perceived value, satisfaction, reputation and trust ( $\text{sac} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{rep} \rightarrow \text{behint}$ ,  $\text{sac} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{trust} \rightarrow \text{behint}$ ,  $\text{sac} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{rep} \rightarrow \text{trust} \rightarrow \text{behint}$ ); perceived risk indirectly influences behavioural intentions through perceived value, satisfaction, reputation and trust ( $\text{prisk} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{rep} \rightarrow \text{behint}$ ,  $\text{prisk} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{trust} \rightarrow \text{behint}$ ,  $\text{prisk} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{rep} \rightarrow \text{trust} \rightarrow \text{behint}$ ); and perceived quality indirectly influences behavioural intentions through perceived value, satisfaction reputation and trust ( $\text{pqual} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{rep} \rightarrow \text{behint}$ ,  $\text{pqual} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{trust} \rightarrow \text{behint}$ ,  $\text{pqual} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{rep} \rightarrow \text{trust} \rightarrow \text{behint}$ ,  $\text{pqual} \rightarrow \text{sat} \rightarrow \text{rep} \rightarrow \text{behint}$ ,  $\text{pqual} \rightarrow \text{sat} \rightarrow \text{trust} \rightarrow \text{behint}$ ,  $\text{pqual} \rightarrow \text{sat} \rightarrow \text{rep} \rightarrow \text{trust} \rightarrow \text{behint}$ ). Finally, perceived quality, sacrifice and perceived risk have indirect effects on satisfaction through the mediation of perceived value ( $\text{pqual} \rightarrow \text{pval} \rightarrow \text{sat}$ ,  $\text{sac} \rightarrow \text{pval} \rightarrow \text{sat}$ ,  $\text{prisk} \rightarrow \text{pval} \rightarrow \text{sat}$ ).

### **3.3 Questionnaire Design and Structure**

The aim of this section is to justify briefly the choice of a questionnaire, the structure and content of the questionnaire that was designed for the study, the measures adopted for each construct in the context of the literature, the consideration of cross-cultural issues and, finally, the pre-testing procedure and subsequent modifications.

#### ***3.3.1 Reason for using positivism research***

Most of the central debates among philosophers concern matters of ontology and epistemology. Ontology is about the nature of reality and experience; epistemology is about the best ways of enquiring into the nature of the world (Smith *et al.*, 2012, p. 17). This has formed the basis for a sustained debate among social scientists which has focused on the respective merits of two contrasting views of how social science research should be conducted: positivism and social constructionism (Smith *et al.*, 2012, p.22). In its broadest sense, positivism is a rejection of metaphysics. It is a position that holds that the goal of knowledge is simply to describe the phenomena that we experience (Web center for social research method, 2006). There has been a gradual shift from positivism towards constructionism since the early 1980s, but there are many researchers, both in management and social science research, who deliberately combine methods from both traditions. Positivism, which provides the best way of investigating human and social behaviour, originated as a reaction to metaphysical speculation (Aiken, 1956, cited in Smith *et al.*, 2012 p.22). Since we cannot directly observe emotions, thoughts and so on (although we may be able to measure some of the physical and physiological accompaniments), these are not legitimate topics for a scientific psychology (Web center for social research method, 2006). The implications of positivism include the following: the observer must be independent, and the human interests should be irrelevant. Explanation of the research result must demonstrate causality and the research should progress through hypotheses and deductions. The concepts need to be defined so that they can be measured. The research generalisation through the statistical probability and the large numbers selected will be random (Smith *et al.*, 2012).

In accordance with the positivism method, the sample of this study was restaurant

customers and their observations were made independently. The research progressed through hypotheses which were based on the Conceptual Model and the concepts were defined to form the Conceptual Model. This study was generalised through several statistical approaches including descriptive analysis, factor analysis, confirmatory factor analysis and structural equation modelling. Finally, the aim was to make the sample as representative as possible, as a large sample size was essential to this study. Thus, a positivist approach was taken for this study.

### **3.3.2 Questionnaire**

A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. Although questionnaires are often designed for the statistical analysis of the responses, this is not always the case (Hair, *et al.*, 2003, p. 225). A questionnaire is also identified as a formalised framework consisting of a set of questions and scales designed to generate primary raw data. Questionnaire construction involves taking established sets of scale measurements and formatting them into a complete instrument for communicating with and collecting raw data from respondents (Hair *et al.*, 2003, p. 244).

Questionnaires have advantages over some other types of surveys in that they are more cost effective, do not require as much effort from the questioner as do verbal or telephone surveys, and often have standardised answers that make it simple to interpret data (Hair. *et al.*, 2003, p. 256). The main function of a questionnaire is to capture people's true thoughts and feelings about different issues or objectives. However, such standardised answers may frustrate users. Questionnaires are also severely limited by the fact that respondents must be able to read the questions and respond to them. Thus, for some demographic groups, conducting a survey by questionnaire may not be practical. As a type of survey, questionnaires also have many of the same problems relating to question construction and wording that exist in other types of opinion poll. The questionnaire in this study was organised in three thematic sections (Appendix1). The first section was concerned with customer behaviour with respect to restaurant visits to restaurants of a similar quality and to the target restaurant. It employed nominal measures of frequency of visiting in a six-month period, the method of travel, the social context of the visit and expenditure on the meal. The second section was concerned with consumer attitudes to their experience in the target restaurant. It consisted of nine

constructs concerned with perceived quality, perceived value, satisfaction, behavioural intention, sacrifice, perceived risk, face, reputation and trust (Appendix 1).

The construct of perceived quality was designed as 16 items which measured the service quality including staffs' attitudes, staffs' service skills, freshness and taste of food and the restaurant environment. The measures were mostly adopted from Hoare and Butcher (2008), with single items concerned with music, aroma and interior design adopted from Harris and Ezeh (2008). All measures were designed as five-point scales (1=Very low, 5=Very high) (Appendix 1).

Perceived value was designed as five items, which included overall value of the restaurant, the value of the food, service, and atmosphere compared with other restaurants, and the value compared with the effort invested by the customer to visit the restaurant. All measures were adopted from Cronin *et al.* (2000). All measures were designed as five-point scales (1=Very low, 5=Very high) (Appendix 1).

Satisfaction was designed as seven items, which included overall satisfaction, satisfaction with the food, service and atmosphere, satisfaction from the enjoyment and pleasure, and finally, satisfaction with the customer's choice of the particular restaurant in question. The measures were based upon those employed by Cronin *et al.* (2000) and Hoare and Butcher (2008). All measures were designed as five-point scales (1=Very low, 5=Very high) (Appendix 1).

Sacrifice was designed as six items, which included the effort made to get to the restaurant, the effort made to get the quality of service, the time taken to be seated at the table and to get the meal, the price paid and the overall experience. All measures for the construct were adapted from Harris and Ezeh (2008). All measures were designed as five-point scales (1=Very low, 5=Very high) (Appendix 1).

Trust was designed as five items, which included quality of the meal, dealing with consumer's problems, recommending of new dishes, respect to consumers and service attitude, and were adapted from Ballester and Alemán (2001). The construct of face was designed as four items adapted from Hoare and Butcher (2008) and included the extent of agreement with statements about saving face in all circumstances, that is, saving face of the diners' host, staff treating diners with respect and staff treating customers with

sensitivity. All measures were designed as five-point scales (1=Very low, 5=Very high) (Appendix 1).

Reputation was designed as three items, which included the relevance of reputation as a reason for visiting the restaurant, as a basis of comparison with alternative restaurants, and as a basis to decide to visit any restaurant. The measures were adopted and designed based on the concept of reputation through discussion with experienced colleagues. All measures were designed as five-point scales (1=Very low, 5=Very high) (Appendix 1).

Perceived risk was designed as five items, which included consumer's concern about waste of money, disappointment about the choice of restaurant, freshness of the food, quality of the service and loss of face among the dining companions. The measures of perceived risk were not adapted from any particular study but were based upon the conceptual components of perceived risk as defined in the literature by Sweeney *et al.* (1999). The measures addressed the components of physical and intangible, psychological, financial and social risk. All measures were designed as five-point scales (1=Very low, 5=Very high) (Appendix 1).

Behavioural intention was designed as six items, which included the likelihood of consideration of the restaurant as first choice, visiting frequently, recommendation of the restaurant to others, and choosing the restaurant even if others of similar quality are cheaper (Hoare and Butcher, 2008). All measures were designed as five-point scales (1=Very low, 5=Very high) (Appendix 1).

Finally, the third section was concerned with the socio-demographic characteristics of the respondents. This section included nominal measures of gender, age, educational level, occupation and personal income.

### ***3.3.3 Cross-Cultural issues***

Though this research was based in PR China, the questionnaire was developed in the UK, so cultural issues also were considered as an important element when designing the questionnaire.

It is noted that empirical research presents researchers with a set of dilemmas and that

the researcher's mission is to avoid as many of these as possible (McGrath, 1981). Singh (1995) notes that international cross-cultural research presents additional elements that may provoke problems of interpretation and inference. The research instrument was a questionnaire that required translation into equivalent versions that were consistent with the relevant cultures. Equivalence concerns language and the treatment of the various constructs and measures. With respect to constructs, the ideal is to achieve equivalence in terms of function, conception and interpretation (Singh, 1995). Great care was taken to translate the constructs and measures into forms that were equivalent, but it should be noted that while effective translation is necessary it is not sufficient to guarantee equivalence (Peng, *et al.*, 1991). In international research, the translation of questionnaires into the relevant local languages is crucial. The problem is that direct translation is unlikely to convey the intended meaning, because many concepts and terms involve culture-specific connotations, so systematic bias would be introduced. A meaningful translation requires the researcher not only to ensure overall conceptual equivalence but also to deal with vocabulary, idiomatic, and syntactical equivalence (Sekaran, 1983). Brislin (1980) suggests the use of simple sentence structures, and clear and familiar wording.

The most frequently employed method of translation is back translation. The original questionnaire is translated into the local language by one person and is then translated back into the original language by a second person. The second version of the original can be checked for retention of meaning, literal accuracy and mistakes. Despite this rigour, there is no guarantee of overall conceptual equivalence (Peng *et al.*, 1991). Harpaz (2003) identifies two additional procedures: the bilingual method and the committee procedure. In the bilingual method, the original and translated versions of the questionnaire are sent to bilingual people and items are corrected based upon inconsistencies in their responses. The committee method uses panels of bilingual speakers to translate the questionnaire and discuss possible problems or mistakes. Whichever method is used, pilot-testing is essential in international research.

#### ***3.3.4 Reason for targeting full-service restaurants***

This field survey was conducted at four full-service restaurants. Full-service restaurants, which include a broad range of restaurants (e.g., family, casual, and upscale), provide waited table service for their patrons (Spears and Gregoire, 2006, cited in Jani and Han,

2011). According to Spears and Gregoire (2006) (cited in Jani and Han, 2011), full-service restaurants are set apart by the fact that wait-staff take orders from and deliver food to customers, payment is made after the meal is consumed, and customers normally give tips to the wait-staff for their service. Individuals at these restaurants can experience not only food but also a relatively high level of service and customer-employee interaction (Han *et al.*, 2009; Yuksel and Yuksel, 2002). Briefly, that means customers at full-service restaurants can evaluate both the functional outcomes of the service (e.g., the food itself) and detailed aspects of the service experience (Han *et al.*, 2009; Ladhari *et al.*, 2007).

### ***3.3.5 Pre-testing questionnaire***

The initial version of the questionnaire was developed from the previous literature (Ballester and Alemán, 2001; Cronin *et al.*, 2000; Hoare and Butcher, 2008, Harris and Ezeh, 2008; Imrie *et al.*, 2002) and refined through consultation with academics experienced in questionnaire design and scale development. The questionnaire was designed in the UK and a paper copy of the questionnaire was pre-tested using a sample of adults 18-65 yrs of age who had eaten in a restaurant at least once in the previous three months.

Scale response categories were altered as respondents felt more comfortable with five-point responses than with the original seven-point responses. The final version of the questionnaire was evaluated in terms of instructions, ease of use, reading level, clarity, item wording and response formats, and was judged to possess face and context validity (Hair, 2006, p. 147).

## **3.4 Survey Method**

Survey research methods tend to be the mainstay of marketing research in general and are normally associated with descriptive and causal research situations (Hair *et al.*, 2003). Survey techniques are based upon the use of structured questionnaires given to a sample of a population (Mazzocchi, 2008). Hair *et al.* (2003) identify the survey method as having several advantages, such as the ability to accommodate large sample sizes and distinguish small differences, the increased generalisability of results, the convenience of managing and recording questions and answers, the capability of using statistical

analysis and the ability to tap into factors and relationships not directly measurable. The disadvantages of the survey method also obviously exist, such as the difficulties of questionnaire designs, the limits to the in-depth detail of data structures, the lack of control over timeliness, possible low response rates, difficulties in determining whether respondents are responding truthfully, misinterpretation of data results and inappropriate use of data analysis procedures (Hair *et al.*, 2003).

Hair *et al.* (2003) identify four main types of survey method: person-administered survey, telephone interviews, self-administered surveys and online surveys.

The person-administered survey is distinguished by the presence of a trained interviewer who asks questions and records the subject's answers. A person-administered survey includes in-home interviews, executive interviews, mall-intercept interviews and purchase-intercept interviews.

Telephone interviews have become a major source of marketing information; this is because, compared to face-to-face interviews, telephone interviews are less costly, faster and offer much easier access to large numbers of respondents. There are two ways of conducting telephone interviews: traditional telephone interviews, which involve phoning a sample of respondents and asking them a series of questions, and computer-assisted telephone interviews, which use a computerised questionnaire administered to respondents over the telephone.

A self-administered survey is a data collection technique in which the respondent reads the survey questions and records his or her own responses without the presence of a trained interviewer (Hair *et al.*, 2003). The advantages of the self-administered survey include low cost and less interviewer bias. There are two main forms of self-administered surveys: mail surveys and drop-off surveys.

Online survey methods have been totally revolutionised as people have increasingly accepted the "new economy", internet technology, and telecommunications, and decision makers' and researchers' new demands for faster data acquisition, retrieval, and the reporting of results in real time (Hair *et al.*, 2003). There are three ways of conducting an online survey, namely, fax surveys, e-mail surveys and internet surveys.

The survey instrument in this research was a self-administered survey with the author dropping-off the surveys to the target restaurants. The advantage of using this method in this research was that the author could get easy access to the waiters and waitresses and was able to ask them give the surveys to the consumers to fill in after they had finished their meals. In addition, the restaurants could be geographically dispersed, and the survey could be conducted economically and efficiently by customers who had just experienced visiting the restaurant. As a reward, every consumer who responded to the survey received a 10-Yuan mobile top-up card.

### **3.5 Sampling Method**

The sampling method is widely used in primary research nowadays, either in academia or for marketing purposes. Sampling involves selecting a relatively small number of elements from a larger defined group of elements in the anticipation that the information gathered from the small group will allow judgments to be made about the larger group (Hair *et al.*, 2003). Thus, it is often used when conducting a census would be impossible or impractical. When using a census, the research is interested in collecting primary data about or from every member of a defined target population. It is easy to see that sampling is less time-consuming and costly than conducting a census (Hair *et al.*, 2003). Hair *et al.* (2003) indicated that sampling plays an important role in the process of identifying, developing, and understanding new marketing constructs as well as playing an important indirect role in the process of designing questionnaires.

Hair *et al.* (2003) state that the concept of sampling involves two basic issues; these are making the right decision in the selection of items such as people, products or services and so on, and feeling confident that the data generated by the sample can be transformed into accurate information about the overall target population. Though there are always different reasons for using the sampling method to approach the information for the research, the main objective is to allow researchers to make inductive and predictive judgments or decisions about the total target population on the basis of limited information or in the absence of perfect knowledge (Hair *et al.*, 2003).

There are two main types of sampling method: probability sampling and non-probability sampling. In probability sampling, each sampling unit in the defined target population has a known, nonzero probability of being selected for the sample (Hair *et al.*, 2003, p.

350). The actual probability of selection for each sampling unit may or may not be equal depending on the type of probability sampling design used (Hair *et al.*, 2003, p. 350). Probability sampling allows the researcher to judge the reliability and validity of the raw data collected by calculating the probability that the findings based on the sample would differ from the defined target population (Hair *et al.*, 2003, p. 350). The results obtained by using probability sampling designs can be generalised to the target population within a specified margin of error through the use of statistical methods (Hair *et al.*, 2003, p. 350). There are four different types of probability sampling methods, namely, simple random sampling (SRS), systematic random sampling (SYMRS), stratified random sampling (STRS) and cluster sampling.

In non-probability sampling, the probability of the selection of each sampling unit is not known and the selection of the sampling unit is based on some type of intuitive judgment, desire, or knowledge of the researcher (Hair *et al.*, 2003, p. 350). The degree to which the sample may or may not be representative of the defined target population depends on the sampling approach and how well the researcher executes and controls the selection activities (Sudman 1976, cited in Hair *et al.*, 2003, p. 360). The most common reason to use non-probability sampling is because the non-probability samples are easy and inexpensive to gather (Shao, 2002, p. 369). There are four different types of non-probability sampling methods: convenience sampling, judgment sampling, quota sampling and snowball sampling.

Sudman (1983) suggests that, before choosing the population samples, there are at least two basic steps to be taken to define the population under study. The first step is to decide whether the population is of individuals, households, institutions, transactions or some other category. In this study, individuals were chosen, as restaurant visiting decisions are made mainly by individual persons. The second step is to decide the units to use. To do this, he suggests the following criteria for consideration: geography, age of individuals, other demographic variables and individual variables.

Non-probability and convenience sampling were used in this study because there was no list of restaurant users and it would not have been possible to calculate the probability of selecting a single individual. In order to ensure that the sample characteristics were representative of the population of the target restaurants' customers overall, attention was paid to the combined age of the people and their sex; all the

customers who had filled in the questionnaires were over 18 years old. The minimum age for attitude research is usually eighteen. Since this study basically deals with psychological measurements, it was logical to follow Sudman's (1983) suggestion – only respondents over 18 year-old were taken into consideration. The collection of questionnaires was conducted in October 2009 and lasted six weeks in total. More than 700 customers were invited to fill in the survey and it yielded a total of 489 useable responses.

### **3.6 Analytical Strategy**

This section discusses the use of statistical techniques in this study. Descriptive statistics is explained in the first section, and this is followed by the statistical analysis section. There are three sub sections to be included in the statistical analysis section; these are factor analysis, confirmatory factor analysis (CFA) and structural equation modelling (SEM).

This present study used the Statistical Package for Social Sciences (SPSS) for descriptive analysis. To test the proposed relationships among the study variables, structural equation modelling (SEM) was conducted using the AMOS 19 program. As suggested by Anderson and Gerbing (1988), construct validity was assessed by running a confirmatory factor analysis (CFA) before testing the hypothesized paths using the SEM.

#### ***3.6.1 Descriptive statistics***

Descriptive statistics can be categorised into three groups. The first group deals with the central tendency of the variable, and this may be represented by the mean, median, or mode (Mazzocchi, 2008, p. 78). The mean is considered an average calculated as the sum of the values in a data set divided by the number of values in the set. The major characteristic of the mean is the computation of the mean based on all values of a set of data. The median is the value of the middle item when the numbers are arranged in order of magnitude. The major characteristics of the median are that, as it is a positional average, it is not defined algebraically as is the mean, in some cases, it cannot be computed exactly, as can the mean, and it is centrally located. The mode is the value that occurs most frequently in the data set. The major characteristics of the mode are

that it is the highest frequency in a set of values, it is not affected by extreme values, the mode of a set of discrete data is easy to compute, and the value of the mode may be significantly affected by the method of designating the class intervals (Shao, 2002, p. 421). The second group represents dispersion; this can be estimated by using the range, variation (for standard deviation), and the coefficient of variation (Mazzocchi, 2008, p. 79). The range is the difference between the lowest and highest values in a given data set. The standard deviation and variation serve as measures of variability among the sample data. The most commonly used measure of dispersion expressed in a relative value is the coefficient of variance. This measure can be used only when the variable is measured on a ratio scale (Shao, 2002, p. 422-423).

### ***3.6.2 Statistical analysis***

The statistical analysis method introduced in this section includes factor analysis, confirmatory factor analysis and structural equation modelling.

#### ***3.6.2.1 Factor analysis***

Factor analysis is an interdependence technique, whose primary purpose is to define the underlying structure among the variables in the analysis (Hair *et al.*, 2006, p. 104; Mazzocchi, 2008, p. 223). It is a multivariate statistical technique that is used to summarise the information contained in a large number of variables as a smaller number of subsets or factors (Hair *et al.*, 2003, p. 601; Mazzocchi, 2008, p. 223). It is also treated as a foundation of structural equation modelling along with the multiple regression analysis in statistical analysis (Hair *et al.*, 2006, p. 711). Factor analysis is also a multivariate technique that identifies the dimensions of the original observed measures of a scale in terms of a hierarchical structure of non-observed latent variables or factors. The items in the original scale should be metric and correlated. The factors are arranged in descending order of importance in terms of their contributions to the explanation of the total variance of the scale. The broad aims of the analysis are to identify the number of factors and interpret what they represent.

The theoretical framework is the factor model that explains the observation on the original variable, its variance and the covariance between pairs of variables. According to the model, the original variables are determined by a linear combination of common

factors and the influence of a unique factor. The model is based upon a series of assumptions. The original variables and the common factors are standardised to have zero mean and unit variance. The covariance between common factors and unique factors and between pairs of common factors and unique factors is zero.

The analysis employs principal components analysis and extracts factors with eigenvalues greater than unity with Varimax rotation. Confirmation that the data are correlated is evaluated using Bartlett's test for sphericity, adopting a significance level of five per cent. Goodness of fit is reported and evaluated using communalities, and total variance is explained.

In this study, factor analysis is used to confirm the dimensionality of constructs and to establish the discriminant validity between sets of constructs.

#### *3.6.2.2 Confirmatory factor analysis*

Hair *et al.* (2006) note the purpose of the factor analysis can be achieved from either an exploratory or confirmatory perspective. Exploratory factor analysis is useful in searching for structure among a set of variables or as a data reduction method. Hair *et al.* (2006) use a six-stage decision process when discussing the application of SEM: "1. Defining individual constructs, 2. Developing the overall measurement model, 3. Designing a study to produce empirical results, 4. Assessing the measurement model validity, 5. Specifying the structural model, and 6. Assessing structural model validity" (Hair *et al.*, 2006, p. 734). Confirmatory factor analysis (CFA) is commonly used to cover the first four stages in the Hair *et al.* (2006) six-stage model.

CFA is a way of testing how well measured variables represent a smaller number of constructs (Hair *et al.*, 2006, p. 773). The researchers must specify both the number of factors that exist within a set of variables and which factor each variable will load highly on before results can be computed (Hair *et al.*, 2006, p.774). Hair *et al.* (2006) noted the CFA statistic can show how well the specification of the factors matches reality (the actual data); it is a tool that enables researchers to either confirm or reject a preconceived theory. A measurement theory is used to specify how sets of measured items represent a set of constructs. CFA also estimates those relationships which link constructs to variables and constructs to each other (Hair *et al.*, 2006, p.779). When

used to illustrate the concepts such as factor loadings, covariance, and correlation, CFA is always compared and contrasted with EFA. CFA tests measurement theory based on the covariance between all measured items. Hair *et al.* (2006) note the CFA model provides the foundation for all further theory testing.

### 3.6.2.3 Structural equation modelling (SEM)

Structural equation modelling (SEM) is a powerful, yet complex, analytical technique (Shook *et al.*, 2004). It is a method for measuring relationships among unobserved variables and has been in use since early in the 20th century (Shah and Goldstein 2006). It is a family of statistical models that seek to explain the relationships among multiple variables, and it examines the structure of interrelationships expressed in a series of equations, similar to a series of multiple regression equations (Hair *et al.*, 2006, p. 711). It is a unique combination of both interdependence and dependence techniques (Hair *et al.*, 2006, p. 711). It is particularly useful when one dependent variable becomes an independent variable in a subsequent dependence relationship and it gives rise to the interdependent nature of the structural model (Hair *et al.*, 2006, p.711, p.718). There are three characteristics of SEM which make it a unique statistical technique in multivariate data analysis.

- estimation of multiple interrelated dependence relationships
- incorporating latent variables not measured directly
- defining a model.

Today, SEM has become a well-known technique. Several textbooks (e.g., Hair *et al.*, 2006) have been published and different software packages (like AMOS, LISREL, EQS) for computers have been developed (Henriksen and Pedersen, 2007). This has made SEM an easily accessible analytical method. AMOS was adopted in this study because the author had easier access to this program through Newcastle University.

The aim of this study was to develop a structural model of customers' behavioural intentions and explain the interrelationships between constructs in the Chinese restaurant sector. A further aim was to develop scales for each of the constructs in the structural model and evaluate them in terms of reliability and validity to estimate measurement models for each of the constructs in the model and evaluate them in terms

of measures of fit and interpretation. So the SEM approach was chosen as the main statistical technique used in this study.

Hair *et al.* (2006) indicate that SEM estimates a series of separate, but interdependent variables. Normally, researchers will base the proposed relationship of a model upon the theory and prior experience and then translate these variables into a series of structural equations for each dependent variable; what makes SEM unique is that it allows only a single relationship between dependent and independent variables.

SEM has the ability to incorporate latent variables into the analysis and it provides the measurement model which specifies the rules of correspondence between measured and latent variables. It also can improve statistical estimation, represent the theoretical framework and identify the measurement error.

A complete SEM model consists of measurement and structural models. A model should always be developed based on some underlying theory. A structural model involves specifying structural relationships between latent constructs which can be related to measured variables with a dependence relationship. Two types of relationships are possible among constructs. The first is a dependence relationship, which is always depicted by a straight arrow and used between an exogenous construct and an endogenous construct. The second is a correlation relationship, which is depicted by a two-headed arrow connection, which can be shared only between exogenous constructs.

A structural model's goodness of fit is evaluated using RMSEA, the Tucker-Lewis Index (TLI) and the Comparative Fit index (CFI) . The ideal value of RMSEA is 0 and an acceptable value is less than 0.08. The ideal value for TLI and CFI is 1, while close to 1 indicates a good fit. Construct reliability is evaluated using composite reliability and average variance is extracted. Estimated coefficients are evaluated for statistical significance and the correct sign. A squared multiple correlation coefficient (SMCC) is used to identify the proportion of variance of a construct explained by antecedent constructs or measures. The researcher has to approximate the value to the nearest whole percentage.

### **3.7 Implementation of Data Collection**

The primary research instrument in this study was a questionnaire (Appendix 1.1) administered in Wuhan, the fourth biggest city in China. The reason for choosing Wuhan as the target city for this survey is its location and because it has always been classed as a middle-class city in China. As the capital of Hubei Province, Wuhan is a modern metropolis with unlimited possibilities, a city situated in the heart of China (<http://www.wuhan.com/cmarter.asp?doc=310>, no date). Wuhan is an energetic city, a commercial centre of finance, industry, trade and science, with many international companies located there. It is a transportation hub for air, railway and ferry traffic. The distance from Beijing, Shanghai and Guangzhou is more or less equal. Because of its central location in China, the residents are well linked to both the northern part and southern part of China. Unlike in Beijing or Shanghai, where people have a much higher income so most restaurants are very expensive, the restaurants in Wuhan are always popular because the food is good and their prices are very reasonable so they attract a largely middle-class Chinese clientele ([http://english.51766.com/detail/area\\_info\\_detail.jsp?prov\\_id=1004201&info\\_type=1](http://english.51766.com/detail/area_info_detail.jsp?prov_id=1004201&info_type=1), no date). The author originally comes from Wuhan so has several contacts with local restaurants; this helped make conducting the survey slightly easier. Initially, 20 randomly chosen middle-class full-service restaurants in Wuhan were contacted, with the researcher eventually receiving permission to collect data from four full-service restaurant operators.

The questionnaire was designed in English and translated into Chinese by the author, and finally checked by a professional Chinese interpreter. Preliminary field work had established the cooperation of restaurant owners. The survey instrument in this research was self-administered and questionnaires were distributed to selected target full-service restaurants.

Non-probability and a convenience sample were used in this study. Only restaurant patrons who agreed to participate in the survey were given the questionnaire, which was presented to customers after they had finished their meals. Survey participants were requested to evaluate measurement items based on their dining experience and to place the completed questionnaires on the table when they left. The survey was conducted in October 2009 over six weeks, with more than 700 customers being invited to participate; it yielded a total of 489 useable responses.

### 3.8 Reliability Analysis

Measures of reliability and validity should be assessed when using SEM (Shook *et al.*, 2004). Reliability is an indicator of the degree to which a set of indicators of a latent construct is internally consistent based on how highly interrelated the indicators are; that is, it represents the extent to which they all measure the same thing (Hair *et al.*, 2006, p.712). Reliability is assessed by determining the proportion of systematic variation in a scale, which is done by determining the association between scores obtained from different administrations of the scale (Mazzocchi, 2008, p.318). Scale reliability refers to the extent to which a scale can reproduce the same measurement results in repeated trials while random error produces inconsistency in scale measurements, which leads to lower scale reliability (Hair *et al.*, 2003, p.396). Hair *et al.* (2003) identify two basic techniques that can help a researcher assess the reliability of scales, namely, test-retest and equivalent form.

Test-retest involves repeating the administration of the scale measurement to either the same sample of respondents at two different times or two different samples of respondents from the same defined target population under as nearly the same conditions as possible. The degree of similarity between the two measurements is determined by computing a correlation coefficient; the higher the correlation, the greater the reliability (Hair *et al.*, 2003, p. 396; Mazzocchi, 2008, p.320).

Equivalent form (Hair *et al.*, 2003), also known as alternative-forms reliability (Mazzocchi, 2008), means the researchers can create two similar yet different scale measurements for the given construct and administer both forms to either the same sample of respondents or two samples of respondents from the same defined target population. It can be assessed by measuring the correlations of the item-mean value scores on the two scale measurements; the higher the correlation, the greater the scale measurement reliability.

When investigating multidimensional constructs, summated scale measurements tend to be the most appropriate scales. In this type of scale, each dimension represents some aspect of the construct. Thus, the construct is measured by the entire scale, not just one component (Hair *et al.*, 2003, p. 397). Internal consistency means each item measures some aspect of the construct measured by the entire scale, and the items should be

consistent in what they indicate about the construct; it also can be explained as the set of attribute items that make up the scale being internally consistent. There are two techniques used to assess internal consistency; these are split-half reliability and Cronbach's alpha, also known as the coefficient alpha. Split-half reliability is a simple measure of internal consistency, which means the items on the scale are divided into two halves and the resulting half scores are correlated: the higher the correlation between the two halves, the higher the internal consistency. Cronbach's alpha (coefficient alpha) is the average of all possible split-half coefficients resulting from different ways of splitting the scale items (Hair *et al.*, 2003, p. 397). An important property of the coefficient alpha is that its value tends to increase with an increase in the number of scale items; therefore, the coefficient alpha may be artificially, and inappropriately, inflated by the inclusion of several redundant scale items (Mazzocchi, 2008, p. 321).

In this study, scale reliability was evaluated using Cronbach's alpha (coefficient alpha) coefficient on SPSS, giving a measure of how well a set of manifest indicators measure the scale (De Vellis, 2003 p.47 cited in Hair *et al.*, 2006, p.128). The coefficient value can range from 0 to 1, and, in most cases, a value of less than .6 would typically indicate marginal to low (unsatisfactory) internal consistency (Hair *et al.*, 2003, p.397). Nunally (1978 cited in Hair *et al.*, 2006, p.137) recommends an alpha value of .7 while Robin, Shaver, and Wrightman (1991 cited in Hair *et al.*, 2006, p. 137) suggest that a value of .6 is acceptable for exploratory research. However, De Vellis (2003, p.95, cited in Hair *et al.*, 2006, p.138) notes that it is not unusual to find scales with lower reliability coefficients.

Reliability analysis was conducted using Cronbach's alpha coefficient for internal consistency. The results are summarised in Table 3.1. The coefficient for perceived quality is .907. This offers an improvement over the value of .88 for fast food restaurants in Cronin *et al.* (2000) and the value of .83 in the study of Chinese diners by Hoare and Butcher (2008). The result for sacrifice is .768. This reveals an improvement over the values of .69 in the study by Cronin *et al.* (2000) and the value of .65 in a study of UK restaurants by Harris and Ezeh (2008). In the case of perceived risk, the coefficient is .883. This is equivalent to the value of .88 reported in the study by Cronin *et al.* (2000). The result for satisfaction is .850. This matches the value in the study by Cronin *et al.* (2000) and is higher than the value of .76 in the comparable study by

Hoare and Butcher (2008). The coefficient for trust is .820. This result compares favourably with the value of .80 experienced by Jin *et al.* (2007) in the context of e-retailing. The result for face is .805. This reveals an improvement over the value of .72 in the study by Hoare and Butcher (2008). The result for reputation is .762. This value is lower than the coefficient of .81 in the study by Jin *et al.* (2007). The coefficient for behavioural intentions is .866. This result is identical to that obtained by Cronin *et al.* (2000), and offers an improvement on the value of .82 in the study by Hoare and Butcher (2008).

**Table 3-1 Reliability of Constructs**

<b>Construct (No. of items)</b>	<b>Cronbach's Alpha</b>
Perceived quality (16 items)	.907
Perceived value (5 items)	.813
Satisfaction (7 items)	.850
Face (4 items)	.805
Sacrifice (6 items)	.768
Reputation (3 items)	.762
Trust (5 items)	.820
Perceived risk (5 items)	.883
Behavioural intentions (6 items)	.866

In summary, the reliability coefficients for the nine constructs employed in the study exceed the minimum threshold value of .7 suggested by Nunally (1978). Furthermore, in the cases of the coefficients for perceived quality, perceived value, sacrifice, perceived risk, satisfaction, face, trust, reputation and behavioural intentions, the reliability coefficients are at least equivalent to, or better than, the coefficients reported in comparable studies.

## **Chapter 4      Results**

### **4.1 Introduction**

The aim of this chapter is to present the empirical results. The results are presented in association with five main analytical themes concerned with sample characteristics, restaurant behaviour, mean scores for scales, reliability analysis, and SEM analysis.

### **4.2 Sample (socio-demographics) Characteristics**

Sample characteristics were analysed using frequency distributions (Table 4.1). Analysis shows gender groups are fairly evenly represented with 50.5% females. The modal age group is 26-35 years (31.9%) with 60.5% in the range 26-45 years. With respect to level of education, 37.8% of respondents had attended senior high school, 23.8% had attended college and 30.0% had achieved an undergraduate or postgraduate degree. In terms of employment status, the majority of respondents (77.5%) were employed. In terms of employment types, 39.0% were in professional or managerial occupations and 48.6% in supervisory or skilled posts. With respect to monthly income, the most frequent group is between 1001 and 5000 Yuan per month (54.5%) while the smallest group is “more than 10,000 Yuan” per month (1.1%), which indicates that the targeted restaurants are middle-class restaurants.

**Table 4-1 Socio-Demographics analysis**

<i>Demographics</i>	<i>Percentage %</i>
<b><i>Gender</i></b>	
Male	49.5
Female	50.5
<b><i>Age</i></b>	
Less than 16	1.0
16-25	20.7
26-35	31.9
36-45	28.6
46-55	13.5
More than 55	4.3
<b><i>Education Level</i></b>	
Junior high school or lower	8.4
Senior high school	37.8
College or equivalent	23.8
Bachelor degree	18.3
Master or higher degree	11.7
<b><i>Occupation Status</i></b>	
Full-time student	3.9
Unemployed	5.5
Employed	77.5
Retired	9.0
Others (House wife/husband)	4.1
<b><i>Description of Occupation</i></b>	
Professional, managerial or administrative	39.0
Supervisory or clerical, or skilled manual worker	48.6
Semi-skilled and unskilled manual worker, or case worker	12.5
<b><i>Monthly Income (Yuan)</i></b>	
Nil	2.1
<1000	8.2
1001-3000	34.1
3001-5000	20.4
5001-8000	9.9

8001-10000	5.6
More than 10000	1.1
Refused to answer	18.7

In the context of restaurant visit behaviour (Appendix 4), the frequencies of visiting the target restaurant or restaurants of a similar type to the target were similar. Diners typically visited restaurants of a similar type to the target restaurant once per month (30%) with 29% paying visits 2-3 times per month. The corresponding frequencies for the target restaurant were respectively 30% and 28%. The most frequent mode of travel to the target restaurant was using own transport (45%) with 33% using public transport. The most popular type of dining groups involved work colleagues (36%), friends (28%) and family (27%). Typically, diners spent 301-500 Yuan on their visit with 65% spending no more than 500 Yuan.

#### **4. 3 Mean Scores for Scales**

In this section, mean scores are presented for the scale items associated with perceived quality, perceived value, satisfaction, sacrifice, trust, face, reputation, perceived risk and behavioural intentions.

##### ***4.3.1 Perceived quality***

In the case of perceived quality (Table 4.2), all the means are very high, which suggests that they are all very important items in the restaurant environment. The most important items in this respect concern the service quality measure “Friendliness of staff” (4.03), the service environment measure “Standard of hygiene and cleanliness” (3.98) and the measure of meal quality “Freshness of food” (3.92).

**Table 4-2 Mean scores for perceived quality.**

Measure	Mean	Std. Deviation
Friendliness of staff	4.03	.773
Standard of hygiene and cleanliness	3.98	.724
Freshness of food	3.92	.800
Promptness of service	3.91	.784
Politeness of staff	3.89	.797
Treatment of diners	3.88	.758
Comparative quality	3.88	.840
Design and decor	3.87	.787
Comparative prices	3.87	.781
Aroma, colour and taste of food	3.85	.795
Variety and choice of food	3.84	.829
Service skills of staff	3.82	.755
Expectations of service quality	3.81	.795
Seating arrangement	3.81	.837
The meal experience	3.79	.739
Contribution of music to atmosphere	3.74	.859

#### ***4.3.2 Perceived value***

The mean scores for perceived value (Table 4.3) reveal that the most important measures are “The value you received for the time and money spent” (3.85) and “The value of the atmosphere for the price paid” (3.84). The least important item is “The comparative value of service” (3.69).

**Table 4-3 Mean scores for perceived value**

Measure	Mean	Std. Deviation
The value you received for the time and money spent	3.85	.814
The value of the atmosphere for the price paid	3.84	.769
The comparative value of meals	3.78	.764
The overall value of restaurant	3.74	.753
The comparative value of service	3.69	.790

### ***4.3.3 Satisfaction***

In the case of the measures of satisfaction (Table 4.4), all seven items seem to be of similar importance in the measurement of satisfaction, since they have quite similar mean values. The most important items are “Satisfaction with service” (3.94), “Satisfaction with your choice of restaurant” (3.93) and “Satisfaction with meals” (3.86).

**Table 4-4 Mean scores for satisfaction**

Measure	Mean	Std. Deviation
Satisfaction with service	3.94	.747
Satisfaction with your choice of this restaurant	3.93	.759
Satisfaction with meals	3.86	.747
Satisfaction from enjoyment of your visit	3.83	.765
Satisfaction with the atmosphere	3.83	.773
Satisfaction from the pleasure of your visit	3.83	.800
Overall satisfaction	3.76	.742
Valid N (listwise)		

#### 4.3.4 Sacrifice

Previous research has suggested that in the measure of sacrifice, the lower the mean, the higher the value consumers have perceived (Barker *et al.*, 2002; Zeithaml, 1988). It is evident from Table 4.5 that all the mean scores are low, which suggests that, on average, customers have enjoyed a good service and meal experience except “The enjoyment and pleasure experienced” which identifies the overall experience of the visit. Apart from “The enjoyment and pleasure experienced”, the highest mean is associated with the measure “The time it took for your meal to arrive” (2.29). In contrast, the lowest mean value for sacrifice is associated with “The time it took for you to be seated at a table” (2.14).

**Table 4-5 Mean scores for sacrifice**

	Mean	Std. Deviation
The enjoyment and pleasure experienced	3.96	.772
The time it took for your meal to arrive	2.29	.919
The effort spent to get the quality of service you wanted	2.18	.769
The effort spent to get to the restaurant	2.17	.812
The price paid	2.16	.769
The time it took for you to be seated at a table	2.14	.860

#### 4.3.5 Trust

For the measure of trust (Table 4.6), the most important items are “Respect and value you as a customer” (4.04), “Provide harmony and satisfaction” (4.03) and “Recommend new dishes for you to try” (3.97) while “Offer you quality meals” (3.67) is of less importance.

**Table 4-6 Mean scores for trust**

Measure	Mean	Std. Deviation
Respect and value you as a customer	4.04	.713
Provide harmony and satisfaction	4.03	.805
Recommend new dishes for you to try	3.97	.812
Deal with your problems quickly	3.88	.760
Offer you quality meals	3.67	.768

**4.3.6 Face**

In the case of face (Table 4.7), all the means seem to be similarly high, which suggests that they are quite important items in the target restaurant environment. The most important measures are “Restaurant service personnel should save customers’ face” (4.02) and “I expect personnel to treat me with respect in front of my companions” (3.98).

**Table 4-7 Mean scores for face**

Measure	Mean	Std. Deviation
Restaurant service personnel should save customers’ face	4.02	.782
I expect personnel to treat me with respect in front of companions	3.98	.816
It is important for the host of the dining party to gain face	3.96	.831
Restaurant personnel should treat all customers with sensitivity	3.91	.854

#### 4.3.7 Reputation

In the case of the measurement of reputation (Table 4.8), the highest mean values are associated with “Reputation is important in deciding to visit a restaurant” (3.98) and “This restaurant has a better reputation than similar others” (3.85), while the lowest mean is “You visit this restaurant because it has good reputation” (3.8).

**Table 4-8 Mean scores for reputation**

Measure	Mean	Std. Deviation
Reputation is important in deciding to visit a restaurant	3.98	.813
This restaurant has a better reputation than similar others	3.85	.748
You visit this restaurant because it has good reputation	3.80	.821

#### 4.3.8 Perceived risk

Previous research has indicated that perceptions of value are greater when the risks associated with a purchase are lower (Agarwal and Teas, 2004; Sweeney *et al.*, 1999); thus, when measuring the perceived risk, the lower the mean, then the higher the value consumers have perceived. It is evident from Table 4.9 that all the mean scores are low, which suggests that, on average, customers have enjoyed a good service and meal experience. However, the highest mean is associated with the item “The food will probably make you ill because it is not fresh” (2.01) and “You have wasted money” (1.99). The lowest mean value for perceived risk is associated with “The service has been poor” (1.93).

**Table 4-9 Mean scores for perceived risk**

Measure	Mean	Std. Deviation
The food will probably make you ill because it is not fresh	2.01	.900
You have wasted money	1.99	.836
You feel disappoint about your choice	1.98	.831
You have lost face among your dining companions	1.97	.855
The service has been poor	1.93	.808

**4.3.9 Behavioural intentions**

In the case of the measures of behavioural intentions (Table 4.10), all six items have mean scores of at least 3.7, which suggests that they are of similar relevance to future intentions. The highest scores are associated with the measure “Recommend this restaurant if someone ask your advice” (3.80), while the lowest score is for the item “Visit this restaurant frequently” (3.65). Again, all the six measures have similar mean values; thus, they appear to be of similar importance (Table 4.10).

**Table 4-10 Mean scores for behavioural intentions**

Measure	Mean	Std. Deviation
Recommend this restaurant if someone ask your advice	3.80	.804
Chose this restaurant even if others are cheaper	3.78	.955
Encourage friends and relatives to eat in this restaurant	3.75	.861
Say positive things about this restaurant to other people	3.70	.789
Consider this restaurant as your first choice	3.68	.906
Visit this restaurant frequently	3.65	.867

## **4.4 Structural Equation Modelling**

### ***4.4.1 Introduction***

Structural equation modelling (SEM) was used to test the proposed model and is a method suitable for samples of more than 200 respondents (Snoj *et al.*, 2004). SEM is mostly used in social sciences, especially in testing hypotheses of causal influences (Snoj *et al.*, 2004). Compared with multivariate procedures, SEM is a more powerful alternative that takes into account the correlated independents, measurement error and multiple latent independents (Byrne, 2000, p.54). SEM has been widely used in empirical studies (Kennedy *et al.*, 2001; Lee, 2007; Sirdeshmukh *et al.*, 2002).

To test the proposed relationships among the study variables, structural equation modelling (SEM) was conducted using the AMOS 19 program (Arbuckle, 2010). Following the recommendation of Anderson and Gerbing (1988), the SEM analysis followed a two-stage process. First, construct validity was assessed by running a confirmatory factor analysis (CFA) for the measurement model of each construct. Second, the structural equation model was estimated for the Conceptual Model. Following the evaluation of the Conceptual Model, a modified model (the Modified Conceptual Model) was developed for subsequent analysis. The Modified Conceptual Model is evaluated in terms of measures of fit, statistical significance of coefficients and interpretation. Following are the summarized results of the hypotheses tests. Subsequently, the mediating roles of perceived value, satisfaction, reputation and trust were tested by examining the direct and indirect effects of these constructs' predictors on behavioural intentions.

### ***4.4.2 Confirmatory factor analysis***

Table 4.11 presents the results of the confirmatory factor analysis (CFA) for the measurement models of all nine constructs of perceived quality (pqual), sacrifice (sac), perceived risk (prisk), perceived value (pval), satisfaction (sat), reputation (rep) face (face), trust (trust) and behavioural intentions (behint). The analyses are evaluated in terms of the TLI and the CFI measures of fit; the statistical significance of the estimated coefficients, squared multiple correlation coefficient, composite reliability and average variance extracted are significantly associated with their observed variables because all the estimation parameters of those variables are acceptable, which shows the signs are

positive. The measures of fit for the TLI and the CFI are evaluated in the context of suggested minimum threshold values of .9 (Arbuckle, 2010). The statistical significance of coefficients is evaluated in terms of the results of a hypothesis test with the null hypothesis that the true coefficient is zero using a significance level of 5%. The SMCC is evaluated in terms of the minimum value of .3 (Jöreskog and Sörbom, 1983). Construct reliability (CR) should have the lower threshold, which is equal to .7 and the variance extracted (VE) should have the lower threshold, which is equal to .5. The squared multiple correlation coefficient (SMCC) should be at least .3 (Jöreskog and Sörbom, 1983; Hair *et al.*, 2006)

#### *4.4.2.1 Perceived quality*

The measures of fit for perceived quality are summarised by the TLI (.847) and the CFI (.867). The value of the CFI approximates to .9 and hence the model is judged to have an acceptable fit. All measures associated with the construct are statistically significant. For each measure, the null hypothesis that the true value of the coefficient is zero is rejected at the .001 level of significance. All measures have the correct positive signs. With respect to the SMCC, all measures for perceived quality have an acceptable coefficient, being very close to or greater than .3. Thus, all observed variables are strongly significantly associated with perceived quality. Composite reliability (.956) exceeds the minimum threshold of .7 while the average variance extracted of .359 is lower than the minimum threshold of .5. From the results, an overall assessment is that the model is acceptable.

#### *4.4.2.2 Perceived value*

With respect to the constructs of perceived value (pval), both the TLI and the CFI measures of fit approximate to 1. Hence the measurement model is evaluated as very acceptable. All measures associated with the construct are statistically significant. For each measure, the null hypothesis that the true value of the coefficient is zero is rejected at the .001 level of significance. All measures have the correct positive signs. With respect to the SMCC, all measures for perceived quality have an acceptable coefficient ranging from .4 to .5. Composite reliability (.845) exceeds the minimum threshold of .7 while the average variance extracted of .469 approximates to the minimum acceptable threshold of .5. From the results, an overall assessment is that the measurement model

for perceived value is acceptable.

#### *4.4.2.3 Satisfaction*

For the construct of satisfaction, measures of fit according to the TLI (.963) and the CFI (.975) exceed the minimum threshold of .9. Hence the model is judged to be acceptable in terms of fit. All measures associated with the construct are statistically significant. For each measure, the null hypothesis that the true value of the coefficient is zero is rejected at the .001 level of significance. All measures have the correct positive signs. With respect to the SMCC, all measures for satisfaction have an acceptable coefficient ranging from .3 to .5. Composite reliability (.867) exceeds the minimum threshold of .7 while the average variance extracted of .441 is marginally lower than the minimum acceptable threshold of .5. From the results, an overall assessment is that the measurement model for perceived value is acceptable.

#### *4.4.2.4 Sacrifice*

The measures of fit for sacrifice are summarised by the TLI (.750) and the CFI (.850). Although the TLI is a bit lower, the value of the CFI approximates to .9 and hence the model is judged to have an acceptable fit. All measures associated with the construct are statistically significant. For each measure, the null hypothesis that the true value of the coefficient is zero is rejected at the .001 level of significance. All measures have the correct positive signs. With respect to the SMCC, all measures for satisfaction have an acceptable coefficient ranging from .3 to .5. Composite reliability (.799) exceeds the minimum threshold of .7 while the average variance extracted (.296) is lower than the minimum acceptable threshold of .5. From the results, an overall assessment is that the measurement model for sacrifice is acceptable.

#### *4.4.2.5 Trust*

The measures of fit for trust are summarised by the TLI (.838) and the CFI (.919). Hence on the basis of the CFI measure, the model is judged to have an acceptable fit. All measures associated with the construct are statistically significant. For each measure, the null hypothesis that the true value of the coefficient is zero is rejected at the .001 level of significance. All measures have the correct positive signs. With respect to the

SMCC, all measures for satisfaction have an acceptable coefficient ranging from .4 to .5. Composite reliability (.867) exceeds the minimum threshold of .7 while the Average Variance Extracted (.450) approximates to the minimum acceptable threshold of .5. From the results, an overall assessment is that the measurement model for trust is acceptable.

#### *4.4.2.6 Face*

With respect to the construct of face, the measures of fit are summarized by the TLI (.976) and the CFI (.992). Both measures exceed the minimum threshold value of .9. Consequently, the model is judged to have an acceptable fit. All measures associated with the construct are statistically significant. For each measure, the null hypothesis that the true value of the coefficient is zero is rejected at the .001 level of significance. All measures have the correct positive signs. With respect to the SMCC, all measures for satisfaction have an acceptable coefficient ranging from .6 to .8. Composite reliability (.778) exceeds the minimum threshold of .7 while the average variance extracted (.540) exceeds the minimum threshold value of .5. From the results, an overall assessment is that the measurement model for face is acceptable.

#### *4.4.2.7 Reputation*

For the construct of reputation, the TLI is not available. The measure for the CFI (1.000) indicates a very acceptable measure of fit for the model. All measures associated with the construct are statistically significant. For each measure, the null hypothesis that the true value of the coefficient is zero is rejected at the .001 level of significance. All measures have the correct positive signs. With respect to the SMCC, all measures for satisfaction have an acceptable coefficient ranging from .5 to .6. Composite reliability (.847) exceeds the minimum threshold of .7 while the average variance extracted (.613) exceeds the minimum threshold value of .5. From the results, an overall assessment is that the measurement model for reputation is acceptable.

#### *4.4.2.8 Risk*

The measures of fit for risk are summarized by the TLI (.969) and the CFI (.985). Both measures exceed the minimum threshold of .9. Hence the model is judged to have an

acceptable fit. All measures associated with the construct are statistically significant. For each measure, the null hypothesis that the true value of the coefficient is zero is rejected at the .001 level of significance. All measures have the correct positive signs. With respect to the SMCC, all measures for satisfaction have an acceptable coefficient, which approximate to a value of .6. Composite reliability (.890) exceeds the minimum threshold of .7 while the average variance extracted (.602) approximates to the minimum acceptable threshold of .5. From the results, an overall assessment is that the measurement model for risk is acceptable.

#### *4.4.2.9 Behavioural intentions*

The measures of fit for behavioural intentions are summarised by the TLI (.967) and the CFI (.980). Both measures exceed the minimum threshold of .9. Hence the model is judged to have an acceptable fit. All measures associated with the construct are statistically significant. For each measure, the null hypothesis that the true value of the coefficient is zero is rejected at the .001 level of significance. All measures have the correct positive signs. With respect to the SMCC, all measures for satisfaction have an acceptable coefficient ranging from .3 to .6. Composite reliability (.894) exceeds the minimum threshold of .7 while the average variance extracted (.500) satisfies the minimum acceptable threshold of .5. From the results, an overall assessment is that the measurement model for behavioural intentions is acceptable.

**Table 4-11 Confirmatory factor analysis**

Constructs and Measures	Coefficients <sup>a</sup>		Standard Error	Probability <sup>c</sup>	SMCC <sup>d</sup>
	Unstdsd	Stdsd			
Perceived Quality:	TLI=.847,	CFI=.867,	CR=.956,	VE=.359	
q06←pqual	1.000	.541	N/A	N/A	.293
q07←pqual	1.105	.631	.105	***	.398
q08←pqual	1.125	.639	.106	***	.409
q09←pqual	.975	.544	.102	***	.296
q10←pqual	1.093	.601	.107	***	.361
q11←pqual	1.202	.652	.111	***	.425
q12←pqual	1.226	.661	.113	***	.437
q13←pqual	1.217	.633	.115	***	.400
q14←pqual	1.146	.632	.108	***	.400
q15←pqual	1.290	.662	.119	***	.438
q16←pqual	1.066	.622	.102	***	.386
q17←pqual	1.051	.626	.100	***	.392
q18←pqual	1.201	.652	.111	***	.424
q19←pqual	1.226	.615	.118	***	.378
q20←pqual	1.045	.573	.105	***	.328
q21←pqual	1.112	.573	.112	***	.328
Perceived Value:	TLI=1.004,	CFI=1.000,	CR=.845,	VE=.469	
q22←pval	1.000	.710	N/A	N/A	N/A
q23←pval	1.014	.710	.077	***	.504
q24←pval	.999	.677	.078	***	.458
q25←pval	.874	.607	.075	***	.369
q26←pval	1.075	.706	.081	***	.498
Satisfaction:	TLI=.963,	CFI=.975,	CR=.867,	VE=.441	
q27←sat	1.000	.602			.362
q28←sat	1.120	.669	.097	***	.448
q29←sat	1.084	.648	.096	***	.420
q30←sat	1.229	.710	.103	***	.503
q31←sat	1.200	.700	.101	***	.490
q32←sat	1.203	.671	.104	***	.450
q33←sat	1.155	.679	.099	***	.461
Sacrifice:	TLI=.750,	CFI=.850,	CR=.799,	VE=.296	
q34←sac	1.000	.519			.269
q35←sac	1.050	.514	.130	***	.264
q36←sac	1.292	.590	.147	***	.349

q37←sac	1.254	.684	.132	***	.467
q38←sac	1.089	.595	.123	***	.354
q39←sac	1.252	.681	.132	***	.464
Trust:	TLI=.838,	CFI=.919,	CR=.820,	VE=.450	
q40←trust	1.000	.655			.429
q41←trust	1.025	.679	.085	***	.460
q42←trust	1.171	.726	.092	***	.527
q43←trust	.960	.678	.079	***	.459
q44←trust	1.143	.714	.091	***	.510
Face	TLI=.976,	CFI=.992,	CR=.778,	VE=.540	
q45←face	1.000	.715			.654
q46←face	1.129	.760	.082	***	.728
q47←face	1.061	.728	.079	***	.760
q48←face	.997	.654	.081	***	.715
Reputation	TLI=N/A,	CFI=1.000,	CR=.847,	VE=.613	
q49←rep	1.000	.783			.612
q50←rep	.794	.683	.069	***	.466
q51←rep	.877	.693	.076	***	.481
Risk	TLI=.969	CFI=.985,	CR=.890,	VE=.602	
q52←risk	1.000	.776			.603
q53←risk	1.014	.792	.057	***	.627
q54←risk	1.073	.774	.062	***	.599
q55←risk	.945	.759	.056	***	.576
q56←risk	1.022	.776	.059	***	.602
Behavioural intentions	TLI=.967	CFI=.980,	CR=.894,	VE=.500	
q57←behint	1.000	.600			.359
q58←behint	1.217	.763	.095	***	.582
q59←behint	1.106	.747	.088	***	.558
q60←behint	1.026	.706	.084	***	.499
q61←behint	1.182	.746	.094	***	.557
q62←behint	1.358	.773	.105	***	.598

#### Notes

- Estimated regression coefficients: Unstdsd = Unstandardised, Stdstd = Standardised
- Standard error of estimated unstandardised coefficient
- Probability of a t value equal to or greater than actual t value in a two-tailed test for significance of coefficient under the null hypothesis that the true value is zero. The symbol \*\*\* indicates that the null hypothesis is rejected at the .001 level of significance.
- SMCC = squared multiple correlation coefficient

(TLI = Tucker-Lewis index, CFI = Comparative fit index, CR = Construct reliability, VE = Variance extracted)

#### *4.4.3 Structural equation model analysis for the Conceptual Model*

The Conceptual Model was developed from the literature and is explained in Chapter 3. The estimated structural equation model for the Conceptual Model is presented in Table 4.12. The measures of fit for the model are summarised by TLI (.815), CFI (.823) and RMSEA (.057). Both TLI and CFI are marginally lower than the recommended minimum threshold of .9. However, the RMSEA lies comfortably within the maximum threshold of .08.

Consideration of the significance of the paths in the structural model indicates that of the 14 estimated coefficients, 11 measures associated with the construct are statistically significant. For 10 measures, the null hypothesis that the true value of the coefficient is zero is rejected at the .001 level of significance (identified by the symbol \*\*\*). Furthermore, the estimated coefficient for the path  $rep \rightarrow behint$  is significant at the 5% level of significance (.036). In the case of the paths  $pqual \rightarrow behint$  ( $p=.868$ ),  $trust \rightarrow behint$  ( $p=.856$ ) and  $pval \rightarrow behint$  ( $p=.629$ ) the null hypothesis is at the 5% level of significance.

A further problem is that from the perspective of interpretation, some of the paths, though statistically significant, have contradictory signs. Inspection of the unstandardised coefficients for  $pqual \rightarrow sat$  (-.410),  $trust \rightarrow behint$  (-.017) and  $pval \rightarrow behint$  (-.134) reveal that the signs are negative whereas on the basis of a priori knowledge from the theory and the existing literature, they are expected to be positive.

**Table 4-12 Structural equation model for Conceptual Model**

Constructs and Measures	Coefficients <sup>a</sup>		Standard Error	Probability <sup>c</sup>	SMCC <sup>d</sup>
	Unstdsd	Stdsd			
Structural Model:	Goodness of fit: TLI=.815, CFI=.823, RMSEA=.057				
pval←pqual	.833	.875	.074	***	.900
pval←prisk	-.074	-.108	.018	***	
pval←sac	-.364	-.350	.052	***	
sat←pqual	-.410	-.535	.101	***	1.007
sat←pval	1.130	1.402	.146	***	
sat←face	.164	.261	.026	***	
rep←sat	1.028	.671	.115	***	.450
trust←sat	.620	.484	.105	***	.633
trust←rep	.323	.386	.067	***	
behint←pqual	.023	.023	.137	.868	.554
behint←sat	.944	.729	.260	***	
behint←trust	-.017	-.017	.095	.856	
behint←pval	-.134	-.129	.278	.629	
behint←rep	.151	.179	.072	.036	
Perceived Quality:	Construct reliability (CR)=.956, Variance extracted (VE)=.359				
q06←pqual	1.000	.541	N/A	N/A	.293
q07←pqual	1.105	.631	.105	***	.398
q08←pqual	1.125	.639	.106	***	.409
q09←pqual	.975	.544	.102	***	.296
q10←pqual	1.093	.601	.107	***	.361
q11←pqual	1.202	.652	.111	***	.425
q12←pqual	1.226	.661	.113	***	.437
q13←pqual	1.217	.633	.115	***	.400
q14←pqual	1.146	.632	.108	***	.400
q15←pqual	1.290	.662	.119	***	.438
q16←pqual	1.066	.622	.102	***	.386
q17←pqual	1.051	.626	.100	***	.392
q18←pqual	1.201	.652	.111	***	.424
q19←pqual	1.226	.615	.118	***	.378

q20←pqual	1.045	.573	.105	***	.328
q21←pqual	1.112	.573	.112	***	.328
Perceived Value:	Construct reliability (CR)=.845, Variance extracted (VE)=.469				
q22←pval	1.000	.710	N/A	N/A	N/A
q23←pval	1.014	.710	.077	***	.504
q24←pval	.999	.677	.078	***	.458
q25←pval	.874	.607	.075	***	.369
q26←pval	1.075	.706	.081	***	.498
Satisfaction:	Construct reliability (CR)=.867, Variance extracted (VE)=.441				
q27←sat	1.000	.602			.362
q28←sat	1.120	.669	.097	***	.448
q29←sat	1.084	.648	.096	***	.420
q30←sat	1.229	.710	.103	***	.503
q31←sat	1.200	.700	.101	***	.490
q32←sat	1.203	.671	.104	***	.450
q33←sat	1.155	.679	.099	***	.461
Sacrifice:	Construct reliability (CR)=.799, Variance extracted (VE)=.296				
q34←sac	1.000	.519			.269
q35←sac	1.050	.514	.130	***	.264
q36←sac	1.292	.590	.147	***	.349
q37←sac	1.254	.684	.132	***	.467
q38←sac	1.089	.595	.123	***	.354
q39←sac	1.252	.681	.132	***	.464
Trust:	Construct reliability (CR)=.820, Variance extracted (VE)=.450				
q40←trust	1.000	.655			.429
q41←trust	1.025	.679	.085	***	.460
q42←trust	1.171	.726	.092	***	.527
q43←trust	.960	.678	.079	***	.459
q44←trust	1.143	.714	.091	***	.510
Face	Construct reliability (CR)=.778, Variance extracted (VE)=.540				
q45←face	1.000	.715			.654
q46←face	1.129	.760	.082	***	.728
q47←face	1.061	.728	.079	***	.760
q48←face	.997	.654	.081	***	.715
Reputation	Construct reliability (CR)=.847, Variance extracted (VE)=.613				

q49←reputation	1.000	.783			.612
q50←reputation	.794	.683	.069	***	.466
q51←reputation	.877	.693	.076	***	.481
Risk	Construct reliability (CR)=.890, Variance extracted (VE)=.602				
q52←risk	1.000	.776			.603
q53←risk	1.014	.792	.057	***	.627
q54←risk	1.073	.774	.062	***	.599
q55←risk	.945	.759	.056	***	.576
q56←risk	1.022	.776	.059	***	.602
Behavioural intentions	Construct reliability (CR)=.894, Variance extracted (VE)=.500				
q57←behint	1.000	.600			.359
q58←behint	1.217	.763	.095	***	.582
q59←behint	1.106	.747	.088	***	.558
q60←behint	1.026	.706	.084	***	.499
q61←behint	1.182	.746	.094	***	.557
q62←behint	1.358	.773	.105	***	.598

Notes

- Estimated regression coefficients: Unstdsd = Unstandardised, Stndsd = Standardised
- Standard error of estimated unstandardised coefficient
- Probability of a t value equal to or greater than actual t value in a two-tailed test for significance of coefficient under the null hypothesis that the true value is zero. The symbol \*\*\* indicates that the null hypothesis is rejected at the .001 level of significance.
- SMCC = squared multiple correlation coefficient

(TLI = Tucker-Lewis index, CFI = Comparative fit index, CR = Construct reliability, VE = Variance extracted)

Subsequently, further consideration of the model and its constructs was undertaken in an attempt to resolve the apparent anomaly. A series of factor analyses were conducted on pairs and groups of constructs to confirm discriminant validity. Special attention was given to the constructs of trust, reputation and face (Appendix 5). Consequently, it was established that trust and reputation load on a single factor; trust and face loads on a single factor; trust, face and reputation loads on two factors, which are trust and face, and reputation; finally, trust, reputation and behavioural intentions loads on three factors. The theoretical issue is whether trust is a construct that belongs to the Q-V-S-L framework since it appears to belong to the theoretical frameworks concerning brand or communications issues. The preliminary analysis also indicates that there is a lack of discriminant validity between ‘trust and reputation, trust and face. Hence there is strong

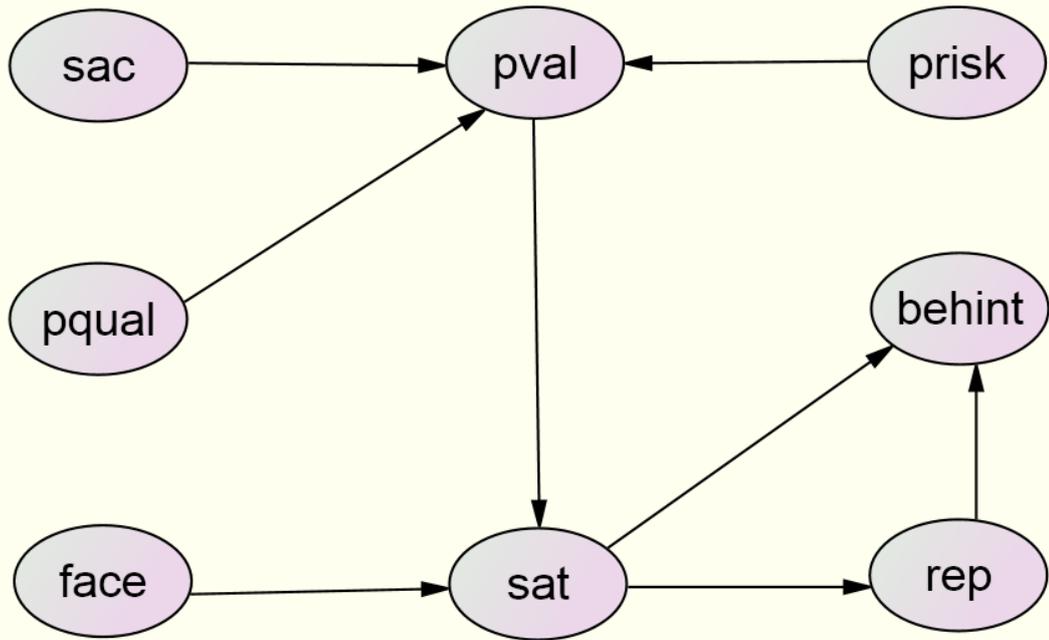
evidence to support the exclusion of trust from the Conceptual Model. The Modified Conceptual Model was then developed.

#### ***4.4.4 Structural equation model for the Modified Conceptual Model***

The Modified Conceptual Model (Figure 4.1) was developed following modification of the original Conceptual Model as discussed in Section 4.5.3. Three paths were removed from the Conceptual Model, specifically,  $p_{qual} \rightarrow behint$ ,  $p_{val} \rightarrow behint$ ,  $p_{qual} \rightarrow sat$ , and one construct was removed from the Conceptual Model, namely, trust.

Figure 4.1

Figure 4.1 Modified Conceptual Model



#### ***4.4.5 Goodness of fit for Modified Conceptual Model.***

The estimated structural equation model Table 4.13 is the SEM output for the Modified Conceptual Model as presented in Table 4.13. The measures of fit are summarised by the TLI (.822), the CFI (.830) and RMSEA (.058). Compared with the comparable results for the Conceptual Model (RMSEA=.057, TLI=.815, CFI=.823, RMSEA=.057), there is a marginal improvement in fit for the TLI and the CFI while RMSEA is marginally lower. Both the TLI and the CFI are very close to the minimum threshold of .9. However, RMSEA lies within the suggested maximum threshold of .08.

**Table 4-13 Structural equation model for Modified Conceptual Model**

Constructs and measures	Coefficients <sup>a</sup>		Standard Error	Probability <sup>c</sup>	SMCC <sup>d</sup>
	Unstdsd	Stdstd			
path Model:	Goodness of fit: TLI=.822, CFI=.830, RMSEA=.058				
pval←pqual	.757	.796	.069	***	.824
pval←prisk	-.092	-.136	.023	***	
pval←sac	-.432	-.414	.057	***	
pat←pval	.805	.949	.079	***	.937
sat←face	.128	.193	.025	***	
rep←sat	1.000	.678	.109	***	.460
behint←sat	.775	.611	.113	***	.577
behint←rep	.171	.199	.062	.006	
Perceived Quality:	Construct reliability (CR)=.956, Variance extracted (VE)=.359				
q06←pqual	.914	.534	.087	N/A	.285
q07←pqual	1.003	.619	.084	***	.383
q08←pqual	1.026	.630	.085	***	.397
q09←pqual	.874	.527	.084	***	.278
q10←pqual	0.990	.588	.087	***	.346
q11←pqual	1.100	.645	.089	***	.416
q12←pqual	1.120	.653	.090	***	.426
q13←pqual	1.131	.635	.093	***	.404
q14←pqual	1.072	.640	.087	***	.409
q15←pqual	1.182	.655	.095	***	.430
q16←pqual	1.000	.630	N/A	***	.397
q17←pqual	.980	.631	.081	***	.398
q18←pqual	1.116	.654	.089	***	.428
q19←pqual	1.144	.620	.096	***	.385
q20←pqual	.999	.592	.087	***	.350
q21←pqual	1.078	.600	.093	***	.360
Perceived Value:	Construct reliability (CR)=.845, Variance extracted (VE)=.469				
q22←pval	1.002	.643	.086	N/A	.413
q23←pval	.965	.605	.086	***	.366
q24←pval	1.000	.607	N/A	***	.368
q25←pval	.913	.563	.087	***	.317
q26←pval	1.025	.603	.092	***	.363
Satisfaction:	Construct reliability (CR)=.867, Variance extracted (VE)=.441				
q27←sat	0.972	.537	.102		.288
q28←sat	1.090	.612	.105	***	.375
q29←sat	1.000	.551	N/A	***	.304
q30←sat	1.063	.569	.107	***	.324
q31←sat	1.016	.546	.106	***	.298
q32←sat	1.043	.534	.110	***	.285
q33←sat	1.072	.588	.106	***	.346
Sacrifice:	Construct reliability (CR)=.799, Variance extracted (VE)=.296				
q34←sac	1.000	.523	N/A		.274
q35←sac	.991	.489	.124	***	.239
q36←sac	1.255	.579	.141	***	.335
q37←sac	1.235	.679	.127	***	.462
q38←sac	1.129	.622	.121	***	.387
q39←sac	1.243	.682	.127	***	.465

Face	Construct reliability (CR)=.778, Variance extracted (VE)=.540				
q45←face	1.000	.721	N/A		.520
q46←face	1.115	.757	.080	***	.572
q47←face	1.051	.727	.077	***	.528
q48←face	.987	.653	.079	***	.426
Reputation	Construct reliability (CR)=.847, Variance extracted (VE)=.613				
q49←reputation	1.000	.726	N/A		.527
q50←reputation	.827	.651	.072	***	.424
q51←reputation	.887	.641	.079	***	.410
Risk	Construct reliability (CR)=.890, Variance extracted (VE)=.602				
q52←risk	1.000	.778	N/A		.605
q53←risk	1.014	.793	.057	***	.629
q54←risk	1.067	.771	.062	***	.595
q55←risk	.944	.759	.055	***	.576
q56←risk	1.021	.777	.058	***	.603
Behavioural intentions	Construct reliability (CR)=.894, Variance extracted (VE)=.500				
q57←behint	1.000	.555	N/A		.308
q58←behint	1.166	.696	.105	***	.485
q59←behint	1.054	.675	.097	***	.455
q60←behint	1.007	.655	.094	***	.429
q61←behint	1.149	.690	.104	***	.476
q62←behint	1.348	.737	.118	***	.543

Notes

- Estimated regression coefficients: Unstdsd = Unstandardised, Stdstd = Standardised
- Standard error of estimated unstandardised coefficient
- Probability of a t value equal to or greater than actual t value in a two-tailed test for significance of coefficient under the null hypothesis that the true value is zero. The symbol \*\*\* indicates that the null hypothesis is rejected at the .001 level of significance.
- SMCC = squared multiple correlation coefficient

(TLI = Tucker-Lewis index, CFI = Comparative fit index, CR = Construct reliability, VE = Variance extracted)

For the structural model, all eight estimated path coefficients are strongly statistically significant. For each coefficient, the null hypothesis that the true value of the coefficient is zero is rejected. In seven out of eight cases (pqual→pval, prisk→pval, sac→pval, pval→sat, face→sat, sat→rep, sat→behint), the probability of a t value equal to or greater than the actual t value is rejected at the .001 level of significance. All coefficients have the expected positive signs except the path prisk→pval and sac→pval; in accordance with the previous research (Agarwal and Teas, 2004; Barker *et al.*, 2002; Bolton and Drew, 1991; Cronin *et al.*, 2000; Zeithaml, 1988), these two paths also have the expected negative sign. For the path coefficient rep→behint, the null hypothesis is rejected at the .006 level and the coefficient also has the expected positive sign.

With respect to the relative importance of constructs or measures on perceived value,

perceived quality has the strongest influence on perceived value (.796), followed by a negative moderate impact on sacrifice (-.414) and a negative weak influence by perceived risk (-.136). Perceived value has an extremely strong impact on satisfaction (.949) and face has a weak impact on satisfaction (.193). Satisfaction has a moderate to strong impact on behavioural intentions (.611) and reputation (.678). Reputation has a weak impact on behavioural intentions (.199).

Consideration of the SMCCs for the structural model reveals that the model is very successful at explaining the variation pval (SMCC =.824) and sat (SMCC =. 937), is rather less successful in explain the variation in rep (SMCC = .460) and moderately successful in explaining the variation in behint (SMCC =.577).

For each of the eight measurement models (pqual, pval, sat, sac, face, rep, prisk and behint), the null hypothesis that the true value of the coefficient is zero is rejected at the .001 level of significance.

There are several instances of mediation in the model. These effects are associated with the constructs of perceived value (pval), 'Satisfaction' (sat) and reputation (rep). The tests of statistical significance of indirect effects were based upon Sobel (1982), and actual t statistics (t value) and probability values (p value) were computed from the interactive website of Preacher and Leonardelli (2006).

Perceived value is a mediating variable for three paths that lead to satisfaction. Each of these is statistically significant. It acts as a mediating variable between sacrifice (sac) and satisfaction through the path  $sac \rightarrow pval \rightarrow sat$  (t value = -6.081, p value = .000). It mediates between perceived quality and satisfaction through the path  $pqual \rightarrow pval \rightarrow sat$  (t value = 7.466, p value =.000). The third instance links perceived risk with satisfaction through the path  $prisk \rightarrow pval \rightarrow sat$  (t value = -3.721, p value = .000).

Satisfaction acts as a mediator for three paths that all affect reputation and behavioural intentions. Each of these is statistically significant. Satisfaction acts as a mediating variable between face (face) and reputation (rep) through the path  $face \rightarrow sat \rightarrow rep$  (t value = 4.471, p value = .000). It acts as a mediating variable between perceived value (pval) and behavioural intentions (behint) through the path  $pval \rightarrow sat \rightarrow behint$  (t value = 5.690, p value =.000). The third instance links face (face) with behavioural intentions

(behint) through the path face→sat→behint (t value = 4.103, p value = .000).

Reputation is a mediating variable on one occasion. It mediates significantly between satisfaction (sat) and behavioural intentions (behint) through the path sat→rep→behint (t value = 2.641, p value = .008).

In summary, the mediating effects are all statistically significant. These effects are relevant to some of the hypotheses, which are addressed in the following sub-section (4.5.6) and represent indirect effects that are included in the discussion in Sub-section 4.5.7

#### ***4.4.6 Tests of hypotheses***

The hypotheses generated from the literature review in Chapter 3 are evaluated in the context of the original Conceptual Model and the Modified Conceptual Model. In some cases, hypotheses are not supported because the process of modification was applied only to the Conceptual Model; hypotheses will be rejected if the process is not applied to the Modified Conceptual Model. A summary of the hypotheses, associated paths and results is presented in Table 4.14. There is also a partial support listed in the table as some hypotheses contain two paths, but only one path was supported.

##### **4.4.6.1 Hypothesis H1: Consumer perceived quality (pqual) has a direct and positive effect on perceived value (pval).**

Hypothesis H1 is represented by the coefficient of the path pqual→pval. It is supported in the Modified Conceptual Model. The path coefficient is statistically significant (p = .001) and it has the expected positive sign.

##### **4.4.6.2 Hypothesis H2: Consumer perceived quality (pqual) has a direct and positive effect on satisfaction (sat).**

Hypothesis H2 is represented by the coefficient of the path pqual→sat. This hypothesis is not supported because the path coefficient of pqual→sat in the Conceptual Model is negative (-.410), though significant (p = .000), and as such, contradicts a priori expectations of a positive sign. This path is deleted from the Modified Conceptual

Model so this hypothesis is rejected.

**4.4.6.3 Hypothesis H3: Consumer perceived quality (pqual) has a direct and positive effect on behavioural intentions (behint).**

Hypothesis 3 is represented by the coefficient of the path  $pqual \rightarrow behint$ . This hypothesis is not supported in the Conceptual Model. The coefficient is not significant at the 5% significance level ( $p = .868$ ) although it has the expected positive sign (.023). Hence the path was omitted in the Modified Conceptual Model so this hypothesis is not supported.

**4.4.6.4 Hypothesis H4: Consumer perceived value (pval) has a direct and positive effect on satisfaction (sat).**

The hypothesis is represented by the path  $pval \rightarrow sat$ . The hypothesis is supported in both models since the path coefficient is statistically significant ( $p = .001$ ) and has the expected positive sign.

**4.4.6.5 Hypothesis H5: Consumer satisfaction (sat) has a direct and positive effect on behavioural intentions (behint).**

Hypothesis 5 is represented by the path  $sat \rightarrow behint$ . Hypothesis H5 is supported in the Conceptual Model and the path is retained in the Modified Conceptual Model where it is statistically significant at the 5% significance level ( $p = .001$ ) and has the expected positive sign.

**4.4.6.6 Hypothesis H6: Consumer perceived value (pval) has a direct and positive effect on behavioural intentions (behint).**

Hypothesis H6 is represented by the path  $pval \rightarrow behint$ . This path is not statistically significant at the 5% significance level ( $p = .629$ ) and in addition, it does not have the expected positive sign. Subsequently, the path is omitted in the Modified Conceptual Model so this hypothesis is rejected.

**4.4.6.7 Hypothesis H7: Consumer perceived value (pval) has an indirect effect on**

**behavioural intentions (behint) through satisfaction (sat) (pval→sat→behint).**

Hypothesis 7 is supported in the Modified Conceptual Model because the coefficients pval→ sat (p =.001) and sat→behint (p = .001) are statistically significant and the results of the mediations test indicates that the complete path pval→sat→behint is significant (t value = 5.690, p value =.000).

**4.4.6.8 Hypothesis H8: Consumer perceived quality (pqual) has an indirect effect on satisfaction (sat) through the mediating effect of perceived value (pval) (pqual→pval→sat).**

Hypothesis 8 is represented by the coefficient of the path pqual→pval→sat. The hypothesis is supported in the Modified Conceptual Model. The coefficients for the respective paths pqual→ sat (p =.001) and sat→behint (p = .001) are both statistically significant and the result of the mediation test indicates that the complete path pval→sat→behint is significant (t value = 7.466 p value =.000).

**4.4.6.9 Hypothesis H9: Consumer perceived quality (pqual) has an indirect effect on behavioural intentions (behint) through the mediating effect of satisfaction (sat) (pqual→sat→behint).**

Hypothesis 9 is represented by the coefficients of the path pqual→sat→behint. This hypothesis is only partially supported. As reported for Hypothesis 2, the path coefficient of pqual→sat in the Conceptual Model is negative (-.410), though significant (p = .000); thus, it is deleted from Modified Conceptual Mode, and as such, contradicts a priori expectations of a positive sign. The remaining path sat→behint is significant and is retained in the Modified Conceptual Model. Partial support means that the hypothesis coincides with Hypothesis 5, which is supported.

**4.4.6.10 Hypothesis H10: Consumer perceived quality (pqual) has an indirect effect on behavioural intentions (behint) through the mediating affect of perceived value (pval) (pqual→pval→behint).**

This hypothesis is represented by the coefficients of the path pqual→pval→behint. There is only partial support for Hypothesis 10. The complete path pqual→pval→behint

cannot be tested. As reported in the case of Hypotheses 1 and 6, only the path coefficient  $p_{\text{qual}} \rightarrow p_{\text{val}}$  is acceptable and so the path coefficient  $p_{\text{val}} \rightarrow \text{behint}$  is omitted from the Modified Conceptual Model.

**4.4.6.11 Hypothesis H11: Sacrifice (sac) has a direct and negative effect on perceived value (pval).**

Hypothesis 11 is supported by the Modified Conceptual Model. The coefficient is significant at the 5% significance level ( $p = .000$ ) and it has the expected negative sign.

**4.4.6.12 Hypothesis H12: Perceived risk (prisk) has a direct and negative effect on perceived value (pval).**

Hypothesis 12 is represented by the coefficient of the path  $\text{prisk} \rightarrow p_{\text{val}}$ . Hypothesis 12 is supported. In the Modified Conceptual Model, it has a significant coefficient ( $p = .001$ ) and the expected negative sign.

**4.4.6.13 Hypothesis H13: Face (face) has a direct and positive effect on consumer satisfaction (sat).**

Hypothesis 13 is represented by the coefficient of the path  $\text{face} \rightarrow \text{sat}$ . Hypothesis 13 is supported. In the Modified Conceptual Model, it is significant ( $p = .001$ ) and satisfies a priori expectation of a positive sign.

**4.4.6.14 Hypothesis H14: Face (face) has an indirect effect on behavioural intentions (behint) through the mediating effect of satisfaction (sat) (face  $\rightarrow$  sat  $\rightarrow$  behint).**

Hypothesis 14 is represented by the coefficients of the path  $\text{face} \rightarrow \text{sat} \rightarrow \text{behint}$ . The hypothesis is supported in the Modified Conceptual Model. The coefficients  $\text{face} \rightarrow \text{sat}$  ( $p = .001$ ) and  $\text{sat} \rightarrow \text{behint}$  ( $p = .001$ ) are statistically significant and the result of the mediation test indicates that the complete path  $\text{face} \rightarrow \text{sat} \rightarrow \text{behint}$  is significant ( $t$  value = 4.103  $p$  value = .001).

**4.4.6.15 Hypothesis H15: Consumer satisfaction (sat) has a direct and positive**

**effect on reputation (rep).**

Hypothesis 15 is represented by the path  $\text{sat} \rightarrow \text{rep}$ . The hypothesis is supported. It is significant at the 5 % significance level ( $p = .001$ ) and has the expected positive sign.

**4.4.6.16 Hypothesis H16: Reputation has a direct and positive effect on behavioural intentions (behint)**

Hypothesis 16 is represented by the coefficient of the path  $\text{rep} \rightarrow \text{behint}$ . Hypothesis H16 is supported. It is significant at the 5% significance level ( $p = .006$ ) and has the expected positive sign

**4.4.6.17 Hypothesis H17: Consumer satisfaction (sat) has an indirect effect on behavioural intentions (behint) through the mediating effect of reputation (rep) ( $\text{sat} \rightarrow \text{rep} \rightarrow \text{behint}$ ).**

Hypothesis 17 is represented by the coefficients of the path  $\text{sat} \rightarrow \text{rep} \rightarrow \text{behint}$ . This hypothesis is supported in the Modified Conceptual Model. The respective coefficients for the paths  $\text{sat} \rightarrow \text{rep}$  ( $p = .001$ ) and  $\text{rep} \rightarrow \text{behint}$  ( $p = .006$ ) are statistically significant and the result of the mediation test indicates that the complete path  $\text{sat} \rightarrow \text{rep} \rightarrow \text{behint}$  is significant ( $t \text{ value} = 2.641$   $p \text{ value} = .008$ ).

**4.4.6.18 Hypothesis H18: Consumer satisfaction (sat) has a direct and positive effect on trust (trust).**

Hypothesis 18 is not supported, since the construct of trust is omitted from the Modified Conceptual Model.

**4.4.6.19 Hypothesis H19: Reputation (rep) has a direct and positive effect on trust (trust).**

Hypothesis 19 is not supported since the construct of trust is omitted from the Modified Conceptual Model.

**4.4.6.20 Hypothesis H20: Trust (trust) has a direct and positive effect on**

**behavioural intentions (behint).**

Hypothesis 20 is not supported since the construct of trust is omitted from the Modified Conceptual Model.

**4.4.6.21 Hypothesis H21: Satisfaction (sat) has an indirect effect on behavioural intentions (behint) through the mediating effect of trust (trust) (sat→trust→behint).**

Hypothesis 21 is not supported since the construct of trust is omitted from the Modified Conceptual Model.

**Table 4-14 Summary of hypothesis tests**

<b>Hypothesis</b>	<b>Path</b>	<b>Result</b>
H1	pqual→pval	S
H2	pqual→sat	NS
H3	pqual→behint	NS
H4	pval→sat	S
H5	sat→behint	S
H6	pval→behint	NS
H7	pval→sat→behint	S
H8	pqual→pval→sat	S
H9	pqual→sat→behint	PS
H10	pqual→pval→behint	PS
H11	sac→pval	S
H12	prisk→pval	S
H13	face→sat	S
H14	face→sat→behint	S
H15	sat→rep	S
H16	rep→behint	S
H17	sat→rep→behint	S
H18	sat→trust	NS
H19	rep→trust	NS
H20	trust→behint	NS
H21	sat→trust→behint	NS

**Note:**

Results of hypotheses are as follows: S=support, NS=not supported, PS=partial support

***4.5.7 Direct, indirect and total effects on Modified Conceptual Model***

The Modified Conceptual Model (Figure 4.1) demonstrates direct and indirect effects among all eight constructs. Direct and indirect effects are calculated based on all paths between respective constructs with expected signs (positive) and exhibit strong statistical significance.

The construct of perceived quality has a direct effect on perceived value ( $pqual \rightarrow pval$ ), perceived value has a direct effect on satisfaction ( $pval \rightarrow sat$ ), and satisfaction has a direct effect on behavioural intentions ( $sat \rightarrow behint$ ). The measures of sacrifice and perceived risk directly influence perceived value ( $sac \rightarrow pval$ ,  $prisk \rightarrow pval$ ), the measure of face directly influences satisfaction ( $face \rightarrow sat$ ) and the measure of reputation directly influences behavioural intentions ( $rep \rightarrow behint$ ). There is also a direct influence on reputation by satisfaction ( $sat \rightarrow rep$ ).

Tests of the statistical significance of indirect effects were based upon Sobel (1982), and t values and probability values were computed from the interactive website of Preacher and Leonardelli (2006). There are several indirect effects; for instance, sacrifice, perceived quality and perceived risk all have an indirect influence through the mediating effect of perceived value on satisfaction ( $sac \rightarrow pval \rightarrow sat$ ,  $pqual \rightarrow pval \rightarrow sat$ ,  $prisk \rightarrow pval \rightarrow sat$ ). Perceived value and face have an indirect influence on behavioural intentions through the mediating effect of satisfaction ( $pval \rightarrow sat \rightarrow behint$ ,  $face \rightarrow sat \rightarrow behint$ ). Perceived value and face influence reputation through the mediating effect of satisfaction ( $pval \rightarrow sat \rightarrow rep$ ,  $face \rightarrow sat \rightarrow rep$ ). Finally, satisfaction has an indirect effect on behavioural intentions through the mediating effect of reputation ( $sat \rightarrow rep \rightarrow behint$ ).

The Modified Conceptual Model permits the evaluation of total effects on the determination of behavioural intentions, arising from the combination of direct and indirect effects of measures and constructs (Table 4.15). With respect to the relative importance of constructs or measures on perceived value, perceived quality has the strongest influence on perceived value (.796), followed by a negative and moderate impact by sacrifice (-.414) and a negative weak influence by perceived risk (-.136). Perceived value has an extremely strong impact on satisfaction (.949) and face has a weak impact on satisfaction (.193). Satisfaction has a moderate to strong impact on behavioural intentions (.611) and reputation (.678). Reputation has a weak impact on behavioural intentions (.199).

There is no indirect effect on perceived value. Perceived quality, sacrifice and perceived risk all have a significant indirect effect on satisfaction through the mediating effect of perceived value. Perceived quality has the strongest indirect effect on satisfaction (.755) ( $pqual \rightarrow pval \rightarrow sat$ ), sacrifice has a moderate indirect and negative effect on satisfaction

(-.393) ( $\text{sac} \rightarrow \text{pval} \rightarrow \text{sat}$ ) and perceived risk has a weak and negative indirect effect on satisfaction (-.129) ( $\text{prisk} \rightarrow \text{pval} \rightarrow \text{sat}$ ). There are five indirect effects on reputation; perceived value has the strongest effect on reputation through the mediating effect of satisfaction (.643) ( $\text{pval} \rightarrow \text{sat} \rightarrow \text{rep}$ ). This is followed by perceived quality, which has a moderate indirect effect on reputation (.512) ( $\text{pqual} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{rep}$ ). Sacrifice has a weak and negative indirect effect on reputation (-.266) ( $\text{sac} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{rep}$ ). Face has a weak and positive indirect effect on reputation (.131) ( $\text{face} \rightarrow \text{sat} \rightarrow \text{rep}$ ). Finally, perceived risk has a weak and negative indirect effect on reputation (-.087) ( $\text{prisk} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{rep}$ ). With respect to the relative importance of constructs, perceived value has the strongest indirect effect on behavioural intentions (.707) ( $\text{pval} \rightarrow \text{sat} \rightarrow \text{behint}$ ). This is followed by other constructs: perceived quality (.563) ( $\text{pqual} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{behint}$ ), sacrifice (-.293) ( $\text{sac} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{behint}$ ), face (.144) ( $\text{face} \rightarrow \text{sat} \rightarrow \text{behint}$ ) and satisfaction (.135) ( $\text{sat} \rightarrow \text{rep} \rightarrow \text{behint}$ ). Perceived risk has a weak indirect and negative effect on behavioural intentions (-0.096) ( $\text{prisk} \rightarrow \text{pval} \rightarrow \text{sat} \rightarrow \text{behint}$ ). There is only one total effect in this Modified Conceptual Model, which is calculated based on the direct effect of satisfaction on behavioural intentions ( $\text{sat} \rightarrow \text{behint}$ ) and the indirect effect of satisfaction on behavioural intentions through the mediating effect of reputation ( $\text{sat} \rightarrow \text{rep} \rightarrow \text{behint}$ ). The standardised coefficient of the total effect is .745, which indicates a strong total effect on behavioural intentions.

**Table 4-15 Summary of direct, indirect and total effects by construct**

Constructs	pval			sat			rep			behint		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total	Direct	indirect	Total
<b>face</b>	na	na	na	0.193	na	0.193	na	0.131	0.131	na	0.144	0.144
<b>sac</b>	-0.414	na	-0.414	na	-0.393	-0.393	na	-0.266	-0.266	na	-0.293	-0.293
<b>prisk</b>	-0.136	na	-0.136	na	-0.129	-0.129	na	-0.087	-0.087	na	-0.096	-0.096
<b>pqual</b>	0.796	na	0.796	na	0.755	0.755	na	0.512	0.512	na	0.563	0.563
<b>pval</b>	na	na	na	0.949	na	0.949	na	0.643	0.643	na	0.707	0.707
<b>sat</b>	na	na	na	na	na	na	0.678	na	0.678	0.611	0.135	0.745
<b>rep</b>	na	na	na	na	na	na	na	na	na	0.199	na	0.199
<b>behint</b>	na	na	na	na	na	na	na	na	na	na	na	na

According to the total effect of all constructs (Table 4.15) on behavioural intentions, the biggest effect can be identified as satisfaction (.745). Perceived value has the second biggest effect on behavioural intentions with the coefficient .707. Perceived quality has a moderate total effect on behavioural intentions, which is .563, followed by a negative effect, which are sacrifice (-.293), reputation (.199) and face (.144). Perceived risk has the weakest but negative effect on behavioural intentions which is -.096.

## Chapter 5 Discussion

### 5.1 Introduction

There are two main parts in this section. Section 5.2 is the summary of the study, which includes an overall review of the study and theoretical support for all the hypotheses. Section 5.3 gives the theoretical implications and the practical implications.

### 5.2 Summary of the Study

The study aimed to determine the factors that influence customer behavioural intentions and their interrelationship in the restaurant industry in PR China. The targeted restaurants were classified as full-service restaurants and the targeted customers were middle-class consumers.

Sample characteristics are analysed using frequency distributions (Table 4.1). Gender groups are fairly evenly represented with 50.5% females. The model age group is 26-35 years (31.9%) with 60.5% in the range 26-45 years. With respect to level of education, 37.8% of respondents had attended senior high school, 23.8% had attended college and 30.0% had achieved an undergraduate or postgraduate degree. In terms of employment status, the majority of respondents (77.5%) were employed. In terms of employment types, 39.0% were in professional or managerial occupations and 48.6% in supervisory or skilled posts. With respect to monthly income, the most frequent group is between 1001 and 5000 Yuan per month (54.5%) while the smallest group is “more than 10000 Yuan” per month (1.1%).

In the context of restaurant visit behaviour (Appendix 4), the frequencies of visiting the target restaurant and visiting the restaurants of a similar type were similar. Diners typically visited restaurants of a similar type to the target restaurant once per month (30.3%) and 28.8% visited 2-3 times per month. Most diners travelled to the restaurants using their own transport (44.8%) while 32.7% used public transport. The most popular type of dining groups involved work colleagues (35.6%), followed by groups of friends (28.4%) and then family (27.2%). Typically, diners (35.2%) spent 301-500 Yuan on their visit and 27.6% of diners spent more than 500 Yuan.

This study also aimed to model the determinants of restaurants' consumers' behavioural intentions using a structural equation modelling (SEM) approach. The Conceptual Model included perceived quality, perceived value, satisfaction, sacrifice, perceived risk, face, reputation, trust and behavioural intentions. Through SEM analysis, the model was revised, with three paths and one factor, namely, trust, discarded. With the significances noted in the paths and the higher explanatory power of the Modified Conceptual Model (RMSEA=0.058, satisfy goodness of fit, strong significant coefficient and all constructs have correct signs.), the model proves itself applicable to full-service restaurants.

A total of 21 hypotheses were proposed based on the extensive review of the literature. A self-complete survey was employed to collect data. The quality of the measures for study constructs was assessed by examining the constructs' reliability (Cronbach's alpha). Standardised coefficients between all the constructs through SEM analysis were used to test the hypotheses. Direct, indirect and total effects were used to identify the interrelationships between the constructs. The findings support 14 hypotheses; three are partially supported and four rejected.

According to the research result, H1 (Consumer perceived quality (pqual) has a direct and positive effect on perceived value (pval)) is fully supported. The standardised coefficient for H1 is .796, which indicates a strong significant direct effect on perceived value by perceived quality. A positive effect is also confirmed in restaurant customers' loyalty research in the United States by Kim and Han (2008), (.68); the Q-V-S-L research into health care providers in South Korea by Choi *et al.* (2002), (.67); the customer satisfaction research into the jackets and sunglasses market in Sweden by Agarwal and Teas (2004) (.46, .43 respectively); the relationship among perceived quality, perceived risk and perceived value research towards students mobile users in Slovenia by Snoj *et al.* (2004) (.316); a study of customer online-shopping behaviour in the United States by Chang and Wang (2010) (.74); and the Q-V-S-L four models comparison research into six industries in the United States by Cronin *et al.* (2000) (Research Model .64, Value Model .46, Satisfaction Model .64, Indirect Model .70), though their results of connections are a little weaker.

The standardised coefficient of H2 (Consumer perceived quality (pqual) has a direct and positive effect on satisfaction (sat)) is not significant in this study because the negative

coefficient of perceived quality to satisfaction (Table 4.12) means there is no causal relationship between perceived quality and satisfaction in this study. This is also confirmed by research into European consumers' behavioural intentions towards food purchasing for four food products in six countries by Ness *et al.* (2009). The rejection of H2 also indicates there is a partial support for H9 (Consumer perceived quality (pqual) has an indirect effect on behavioural intentions (behint) through the mediating effect of satisfaction (sat) (pqual → sat → behint)).

The standardised coefficient for H3 (Consumer perceived quality (pqual) has a direct and positive effect on behavioural intentions (behint)) is .023. The reason for rejecting H3 is that standardised coefficient is not significant at the  $P < 0.001$  level. A similar result was found by the research into 'service quality, customer satisfaction and behavioural intentions towards restaurants in the United States' by Olorunniwo *et al.* (2006) (.10). Their result is slightly weak, but it is significant at the  $P < 0.05$  level, so the hypothesis is accepted in their research.

The widely accepted relationship between perceived value and satisfaction is confirmed (H4 Consumer perceived value (pval) has a direct and positive effect on satisfaction (sat)) by a strong significant standardised coefficient (.949). The direct effect on satisfaction by perceived value is also consistent with restaurant customers' loyalty research in the United States by Kim and Han (2008) (.66); the research into European consumers' behavioural intentions towards food purchasing for four food products in six countries by Ness *et al.* (2009) (.548 to .722); the Q-V-S-L research into health care providers in South Korea by Choi *et al.* (2002) (.25); the research into the effect of customer perceived value on online shopping behaviour in the United States by Chang and Wang (2010) (.33); the Q-V-S-L models comparison research into six industries in the United States by Cronin *et al.* (2000) (Research Model .42, Value Model (path is specified sat → pval which is identified as having a different causality from the coefficient .45), Satisfaction Model (.59), Indirect Model (.65)); and the research undertaken among customers of an audit firm to determine the role of value in the UK by Caruana *et al.* (2000) (.29).

The widely accepted theory that there is a direct link between satisfaction and behavioural intentions (H5) is supported in this study too, and is consistent with the

restaurant customers' loyalty research in the United States by Kim and Han (2008) (.61), customer satisfaction with mortgage credit companies in Denmark by Høst and Andersen (2004) (.44), the Q-V-S-L research into health care providers in South Korea by Choi *et al.* (2002) (.56); research into the effect of customer perceived value on online shopping behaviour in the United States by Chang and Wang (2010) (.84), the research comparing new and experienced customers' loyalty towards night-train companies in Europe by Brunner *et al.* (2007) (new customer .71, experienced customer .53), the Q-V-S-L models comparison research into six industries in the United States by Cronin *et al.* (2000) (Research Model (.41), Value Model (not specified), Satisfaction Model (.94), Indirect Model (.43)), the perceived risk in satisfaction-loyalty relationship research in a food context in Vietnam by Tuu *et al.* (2011) (.45), the research into consumer behavioural intentions at a museum and a theme park in Spain by Bigné *et al.* (2008) (Museum .31, Theme Park .38), and the service quality and behavioural intentions research at a family-style restaurant in the United States by Swanson and Davis (2003).

H6 (Consumer perceived value (pval) has a direct and positive effect on behavioural intentions (behint)) has a negative standard coefficient so it is rejected in this study. This is supported by research into European consumers' behavioural intentions towards food purchasing for four food products in six countries by Ness *et al.* (2009) in the case of Switzerland. However, this result is inconsistent with the restaurant customers' loyalty research in the United States by Kim and Han (2008) (.65), who found a significant direct effect on behavioural intentions by perceived value. It still provides theoretical support for H7 in this study, which predicts the indirect effect on behavioural intention (behint) through satisfaction (sat) by perceived value (pval) (pval→sat→behint). The result for H7 is also supported by research into the effect of customer perceived value on online shopping behaviour in the United States by Chang and Wang (2010), who found the indirect effect on loyalty through the mediating effect of perceived value by perceived value to be .27. The non significant standard coefficient of perceived value to behavioural intention (pval→behint) also indicates that H10 (Consumer perceived quality (pqual) has an indirect effect on behavioural intentions (behint) through the mediating effect of perceived value (pval) (pqual→pval→behint)) is partially supported.

H8 (Consumer perceived quality (pqual) has an indirect effect on satisfaction (sat))

through the mediating effect of perceived value (pval)) is fully supported in this study. It is also supported by the Q-V-S-L research into health care providers in South Korea by Choi *et al.* (2002), whose result calculated the total effect among service quality, value and satisfaction and found a significant indirect effect on satisfaction through value by quality. Research into the effect of customer perceived value on online shopping behaviour in the United States by Chang and Wang (2010) found the indirect effect on satisfaction through the mediating effect of perceived value by service quality to be .24, which is consistent with the research undertaken among customers of an audit firm to determine the role of value in the UK by Caruana *et al.* (2000), who showed the effect of quality on satisfaction is not just direct but is also moderated by value.

The result of H11 (Sacrifice (sac) has a direct and negative effect on perceived value (pval)) (-.414) provides support for the Q-V-S-L model comparison research into six industries in the United States by Cronin *et al.* (2000) and provides support for Zeithaml (1988), who identified how anything that reduces the monetary sacrifice will increase the perceived value of the product. It also presents a stronger impact compared with the store environment research by Baker *et al.* (2002) (-.17).

With respect to H12 (Perceived risk (prisk) has a direct and negative effect on perceived value (pval)) (-.136), the result provides additional support for the research into the relationship among perceived quality, perceived risk and perceived value regarding student users of mobile phones in Slovenia by Snoj *et al.* (2004) (-.738), the wrist-watches and calculators market in the United States by Agarwal and Teas (2001) (-.19, -.23), and the jackets and sunglasses market in Sweden by Teas and Agarwal (2000) (-.22, -.10).

Regarding H13 (Face (face) has a direct effect on consumer satisfaction (sat)) and H14 (Face (face) has a direct effect on consumer satisfaction (sat)), they are both supported in this study. The cultural factor face is fairly new in the Q-V-S-L model and has not been studied previously. However, theoretical support can still be found in the customer loyalty research field such as the research into Chinese cultural factors regarding Chinese diners in Mainland China, Hong Kong and Taiwan by Hoare and Butcher (2008). They found face has a significant direct effect on customer satisfaction (.22); it has no direct relationship with customer loyalty but has an indirect effect on customer

loyalty through the mediating effect of satisfaction.

With respect to H15 (Consumer satisfaction (sat) has a direct effect on reputation (rep)) (.678), this study provides a strong coefficient to support Anderson and Sullivan (1993), who claimed that “high customer satisfaction develops a positive reputation”.

With respect to H16 (Reputation has a direct effect on behavioural intentions (behint)) (.199), this hypothesis is supported with a weak standard coefficient, which provides theoretical evidence to support customer loyalty and service recommendation in the banking industry research in North America by Bontis *et al.* (2007). Based on the findings of that research, it is concluded that reputation serves as a partial mediator of customer satisfaction and loyalty, which is supported by H17 (Consumer satisfaction (sat) has an indirect effect on behavioural intentions (behint) through the mediating effect of reputation (rep) (sat→rep→behint)) in this study.

Regarding H18 (Consumer satisfaction (sat) has a direct effect on trust (trust)), the hypothesis is rejected in this study due to the result of factor analysis that trust loads on the single factor with reputation and face, so it is deleted from the Modified Conceptual Model, but it has a significant coefficient in the Conceptual Model (.484) (Table 4.12). This is also supported by research into the building of trust between logistic users and third-party logistics providers in China by Tian *et al.* (2008), the full-service restaurant consumer behaviour research in the United States by Jani and Han (2011), and the perceived risk of online buying research in Spain by Martín and Camarero (2009).

Similar to H18, H19 (Reputation (rep) has a direct effect on trust (trust)) (.386) is rejected in this study because trust is deleted from the Modified Conceptual Model, but actually, the result of SEM found a significant effect on trust by reputation. This is also supported by research into the building of trust between logistic users and third-party logistics providers in China by Tian *et al.* (2008) and research into the perceived risk of online buying in Spain by Martín and Camarero (2009).

Regarding H20 (Trust (trust) has a direct effect on behavioural intentions (behint)), this hypothesis is rejected because trust is deleted from the Modified Conceptual Model; the coefficient is negative and not significant in the SEM result. It also provides partial

support for H21 (Satisfaction (sat) has an indirect effect on behavioural intentions (behint) through the mediating effect of trust (trust) (sat→trust→behint)). H20 is consistent with research into the building of trust between logistic users and third-party logistics providers in China by Tian *et al.* (2008), but inconsistent with research into the restaurant customers' loyalty in the United States by Kim and Han (2008), which reported the significant coefficient between trust and behavioural intentions.

### **5.3 Implications**

The results from this study offer both theoretical and practical implications. Theoretically, four implications are derived from the study result. First, perceived value in full-service restaurants is most strongly influenced by perceived quality as compared to being influenced by sacrifice and perceived risk. Second, satisfaction is strongly and directly influenced by perceived value and weakly influenced by the cultural factor face. It also has an indirect effect through the mediating effect of perceived value by perceived quality, sacrifice and perceived risk. There is a non-significant direct influence of perceived quality on satisfaction in this study, which is different compared with research into customer perceived value on online shopping behaviour in the United States by Chang and Wang (2010) (.65), the Q-V-S-L models comparison research into six industries in the United States by Cronin *et al.* (2000) (Research Model.31, Value Model (not specified), Satisfaction Model (.36), Indirect Model (not specified)), research into restaurant consumer satisfaction in North Spain by Iglesias and Guillén (2004) (.509), and the research undertaken among customers of an audit firm to determine the role of value in the UK by Caruana *et al.* (2000) (.29). Third, behavioural intentions in full-service restaurants in China only has direct effects on satisfaction and reputation, and its influence on satisfaction is stronger than on reputation. Behavioural intentions has indirect effects through the mediating effect of satisfaction by perceived quality, perceived value and face, and it has indirect effects through the mediating effect of reputation by satisfaction. There is no causal relation between perceived quality and behavioural intentions in this study; the result is different compared to the Q-V-S-L model research into health care providers in South Korea by Choi *et al.* (2002) (.18 weak but significant), and the Q-V-S-L models comparison research into six industries in the United States by Cronin *et al.* (2000) (Research Model.24, Value Model (not specified), the Satisfaction Model (not specified), Indirect Model (not specified)). There

is no direct effect on behavioural intentions by perceived value in this study, which is different compared with the Q-V-S-L research into health care providers in South Korea by Choi *et al.* (2002) (.17); the research into ‘restaurant customers’ loyalty in the United States’ by Kim and Han (2008) (.65); the research into the effect of customer perceived value on online shopping behaviour in the United States by Chang and Wang (2010) (.34); and the Q-V-S-L model comparison research into six industries in the United States by Cronin *et al.* (2000) (Research Model (.47), Value Model (.94), Satisfaction Model (not specified), Indirect Model (.64)). Finally, the result of factor analysis indicated trust and reputation, and trust and face load on a single factor, so trust is deleted from the Modified Conceptual Model in this study.

Findings from this study provide several practical implications for full-service restaurateurs in China. The significant influence of perceived quality on perceived value (.796) (Figure 4.1) implies restaurateurs should direct their attention to the meal quality and the service quality they provide. In the case of perceived quality in general, all measures are strongly associated with the construct (Table 4.13), which suggests that all the measures require attention to enhance perceived value and indirectly encourage satisfaction and consumer behavioural intentions. However, the three strongest measures are associated with quality of food compared to customers’ expectations, quality of service compared to customers’ expectations and freshness of food. This implication sheds light on the method of providing food in restaurants in China, in that food should be fresh and be of a high standard to meet customers’ expectations. Full-service restaurants in China provide service through staff interactions that should be friendly, attentive, genuine and efficient while simultaneously meeting customers’ needs and expectations.

There is a moderate and negative effect of sacrifice on perceived value (-.414) (Figure 4.1), which indicates sacrifice is an essential factor restaurateurs need to consider when establishing business strategies. All measures are strongly associated with sacrifice (Table 4.13), which suggests that all measures require attention to reduce sacrifice and enhance perceived value and indirectly enhance satisfaction and consumer behavioural intentions. The most important measures that should be noticed by restaurateurs are the enjoyment and pleasure customers experience, the effort a customer makes to get the quality of service they expect and the price customers pay.

There is a weak and negative effect of perceived risk on perceived value (-.136) (Figure 4.1), which means perceived risk is not very strongly associated with perceived value compared with perceived quality and sacrifice but the importance of perceived risk is non-ignorable. All measures for perceived risk are strongly associated with the construct (Table 4.13), which suggests that all the measures need attention to reduce perceived risk and enhance perceived value and indirectly to encourage satisfaction and behavioural intentions. The significant influence of the three strongest measures on perceived risk implies restaurateurs should direct their attention to the customers' feelings about their choice of restaurant and their experience about the overall value of the visit, and protect customers' face in front of their dining companions.

The direct effect of perceived value on satisfaction has the strongest coefficient (.949) (Figure 4.1) when compared to other direct effects in this study. The significant influence of perceived value on satisfaction suggests restaurateurs should focus both on the value of the meals and the value of the service customers experience to enhance the overall value they receive and encourage consumer behavioural intentions. All measures for perceived value are strongly associated with the construct (Table 4.13), especially the overall value provided by the restaurant, the value of the service compared to similar restaurants and the value of meals compared to similar restaurants. According to the result, restaurateurs should not only pay attention to their own business, but also need to observe closely the competitors' business, keep information updated and enhance their competitive power. In creating a favourable perceived value, restaurateurs can use comparative marketing strategies that will lead customers to perceive the restaurant's food prices as reasonable and appropriate compared to those of other restaurants.

Compared to the coefficient between perceived value on satisfaction, face on satisfaction has a weak direct effect (.193) (Figure 4.1). As a construct that is newly added to the Q-V-S-L model, it is excellent to find that face has a significant direct effect on satisfaction and an indirect effect on customer behavioural intentions. All measures are strongly associated with face (Table 4.13), which suggests that all measures require attention to enhance customer satisfaction and indirectly enhance customer behavioural intentions. The significant influence of the three strongest measures with face implies restaurateurs should direct their attention to the customers'

feeling of gaining face by receiving close attendance from restaurant personnel as a host, try to meet customers' expectations of restaurant personnel to treat them with respect in front of their dining companions and, finally, always remind their employees of the importance of saving customers' face under any circumstances.

The significant influence of satisfaction on behavioural intentions (.611) (Figure 4.1) suggests that restaurateurs should pay attention to customer satisfaction by improving the meals and the service customers experience to encourage customer behavioural intentions and enhance customer loyalty. Satisfied customers will repeat their purchases, they will be more loyal to the firm and, moreover, they will become the most efficient and effective communications resource of the firm by generating favourable recommendations and positive word-of-mouth. All measures are strongly associated with satisfaction (Table 4.13), which suggests that all measures require attention to encourage customer behavioural intentions. The most important measures that should be noticed by restaurateurs are customer overall satisfaction with meals, customer satisfaction with their choice of the particular restaurant and their satisfaction with the atmosphere. Increasing customer satisfaction (e.g., high quality food, menus with a wide range of choices, a comfortable dining environment, reliable service, employee friendliness, etc.) contributes to encouraging customer behavioural intentions directly and indirectly through reputation.

With respect to reputation, all measures indicate a strong association. The most important aspects of reputation in descending order of importance are "the reason for visiting the restaurant is because it has a good reputation", "comparison with restaurants of similar level", "the restaurant has a better reputation and reputation is an important reason when choosing a restaurant". The full mediation of reputation on satisfaction on behavioural intentions implies restaurateurs, by enhancing customer satisfaction, can create a sense of positive word-of-mouth, strengthen customers' confidence and reduce risk perceptions with respect to the restaurants' service and meals, all of which are elements of reputation.

Behavioural intentions are associated, in descending order of importance, with "choosing this restaurant even if others are cheaper", "visiting this restaurant frequently" and "encouraging friends and relatives to eat in this restaurant". The enhancement of

behavioural intentions can be attained directly through satisfaction and indirectly through restaurant reputation. Consequently, upon enhancing customer satisfaction and reputation, the restaurateur is likely to encourage higher customer behavioural intentions of both revisiting the restaurant and recommending the restaurant to potential customers.

## **Chapter 6 Conclusion**

### **6.1 Introduction**

The aim of this chapter is to present concluding comments on the study. The aim of the study was to develop a structural equation model (SEM) of customers' behavioural intentions towards restaurant patronage in China. The study was set in the economic context of the Chinese open door policy of 1978 and the emergence of a service sector and middle-class consumers with higher disposable incomes.

This thesis conceptualised and investigated the relationship between determinants of customer loyalty in the Chinese restaurant industry. The conceptual SEM was developed from the existing literature on customer loyalty and includes constructs of perceived quality, sacrifice, perceived risk, perceived value, the Chinese cultural value of face, satisfaction, reputation, trust and behavioural intentions. A set of hypotheses concerning direct and indirect links between constructs was derived.

The chapter begins with a re-statement of the research aims and objectives (Section 6.2) and proceeds to provide a summary of the research design (Section 6.3). Section 6.4 provides a summary of the key results. This is followed by a discussion of the contribution of the study (Section 6.5). Section 6.6 presents a re-statement of the implications of the study, and the limitations of the study are presented in Section 6.7. Finally, Section 6.8 provides suggestions for future research.

### **6.2 Restatement of Aims and Objectives**

The aim of the study was to develop a structural equation model (SEM) of customers' behavioural intentions towards restaurant patronage in China. Constructs of the model included perceived quality, perceived value, sacrifice, perceived risk, face, satisfaction, reputation trust and behavioural intention. By conducting this research, seven main research questions were investigated: to identify the determinants of customer loyalty in the context of Chinese culture from a review of the existing literature and formulate hypotheses concerning the interrelationship between the determinants of customer loyalty from a review of the existing literature; to develop a structural model to explain

the interrelationships between the constructs, develop scales for each of the constructs in the structural model and evaluate them in terms of reliability and validity; to estimate measurement models for each of the constructs in the model and evaluate them in terms of measures of fit and interpretation; to estimate a structural equation model for the determination of customer loyalty and evaluate it in terms of measures of fit and interpretation; to test hypotheses concerning the interrelationships between constructs; and, finally, to estimate the direct and indirect effects of relevant constructs on behavioural intentions.

### **6.3 Summary of the Research Design**

The rapid economic growth of China since the beginning of economic reform in 1978 has encouraged the formation of rural enterprises and private businesses, liberalised foreign trade and investment, and relaxed state control over some prices, and has led to investment in industrial production and the education of the Chinese workforce (Hu and Khan, 1997). As mentioned in section 1.2.2, China's size, the abundance of its resources, and its having about 20% of the world's population living within its borders for the last two centuries, means that its role in the world economy will continue to grow. The expanding middle class in China is indicative of the country's economic success and is extremely important to both local and international companies due to their significant purchasing power. Expenditure on food is the largest component of household expenditure (National Bureau of Statistics of China, 2010) and dining out with families and friends has become more popular as people's disposable income has increased. Consequently, the restaurant industry is one of the most dynamic economic sectors in China and a major source of financial activity; thus, creating customer loyalty in this huge potential market is extremely important.

The Conceptual Model was tested using the results of a customer self-administered survey held in selected full-service restaurants in Wuhan, which is the fourth biggest city in PR China. Non-probability sampling was used in this study. As discussed in subsection 3.2.2, the survey included 68 questions, which were grouped into three sections. The questionnaire was organised in three thematic sections (Appendix 1). The first section was concerned with customer behaviour with respect to restaurant visits to restaurants of a similar quality and to the target restaurant. It employed nominal measures of frequency of visiting in a six-month period, the method of travel, the social

context of the visit and expenditure on the meal. The second section was concerned with consumer attitudes to their experience in the target restaurants. It consisted of nine constructs concerned with perceived quality, perceived value, satisfaction, behavioural intention, sacrifice, perceived risk, face, reputation and trust (Appendix 2). A five-point Likert scale was used in this part as a scoring method (1=Very low, 5=Very high). Finally, the third section was concerned with the socio-demographic characteristics of the respondents. This section included nominal measures of gender, age, education level, occupation and personal income. The survey produced 489 valid questionnaires.

For the statistical analysis of the primary data, descriptive analysis was used initially (frequencies, percentages). Factor analysis, confirmatory factor analysis (CFA), and structural equation modelling were used to test the Conceptual Model. Hypothesis testing was employed in the analysis and the presentation of the findings of this study.

### **6.3 Summary of Findings**

Customer loyalty is defined in terms of behavioural intentions. The determinants of customer loyalty are defined as perceived quality, perceived value, sacrifice, perceived risk, face, satisfaction, reputation trust and behavioural intentions. Measurement scales of constructs satisfied the minimum requirements of Cronbach's alpha coefficient. The measurement models of the SEM constructs were evaluated using confirmatory factor analysis (CFA). They were accepted on the basis of measures of fit, and the statistical significance of coefficients and signs. Preliminary analysis led to the modification of the conceptual SEM. The modified SEM was accepted on the basis of measures of fit, statistical significance and signs of coefficients, composite reliability, variance extracted and squared multiple correlation coefficients. Tests of hypotheses and tests for mediation provided the analysis and decomposition of total effects on dependent constructs. The study establishes the relevance of traditional loyalty constructs, such as perceived quality, sacrifice, perceived risk, perceived value, satisfaction and reputation, and confirms the relevance of the Chinese cultural value of face. Total effect analysis reveals the importance of perceived quality, perceived value and satisfaction for customers' behavioural intentions with associated benefits to commercial marketers in the hospitality sector. The biggest effect on perceived value is by perceived quality, followed by sacrifice, and finally, perceived risk. The greatest effect on satisfaction is by perceived value while the second greatest effect is by perceived quality, followed by

sacrifice. Face is the fourth biggest effect on satisfaction and, finally, perceived risk. The biggest effect on reputation is satisfaction while the second biggest effect on reputation is perceived value, then perceived quality, followed by sacrifice and face, and finally, the negative effect of perceived risk. The biggest effect on behavioural intentions is by satisfaction, and second biggest effect is by perceived value. Perceived quality has the third biggest effect on behavioural intentions followed by sacrifice and reputation. The cultural factor face has little effect on behavioural intentions compared with other factors and perceived risk has the smallest but negative effect.

#### **6.4 Theoretical Contribution of the Study**

The study has achieved the broad objective of developing a structural equation model of the determinants of restaurant customers' behavioural intentions. The model confirms the relevance of the Q-V-S-L model in this context and, in particular, that of the constructs of perceived quality, perceived value and satisfaction. Furthermore, the model also establishes the relevance of sacrifice, perceived risk and reputation in a restaurant context.

However, the most important contribution made by this study is that the cultural factor face has been added to and tested in the Q-V-S-L model. The Q-V-S-L model was introduced and developed in a Western cultural background and not many scholars have applied it to the Chinese restaurant sector. Chinese culture is particularly characterised by a strong desire to gain or protect face (Hoare and Butcher, 2008) and face is the dominating characteristic in Chinese business relationships (Gilbert and Tsao, 2000). Face has attracted many scholars' research interests (Gilbert and Tsao, 2000; Hoare and Butcher, 2008) but none of them have tested face as a construct in the Q-V-S-L model and using a structural equation model (SEM) approach. It was excellent to see face has a significant result in the Conceptual Model in this study, and it indirectly affects behavioural intentions in the Chinese restaurant sector.

This study filled the research gap suggested by Snoj *et al.* (2004) that researchers should expand the model with more indicators on perceived value and perhaps study relationships between perceived value, intentions to buy, customer satisfaction and their loyalty. It also considered the widely accepted theory that there is a direct and negative effect on perceived value by perceived risk (Agarwal and Teas, 2004; Snoj *et al.*, 2004;

Teas and Agarwal, 2000); thus, perceived risk was added to the Conceptual Model and achieved a significant result.

There are four implications derived from the study result. First, perceived value in full-service restaurants is most strongly influenced by perceived quality as compared to the influence of sacrifice and perceived risk. Second, satisfaction is strongly and directly influenced by perceived value and weakly influenced by the cultural factor face. It also has an indirect effect through the mediating effect of perceived value by perceived quality, sacrifice and perceived risk. There is a non-significant direct influence of perceived quality on satisfaction in this study, which is different compared with other studies (Caruana *et al.*, 2000; Chang and Wang, 2010; Cronin *et al.*, 2000; Iglesias and Guillén, 2004). Third, behavioural intentions in full-service restaurants in China only has direct effects on satisfaction and reputation, and the influence on satisfaction is stronger than on reputation. Behavioural intentions has indirect effects through the mediating effect of satisfaction by perceived quality, perceived value and face, and it has indirect effects through the mediating effect of reputation by satisfaction. There is no causal relation between perceived quality and behavioural intentions in this study; the result is different compared to other scholar's studies (Choi *et al.*, 2002; Cronin *et al.* (2000). There is no direct effect on behavioural intentions by perceived value in this study, which is different compared with the studies by Choi *et al.* (2002), Kim and Han (2008), Chang and Wang (2010) and Cronin *et al.* (2000). Finally, the result of the factor analysis indicated trust and reputation and trust and face load on a single factor, so trust is deleted from the Modified Conceptual Model in this study.

It is confirmed by many scholars that middle-class consumers have huge potential purchasing power and their growing disposable income will transform the Chinese consumer market (Farrell *et al.*, 2006; Hodgson, 2007). The emergence of middle-class consumers in China has brought big opportunities for companies who are selling mass-consumer goods and services. Consumer loyalty is extremely important for the consumer service sector to survive in this competitive service market. This study investigated the determinants that affect customer behavioural intentions in China and addressed the issues which most significantly affect perceived value, satisfaction and behavioural intentions; this provided valuable practical implications for restaurateurs.

## **6.5 Managerial Contribution of the Study**

From the practical point of view, the research result suggests that satisfaction is the most important factor that has a significant effect on behavioural intentions. This means that restaurateurs should pay attention to customer satisfaction by improving the meals and the service customers experience to encourage customer behavioural intentions and enhance customer loyalty. According to the results of the study, the second most important factor that affects behavioural intentions is perceived value. In creating a favourable perceived value, restaurateurs can use comparative marketing strategies that will lead customers to perceive the restaurant's food prices as reasonable and appropriate compared to those of other restaurants. The third most important factor which has a significant effect on behavioural intentions is perceived quality. This implication sheds light on the means of providing food in restaurants in China; food should be fresh and of a high standard to meet customers' expectations. Full-service restaurants in China provide service through staff interactions that should be friendly, attentive, genuine and efficient while simultaneously meeting customers' needs and expectations.

The significant influence of perceived quality on perceived value implies restaurateurs should direct their attention to the meal quality and the service quality they provide. In general, all measures are strongly associated with the construct for perceived quality, which suggests that all the measures require attention to enhance perceived value and indirectly encourage satisfaction and consumer behavioural intentions. The implication of the three strongest measures identified regarding the provision of food in restaurants in China is that food should be fresh and of a high standard to meet customers' expectations, and the service through staff interactions should be as recommended above.

The moderate and negative effect of sacrifice on perceived value suggests that all measures require attention to reduce sacrifice, enhance perceived value, and indirectly enhance satisfaction and consumer behavioural intentions. The most important measures that should be noticed by restaurateurs are the enjoyment and pleasure customers experience, the effort the customer makes to get the quality of service they expect and

the price customers pay.

There is a weak and negative effect of perceived risk on perceived value, which suggests that all the measures need attention to reduce perceived risk and enhance perceived value and indirectly to encourage satisfaction and behavioural intentions. The significant influence of the three strongest measures with perceived risk implies restaurateurs should direct their attention to the customers' feelings about their choice of the restaurants, their experience of the overall value of the visit and protecting customer's face in front of their dining companions.

The significant influence of perceived value on satisfaction suggests restaurateurs should focus both on the value of the meals and the value of the service customers experience to enhance the overall value they receive and encourage consumer behavioural intentions. The most important issue will be the overall value provided by the restaurant, the value of the service compared to similar restaurants and the value of meals compared to similar restaurants. According to the research result, restaurateurs should pay attention not only to their own business but also need to observe closely competitors' businesses, keep information updated and enhance their competitive power. In creating a favourable perceived value, restaurateurs can use comparative marketing strategies that will lead customers to perceive the restaurant's food prices as reasonable and appropriate compared to those of other restaurants.

As a new construct added to the Q-V-S-L model, it is excellent to find that face has a significant direct effect on satisfaction and an indirect effect on customer behavioural intentions. The significant influence of the three strongest measures regarding face implies restaurateurs should direct their attention to the customers' feeling of gaining face by receiving close attendance from restaurant personnel as a host, try to meet customers' expectations of restaurant personnel treating them with respect in front of their dining companions and, finally, always remind their employees of the importance of saving customers' face under any circumstances.

The significant influence of satisfaction on behavioural intentions identified in the result suggests that restaurateurs should pay attention to customer satisfaction by improving the meals and the service customers experience to encourage customer behavioural

intentions and enhance customer loyalty. Satisfied customers will repeat their purchases, they will be more loyal to the firm and, moreover, they will become the most efficient and effective communications resource of the firm by generating favourable recommendations and positive word-of-mouth. The most important measures that should be noticed by restaurateurs are customer overall satisfaction with meals, customer satisfaction with their choice of the particular restaurant and their satisfaction with the atmosphere. Increasing customer satisfaction (e.g., high quality food, menus with wide range of choices, comfortable dining environment, reliable service, employee friendliness, etc) contributes to encouraging customer behavioural intentions directly and indirectly through reputation.

The most important aspects of reputation in descending order of importance are “reason for visiting the restaurant is because it has a good reputation”, “comparison with restaurants of a similar level”, “the restaurant has a better reputation and reputation is an important reason when choosing a restaurant”. The full mediation of reputation on satisfaction on behavioural intentions implies restaurateurs, by enhancing customer satisfaction, can create a sense of positive word-of-mouth, strengthen customers’ confidence and reduce risk perceptions with respect to the restaurant’s service and meals, all of which are elements of reputation.

Behavioural intentions are associated with, in descending order of importance, “choosing this restaurant even if others are cheaper”, “visiting this restaurant frequently” and “encouraging friends and relatives to eat in this restaurant”. The enhancement of behavioural intentions can be attained directly through satisfaction and indirectly through restaurant reputation. Consequently, upon enhancing customer satisfaction and reputation, the restaurateur is likely to encourage higher customer behavioural intentions of both revisiting the restaurant and recommending the restaurant to potential customers.

## **6.6 Limitations of the Study**

There are several limitations of this study that should be considered when interpreting its findings. First, although the sample of respondents used in this study was adequate

for the purpose of this study, it cannot be considered representative of the general population. It may have a regional limitation which limits the generalisability of the result because the sample was adopted from restaurants that were all located in the same city in China.

Second, this survey was conducted with restaurant customers in China. However, different countries have different cultures that lead to dissimilar consumer patterns; in addition, while this study considered general customer restaurant patronage behaviour, it is likely that consumers' behavioural intentions will vary in different industry categories. Therefore the results cannot be applied directly to other countries or industries.

Third, the survey participants in this study completed the questionnaire based on their dining experiences in a full-service restaurant. Thus, the current study findings may not be generalized to limited-service segments of the restaurant industry, such as take-away shops or quick-service.

The final limitation is associated with the sample size of this study. In terms of obtaining the most appropriate result of SEM testing, every single measure in the survey should at least have ten valid questionnaires and when the number of factors is larger than six, the sample size requirements may exceed 500 (Hair *et al.*, 2006, p.744). This survey has 56 measurements in total for all nine constructs so the suggested sample size will be 560, but the number of valid questionnaires is 489, which, although a good sample size, does not meet the suggested sample size. This is also the reason TLI and CFI values are slightly low. Future studies should adhere to the suggested rule to obtain the most appropriate result.

## **6.7 Suggestions for Further Research**

Several recommendations for future marketing and consumer behavioural intentions research resulted from this study:

First, future studies could extend geographical coverage within China as this study may have a regional limitation which limits the generalisability of the result due to the

samples being adopted from restaurants located in just one city in China.

Second, the results cannot be applied directly to other countries or industries because this study examined particularly in full-service restaurants against the background of Chinese culture. Therefore, future research should address these variations such as testing the Modified Conceptual Model in another cultural background or in industries other than the full-service restaurant industry in China.

Third, future studies could test the applicability to other types of restaurant. Current study findings may not be generalised to limited-service segments of the restaurant industry, such as take-away shops or quick-service. Future studies should test the Modified Conceptual Model in other restaurant segments.

Fourth, other cultural factors, such as “guanxi” (relation), are also considered as important and valuable determinants of customer loyalty in the Chinese hospitality sector. “Guanxi” (relations) and “mianzi” (face) are the dominating characteristics in Chinese business relationships (Gilbert and Tsao, 2000) and are among the most important factors which can affect customer loyalty (Hoare and Butcher, 2008). “Guanxi” (relations) means networking was the dominant form of transactional governance in Chinese society long before the concept was taken up by Western theorists (Gilbert and Tsao, 2000). Buttery and Leung (1997) suggest “guanxi” plays a very important role regarding customer satisfaction. With the aim of expanding the model a bit further and making it more appropriate to the Chinese hospitality sector, future studies can consider adding relations as a construct to the Q-V-S-L model.

Finally, there could be further investigation of the relevance of trust, reputation and face etc. In this study, the construct of trust was omitted from the final model because it was confused with related constructs. Hence, further research could explore the relevance of these constructs in the hospitality sector, that is, whether trust is more relevant to relationships in the financial services or B2B marketing rather than in the restaurant sector.

## **6.8 Conclusions**

The result of this study revealed that behavioural intentions is directly and indirectly affected by perceived quality, perceived value, sacrifice, perceived risk, satisfaction, face and reputation in the Chinese restaurant industry. Understanding which constructs have the biggest effect on satisfaction and further on behavioural intentions can help the restaurateurs focus their efforts and investments to create a better business and to increase satisfaction and customer loyalty. Satisfied customers are more likely to be loyal customers and restaurateurs must make significant investments to maintain loyal customers. This study contributes to the theoretical advancement of consumer behavioural intentions formation in the restaurant industry; it also provides evidence to substantiate the value of the cultural construct of face in the Q-V-S-L model. This chapter discussed the summary of the conclusions drawn from this study, the implications for future research, limitations of the study, and recommendations for marketing strategies. The implications and insights that have been presented can be valuable to both researchers and practitioners.

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## Appendix 1 Questionnaire

### Survey of Restaurant Customers in Wuhan China

#### Please read

I would be very grateful if you would take part in this survey about the use of restaurants. It will take about 5-10 minutes. All answers are confidential and used only for academic research. I want to emphasise that there are no right or wrong answers. I am interested in your opinions.

#### Your Visits to Restaurants

In this section, I would like to ask you some questions about your use of restaurants.

1. How often have you visited restaurants of this level in the last 6 months?

**Tick one**

- This is the first time  (1)  
Less than once per month  (2)  
Once per month  (3)  
Two or three times per month  (4)  
Once per week or more  (5)

2. How often have you visited this particular restaurant, in the last 6 months?

**Tick one**

- This is the first time  (1)  
Less than once per month  (2)  
Once per month  (3)  
Two or three times per month  (4)  
Once per week or more  (5)

3. How have you travelled to this restaurant on this occasion?

**Tick one**

- On foot  (1)  
Public transport  (2)  
Your own transport  (3)  
Company transport  (4)  
Other  (5)

4. Are you here by yourself or with others?

**Tick one**

- By yourself  (1)  
With friends  (2)  
With family  (3)  
With work colleagues  (4)  
Other  (5)

5. How much have you spent / plan to spend on this visit?

**Tick one**

- Up to 100 yan  (1)  
 100-300 yan  (2)  
 More than 300 yan  (3)

### QUALITY OF PRODUCTS AND SERVICES

In this section, I would like to ask your opinions of the quality of your experience in this restaurant for each of the items listed below. Please give a score from 1 to 5 to indicate the level of quality you have experienced. (1 = Very low, 2 = Low, 3 = Average, 4 = High, 5 = Very High).

	Very Low				Very High	
6 .Politeness of staff	1	2	3	4	5	
7. Service skills of staff	1	2	3	4	5	
8. Treatment of diners	1	2	3	4	5	
9 . Friendliness of staff			1	2	3	4
5						
10. Promptness of service	1	2	3	4	5	
11. Aroma, color and tastiness of food	1	2	3	4	5	
12. Freshness of food	1	2	3	4	5	
13. Variety and choice of food	1	2	3	4	5	
14. Prices compared to similar restaurants	1	2	3	4	5	
15. Quality of food compared to your expectations	1	2	3	4	5	
16. The meal experience	1	2	3	4	5	
17. Standard of hygiene and cleanliness (both restaurant and toilet?)	1	2	3	4	5	
18. Quality of service compared to your expectations	1	2	3	4	5	
19. The contribution of the music to the atmosphere	1	2	3	4	5	
20. The design and decoration	1	2	3	4	5	
21. The seating arrangement	1	2	3	4	5	

### PERCEIVED VALUE

In this part, I would like you to indicate the value (1 = Very low, 2 = Low, 3 = Average, 4 = High, 5 = Very High) delivered by the restaurant for the items listed below.

	Very Low				Very High
22. The overall value provided by the restaurant	1	2	3	4	5
23. The value of meals compared to similar restaurants	1	2	3	4	5
24. The value of service compared to similar restaurants	1	2	3	4	5
25. The value of the atmosphere compared to the price you paid	1	2	3	4	5
26. The value you received for the time and money you have spent (?)	1	2	3	4	5

## SATISFACTION

In this section, I would like you to tell me the level of satisfaction (1 = Very low, 2 = Low, 3 = Average, 4 = High, 5 = Very High) you received from your visit this restaurant. .

	Very Low				Very High
27. Overall satisfaction	1	2	3	4	5
28. Satisfaction with meals	1	2	3	4	5
29. Satisfaction with service	1	2	3	4	5
30. Satisfaction with the atmosphere	1	2	3	4	5
31. Satisfaction from enjoyment of your visit	1	2	3	4	5
32. Your satisfaction from the pleasure of your visit	1	2	3	4	5
33. Your satisfaction with your choice of this restaurant	1	2	3	4	5

## MONEY, TIME AND EFFORT SPENT ON YOUR RESTAURANT VISIT

In this section I would like to think about the enjoyment and pleasure you have experienced from your visit to his restaurant compared to the time, effort and money you have spent. Please indicate the level of effort or benefits (1 = Very low, 2 = Low, 3 = Average, 4 = High, 5 = Very High) you have experienced:

	Very Low				Very High
34. The effort you spent to get to the restaurant	1	2	3	4	5
35. The time you spent to get seated at a table	1	2	3	4	5
36. The time you spent to get your meal	1	2	3	4	5
37. The effort you spent to get the quality of service you wanted	1	2	3	4	5

38. The price you paid	1	2	3	4	5
39. The enjoyment and pleasure you experienced	1	2	3	4	5

## TRUST

In your opinion, how likely (1 = Very low, 2 = Low, 3 = Average, 4 = High, 5 = Very High) is it that this restaurant will:

	Very Low				Very High
40. Offer you quality meals	1	2	3	4	5
41. Deal with your problems quickly	1	2	3	4	5
42. Recommend new dishes for you to try	1	2	3	4	5
43. Respect and value you as a customer	1	2	3	4	5
44. Provide harmony and satisfaction	1	2	3	4	5

## FACE

Please indicate your level of agreement (1 = Very low, 2 = Low, 3 = Average, 4 = High, 5 = Very High) with the following statements about “Face” in a restaurant?

	Very Low				Very High
45. Restaurant service personnel should save customers’ “face” under any circumstances	1	2	3	4	5
46. It is important for the host of the dining party to gain “face” by getting close attendance from restaurant personnel	1	2	3	4	5
47. I expect restaurant personnel to treat me with respect in front of my dining companions.	1	2	3	4	5
48. I believe restaurant personnel should treat all customers with sensitivity	1	2	3	4	5

## REPUTATION

Please indicate your level of agreement (1 = Very low, 2 = Low, 3 = Average, 4 = High, 5 = Very High) with the following statements about "reputation" of a restaurant?

	Very Low				Very High
49. You visit this restaurant because it has good reputation.	1	2	3	4	5
50. Compared to restaurants of a similar level, this restaurant has a better reputation.	1	2	3	4	5
51. Reputation is an important influence when you decide to visit any restaurant.	1	2	3	4	5

## PERCEIVED RISK

Sometimes a visit to a restaurant results in the feeling that you have made a bad decision because of the poor quality food, poor quality service and a poor atmosphere. Please indicate to what extent (1 = Very low, 2 = Low, 3 = Average, 4 = High, 5 = Very High) you believe that your decision to visit to this restaurant has made you feel that:

	Very Low				Very High
52. You have wasted money	1	2	3	4	5
53. You feel disappoint about your choice	1	2	3	4	5
54. The food will probably make you ill because the freshness	1	2	3	4	5
55. The service has been poor	1	2	3	4	5
56. You have lost face among your dining companions	1	2	3	4	5

## YOUR FUTURE INTENTIONS

In this part, I would like you to tell me about your future intentions about using this restaurant. Please give a score (1 = Very low, 2 = Low, 3 = Average, 4 = High, 5 = Very High) to indicate the likelihood of your intentions for each item below:

	Very Low		Very High		
57. Consider this restaurant as your first choice	1	2	3	4	5
58. Visit this restaurant frequently	1	2	3	4	5
59. Recommend this restaurant if someone ask your advice	1	2	3	4	5
60. Say positive things about this restaurant to other people	1	2	3	4	5
61. Encourage friends and relatives to eat in this restaurant	1	2	3	4	5
62. Chose this restaurant even if others are cheaper	1	2	3	4	5

## INFORMATION ABOUT YOURSELF

In this part I would like to ask you some questions about yourself.

63. Record gender

**Tick one**

Male  (1)

Female  (2)

64. Your age group

**Tick one**

Less than 16 yrs  (1)

16-25 yrs  (2)

26-35 yrs  (3)

36-45 yrs  (4)

46-55 yrs  (5)

More than 55 yrs  (6)

65. Your education level

**Tick one**

Junior high school or lower  (1)

Senior high school  (2)

College or equivalent  (3)

Bachelor degree  (4)

Master or higher degree  (5)

66. Your occupation status.

**Tick one**

- Full-time student  (1)
- Unemployed  (2)
- Employed  (3)
- Retired  (4)
- Others (house wife/husband)  (5)

67. If you are employed which of these best describes your occupation?

**Tick one**

- Professional, higher or intermediate managerial, administrative  (1)  
Junior professional, managerial, administrative, or
- Supervisory or clerical, or skilled manual worker  (2)
- Semi-skilled and unskilled manual worker, or casual worker  (3)

68. Would you mind giving me information about your salary? You don't have to if you don't want to but it would be very useful for our analysis. (Yuan/Monthly)

**Tick one**

- Nil  (1)
- <1000  (2)
- 1001-3000  (3)
- 3001-5000  (4)
- 5001-8000  (5)
- 8001-10000  (6)
- More than 10000  (7)
- Refused to answer  (8)

## Appendix 2 Constructs and Measures

Construct and measure	Description	Cronbach's alpha	Mean	Standard deviation
<b>Perceived quality:</b>		.907		
q6	Politeness of staff		3.89	.797
q7	Service skills of staff		3.82	.755
q9	Treatment of diners		3.88	.758
q10	Friendliness of staff		4.03	.773
q10	Promptness of service		3.91	.784
q11	Aroma colour and tastiness of food		3.85	.795
q12	Freshness of food		3.92	.800
q13	Variety and choice of food		3.84	.829
q14	Prices compared to similar restaurants		3.87	.781
q15	Quality of food compared to your expectations		3.88	.840
q16	The meal experience		3.79	.739
q17	Standard of hygiene and cleanliness		3.98	.724
q18	Quality of service compared to your expectations		3.81	.795
q19	The contribution of the music to the atmosphere		3.74	.859
q20	The design and decoration		3.87	.787
q21	The seating arrangement		3.81	.837
<b>Perceived Value:</b>		.813		
q22	The overall value provided by the restaurant		3.74	.753
q23	The value of meals compared to similar restaurants		3.78	.764
q24	The value of service compared to similar restaurants		3.69	.790
q25	The value of the atmosphere compared to the price you paid		3.84	.769
q26	The value you received for the time and money you have spent		3.85	.814

## Appendix 2 Constructs and Measures Continued

Construct and measure	Description	Cronbach's alpha	Mean	Standard deviation
<b>Satisfaction:</b>		.850		
q27	Overall satisfaction		3.76	.742
q28	Satisfaction with meals		3.86	.747
q29	Satisfaction with service		3.94	.747
q30	Satisfaction with the atmosphere		3.83	.773
q31	Satisfaction from enjoyment of your visit		3.83	.765
q32	Your satisfaction from the pleasure of your visit		3.83	.800
q33	Your satisfaction with your choice of this restaurant		3.93	.759
<b>Sacrifice:</b>		.768		
q34	The effort you spent to get to the restaurant		3.83	.810
q35	The time it took for you to be seated at a table		3.86	.860
q36	The time it took for you to get your meal		3.71	.919
q37	The effort you spent to get the quality of service you wanted		3.81	.771
q38	The price you paid		3.84	.769
q39	The enjoyment and pleasure you received		3.96	.772
<b>Trust:</b>		.820		
q40	Offer you quality meals		3.67	.768
q41	Deal with your problems quickly		3.88	.760
q42	Recommend new dishes for you to try		3.97	.812
q43	Respect and value you as a customer		4.04	.713
q44	Provide harmony and satisfaction		4.03	.805

## Appendix 2 Constructs and Measures Continued

Construct	Description	Alpha	Mean	Std dev
<b>Face:</b>				
q45	Restaurant service personnel should save customers' face under any circumstances		4.02	.782
q46	It is important for the host of the dining party to gain face by getting close attendance from restaurant personnel		3.96	.831
q47	I expect restaurant personnel to treat me with respect in front of my dining companions.		3.98	.816
q48	I believe restaurant personnel should treat all customers with sensitivity		3.91	.854
<b>Reputation:</b>		.762		
q49	You visit this restaurant because it has a good reputation		3.80	.821
q50	Compared to restaurants of a similar level this restaurant has a better reputation		3.85	.748
q51	Reputation is an important influence when you decide to visit any restaurant		3.98	.813
<b>Perceived risk:</b>		.883		
q52	You have wasted money		1.99	.836
q53	You feel disappointed about your choice		1.98	.831
q54	The food will probably make you ill because it isn't fresh		2.01	.900
q55	The service has been poor		1.93	.808
q56	You have lost face in front of your dining companions		1.97	.906
<b>Behavioural intentions:</b>		.866		
q57	Consider this restaurant as your first choice		3.68	.906
q58	Visit this restaurant frequently		3.65	.867
q59	Recommend this restaurant if someone asks your advice		3.80	.804
q60	Say positive things about this restaurant to other people		3.70	.789
q61	Encourage friends and relatives to eat in this restaurant		3.75	.861
q62	Choose this restaurant even if others are cheaper		3.78	.955

### Appendix 3 Sample Characteristics

#### Statistics

		Gender	Age group	Education level	Occupation status	Occupation	Monthly salary
N	Valid	489	489	487	489	449	466
	Missing	0	0	2	0	40	23
Mean		1.51	3.46	2.87	3.04	1.73	4.42
Median		2.00	3.00	3.00	3.00	2.00	4.00
Mode		2	3	2	3	2	3

#### Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	242	49.5	49.5	49.5
	Female	247	50.5	50.5	100.0
	Total	489	100.0	100.0	

#### Age group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 16 yrs	5	1.0	1.0	1.0
	16-25 yrs	101	20.7	20.7	21.7
	26-35 yrs	156	31.9	31.9	53.6
	36-45 yrs	140	28.6	28.6	82.2
	46-55 yrs	66	13.5	13.5	95.7
	More than 55 yrs	21	4.3	4.3	100.0
	Total	489	100.0	100.0	

**Education level**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Junior high school or lower	41	8.4	8.4	8.4
	Senior high school	184	37.6	37.8	46.2
	College or equivalent	116	23.7	23.8	70.0
	Bachelor degree	89	18.2	18.3	88.3
	Masters or higher degree	57	11.7	11.7	100.0
	Total	487	99.6	100.0	
Missing	System	2	.4		
Total		489	100.0		

**Occupation status**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Full-time student	19	3.9	3.9	3.9
	Unemployed	27	5.5	5.5	9.4
	Employed	379	77.5	77.5	86.9
	Retired	44	9.0	9.0	95.9
	Other	20	4.1	4.1	100.0
	Total	489	100.0	100.0	

### Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Professional or managerial	175	35.8	39.0	39.0
	Supervisory or skilled	218	44.6	48.6	87.5
	Unskilled or manual	56	11.5	12.5	100.0
	Total	449	91.8	100.0	
Missing	System	40	8.2		
Total		489	100.0		

### Monthly salary

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No income	10	2.0	2.1	2.1
	Less than 1000 yuan	38	7.8	8.2	10.3
	1001-3000 yuan	159	32.5	34.1	44.4
	3001-5000 yuan	95	19.4	20.4	64.8
	5001-8000 yuan	46	9.4	9.9	74.7
	8001-10000 yuan	26	5.3	5.6	80.3
	more than 10000 yuan	5	1.0	1.1	81.3
	don't want to tell	87	17.8	18.7	100.0
	Total	466	95.3	100.0	
Missing	System	23	4.7		
Total		489	100.0		

## Appendix 4 Restaurant Visiting Behaviour

### Statistics

		Frequency of visiting type of restaurant	Frequency of visiting specific restaurant	Method of travel	Dining group	Expenditure
N	Valid	489	489	489	489	489
	Missing	0	0	0	0	0
Mean		3.30	3.19	2.44	3.03	2.93
Median		3.00	3.00	3.00	3.00	3.00
Mode		3	3	3	4	3

### Frequency of visiting type of restaurant

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	This is the first time	42	8.6	8.6	8.6
	Less than once per month	76	15.5	15.5	24.1
	Once per month	148	30.3	30.3	54.4
	Two to three times per month	141	28.8	28.8	83.2
	Once per week or more	82	16.8	16.8	100.0
	Total	489	100.0	100.0	

### Frequency of visiting specific restaurant

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	This is the first time	44	9.0	9.0	9.0
	Less than once per month	84	17.2	17.2	26.2
	Once per month	159	32.5	32.5	58.7
	Two to three times per month	138	28.2	28.2	86.9
	Once per week or more	64	13.1	13.1	100.0
	Total	489	100.0	100.0	

**Method of travel**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	On foot	74	15.1	15.1	15.1
	Public transport	160	32.7	32.7	47.9
	Own transport	219	44.8	44.8	92.6
	Company transport	36	7.4	7.4	100.0
	Total	489	100.0	100.0	

**Dining group**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	By yourself	27	5.5	5.5	5.5
	With friends	139	28.4	28.4	33.9
	With family	133	27.2	27.2	61.1
	With work colleagues	174	35.6	35.6	96.7
	Other	16	3.3	3.3	100.0
	Total	489	100.0	100.0	

**Expenditure**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Up to 100 yuan	35	7.2	7.2	7.2
	100-300 yuan	147	30.1	30.1	37.2
	301-500 yuan	172	35.2	35.2	72.4
	501-800 yuan	99	20.2	20.2	92.6
	more than 800 yuan	23	4.7	4.7	97.3
	don't know	13	2.7	2.7	100.0
	Total	489	100.0	100.0	

## Appendix 5 Factor Analysis Result for Combine “Trust” and “Reputation” and “Trust” and “Face”

### Appendix 5.1 Component Matrix for “Trust” and “Reputation”

Component Matrix<sup>a</sup>

	Component
	1
Offer you quality meals	.752
Deal with your problems quickly	.703
Recommend new dishes for you to try	.748
Respect and value you as a customer	.676
Provide harmony and satisfaction	.709
You visit this restaurant because it has good reputation	.750
This restaurant has a better reputation than similar others	.674
Reputation is important in deciding to visit a restaurant	.667

Extraction Method: Principal Component Analysis.

a. 1 component extracted.

## Appendix 5.2 Component Matrix for “Trust” and “Face”

Component Matrix<sup>a</sup>

	Component
	1
Offer you quality meals	.715
Deal with your problems quickly	.685
Recommend new dishes for you to try	.720
Respect and value you as a customer	.691
Provide harmony and satisfaction	.746
Restaurant service personnel should save customers' face	.729
It is important for the host of the dining party to gain face	.735
I expect personnel to treat me with respect in front of companions	.706
Restaurant personnel should treat all customers with sensitivity	.711

Extraction Method: Principal Component Analysis.

a. 1 component extracted.

