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**Customer loyalty in the Chinese travel agency industry:
A comprehensive hierarchical modelling approach**

A thesis
submitted in partial fulfilment
of the requirements for the Degree of
Doctor of Philosophy

at
Lincoln University

by
Ran Wei

Lincoln University

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Abstract of a thesis submitted in partial fulfilment of the requirements for the Degree of Doctor of Philosophy.

Abstract

Customer loyalty in the Chinese travel agency industry:
A comprehensive hierarchical modelling approach

by

Ran Wei

The global travel and tourism industry was on a rising trend prior to COVID-19. The World Travel and Tourism Council (2021) announced that the travel and tourism industry was fast-growing and contributed one-tenth of the global GDP before the COVID-19 pandemic. Studies into the traditional travel agency industry are sparse, as several services marketing researchers have expressed their concern over the uncertain future of traditional travel agencies in the travel and tourism industry. However, the travel agency industry has not been eliminated from the tourism distribution channel as predicted. On the contrary, the number of travel agencies in China has steadily expanded over the last decade, rising from 23,690 companies in 2011 to 38,943 in 2019.

This study uses a comprehensive hierarchical modelling approach as a framework to: (1) identify the primary dimensions of service quality; (2) analyse the interrelationships between the five marketing constructs (service quality, customer perceived value, customer satisfaction, brand image, and customer loyalty); and (3) examine the effect of demographic factors in influencing customers' perceptions of interrelationships between these five marketing constructs.

The survey was conducted in four shopping mall complexes in Beijing and Shanghai. A total of 481 questionnaires were collected from the 1st to the 20th of December, 2017. The participants were customers who were over 18 years old and those who had booked travel using a travel agency in the past year. The data analysis techniques employed in this study were exploratory factor analysis, confirmatory factor analysis, and structural equation modelling.

The research results confirm that four primary dimensions for conceptualising and measuring service quality in the Chinese travel agency industry are: interaction quality, physical environment quality,

technical quality, and outcome quality. Interaction quality is the most important primary dimension compared to the other three primary dimensions for overall service quality performance. In addition, brand image is the only construct that has a direct and positive impact on customer loyalty. However, service quality and customer perceived value are also found to have an indirect impact on customer loyalty, and these impacts are mediated by the construct of customer satisfaction. The empirical results also confirm that three important indicators of travel agency customer satisfaction in China are: service quality, customer perceived value, and brand image. Finally, the research results reveal that customers from different demographic backgrounds (gender, age, marital status, and income level) do perceive the interrelationships between marketing constructs differently.

This study adds to the body of knowledge on services marketing literature by conceptualising service quality and examining the interrelationship between five marketing constructs in China's travel agency industry using a single conceptual research model. The findings from the statistical results provide valuable information for travel agency managers to establish and execute successful marketing strategies and tactics for them to compete in the fiercely competitive marketplace.

Keywords: Travel Agency Industry, Service Quality Model, Interaction Quality, Physical Environment Quality, Technical Quality, Marketing Constructs, Service Quality, Customer Perceived Value, Customer Satisfaction, Brand Image, Customer Loyalty, Demographic Characteristics.

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Chapter 1

Introduction

1.1 Background of the Study

The global travel and tourism industry was on a rising trend before COVID-19 (the World Health Organisation announced COVID-19 as a global health emergency, in January of 2020). Statistics from the World Travel and Tourism Council (2021) reveal that the travel and tourism industry was a fast-growing industry which contributed one-tenth of the global GDP before the pandemic. The majority of the published services marketing literature on the tourism industry has focused on suppliers' services (such as hotels, airlines, airports, and destination management), rather than on the intermediators (travel agencies) of the travel distribution channel (Hong, Choi, & Chae, 2020; Suhartanto, Brien, Primiana, Wibisono, & Triyuni, 2020; Oriade & Schofield, 2019; Channoi, Clemes, & Dean, 2018; Keshavarz & Jamshidi, 2018; Wu, Ai, Yang, & Li, 2015). The reason for the scarcity of current published studies on travel agency services is that several researchers believed that with the rapid growth of new technologies such as the internet and mobile phone applications, the travel agency industry would diminish in importance in the tourism distribution channel (Rajaobelina, 2018; Morosan & DeFranco, 2016; Law, Leung, Lo, Leung, & Fong, 2015; Berne, Garcia-Gonzalez, & Mugica, 2012; Buhalis & Law, 2008).

The traditional travel agency was an important intermediary in the tourism industry's distribution channel before the emergence of the internet in the early 1990s (Ivanova, 2019; Berne et al., 2012). The main function of a travel agency was to serve as the "middleman" between suppliers and travellers, by offering travel information and by selling travel-related products, such as making reservations for flights, trains, cruise ships, hotel rooms and local tours (Ivanova, 2019; Berne et al., 2012; Buhalis & Law, 2008). Travellers relied heavily on travel agencies for their travel arrangements because they could get accurate, timely travel-related information only from intermediaries such as travel agencies before the internet became popular in the early 1990s (Berne et al., 2012; Reinders & Baker, 1998).

The advent of new technologies changed the way travellers search for travel-related information and the way travellers purchase travel-related products (such as flights, trains, cruise ships, hotel rooms and local tours) (Rajaobelina, 2018; Morosan & DeFranco, 2016; Law et al., 2015). Travellers are now able to obtain flexible, varied, travel-related information through the internet (Rajaobelina, 2018; Law et al., 2015), and can deal with and purchase directly from travel service providers for flights, trains, cruise ships, hotels, and tour operators (Srivastava & Dhar, 2016; Law et al., 2015). Therefore,

several researchers have expressed their concern over the uncertain future of traditional intermediaries in the travel and tourism industry (Rajaobelina, 2018; Morosan & DeFranco, 2016; Law et al., 2015).

However, the travel agency industry has not been eliminated from the tourism distribution channel as predicted. A number of researchers have shown that there are travellers who believe that obtaining expert assistance from travel agencies carries multiple benefits when making their travel arrangements (Sharma, Sharma, & Chaudhary, 2020; D'Ambrosio, 2019; Shrikant, 2018; Chiappa, 2013). The benefits include: (1) travellers' needs and wants being satisfied through face-to-face communication and the human touch provided by traditional travel agencies (Sharma et al., 2020); (2) concerns about unfamiliar destinations being alleviated by expert knowledge provided by traditional travel agencies (Shrikant, 2018); (3) benefiting from travel agencies' ability to solve problems during travel (flight delays and trip interruptions caused by weather issues) (D'Ambrosio, 2019); and (4) benefiting from time savings associated with booking through traditional travel agencies rather than directly with suppliers (airlines, tour operators, hotels) (Law et al., 2015; Chiappa, 2013).

1.2 Travel Agencies in China

The first travel agency in China was established in 1923 by the Shanghai Commercial and Savings Bank, and was originally a travel department of the bank; its main services were booking services for train and ship tickets for travellers. In the first three decades after the foundation of the People's Republic of China in 1949, the responsibility for receiving foreign travellers was mainly under the control of the government. At that time, there were only two travel agencies in China: (1) China Travel Service and (2) China International Travel Services.

The year 1978 was a milestone in the development of China's tourism industry. That year, the Chinese government launched the Reform and Opening-Up Policy, whereby inbound travel was no longer restricted to diplomatic purposes and Chinese residents were able to travel abroad; although the main purpose for travelling abroad was still restricted to visiting one's relatives. The development of China's tourism industry accelerated in 1996, when 4,986 travel agency companies were registered in the country; the number of domestic and international travellers that year was 701,000,000 (Travel China Guide, 2021).

In the 1990s, China's travel agency industry, as in other countries, was confronted with a major challenge to its dominant position as an intermediary in the travel industry distribution channel. The rapid development of the internet changed the way travellers searched for travel-related information and purchased travel-related products (Law et al., 2015; Berne et al., 2012).

However, the surge in outbound tourism from China provided a big opportunity for China’s travel agency businesses. From 1996 to the year 2010, both the number of travel agency companies and the revenue of the travel agency industry increased. The number of travel agency companies rocketed to 22,784, and the revenue reached 1,570 billion CNY by 2010. Reports from the China National Tourism Administration (2012-2022) show that the number of travel agencies has increased steadily over the last decade, with the number of registered travel agency companies increasing from 23,690 companies in 2011 to 42,432 in 2021 (see Figure 1-1).

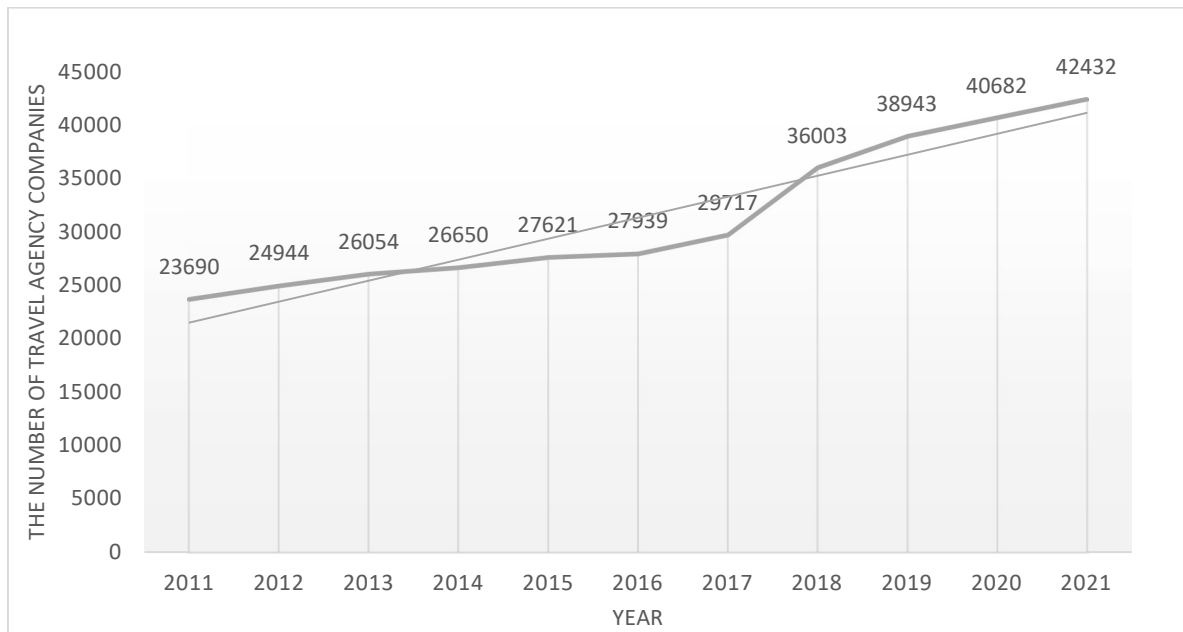


Figure 1-1 The number of travel agency companies in China from 2011 to 2021 (China National Tourism Administration, 2012-2022)

1.3 Research Gaps

The **first research gap** concerns the dearth of published studies into how Chinese travellers perceive the service quality of their travel agencies. To date, no research has been conducted to develop a service quality model in the context of the travel agency industry in China.

In the travel agency literature, the service quality construct has been measured using three types of models as a framework: (1) a multi-dimensional model [in Leblanc’s (1992) research conducted in Canada]; (2) the SERVQUAL model in four studies (Othman, Harun, Rashid, and Ali’s (2019) study conducted in Malaysia, Johns, Avcí, and Karatepe’s (2004) study conducted in Northern Cyprus, Lam and Zhang’s (1999) study conducted in Hongkong, and Ryan and Cliff’s (1997) study conducted in New Zealand); and (3) a multi-dimensional, hierarchical model [in Martínez Caro and Martínez García’s (2008) research conducted in Spain].

The SERVQUAL model has been used to conceptualise service quality in most of the travel agency literature; however, a number of services marketing scholars questioned the SERVQUAL model for its validity and reliability in conceptualising service quality (Channoi et al., 2018; Abu Bakar, Clemes, & Bicknell, 2017; Cronin, Brady, & Hult, 2000; Buttle, 1996; Cronin & Taylor, 1992). Only one study has conceptualised travel agency service quality using a multi-dimensional and hierarchical model (Martínez Caro & Martínez García, 2008). In accordance with Brady and Cronin's (2001) multi-dimensional and hierarchical model, travel agency service quality in Martínez-Caro and Martínez-García's research was measured using three primary dimensions (personal interaction quality, physical environment quality, and outcome quality). However, services marketing scholars suggest that service quality measurement needs to be reviewing on a nation or culture-by-culture basis, because the measures developed in one culture may not be valid when applied in a different cultural setting (Malhotra, 2017; Martínez Caro & Martínez García, 2008; Cui, Barbara, & Won, 2003; Brady & Cronin, 2001).

To date, no published research has been reported to examine whether the three primary dimensions of Martínez-Caro and Martínez-García's (2008) service quality model are also applicable in the Chinese travel agency industry. China is one of the largest economies in the world and is forecast to be in second place in the global GDP ranking in 2022 (International Monetary Fund, 2022). In addition, China has the world's largest population (United Nations Population Fund, 2022). China has exerted an increasing influence on the economies of other developing nations through its commercial activities, financial investments, and intellectual contributions (World Bank, 2022). Therefore, examination of the number and content of the primary dimensions of service quality in the travel agency industry in China is necessary to close the first research gap and contribute to the knowledge of service quality measurement in the travel agency industry in China.

The **second research gap** concerns the lack of published research investigating the comparative importance of each service quality primary dimension that pertains to service quality in the travel agency industry in China. Research conducted to close research gap two will help travel agencies in their strategic planning. Travel agencies may improve allocation their resources to the more important dimensions of service quality in order to better satisfy their customers' wants and needs.

The **third research gap** concerns the scarcity of published research that examines the interrelationships among the higher-order constructs (service quality, customer perceived value, customer satisfaction, brand image, and customer loyalty) in the travel agency industry in China. Previous services marketing studies have empirically examined the direct and indirect relationships between these higher-order constructs in a variety of industries; examples include: Clemes, Mohi, Li, and Hu's (2018) research on upscale restaurant services in Malaysia; Hapsari, Clemes, and Dean's

(2017) research on high frills airline services in Indonesia; and Clemes, Brush, and Collins' (2011) research on professional sports services in New Zealand. However, no research has been conducted to investigate the direct and indirect impacts among the higher-order constructs in the travel agency industry in China.

None of the previous travel agency studies have provided a comprehensive framework that examined the interrelationship between all the five marketing constructs (service quality, customer perceived value, customer satisfaction, brand image, and customer loyalty) (Lai, 2014; Kuo, Chang, Cheng, & Lai, 2013; Richard & Zhang, 2012; Setó-Pamies, 2012). In particular, no scholars have examined the impacts of: (1) service quality on brand image, (2) customer perceived value on brand image and customer loyalty; (3) brand image on customer satisfaction; and (4) the mediating effect of customer satisfaction in influencing the indirect impact of customer perceived value on customer loyalty. Research on the comprehensive interrelationships between the five marketing constructs in the travel agency industry will add value to the body of knowledge in the travel agency literature and improve the understanding of the interrelationships between these marketing constructs.

The **fourth research gap** relates to the limited amount of published research that examines the influence of demographic characteristics on the interrelationships among the higher-order constructs in the travel agency industry. Demographic factors have been identified as fundamental, critical elements when developing effective marketing segmentation, and when establishing targeted strategies for businesses, in order to compete in the marketplace (Al-jazzazi & Sultan, 2017; Shuv-Ami & Shalom, 2017). Services marketing academics have also shown that a customers' perceptions of service quality, customer satisfaction, brand image, perceived value, and loyalty, may differ based on the individual's demographic characteristics (such as gender, age, marital status, and income level) (Clemes, Dean, & Thitiya, 2020; Al-jazzazi & Sultan, 2017; Shuv-Ami & Shalom, 2017; Yarimoglu, 2017).

To date, no research has been conducted on the travel agency industry in China to determine whether the demographic characteristics (i.e. gender, age, marital status, and income level) influence customers' perceptions of the interrelationships between important services marketing constructs (service quality, customer perceived value, customer satisfaction, brand image, and customer loyalty).

1.4 Research Objectives

This current study has two main purposes.

The first purpose is to gain a thorough understanding of the service quality construct in the travel agency context in China. A second order service quality model has been developed to investigate the

primary dimensions that conceptualise service quality; simultaneously, the relative importance of each primary dimension in determining service quality is also examined.

The second purpose is to empirically examine the interrelationships between the five marketing constructs (service quality, customer satisfaction, customer perceived value, brand image, and customer loyalty) in the travel agency industry in China, including both the direct and indirect impacts between these constructs. Furthermore, the study also investigates whether China's travellers perceive the interrelationships between five marketing constructs differently in terms of their demographic characteristics, in particular, their gender, age, marital status, and income level.

The four research objectives are presented as follows, and are as established to accomplish these two main research purposes:

- i. To develop a second-order service quality model and to determine the primary dimensions for conceptualising service quality as perceived by customers of China's travel agencies;
- ii. To ascertain the relative importance of the primary service quality dimensions from the most to the least important in the travel agency context in China;
- iii. To investigate the interrelationships between five marketing constructs (service quality, customer satisfaction, customer perceived value, brand image, and customer loyalty) in the travel agency industry in China;
- iv. To identify whether China's travel agency customers from different demographic groups (based on their gender, age, marital status, and income level) perceive the interrelationships between five marketing constructs differently.

1.5 Contribution of this research

This research adds to the body of knowledge on services marketing literature at the theoretical level by concurrently examining the interrelationships between five marketing constructs (service quality, customer perceived value, customer satisfaction, brand image, and customer loyalty) and establishing a second-ordered travel agency service quality model in the context of China. This research also benefits travel agency practitioners on a practical level by supporting them in implementing more effective strategic planning in order to operate in a fiercely competitive environment.

Theoretical Contribution

First and foremost, this research adds to the services marketing literature by presenting a thorough and complex model of customer loyalty in China's travel agency context. This study is the first to empirically examine the complex interrelationships between all five marketing constructs (service quality, customer perceived value, customer satisfaction, brand image, and customer loyalty) in a single framework using structural equation modelling in the travel agency industry in China. The findings of this research will add to the services marketing literature and provide empirical evidence on the theoretical relationships between all five marketing constructs in the travel agency context in China (Albayrak, Karasakal, Kocabulut, & Dursun., 2020; Akbari, Mehrali, SeyyedAmiri, Rezaei, & Pourjam., 2020; Lai, 2014).

Second, this research examines the function of customer satisfaction in mediating service quality's positive effect on customer loyalty, and customer perceived value's positive impact on customer loyalty. The published services marketing literature has not assessed customer satisfaction's mediating effect in the travel agency industry in China. The findings from this current study will contribute to the services marketing literature by improving the understanding of customer satisfaction's mediating effect in the relationships between marketing constructs (service quality on customer loyalty, and customer perceived value on customer loyalty) in the travel agency industry in China (Hapsari, Clemes, & Dean., 2017; El-Adly & Eid, 2016; Kuo, Chang, & Cheng., 2013; Howat & Assaker, 2013; Keshavarz & Jamshidi, 2018).

Third, this research contributes to the services marketing literature by providing empirical evidence for the use of the multidimensional and second-ordered modelling approach for conceptualising and assessing service quality in China's travel agency industry. Technical quality has been added into the service quality model as an additional primary dimension of service quality in conceptualising service quality from China's travel agency customers' perceptions. Additionally, the relative importance of each primary dimension in determining service quality in the travel agency context in China is also explored. The findings will benefit the service marketing literature by providing a better knowledge of travel agency service quality in China (Othman et al., 2019; Martinez-Caro, Martinez-Garcia, 2008).

Finally, this research contributes to the services marketing literature by conducting a multi-group analysis in order to examine how customers' demographic characteristics (gender, age, marital status, and income level) influence their perceptions of the interrelationships between marketing constructs (service quality, customer perceived value, customer satisfaction, brand image, and customer loyalty). There is no published research on the travel agency industry that examines the interrelationships between all the marketing constructs using multi-group analysis. Hence, this research adds value to the body of services marketing literature in terms of understanding the

impact of demographic characteristics on the formation of customer loyalty in the travel agency context (Al-jazzazi & Sultan, 2017; Gursoy et al., 2014).

Practical Contribution

From a **practical perspective**, this current study will benefit the entrepreneurs who are currently operating in the travel agency market in China. The findings from this current study will benefit the travel agency sector by enabling practitioners to have a better understanding of the complex interrelationships between the five marketing constructs (service quality, customer perceived value, customer satisfaction, brand image, and customer loyalty) in a travel agency context. Travel agency practitioners will benefit from this knowledge, allowing them to implement effective marketing strategies to both attract and retain customers.

Second, the knowledge ascertained from the comprehensive research model may be used as a foundation for future cross-cultural research and multi-group analysis by travel agency practitioners. For instance, the model may be used as a framework for evaluating the operations of travel agencies in other countries, or a multi-group analysis could be used to examine travel agency customers' perceptions of marketing constructs across various demographic groups (such as gender, age, marital status, and income).

Third, the second order service quality model helps China's travel agencies better understand how their customers perceive the quality of travel agency services. Travel agencies could assess the travel agency service quality construct systematically using the four primary dimensions of travel agency service quality confirmed in this study. In particular, if problems occur that affect the overall level of travel agency service quality, travel agencies could use the four confirmed primary dimensions in this study to narrow the problem areas and facilitate resolutions.

Finally, the relative importance of each primary dimension in the service quality model identified in this research aids the travel agencies in effectively allocating resources. The present findings indicate that interaction quality is the strongest indicator which contributes to overall travel agency service quality, followed by outcome quality, physical environment quality and technical quality. The modelling framework result therefore shows that travel agency marketers must devote more time and resources to interaction quality than to the other three primary dimensions (outcome quality, physical environment quality, and technical quality).

1.6 Thesis Structure

This thesis is comprised of seven chapters.

Chapter One presents the framework for this study by providing an overview of the travel agency industry in both global and China contexts. The research gaps are identified and discussed; the research objectives are developed in order to close the research gaps. In addition, a discussion of the theoretical and practical contributions of this current study has also been presented.

Chapter Two offers a review of the published literature relating to the research objectives and comprises two parts: (1) a review of the extant literature regarding the conceptualisation of service quality, and (2) a review of the published literature on the five marketing constructs (service quality, customer perceived value, customer satisfaction, brand image, and customer loyalty) and the interrelationships between these five higher-order constructs.

Chapter Three presents the development of the conceptual research model for this current study, and the formation of nineteen research hypotheses.

Chapter Four presents and justifies the methodology utilised in this current study, including: (1) design of the research questionnaire, (2) sampling method, (3) data collection procedure, and (4) data analysis method.

Chapter Five reports the data analysis results of this current research, includes: (1) the response rate and the profile of the sample, and (2) the statistical results of Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), Structural Equation Modelling (SEM) and Multi-Group Analysis (MGA).

Chapter Six provides a discussion and interpretation of the results drawn from the outcomes of the nineteen hypotheses tested. The theoretical and managerial implications, the limitations of this current study, and suggestions for future research are discussed in further detail. In addition, a discussion on the possible changes in the travel agency industry with the impact of COVID-19, the potential changes in customers' perceptions of travel agency service quality, as well as their perceptions of interrelationships between the five marketing constructs, is presented.

Chapter 2

Literature Review

This chapter provides a review of the published literature pertaining to the research questions. The chapter begins with a discussion of the five higher-order constructs: customer loyalty, customer satisfaction, customer perceived value, brand image, and service quality. The interrelationships between these constructs are also discussed. A review of the conceptualisation and measurement of service quality is then presented.

2.1 Customer Loyalty

Customer loyalty is identified as a combination of customers' feelings of attachment, affection, or commitment to a product or service (Berkman, Lindquist, & Sirgy, 1997). Bowen and Chen (2001) describe customer loyalty as the behaviour of customers' consistency, and repeat purchasing behaviour about a brand, and also the customers' emotional and psychological connections towards the brand. Kim, Park, and Jeong (2004) similarly point out that customer loyalty involves not only the customers' favourable attitudes about a product or service but also their repurchasing behaviour. Lam, Shankar, Erramilli, and Murthy (2004) demonstrate that customer loyalty is the overall attachment or deep commitment that customers hold towards a product, service, brand or organisation. Oliver (2014) describes customer loyalty as the deep commitment that customers hold about a product or service and that their repurchase behaviour is a reflection of customers' commitment to the product or service.

Dick and Basu (1994) suggested that the three antecedents forming customer loyalty are: (1) cognitive antecedents, which refers to a brand's accessibility and customers' confidence in it; (2) affective antecedents, which refers to customers' emotions and satisfaction about a brand; and (3) conative antecedents, which refers to customers' perceptions about the costs of switching and the sunk cost of a brand. Zeithaml, Berry, and Parasuraman (1996) stated that the formation of customer loyalty has two parts: (1) word-of-mouth, which refers to customers' willingness to recommend the brand to their families and friends; and (2) customers' repurchasing intentions, which relates to the customers' future intentions about repeat purchases. Aydin and Özer (2005) explain that customer loyalty is characterised by customers repurchase intentions, as well as customers' willingness to recommend a particular product or service to friends. In addition, Watson, Beck, Henderson, and Palmatier (2015) describe customer loyalty as the combination of the customer's favourable attitude and repurchase intentions towards a brand.

Maintaining customer loyalty is one of the most important strategies that every business pursues in order to gain a long-term competitive advantage under fierce market competition (Keshavarz, Aziz Yuhanis, Jamshidi, & Ansari, 2019; Han, Nguyen, Song, Chua, Lee, & Kim, 2018; Hapsari et al., 2017; Chai, Malhotra, & Alpert, 2015; Demirci Orel, & Kara, 2014; Gursoy, Joseph, & Christina, 2014; Liat, Mansori, & Huei, 2014; Walls, 2013; Lee & Cunningham, 2001). Lee and Cunningham (2001) recommend that in a mature and fiercely competitive market maintaining a high level of customer loyalty is more important for a company than acquiring new customers. Gursoy et al. (2014) note that in a business, loyalty plays an important role for its survival and success. Liat et al. (2014) and Walls (2013) demonstrate that the impact of customer loyalty on the success of a business could be illustrated in three ways: (1) companies can increase their income because of their customers' repeat purchases; (2) companies can save on costs for marketing, advertising and operations if their customers are very loyal to them; and (3) companies can increase their income as loyal customers are more willing to recommend the brand to their families and friends.

The measurement items for the customer loyalty construct in this research are based on the extant services marketing literature and are listed as follows: (1) the repurchasing intention; (2) customers' willingness to share their experiences with friends and family; (3) customers' intentions to recommend the business to others; and (4) customers becoming less sensitive about the price (Zhong & Moon, 2020; Ali, Kim, Li, & Jeon, 2018; Liu, Lee, & Hung, 2017; Liat et al., 2014).

Table 2-1 Summary of Existing Research regarding Customer Loyalty

Higher-Order Construct	Research Field	Authors
Customer Loyalty	Fast-food Services (China)	Zhong and Moon (2020)
	Hotel Services (Malaysia, the United States, Turkey)	Keshavarz et al. (2019), Gürlek et al. (2017), Liat et al. (2014), Walls (2013)
	Destination Services(Malaysia)	Ali et al. (2018)
	Retail Services (Turkey, Korea)	Han et al. (2018), Demirci Orel and Kara (2014)
	Airline Services (Indonesia)	Hapsari et al. (2017)
	Banking Services (New Zealand)	Chai et al. (2015)
	Travel Agency Services (Singapore)	Lobo et al. (2007)

Currently, empirical research on customer loyalty in the context of travel agencies is limited. Lobo, Maritz, and Mehta (2007) study of residents in Singapore conceptualised customer loyalty using four measurement items: (1) positive comments customers make about the travel agency; (2) customers'

willingness to recommend the travel agency to others; (3) customers' intentions to make purchases in the travel agency; and (4) customers' intentions to repurchase. No extant literature was found to describe customer loyalty in the context of travel agencies in China (see Table 2-1). In light of this limitation, this research aims to gain an empirically based insight into customer loyalty in the travel agency industry in China.

2.2 Customer Satisfaction

Customer satisfaction, as defined by Churchill and Surprenant (1982), is the outcome of customers' comparisons about what they received from the product they purchased and the amount of money they spent on that product. Oliver (1997) identified customer satisfaction as the customers' judgements about whether the product or service they received provided a pleasurable level of purchasing-related fulfilment. Customer satisfaction was described as the outcome perceived by customers when evaluating whether the service they had received met their needs and expectations (Demirci Orel & Kara, 2014; Ariffin & Maghzi, 2012). Solomon (2018) conceptualised customer satisfaction as a concept that defines customers' overall feelings and attitudes towards the product they have purchased. More recently, scholars have demonstrated that customer satisfaction is the customer's perception about their purchase experience with a business, and this includes the business' service quality, pricing strategy, and the physical characteristics of the product or service provided by that business (Prebensen & Rosengren, 2016).

Hoyer and MacInnis (2004) note that satisfaction has been perceived by customers based on their feelings of acceptance, happiness, relief, excitement and delight. Customer satisfaction has also been identified by Helgesen (2008) as "a summary psychological state or a subjective summary judgment". In addition, Rojas-Méndez, Vasquez-Parraga, Kara, and Cerda-Urrutia (2009) mention that a customer's evaluation of satisfaction not only relates to the physical products or services they receive, but also the physical facilities of the organisation and the organisation's interactions with their staff.

Customer satisfaction is an ultimate goal that every business pursues in the competitive marketplace (Kim, Li, & Brymer, 2016; Ryu, Lee, & Kim, 2012b; Zeithaml et al., 1996). Researchers and marketers generally believe that sales and profit will increase when customers are satisfied with the products or services the company provides (Farooq, Salam, Fayolle, Jaafar, & Ayupp, 2018; Kim et al., 2016; Ma, Qu, & Eliwa, 2014; Yim, Lee, & Kim, 2014). When customers perceive a high level of satisfaction, they tend to be more loyal to that brand; less sensitive about the price; and more willing to recommend that brand or business to others (Zhong & Moon, 2020). The company will then have more opportunities to expand its business (Farooq et al., 2018).

In terms of the measurement items for customer satisfaction, Zhong and Moon (2020) measured customer satisfaction in their study on fast-food restaurant services with three items: (1) the overall experience was satisfying; (2) the customers perceived their purchasing decision as a wise decision; and (3) the customers felt that their expectations were met. Hapsari et al. (2017) in their study on passenger loyalty to high frills airlines used four items to measure customer satisfaction: (1) the overall satisfactory experience the customers perceived when travelling with an airline; (2) customers believed their decision about choosing that airline was correct; (3) customers had a pleasant journey when flying with that airline; and (4) the experience of flying was satisfactory.

Table 2-2 Summary of Existing Research regarding Customer Satisfaction

Higher-Order Construct	Research Field	Authors
Customer Satisfaction	Fast-food Services (China)	Zhong and Moon (2020)
	Airline Services (Indonesia, Malaysia)	Farooq et al. (2018), Hapsari et al. (2017)
	Restaurant Services (the United States, Korea)	Kim et al. (2016), Ma et al. (2014), Yim et al. (2014)
	Group tour Services (Swede)	Prebensen and Rosengren (2016)
	Retail Services (Turkey)	Demirci Orel and Kara (2014)
	Travel Agency Services (Spain)	Millán and Esteban's (2004)

In the context of the travel agency industry, Millán and Esteban's (2004) study used six dimensions to conceptualise customer satisfaction for travel agencies in Spain: service encounters, empathy, reliability, service environment, the efficiency of advice, and other additional attributes. However, published research conceptualising customer satisfaction in the context of the global travel agency industry is sparse (see Table 2-2), indicating that there is a need to conduct research into how customers perceive customer satisfaction in the context of travel agency services in different cultures.

2.3 Brand Image

Grönroos (1984) explained that image was a filter that influences consumers' perceptions about the operation of a company. MacInnis and Price (1987) also defined image as customers' impressions about a brand. Dobni and Zinkhan (1990) described brand image as a subjective concept that was formed by consumer interpretation towards a brand. Keller (1993) described brand image as consumers' perceptions about a brand, which was the reflection of consumers' memories associated with that brand. Koubaa (2008) also explains that brand image is the emotional perception that consumers hold to a particular brand.

Grönroos (2011) illustrates that brand image is an antecedent that contributes to customer satisfaction. The better the impression consumers have about a brand, the more positive the attitude consumers will have towards the products and services provided by the brand (Agmeka, Wathoni, & Santoso, 2019; Lahap, Ramli, Said, Radzi, & Zain, 2016; Aghekyan-Simonian, Forsythe, Kwon, & Chattaraman, 2012). As a result, companies with a positive brand image will gain a competitive advantage over their competitors (Mohammed, & Rashid, 2018; Chinomona, 2016; Sasmita, & Suki, 2015; Martínez, Pérez, & Del Bosque, 2014; Greve, 2014; Lee, Cho, & Ahn, 2012). The ways that brand image influences consumer purchasing decisions include: (1) helping consumers recognise their wants and needs towards a brand and, (2) differentiating a brand from others (Anwar, Gulzar, Sohail, & Akram, 2011). Sallam (2015) suggests that corporate brand image not only positively influences a company's competitive advantage but also encourages customers' intentions of repeat purchasing. Yi, Zhao, and Joung (2018) also conclude that brand image is an important indicator of customer purchasing behaviour.

Aaker and Biel (2013) argue that the factors that influence consumers' perceptions of brand image include: (1) brand attitudes, (2) customer perceived value, (3) customers' feelings towards the brand, (4) brand associations, and (5) customers' attitudes towards the brand's advertisements. The measurement items for brand image, as identified in several services marketing research papers include: (1) the attractiveness of the brand, (2) the reputation of the brand, (3) the familiarity to potential customers, and (4) the uniqueness of the brand (Anselmsson, Vestman Bondesson, & Johansson, 2014; Jin, Lee, & Huffman, 2012).

In the context of the tourism industry, Lien, Wen, Huang, and Wu (2015) measure brand image in their study on hotel services using the following five questions: (1) is the brand reliable; (2) is the brand attractive; (3) is the brand pleasing; (4) is the brand a social status symbol; and (5) does the brand have a good reputation.

Table 2-3 presents a summary of existing research regarding brand image among various industries.

Table 2-3 Summary of Existing Research regarding Brand Image

Higher-Order Construct	Research Field	Authors
Brand Image	Ecommerce Services (Indonesia)	Agmeka et al. (2019)
	Hotel Services (Malaysia, Spain)	Mohammed and Rashid (2018), Lahap et al. (2016), Martínez et al. (2014)
	Consumer Products Services (South Africa, Malaysia, Sweden)	Chinomona (2016), Sasmita and Suki (2015) Anselmsson et al. (2014)
	Education Services (Germany)	Greve (2014)

2.4 Customer Perceived Value

Perceived value is described as "the utility of a product based on the perception of what is received and what is given" (Zeithaml, 1988). Dodds, Monroe, and Grewal (1991) defined perceived value as a "trade-off" between perceived quality and psychological benefits on the one hand compared to any monetary sacrifices on the other. Furthermore, perceived value is also considered to be the outcome from an evaluation of the price that customers have paid for a product and the benefits they received from that product (Joung, Choi, & Wang, 2016; Nguyen & LeBlanc, 1998). Bhattacharya and Singh (2008) highlight that perceived value is not determined by a company's assumptions or intentions but is determined purely by customers' perceptions. In discussing the methods that a business can use to improve customer perceived value, Ravald and Grönroos (1996) advised that improving the quality of the product or reducing the price of the product were two practices that may be successful in increasing customer perceived value.

The importance of customer perceived value has been widely recognised in the services marketing literature; for example: government services (Li & Shang, 2020; Zeleti, Ojo, & Curry, 2016), restaurant services (Kim, & Tang, 2020; Itani, Kassar, & Loureiro, 2019); campus food services (Joung et al., 2016), and the tourism and hospitality industry (El-Adly, 2019; Keshavarz et al., 2019; Sabiote-Ortiz, Frías-Jamilena, & Castañeda-García, 2014; Pandža Bajs, 2013; Walls, 2013; Kim, Kim, & Goh, 2011) (see Table 2-4).

Table 2-4 Summary of Existing Research regarding Customer Perceived Value

Higher-Order Construct	Research Field	Authors
Customer Perceived Value	Restaurant Services (the United States)	Kim and Tang (2020), Itani et al. (2019)
	Government Services (China, Ireland)	Li and Shang (2020), Zeleti et al (2016)
	Hotel Services (United Arab Emirates, Malaysia, the United States)	El-Adly (2019), Keshavarz et al. (2019), Walls (2013)
	Food Services (the United States)	Joung et al. (2016)
	Destination Services (Croatia)	Pandža Bajs (2013),

In addition, customer perceived value has been conceptualised in the services marketing literature by the following five measurement items: (1) whether the overall experience is good, (2) whether the quality of the experience is pleasant, (3) whether the price is fair compared to the product's quality, (4) whether the payment method is convenient to customers, and (5) whether the product has a good reputation (Joung et al., 2016; Kim et al., 2011).

In the tourism and hospitality industry, Pandža Bajs (2013) in his study on destination planning conceptualised customer perceived value using three factors: (1) the appearance of the destination, (2) tourists' emotional experience, and (3) the quality of tourist services. In addition, Keshavarz et al. (2019) and Walls (2013) in their studies on tourists' hotel stay experiences included two more items for measuring perceived value: (1) social/self-concept, and (2) cognitive value.

2.5 Service Quality Conceptualisations

There are two perspectives of service quality that have been described in the literature on services marketing: (1) the Nordic perspective, which was proposed by Grönroos (1984) and that originated in Northern Europe; and (2) the American perspective, proposed by Parasuraman, Berry and Zeithaml (1988). Both perspectives viewed service quality as the result of a customer's expectation of service compared with the actual service that a customer received (Parasuraman et al., 1988; Grönroos, 1984). The Nordic perspective was the first academic attempt using the dimensional concept to define service quality (Brady & Cronin, 2001). In addition, Grönroos (1984) recommended in the Nordic model that service quality be conceptualised through two dimensions: technical quality and functional quality; while the American perspective used five dimensions to evaluate service quality: (1) tangibles (the tangible features of the business which include the physical facility and equipment), (2) reliability (the ability of the business to provide dependable and accurate services), (3) responsiveness (whether the business provided prompt service and showed its willingness to help the customer), (4) assurance (as to whether staff had the knowledge and training to deal politely and intelligently with customers thereby inspiring the customer's trust and confidence in the business), and (5) empathy (whether the business showed sympathy and compassion to its customers) (Parasuraman et al., 1988).

Researchers have described service quality as a customer's attitude and long-term impression resulting from the comparison between expectation and performance (Cronin & Taylor, 1992b; Carman, 1990; Grönroos, 1982); and the result of a customer's evaluation of the excellence of a service (Parasuraman et al., 1988). Carman (1990) and Parasuraman, Berry, and Zeithaml (1985) demonstrated that the quality of services is difficult to measure because of the intangible nature of service compared to physical goods. In addition, services marketing researchers Carman (1990) and Parasuraman et al. (1985) extended the conclusions about services by proposing five unique characteristics of service compared to physical goods: intangibility, inseparability, perishability, heterogeneity and ownership (Channoi et al., 2018; Hapsari et al., 2017; Clemes, Shu, & Gan, 2014; Cowell, 1988).

Service quality has been described as a multidimensional construct in the services marketing literature (Berezina, Bilgihan, Cobanoglu, & Okumus, 2016; Prentice, 2013; Pollack, 2009). However,

there is no consensus on the conceptualisation or measurement for service quality; researchers have suggested that the dimensions and contents of the dimensions used to conceptualise service quality may differ when the studies are conducted on different industries (Rauch Dennis, Collins Michael, Nale Robert, & Barr Peter, 2015; Pollack, 2009; Brady & Cronin, 2001).

2.6 Service Quality Models

2.6.1 Grönroos' (1984) Nordic Model

The Nordic Model was the first attempt to conceptualise service quality (Grönroos, 1984). Grönroos' (1984) original model has had a strong influence on services marketing scholars (Rodrigues, 2013). Service quality was defined as a result of comparing the expected service with the perceived service. Perceived service quality was determined using two service dimensions: (1) technical quality, which is the result (outcome) of a service the customer received after the buyer-seller action finished; and (2) functional quality, which is the interaction between the customer and the service provider. Functional quality refers to the way the service was delivered to the customer (Grönroos, 1984). Customer evaluations of "image" were formed based on the perceived functional and technical qualities of the service (Grönroos, 1984). Perceived service quality was influenced by the customer's perception of "image": the better the image the customer holds towards a brand, the better the quality of service they perceive about that brand. The Nordic Model service quality conceptualisation also shows that functional quality was more important when compared to technical quality; therefore, a company provides a better level of service quality when special attention is paid to the functional quality of the service (Grönroos, 1984).



Figure 2-1 The Nordic Model (Grönroos, 1984)

2.6.2 Parasuraman et al.'s (1988) SERVQUAL Model

Parasuraman et al. (1988) developed the SERVQUAL model, derived from the Gaps Model. The SERVQUAL model based service quality on five dimensions: (1) tangibles, which refers to physical facilities, equipment, and appearance of personnel; (2) reliability, which is the ability to perform the promised service dependably and accurately; (3) responsiveness, which refers to the willingness to help customers and provide prompt service; (4) assurance, which refers to the knowledge and courtesy of employees and their ability to inspire trust and confidence; and (5) empathy, which reflects the caring, individualised attention the firm provides for its customers.

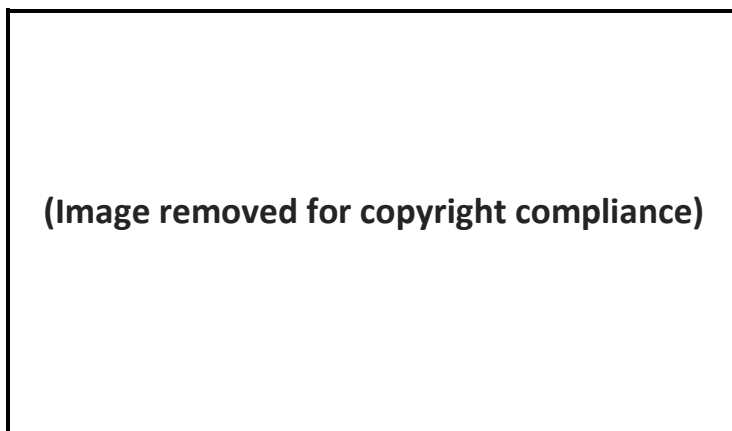


Figure 2-2 The SERVQUAL Model (Parasuraman et al., 1988)

2.6.3 Rust and Oliver's (1994) Three-Component Model

Rust and Oliver (1994) developed a three-component model derived from the Nordic perspective (Osaki & Kubota, 2016; Wang, Kim, Ko, & Liu, 2016; Zeng & Prentice, 2014). Rust and Oliver (1994) in extending on the two dimensions in the Nordic model, used three dimensions in their model to describe service quality: (1) service product, the actual services that received by the customer; (2) service delivery, the process of how services have been provided to the customer; and (3) service environment, the atmosphere of where the services have been provided.

Although Rust and Oliver's (1994) model has not been tested empirically, having "service environment" as one dimension of service quality has provided insight for several researchers. Studies investigating service quality using the dimension of "service environment" have been conducted in different industries and in different cultures, examples being Osaki and Kubota's (2016) research on airline services in Japan, Wang et al.'s (2016) research on traditional retail industries in China, and Zeng and Prentice's (2014) study on casino services in China.

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Figure 2-3 The Three-Component Model (Rust & Oliver, 1994)

2.6.4 Dabholkar, Thorpe, and Rentz' (1996) Multilevel Model

The multilevel model, also known as the Retail Service Quality Scale (RSQS), was developed by Dabholkar et al. (1996). In the multilevel model, service quality was measured through a multilevel construct which formed an overall level of service quality with two additional levels: (1) the dimension level which consists of five dimensions central to service quality, and (2) the sub-dimension level which related to three dimensions (Dabholkar et al., 1996). The five dimensions to conceptualise the quality of retail service were: (1) physical aspects, (2) reliability, (3) personal interaction, (4) problem-solving, and (5) policy; three of these dimensions (physical aspects, reliability, and personal interaction) are explained by several sub-dimensions as they are more complex compared to the remaining two basic dimensions (problem-solving and policy) (Dabholkar et al., 1996). Dabholkar et al. (1996) noted that (1) the dimension of physical aspects could be measured through appearance and convenience; (2) the dimension of reliability, that is, keeping promises and doing things right are two important factors that form reliability; and (3) the dimension of interaction quality referred to how customers had been treated by the staff of the company, which consisted of two facets: whether the staff inspiring confidence and whether the staff were courteous/helpful to customers.

The method of measuring service quality through a multilevel construct in Dabholkar et al.'s (1996) model provides the possibility future researchers to comprehend service quality perception through the following three perspectives: first, how service quality perception could be defined; second, how service quality perception could be formed; and third, how the place where the services have been provided influence customer's evaluation about the quality of service (Martínez & Martínez, 2010).

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compliance)**

Figure 2-4 The Multilevel Model (Dabholkar et al., 1996)

Inspired by the multilevel concept, Brady and Cronin (2001) built the integrated hierarchical model, which has been widely applied in current services marketing research (Clemes et al., 2018; Wu, Cheng, & Ai, 2018; Hossain, Dwivedi, & Naseem, 2015; Wu & Cheng, 2013).

2.6.5 Brady and Cronin's (2001) Integrated Hierarchical Model

In extending the multilevel construct of Dabholkar et al.'s (1996) multilevel model, Brady and Cronin (2001) established an integrated hierarchical model based on their research conducted on four types of services: fast-food services, film developing services, amusement park services, and dry-cleaning services. Service quality was examined in the integrated hierarchical model using a three-dimensional structure: (1) overall quality of service; (2) the primary dimensions; and (3) the sub-dimensions that define each primary dimension (Brady & Cronin, 2001). The overall service quality is conceptualised using the following primary dimensions: (1) interaction quality; (2) physical environment quality; and (3) outcome quality. Each of these primary dimensions is defined based on several sub-dimensions, for example: (1) interaction quality as defined through attitude, behaviour, and expertise; (2) physical environment quality as defined through surrounding conditions, design, and social factors; and (3) outcome quality as conceptualised through waiting time, tangibles, and valence (Brady & Cronin, 2001). Moreover, Brady and Cronin (2001) used the underlying SERVQUAL factors - reliability (R), responsiveness (SP), and empathy (E), as the descriptors of the nine sub-dimensions in order to solve the problem of how customers identify each of these sub-dimensions.

(Image removed for copyright compliance)

Figure 2-5 Brady and Cronin's (2001) Integrated Hierarchical Model

The integrated hierarchical model offers an improved and thorough point of view regarding measuring service quality (Martínez-García & Martínez-Caro, 2010). The concept of measuring service quality using multidimensions and various levels has been widely accepted by several current services marketing scholars and has been applied in many services marketing research publications; for example, Clemes et al. 's (2018) research on restaurant services; Wu et al. 's (2018) research on cruise services; Abu Bakar et al. 's (2017) and Hossain et al.'s (2015) studies of banking services; Clemes, Cohen, and Wang's (2013) study of higher education services; and Wu and Cheng's (2013) research on airline services. The findings from these studies provide empirical support for Brady and Cronin's (2001) integrated hierarchical modelling approach.

In addition to the three primary dimensions (interaction quality, physical environment quality, and outcome quality) noted in Brady and Cronin's (2001) integrated hierarchical model, several scholars have recommended that four primary dimensions could better conceptualise service quality when studies are conducted on different industries (Yan, 2017; Wu & Cheng, 2013; Dagger, Sweeney, & Johnson, 2007). Further discussion on how these scholars conceptualised service quality through a four-primary dimension model is presented in detail in Section 2.8.4.

2.7 Service Quality Models in the Travel Agency Industry

Several scholars have conducted research in order to conceptualise service quality in the travel agency industry. Service quality in the previous research has been measured through three types of models: (1) a multi-dimensional model (Leblanc, 1992), (2) SERVQUAL model (Othman et al., 2019;

Lam & Zhang, 1999; Ryan & Cliff, 1997), and (3) multi-dimensional and hierarchical model (Martínez Caro & Martínez García, 2008).

Leblanc (1992) developed a multi-dimensional model to investigate Canadian customers' perceptions of travel agency service quality. Service quality in Leblanc's (1992) research is explained through six factors; and these factors were ranked from the most important to the least important: (1) corporate image, (2) competitiveness, (3) courtesy, (4) responsiveness, (5) accessibility, and (6) competence. Leblanc's (1992) findings suggest that only one factor (responsiveness) from the SERVQUAL model could be included in the conceptualisation of service quality in travel agency services in Canada.

Ryan and Cliff (1997) used the SERVQUAL model to conceptualise service quality in their study on the travel agency industry in New Zealand and noted that only three factors from the SERVQUAL model were applicable for measuring service quality. The three factors being: (1) reassurance, refers to the staff's professionalism and courteousness which inspires customers' trust and confidence in the company; (2) reliability, refers to the staff's ability to provide promised services to customers; and (3) tangibles, refers to the physical features of the company. The two reasons, as explained by Ryan and Cliff (1997) for only three factors from the SERVQUAL model being used in their research were: firstly, that the research assumptions may have been invalid as tourists' evaluations of "satisfaction" and "customer satisfaction" might have been skewed because of unrealistic expectations of their travel experience; and secondly, that the outliers may not have been able to be detected because of the emotive nature of service.

Lam and Zhang (1999) also used the SERVQUAL model to investigate how Hong Kong customers perceived service quality in travel agency services. The authors' findings suggested that four factors from the SERVQUAL model (responsiveness/assurance, reliability, empathy, and tangibility) were proved to have a significant effect in forming service quality; however, one more factor was found to also form service quality: resources/corporate image. From these five factors, Lam and Zhang (1999) observed that two factors carry the most impact in driving good service quality: reliability and responsiveness/assurance.

Othman et al. (2019) examined travel agency services in Malaysia and used SERVQUAL as the model to measure service quality. Othman et al.'s (2019) findings confirm that tangibility, reliability, responsiveness, assurance, and empathy are the five dimensions that conceptualise service quality in the travel agency services in Malaysia.

However, the SERVQUAL model has been subject to a number of criticisms by many services marketing scholars (Channoi et al., 2018; Abu Bakar et al., 2017; Ladhari, Ladhari, & Morales, 2011; Buttle, 1996; Brady & Cronin, 2001).

First and foremost, the way that the SERVQUAL model has measured service quality by subtracting the scores of expectations and perceptions, has been questioned as not being “psychological functioning”; in turn, academics have proposed that service quality should be monitored more explicitly (Channoi et al., 2018; Ekinci, Riley, & Fife-Schaw, 1998; Teas, 1993; Cronin & Taylor, 1992).

Secondly, the concept of expectation in the SERVQUAL model has been questioned by several scholars as having an ambiguity problem (Channoi et al., 2018; Kouthouris & Alexandris, 2005; Fu & Parks, 2001; Grönroos, 2001; Buttle, 1996; Wotruba & Tyagi, 1991). Wotruba and Tyagi (1991) asserted that customers’ perceptions of expectations might increase or decline over time. In addition, more researchers have demonstrated that customers’ perceptions of expectations might vary after their purchase experiences; as a consequence, customers’ expectations may alter before and after customers have made a purchase from a service provider (Kouthouris & Alexandris, 2005; Fu & Parks, 2001; Buttle, 1996;).

Furthermore, the dimensionality issue of the SERVQUAL model has been questioned by several scholars. Scholars report that the number and content of service quality dimensions vary in regards to service settings and cultural environments: examples include Ali and Raza’s (2017) study on banking services in Pakistan; Galeeva’s (2016) study on higher education services in Russia; Vera and Trujillo’s (2013) study on banking services in Mexico; Cronin and Taylor’s (1992a) study on four industries (banking, pest control, dry cleaning, and fast food) in the south-eastern United States; and Babakus and Mangold’s (1992) study on electric and gas utility services in Tennessee in the United States.

Martínez-Caro and Martínez-García (2008) who conducted research in Spain on travel agency services, used a multi-dimensional and hierarchical model to conceptualise and measure service quality. Service quality was measured using a third-order conceptualisation, where service quality comprised three primary dimensions and seven sub-dimensions. The three primary dimensions in Martínez-Caro and Martínez-García’s (2008) model are: (1) personal interaction, (2) physical environment, and (3) outcome quality. Using empirical research from the services marketing literature and findings from qualitative research, Martínez-Caro and Martínez-García (2008) proposed that each of the primary dimensions should be formed through several sub-dimensions. The first primary dimension, personal interaction, was formed by three sub-dimensions: (1) conduct, (2) expertise, and (3) problem solving; the second dimension, physical environment, was composed of two sub-dimensions: (1) equipment, and (2) ambient conditions; and finally, the third dimension, outcome quality, was also formed by two sub-dimensions: (1) waiting time, and (2) valence.

Table 2-5 Summary of Service Quality Research in the Travel Agency Industry

Study	Model	Analysis	Primary Dimensions of Service Quality	Cultural Setting
Le Blanc (1992)	50 items	a multi-dimensional model	corporate image competitiveness courtesy responsiveness accessibility competence	Atlantic Province (Canada)
Ryan and Cliff (1997)	22 items	the SERVQUAL model	reassurance reliability tangibles	Palmerston North (New Zealand)
Lam and Zhang (1999)	22 items	the SERVQUAL model	reliability responsiveness/assurance empathy resources/corporate image tangibility	Hongkong (China)
Martínez-Caro and Martínez-García (2008)	31 items	a multi-dimensional and hierarchical model	personal interaction quality, physical environment quality, outcome quality	Murcia (Spain)
Othman et al. (2019)	18 items	the SERVQUAL model	tangibles reliability responsiveness assurance empathy	Johor, Selangor, Sabah, Penang States (Malaysia)

To summarise, Table 2-1 presents the key findings from the above service quality studies on the travel agency industry; including the number of measurement items used in each study, the analytical model, and the primary dimensions of service quality.

2.8 The Primary Dimensions of Service Quality

Sections 2.8.1. to 2.8.4 present a review of the extant literature on the primary dimensions of service quality; in addition, a discussion on the service quality construct in the context of the travel industry is also presented.

2.8.1 Interaction Quality

Interaction quality refers to the quality of the interpersonal interactions between the customer and the employee; customers' interpersonal interactions with the employee take place when the employee delivers the service to the customers in a service setting (Hossain et al., 2015; Ranjan, Sugathan, & Rossmann, 2015; Wu, Tsai, Hsiung, & Chen, 2015; Grönroos & Gummerus, 2014; Brady & Cronin, 2001).

Grönroos (2011) reports that customers' perceptions of business value are derived not only from the core products of the business but also from interactions with the employee of the business. The employee's attitude and behaviour can make a positive or negative impression on customer perception of service quality (Echeverri & Salomonson, 2017; Lemke, Clark, & Wilson, 2011; Hartline & Ferrell, 1996). The importance of interaction quality as a primary dimension of service quality has also been reported by a number of services marketing academics (Hong et al., 2020; Channoi et al., 2018; Clemes et al., 2018; Wu et al., 2015; Clemes et al., 2013; Wu & Cheng, 2013; Lloyd & Luk, 2011).

Clemes et al. (2018) note in their study on upscale restaurant services that interaction quality is a critical primary dimension of service quality, with sub-dimensions of staff members' interpersonal, professional and problem-solving abilities. In addition, Wu et al. (2015) report in their study on four businesses (hospitals, hotels, department stores, and hair salons) that interpersonal interaction is a significant dimension of service quality; and the factors affecting customers' interpersonal interactions with front-line staff include communication, understanding, prompt service, and persuasion. Furthermore, Lloyd and Luk (2011) demonstrate in their study on fashion apparel and restaurant services that good interaction behaviour results in higher levels of comfort, and therefore that comfort has a favourable impact on customers overall service quality assessments.

Interaction Quality in the Travel Industry

Hong et al. (2020) conducted research using EFA and CFA analysis on the factors of service quality on airport services at Incheon International Airport in Korea, and their findings indicate that interaction quality has a positive impact on overall service quality. Additionally, Channoi et al. (2018) illustrate in their study on beach resort hotel services in Thailand that interaction quality is a primary dimension for conceptualising service quality; and the sub-dimensions that comprised interaction quality are attitude, behaviour, and professionalism.

2.8.2 Physical Environment Quality

The quality of services has previously been explained as difficult to measure when compared to the quality of physical products because of the intangible nature of services (Parasuraman et al., 1988). Bitner, Booms, and Tetreault (1990) suggested that the tangible features of services (the buildings and the surrounding environment) are usually recognised as an essential feature for customers when evaluating the quality of services. Physical environment quality is widely recognised in the services marketing literature as one of the critical dimensions forming customers' perceptions of the service quality construct (Abu Bakar et al., 2017; Lien, Cao, & Zhou, 2017; Teeroovengadum, Kamalanabhan, & Seebaluck, 2016; Clemes et al., 2011; Brady & Cronin, 2001; Parasuraman et al., 1988; Grönroos, 1984).

Physical Environment Quality in the Travel Industry

Empirical evidence from the travel industry research also demonstrates that physical environment quality is a primary dimension in determining service quality, and includes: Hong et al.'s (2020) research on airport services; Channoi et al.'s (2018) study on beach resort hotel services; Wu, Ai, et al.'s (2015) research on hot spring services; and Clemes et al.'s (2011) research on motel services.

In Wu et al.'s (2015) research on hot springs services, the authors found that physical environment quality has a positive influence on customers' perceptions of overall service quality, and physical environment quality is characterised using seven factors: (1) the facility, (2) the surrounding environment, (3) the design, (4) the cleanliness, (5) the decor, (6) the atmosphere, and (7) the temperature/lighting. Clemes et al. (2011) also demonstrate in their research on motel services that physical environment quality is an important primary dimension of service quality, and the authors' use three reflective factors to measure physical environment quality: noise level, parking, and security.

2.8.3 Outcome Quality

Grönroos (1982) first discussed the concept of outcome quality in his two-dimensional service quality model. Outcome quality was named as "technical quality" in Grönroos' (1982) model, which referred to the result of the purchasing process. Other scholars agreed with Grönroos' (1982) description and further explained that outcome quality is what is left for customers after the service delivery (Clemes et al., 2018; Clemes et al., 2014; Theodorakis, Alexandris, Tsigilis, & Karvounis, 2013; Alexandris, Douka, & Balaska, 2012). Outcome quality has been identified as a primary dimension of service quality in several services marketing research studies covering a variety of business sectors; examples include: Clemes et al.'s (2018) research on upscale restaurant services; Abu Bakar et al.'s (2017), Hossain et al.'s (2015), and Jain and Jain's (2015) research on banking services; and Theodorakis et al.'s (2013) research on the European professional football competition services.

Hossain et al. (2015) reveal in their research on retail banking services in Australia and Bangladesh that outcome quality is an important primary dimension that is a component of service quality, and the factors determining outcome quality are: (1) functional benefit, which refers to the extent to which a bank's services fulfil their stated purpose and are beneficial to the client; and (2) tactical benefit, relates to whether clients receive appealing services such as reasonable service charges, inexpensive credit rates, and competitive savings interest rates. Theodorakis et al.'s (2013) research on professional football in Greece also reveals that outcome quality has a significant influence on service quality, with factors such as game quality and team performance comprising outcome quality.

Outcome Quality in the Travel Industry

In the context of the travel industry, Hong et al. (2020) indicate in their research on airport services in Korea that outcome quality is an important attribute for measuring service quality. In addition, Martínez-Caro and Martínez-García's (2008) findings in their research on travel agency services in Spain also reveal that outcome quality is an important primary dimension of service quality; and the factors they used to describe outcome quality are: valence and waiting time.

2.8.4 Technical Quality

In this current research, a fourth primary dimension (technical quality) has been added to the three primary dimensions, in order to conceptualize service quality in the context of the travel agency industry in China. Many services marketing scholars have used more than three primary dimensions to measure service quality accurately in different industries (Wu et al., 2018; Yan, 2017; Wu & Cheng, 2013; Dagger et al., 2007). For example, Dagger et al. (2007) used an additional primary dimension to measure service quality in the health care industry. A fourth primary dimension was included with the three primary dimensions (interaction quality, physical environment quality, and outcome quality) used in Brady and Cronin's (2001) service quality model.

Wu and Cheng's (2013) research on airline services provide empirical evidence that access quality should be regarded as the fourth primary dimension as a reflective indicator of service quality. Yan (2017) investigated higher education services and used four primary dimensions to conceptualise service quality - interaction quality, physical environment quality, outcome quality, and social factors quality; the quality of social factors was included as the fourth primary dimension in order to more accurately conceptualise service quality. Wu et al. (2018) also used four primary dimensions to measure service quality in cruise line services-- interaction quality, physical environment quality, outcome quality, and access quality.

Technical Quality in the Travel Industry

Technical quality has been added as the fourth primary dimension of service quality in this study to better conceptualise service quality in the travel agency industry. The importance of technical quality as a primary dimension of service quality has not been noted in the extant travel agency literature; however, the influence of information and communication technologies (ICT) on travel agency services has been mentioned in many travel agency service studies. Capriello and Riboldazzi (2020) demonstrate in their research on travel agency services in Italy that technology has played a significant role in supporting travel agencies in providing services to their customers; and, helping travel agencies to maintain their competitiveness in the marketplace. Sharma et al. (2020) also assert in their research on travel agency services in India that the factors that contribute to technical issues in the context of travel agency services include: the design of the website, the internet speed, and

the issues relating to digital payments. Discussions about how technology influences travel agency customers' perceptions of service quality are as follows:

First, Sharma et al. (2020) note in their research on travel agency services conducted in India that technology helps travel agency customers to be able to easily access information from the travel agency's website. Quintana, Gil, and Peral (2016) also assert, in their research on travel agency services in Spain that technology allows travel agency customers to be able to find accurate, rich, comprehensive, and personalised information from the travel agency website. The focus group participants of this research also explain that the participants perceive travel agency services with the ease of use of technology; for example, (1) whether they can "easily find basic travel products through this travel agency's website", and (2) whether "the website of this travel agency is easy to navigate".

Second, Yasmin, Tasneem, and Fatema (2015) demonstrate that customers prefer to use technology to communicate with travel agencies (instead of phone communication and face-to-face communication) because they believe that technology is more convenient. With the support of technology, travel agencies are able to (1) interact with their customers smoothly (Quintana et al., 2016); (2) build closer relationships with their existing customers (Yasmin et al., 2015); and (3) be able to attract new customers (Sharma et al., 2020; Mariani, Buhalis, Longhi, & Vitouladiti, 2014). As a result, the use of technology travel agencies are able to improve their competitive advantage in the marketplace. The findings from the focus group interviews of this research also revealed that the participants "will give credit to the travel agency's services if they can contact the travel agency through the same chatting apps. they normally use".

Third, Abou-Shouk, Lim, and Megicks (2013) found in their research on travel agency services in Egypt that transaction management contributes to the travel agency's competitive capability in the marketplace. The transaction management issues are related to customers' evaluations of internet payment quality, as suggested by Law, Buhalis, and Cobanoglu (2014). In their research, they reviewed 107 tourism and hospitality journals and found the issues to be: (1) whether the websites of travel product providers offer a high level of control (Kim, Connolly, & Blum, 2014), and (2) whether the transaction process is convenient (San Martín & Herrero, 2012). Sharma et al. (2020) also indicate convenience and comparative pricing are two components that encourage customers to be confident to make a purchase from a travel agency using the process of internet payment. The focus group participants of this current research commented that being able to make payments through the internet is an important consideration in their evaluation of the quality of a travel agency's services.

Fourth and finally, security concerns also influence customers' decisions on whether to use technologies to communicate to, or make purchases from, a travel agency (Abou-Shouk, Lim, & Megicks, 2016). Pencarelli (2020) and Miorandi, Sicari, De Pellegrini, and Chlamtac (2012) note that security and privacy protection are the two major issues that influence customer evaluations of travel agencies services. The focus group participants of this current research also point out that they would evaluate the quality of a travel agency's services based on security and privacy issues; two examples being: "whether the customers feel confident that their personal information associated with the travel agency's service is secure" and also "whether the customer believes that the travel agency knows that personal privacy is important".

To summarise, technical quality has been added as the fourth primary dimension in this current research in order to improve the conceptualisation of service quality in the context of services offered by travel agencies. The measurement items that comprise technical quality are derived from the aforementioned literature and focus group discussions, and are reflected in the technical quality measurement items as follows: (1) whether the customers can contact the travel agency easily because the travel agency uses the same chatting apps as the customers use; (2) whether the customers can easily find travel products through the travel agency's website; (3) whether the website of the travel agency is easy to navigate; (4) whether the customers feel confident that their personal information associated with the travel agency's service is secure; (5) whether the customers believe that the travel agency knows personal privacy is important, and; (6) whether the customers feel that the method of paying for the travel products is convenient for them.

2.9 The Interrelationships among the Higher-Order Constructs

2.9.1 The Impact of Service Quality on Customer Perceived Value

Customer perceived value has been described as a higher-level concept than service quality (Zeithaml, 1988). Services marketing scholars have recently demonstrated in their studies on a wide range of business settings that service quality directly and positively influences customer perceived value; examples include: Clemes et al.'s (2018) research on upscale restaurant services; Wu, Cheng, and Ai's (2016) study on exhibition services; Abu Bakar et al.'s (2017) and Zameer, Tara, Kausar, and Mohsin's (2015) studies on banking services; Dlačić, Arslanagić, Kadić-Maglajlić, Marković, and Raspor's (2014) research on higher education services; and Yu et al.'s (2014) and Howat and Assaker's (2013) studies on sports services.

Scholars have also investigated whether service quality has an impact on customer perceived value in the tourism industry. Keshavarz and Jamshidi (2018) explore the effect of service quality on customer perceived value in the context of hotel services in Malaysia. The authors used a sample of 417

respondents who stayed for one night or more in four-to-five-star hotels in Kuala Lumpur. Using the structural equation modelling method to analyse the research data, the authors found that service quality significantly and positively influences customer perceived value. More services marketing scholars who have conducted research examined service quality's impact on customer perceived value in the tourism industry include: Suhartanto et al. (2020), Oriade and Schofield (2019), and Pandža Bajs (2013) in their studies on tourists' destination experiences, and Wu and Li (2017) in their study on heritage tourism services.

In the context of travel agency services, Lai (2014) conducted research in order to investigate the antecedents that lead to customer loyalty to a particular travel agency. Using structural equation modelling to analyse the research data collected in Macau, Lai (2014) found that the service quality of a travel package has a positive influence on tourists' perceived value of that travel package and on tourists' loyalty to the travel agency. However, Lai's (2014) focus on travel agency services was only on the travel package sold by the travel agency; the overall service quality of the travel agency was not examined in Lai's (2014) study. Therefore, whether service quality influences customer perceived value in the travel agency services context hasn't been investigated in the published services marketing literature; indicating a need to conduct research on the level of services offered by travel agencies to examine if service quality positively influences their customers' perceptions of perceived value.

2.9.2 The Impact of Service Quality on Brand Image

The positive and direct effect of service quality on brand image has been noted by a number of services marketing scholars in their studies on a wide range of business settings; examples include Teeroovengadam, Nunkoo, Gronroos, Kamalanabhan, and Seebaluck's (2019) study on higher education services; Clemes et al.'s (2014) research on mobile communications; Ryu, Lee, and Kim's (2012a) study on upscale Chinese restaurants; and Ladhari et al.'s (2011) research on bank services. The findings from these studies have revealed that customers' perceptions of brand image increase when they have received a high level of service quality.

Scholars who have conducted research on the tourism industry also suggest that a customer's perceived quality of service has a direct impact on the formation of the customer's perception of brand image. Hapsari et al. (2017) identify in their study on airline services that service quality significantly influence the brand image. Furthermore, Akroush, Jraisat, Kurdieh, A L-Faouri, and Qatu (2016) and Kandampully, Juwaheer, and Hu (2011) in their studies on hotel services also indicate that a tourist's perception of the destination image is highly influenced by the quality of services they received. However, there is minimal evidence in the published literature about the relationship between service quality and brand image and how the relationship between the two constructs

pertains to travel agency services. Therefore, an improved understanding of this relationship would be beneficial for researchers and the global travel industry.

2.9.3 The Impact of Service Quality on Customer Satisfaction

Service quality has been identified by Parasuraman, Zeithaml, and Berry (1994) and Cronin and Taylor (1992) as an antecedent that leads to customer satisfaction. In addition, there are more current scholars who suggest that customer satisfaction improves when customers consider that the quality of the service they received is superior. For example, Zhong and Moon (2020) report in their study on fast-food restaurant services that high-quality services increase customers' perceptions of service quality, which in turn leads to high customer satisfaction. Gong and Yi (2018) also point out in their study on retail services that customer satisfaction increases when customers have perceived a high quality of service.

In the context of the tourism industry, Priporas, Stylos, Vedanthachari, and Santiwatana's (2017) study examined the connection between service quality and customer satisfaction on Airbnb accommodation services in Thailand and found that service quality has a direct and positive impact on customer satisfaction. In addition, Farooq et al. (2018) and Hapsari et al. (2017) in their studies on airline services demonstrate that service quality positively influences customer satisfaction; Clemes et al. (2011) also point out in their study on motel services that a high quality of motel services leads to high-level customer satisfaction.

2.9.4 The Impact of Service Quality on Customer Loyalty

Boulding, Kalra, Staelin, and Zeithaml (1993) stated that a positive perception of service quality will have customers highly recommending the brand or product to others, and will make repeat purchases themselves. Service quality was also found to positively impact customer loyalty (Cronin et al., 2000; Dubé & Renaghan, 1999; Tepeci, 1999; Zeithaml et al., 1996). Zeithaml et al. (1996) noted that customers did not mind paying more for the services if they thought they had received a good quality of service from the service provider. Dubé and Renaghan (1999) and Tepeci (1999) in their studies on hotel services also considered that service quality triggered customer loyalty levels. Moreover, Cronin et al.'s (2000) findings in their research on six business settings (spectator sports services, participation sports services, entertainment services, healthcare services, long-distance carrier services, and fast-food restaurant services) also suggest that a direct link exists between service quality and customers' repeat purchasing intentions. More recent services marketing research has offered empirical evidence of the positive impact of service quality on customer loyalty in various industries including: banking services (Famiyeh, Asante-Darko, & Kwarteng, 2018), higher education services (Kasiri, Guan, Sambasivan, & Sidin, 2017), and fast-food services (Liu et al., 2017).

Service quality has been noted in several tourism industry studies as an essential influencer of customer loyalty. Suhartanto et al. (2013) explain that service quality is the key for a hotel when differentiating itself from its competitors. The authors also found that in the hotel industry, a high quality of service results in a high level of customer loyalty. The same impact of service quality on customer loyalty is also found in Kandampully et al.'s (2011) research on hotel services, and Hapsari et al.'s (2017) study on airline services.

2.9.5 The Impact of Customer Perceived Value on Brand Image

Barich and Kolter (1991) suggested that customer perceived value may lead to favourable brand image and customers will have a positive impression of a company's image if they believe they are getting great value when they make the purchase. Evidence from Hu, Kandampully, and Juwaheer's (2009) research in the hotel industry in Mauritius, and Channoi et al.'s (2017) research on beach resort hotel services in Thailand, are consistent with Barich and Kotler's (1991) argument about brand image and customer perceived value relationship.

However, findings from Zameer et al.'s (2015) research on banking services in Pakistan, Suhartanto et al.'s (2013) research on three-star and four-star hotel services in Indonesia, and Kim, Holland, and Han's (2013) research on destination tourism in North Orlando in the United States demonstrated that the relationship between brand image and customer perceived value is in the other way round; which means in their research, corporate and destination image is found to have a positive and significant impact on customer perceived value.

2.9.6 The Impact of Customer Perceived Value on Customer Satisfaction

The positive impact of customer perceived value on customer satisfaction has been demonstrated in various services marketing studies (Wu et al., 2016; El-Adly & Eid, 2016; Clemes et al., 2014; Roig, Guillén, Coll, & Saumell, 2013; Gallarza, Gil-Saura, & Holbrook, 2011; Lai & Chen, 2011). El-Adly and Eid (2016) in their study on shopping mall services indicate that a higher level of customer perceived value has a positive effect on customer satisfaction. Roig et al. (2013) show that perceived value is a good antecedent for customer satisfaction in banking services. Lai and Chen's (2011) findings in their study on public transit systems verified that customer perceived value increased when the public transit users perceived a high level of satisfaction with the services they had received. In addition, customer perceived value has also been found as a significant influencer of customer satisfaction in exhibition services (Wu et al., 2016) and mobile communication services (Clemes et al., 2014).

The findings from studies on the tourism industry also report that a positive relationship exists between customer perceived value and customer satisfaction. El-Adly (2019) in his research on hotel services in the UAE investigated the impact of a customer's perceived value on customer satisfaction.

The author also considers the specific dimensions of customer perceived value that led to customer satisfaction and found that the five dimensions of perceived value are: self-gratification, price, service quality, easy transactions, and hedonic feelings. Kim and Park (2017) also found in their study on destination services in Korea that perceived value positively influences tourists' satisfaction and destination loyalty. Additionally, Eid (2015) asserts that Muslim tourists' perceived value is positively correlated with their evaluation of the overall satisfaction of the trips they undertook. Furthermore, Kim et al. (2013) report that for destination loyalty of tourists visiting Orlando, Florida in the United States, tourists are more satisfied regarding the city of Orlando when the level of perceived value is high.

2.9.7 The Impact of Customer Perceived Value on Customer Loyalty

Perceived value is a critical factor that leads to a company's success and is also an antecedent of customer loyalty (Kim et al., 2011). Marketers from the 1990s onwards started to use superior customer value delivery as a strategy for retaining customers, as they believed customer perceived value was a vital factor that positively influences customer loyalty (Slater, 1997; Reichheld, 1993). Similarly, Parasuraman and Grewal (2000) advise that perceived value positively influences customers' intentions to make recommendations and undertake repeat purchasing. Anderson and Srinivasan (2003) examined retail services and reported that customer loyalty declines when the perceived value reduces.

Li and Shang (2020) assert that perceived value is an important determinant of customer loyalty in their study of e-government services. El-Adly and Eid (2016) conducted research on the shopping mall services in the UAE, investigating the interrelationships among the four constructs of the physical environment, customer perceived value, customer satisfaction, and customer loyalty. The authors used structural equation modelling to analyse 368 questionnaires collected in three main cities in the UAE and confirm that the customer perceived value of a mall has a significant impact on customer loyalty to that mall. Furthermore, Clemes et al. (2014) point out in their study on mobile communication services that a strong effect exists between customer perceived value and customer loyalty. Roig et al. (2013) also claim that bank customers will be loyal when considering that the services they receive have a greater value than the services offered by a competitor.

Empirical evidence from the tourism literature also reveals that a direct correlation exists in the relationship between customer perceived value and customer loyalty. Examples are El-Adly's (2019) study and Suhartanto et al.'s (2013) study on hotel services; Channoi et al.'s (2018) study on beach resort hotel services; and Hapsari et al.'s (2017) study on airline services. However, published literature on the impact of customer perceived value on customer loyalty in the travel agency

industry is sparse. Therefore, research conducted to investigate travel agency customer perceived value's impact on customer loyalty would benefit both researchers and travel agency practitioners.

2.9.8 The Impact of Brand Image on Customer Satisfaction

Image has been described as a strong driver of customer satisfaction by several services marketing researchers (Bolton & Drew, 1991; Fornell, 1982). Andreassen and Lindestad (1988) explained that customers' attitudes towards a brand improved when they had a positive and higher level of satisfaction about an organisation. Brand image's positive influence on customer satisfaction has been verified in various studies on different services: for example, restaurant services (Clemes et al., 2018; Jin et al., 2012); banking services (Abu Bakar et al., 2017); telecommunication services (Clemes et al., 2014; Srivastava & Sharma, 2013); and higher education services (Clemes et al., 2013). Clemes et al. (2018) and Jin et al. (2012) in their research on restaurant services demonstrate that a higher perception of restaurant image leads to a higher perception of customer satisfaction. Abu Bakar et al. (2017) report that an increased perception of image positively affects customer satisfaction in banking services. Clemes et al.'s (2014) and Srivastava and Sharma's (2013) studies on telecommunication services also reveal that a higher corporate image will positively impact customer satisfaction. Moreover, Clemes et al.'s (2013) report that in higher education services student satisfaction improves when they have a higher perception of university image.

In the tourism industry, tourist satisfaction was also found to have a positive effect on destination image (Chen & Phou, 2013). Channoi et al. (2018) conducted research on beach resort hotel services and investigated whether interrelationships exist among five higher order constructs (service quality, customer satisfaction, perceived value, image, and customer loyalty). The results indicate that three constructs (service quality, image and perceived value) are the determinants of customer satisfaction. Wu and Li (2017), in their study on heritage tourism, also note that a good heritage tourism image positively influences tourists' experiential satisfaction levels.

2.9.9 The Impact of Brand Image on Customer Loyalty

Brand image has been illustrated by Dick and Basu (1994) as a factor that positively influences a customer's perception of customer loyalty. A number of scholars have highlighted the impact of brand image on customer loyalty. Customers were found to have more intentions of making repeat purchases from a company if they had a favourable image of that company (Subaebasni, Henny, & Arie Wicaksono, 2019; Gürlek, Düzgün, & Meydan Uygur, 2017; Korgaonkar, Lund, & Price, 1985). Espinosa, Ortinau, Krey, and Monahan (2017) note in their study on "casual sit-down dining" restaurant services in the USA that the restaurant customer's perception of customer loyalty is directly influenced by the image of the restaurant. In addition, Song, Wang, and Han (2019), in their

study on customer loyalty on franchise coffee stores in Korea, also found that brand image positively influences a café customer's perception of customer loyalty, although the relationship is indirect and intermediated by customer satisfaction and brand trust.

Literature drawn from the tourism industry also investigates the connection of brand image and customer loyalty, and suggests that brand image is an indicator of customer loyalty.

In the context of tourists' revisit intentions to a city, scholars report that the image of the city positively influences tourists' revisit intentions to that city; examples include Stylos, Bellou, Andronikidis, and Vassiliadis' (2017) study on British and Russian tourists' revisit intentions to the city of Thessaloniki (in Greece), and Kim's (2017) study on tourists' revisit intentions to the city of Kaohsiung (Taiwan). Several researchers have investigated how hotel customers perceived customer loyalty through hotel image, and their findings reveal that hotel image is the antecedent of customer loyalty. Examples include Lai and Ka's (2019) study in Macau, Setiawan and Sayuti's (2017) study in Indonesia, and de Leaniz and del Bosque Rodríguez' (2016) study in Spain. Nevertheless, few researchers have paid attention to brand image's impact on customer loyalty in the travel agency services; therefore, a study investigating brand image's possible influence on customer loyalty in the context of travel agency services will contribute to both the travel agency industry and services marketing literature.

2.9.10 The Impact of Customer Satisfaction on Customer Loyalty

Customer satisfaction has been described by services marketing scholars as a vital driver of customer loyalty. Bolton and Lemon (1999) illustrated that customers were willing to make more purchases and to recommend the services to their friends and families when they were satisfied with the services that they received from the business. Anderson and Srinivasan (2003) also reported that customers are more loyal towards a brand and have a lower possibility of switching to other brands when they perceived a high level of customer satisfaction. Moreover, Gong and Yi (2018) indicate in their study that customer satisfaction in retail services in Asia is found to be a determinant of customer loyalty. Amin (2016) also reveals in his study on internet banking services that the relationship between customer satisfaction and customer loyalty is significant.

Findings from studies on the tourism industry also illustrate that tourists perceive high customer loyalty when they are satisfied with the services they received. Channoi et al.'s (2018) study on beach resort hotel services reveals that high customer satisfaction means that customers' needs and wants are met; and this, consequently, results in a high perception of customer loyalty. Hapsari et al. (2017) also demonstrate in their study on airline services that customer satisfaction has an important influential effect that leads to customer loyalty. Furthermore, El-Adly's (2019) and Suhartanto et al.'s

(2013) research on hotel services notes that a direct connection exists between customer satisfaction and customer loyalty.

To date, there is no published research that has examined the impact of customer satisfaction on customer loyalty in a travel agency context. Therefore, research into the relationship between customer satisfaction and customer loyalty in travel agency services will make a contribution to the services marketing literature by improving the understanding of customer satisfaction's impact on customer loyalty. In addition, an improved understanding of the relationship between the two constructs will assist travel agencies in their strategic marketing planning.

2.10 The Mediating Effect in the Higher-Order Constructs

2.10.1 The Mediating Effect of Customer Satisfaction on the Service Quality and Customer Loyalty Relationship

A number of services marketing scholars have noted that an indirect relationship exists between service quality and customer loyalty. These scholars suggest in their studies conducted on a variety of services that service quality's indirect impact on customer loyalty is mediated by the construct of customer satisfaction. Examples include Gong and Yi's (2018) study on retail services; Kasiri et al.'s (2017) study on three industries: healthcare, hospitality, and education; Demirci Orel and Kara's (2014) study on supermarket services; and Akter, D'Ambra, and Ray's (2013) study on healthcare services.

In the context of the tourism industry, customer satisfaction's influence as an intermediary on the service quality and customer loyalty relationship is also found to exist in several studies. Hapsari et al.'s (2017) study on high frills airline services reveals that customer satisfaction intermediates service quality's influence on customer loyalty. In addition, Kuo et al. (2013) note in their research on travel agency services in Taiwan that customer satisfaction has partially mediated service quality's impact on customer loyalty. Kuo et al. (2013) demonstrate that the quality of service has positively influenced customers' loyalty to a travel agency; in addition, service quality's impact on customer loyalty is strengthened through customer satisfaction.

2.10.2 The Mediating Effect of Customer Satisfaction on the Customer Perceived Value and Customer Loyalty Relationship

Customer satisfaction has also been found to mediate the relationship between customer perceived value and customer loyalty. El-Adly and Eid (2016) explain in their study on mall services in the UAE that customer satisfaction with mall services mediates a customer's perception of customer perceived value and customer loyalty to the mall. Howat and Assaker (2013) also note in their study

on outdoor aquatic services that customer perceived value has an indirect effect on customer loyalty, and that the effect is intermediated by customer satisfaction.

In the context of the tourism industry, customer satisfaction is also found to have a fully or partially mediating effect on the relationship between customer perceived value and customer loyalty. The fully mediating effect was found in El-Adly's (2019) research on hotel services in the UAE and Hapsari et al.'s (2017) research on high frills airline services in Indonesia. The partial mediating effect was found in Keshavarz and Jamshidi's (2018) study on four- and five-star hotel services in Kuala Lumpur, where customer satisfaction's mediating effect on customer perceived value and customer loyalty is demonstrated. However, there are few studies in the context of travel agency services that address customer satisfaction's mediating effect on the relationship between customer perceived value and customer loyalty. This indicates that a study into customer satisfaction's mediating effect on customer perceived value's impact on customer loyalty on travel agency services in China will make a worthwhile contribution for both the travel agency industry and the services marketing literature.

2.11 Demographic Characteristics

Demographic factors have been identified as the factors that influence an individual's perspectives including expectation, perceptions, and behaviours (Al-jazzazi & Sultan, 2017). Business managers have used demographic factors as the fundamental and important factors for them to apply proper marketing segmentation and targeting strategies, for their businesses to compete in the marketplace (Ganesan-Lim et al., 2008; McCarty & Shrum, 1993). Services marketing researchers indicate that customers' perceptions of service quality, satisfaction, brand image, perceived value, and loyalty, may vary according to customers' demographic factors (such as gender, age, education, occupation, marital status, country of origin) (Clemes et al., 2020; Al-jazzazi & Sultan, 2017; Shuv-Ami & Shalom, 2017; Lee, Fairhurst, & Cho, 2013).

In the context of tourism and the travel industry, only a few studies have been conducted to investigate the effects of tourist demographics on tourists' perceptions of service quality, destination image, tourist satisfaction, and destination loyalty, as well as the relationships between these higher order constructs (Gursoy, Chi, & Dyer, 2009).

Gender

Gender has been identified as one of the key attributes and predictors in developing marketing strategy (Suki, 2014). Shuv-Ami and Shalom (2017) reveal that patients perceptions of service quality vary in terms of gender; female patients were perceived as receiving significantly lower service quality than males. Suki (2014) also found in her study on hotel services that men and women appear to respond to different aspects of a service encounter when making judgements about their

satisfaction. However, in Yarimoglu's (2017) research on online shopping services, gender was not found to have a significant impact on customers' perceptions of e-service quality and perceived value.

Age

Neal and Quester (2007) suggested that age is a powerful determinant of consumer behaviour which affects consumers' interests, tastes and purchasing ability. It has also been found that different customer age cohorts value efficiency and systems in service delivery differently; Javalgi, Belonax, and Robinson (1991) demonstrated that mature customers value efficient service more than younger consumers.

Al-jazzazi and Sultan (2017) found that in the context of banking services, age does not impact on bank service quality perceptions. However, in Yarimoglu's (2017) and Sorce, Perotti, and Widrick's (2005) studies on online shopping services, age had significant effect on service quality's impact on perceived value. Callan and Bowman (2000), in their research on hotel services, suggest that customers aged 55 or over, held high expectations for hotel service quality and placed more importance on value for money than actual price or discounts. In addition, Jiang and Zhang (2016) reveal in their study on airline services that older passengers (in the 50-60 age group) were more likely to give a "satisfied" rating compared to young passengers who are aged under 30.

Marital Status

Several services marketing researchers have conducted research to investigate the mediating effect of marital status on customers' perceptions of service quality, customer satisfaction, and customer loyalty in different business industries; some have also investigated the marital status effect on the relationships between higher-order service-related constructs. In Ahmed, Tarique, and Arif's (2017) study in India, marital status has also been found to have an impact on patients' perceptions of hospital service quality, satisfaction, and loyalty. Kabir (2016) also asserts in his research on fast-food services in the United States that a significant difference is found in customers' perceptions of customer satisfaction based on their race, income, age, marital status, and geographic location. In their research on the food industry in Greece, Psomas, Bouranta, and Vouzas (2017) found that married and unmarried customers perceive the relationship between food safety and perceived customer loyalty differently. However, there are also some researchers who found in their research that marital status does not mediate customers' perceptions of service quality. Examples include Jham's (2018) study on banking services in the UAE; Pekkaya, Pulat İmamoğlu, and Koca's (2019) research on hospital service in Turkey, and Lal, Vij, and Jain's (2015) research on banking services in India.

Regarding the possible impact of marital status on travel-related services, Guntoro and Hui (2013) found in their study on tourists' revisit intentions to Singapore that married tourists perceived the factor of lodging (an attributing factor to travel satisfaction) differently compared to unmarried tourists. Escobar-Rodríguez, Grávalos-Gastaminza, and Pérez-Calañas (2017) suggest that tourists' intentions of making purchases on touristic-products is influenced by their marital status.

Income

Services marketing academics demonstrate that income has a big impact on customers' purchasing decisions. Zeithaml (1985) suggested that customers with higher incomes tend to be less loyal towards a brand since they have fewer restrictions compared to customers have less income. Sivapalan and Jebarajakirthy's (2017) study on supermarket services in Sri Lanka reveal that income levels positively influence customers' perceptions of customer loyalty. Pitchayadejanant and Nakpathom (2016) research on low-cost airlines service in Thailand and found that lower income passengers perceive higher level of satisfaction if the airline provide accurate departure and arrival times. In Sahin Dölarslan's (2014) study on high-speed rail services in Turkey, the authors also found that customers income levels moderate their perceptions on the impact of customer satisfaction over revisit intentions.

However, in a study on credit-card services in Portugal, Martins Gonçalves and Sampaio (2012) note that credit card holders' income levels have no significant moderating effects in the customer satisfaction and repurchasing intentions relationship.

To date, no study has been conducted to investigate whether these demographic characteristics (gender, age, marital status, and income levels) moderate customers' perceptions of the relationships between the higher-order constructs. Gursoy et al. (2014) suggest that in the hospitality and tourism industries, demographic characteristics' possible mediating effect in the loyalty formation theory may benefit the industry practitioners by allowing them to apply more customised marketing segmentation and targeting strategies.

2.12 Chapter Review

This chapter has presented a review of the existing literature pertaining to the four research objectives presented in Chapter One of this study. The literature has been explored in four parts:

Conceptualisations of Service Quality

Firstly, a discussion on the conceptualisations of service quality is presented. The primary dimensions that form service quality as discussed in the literature have been reviewed. In addition to the three

primary dimensions (interaction quality, physical environment quality, and outcome quality) identified in Brady and Cronin's (2001) hierarchical service quality model, a fourth primary dimension (technical quality) is included in this study. The inclusion of a fourth primary dimension was based on a thorough review of the extant literature and the findings from focus group interviews. The fourth dimension is included to improve the conceptualisation of service quality in the context of travel agency services.

The Higher-order Constructs

Secondly, a review of the higher-order constructs relevant to customer loyalty is presented. The findings from extant services marketing literature on various industries suggests that four higher-order constructs relevant to customer loyalty are: service quality, customer perceived value, customer satisfaction, and brand image. However, given that there is only limited research into these higher-order constructs in the context of travel agency services, there is, therefore, a need to investigate whether these higher-order constructs also pertain to the travel agency industry.

Interrelationships among the Higher-order Constructs

Finally, a review of the services marketing literature related to the interrelationships among the higher-order constructs is presented. Findings from the extant services marketing literature suggest that there are direct and indirect relationships existing between the higher-order constructs.

For the **direct impact** among the higher-order constructs, the findings from previous research reveal that : (1) service quality has a positive and direct impact on customer perceived value, (2) service quality has a positive and direct impact on brand image, (3) service quality has a positive and direct impact on customer satisfaction, (4) customer perceived value has a positive and direct impact on customer satisfaction, (5) brand image has a positive and direct impact on customer satisfaction, (6) service quality has a positive and direct impact on customer loyalty, (7) customer perceived value has a positive and direct impact on customer loyalty, and (8) customer satisfaction has a positive and direct impact on customer loyalty.

Regarding the **indirect impact** among the higher-order constructs, the findings from previous research reveal that: (1) service quality is found to have an indirect impact on customer loyalty and the indirect impact is mediated by customer satisfaction, and (2) customer perceived value is also found to have an indirect impact on customer loyalty and that indirect impact is mediated by customer satisfaction.

Given the scarcity of the research into the interrelationships among the higher-order constructs in the travel agency industry, this current study will contribute to both the services marketing literature

and strategic planning conducted by travel agency management. The findings of this current research will add to the body of knowledge in the services marketing literature by providing an improved understanding of the possible direct and indirect relationships among the higher-order constructs in the context of travel agency services. In addition, travel agency practitioners will be able to develop better marketing strategies, with improved knowledge as a foundation in order to compete in the competitive marketplace.

Demographic Factors

Demographic factors have been identified as the factors that influence an individual's perspectives. Customers' perceptions of service quality, satisfaction, brand image, perceived value, and loyalty may vary according to their demographic factors (such as gender, age, education, occupation, marital status, and country of origin). Only a few studies have been conducted to investigate the effects of tourist demographics on tourists' perceptions of the higher-order constructs and the relationships between these constructs.

Chapter 3

Conceptual Research Model and Hypotheses Development

Chapter Three presents the conceptual research model of this current study. In the conceptual research model, service quality is conceptualised by four primary dimensions: interaction quality, physical environment quality, technical quality, and outcome quality. Service quality has been developed using the extant literature to model the dimensions of service quality and the pertaining travel agency literature. In addition, the conceptual research model indicates that possible impacts may exist between the higher-order constructs of service quality, customer perceived value, customer satisfaction, brand image and customer loyalty.

A discussion of how the research hypotheses have been formulated is also presented. Nineteen hypotheses were formulated based on the conceptual research model and to accomplish the four research objectives stated in Chapter One.

The Chapter is divided into two sections: Section 3.1 which presents a discussion on the model development, and Section 3.2 which presents a discussion on the formulation of the hypotheses.

3.1 Model Development

The conceptual research model is developed for the purpose of addressing the two major objectives of this study, which are: (1) to determine how China's travel agency customers perceive travel agency service quality, and (2) to investigate whether possible interrelationships exist between higher-order constructs in China's travel agency industry.

3.1.1 Service Quality Conceptualisation

The conceptual research model illustrates that service quality is conceptualised by four primary dimensions: interaction quality (IQ), physical environment quality (PEQ), outcome quality (OQ), and technical quality (TQ). The four-dimensional model has been developed to investigate whether China's travel agency customers perceive overall service quality through these four primary dimensions.

The second order service quality model in this research is derived from Dabholkar et al.'s (1996) multilevel model and Brady and Cronin's (2001) integrated hierarchical model. These models have been used as a basis for modelling service quality in several studies covering a wide variety of industries; for example, Clemes et al. (2018), restaurant services; Wu et al. (2018), cruise services;

Abu-Bakar et al. (2017) and Hossain et al. (2015), banking services; Clemes et al. (2013), higher education services; and Wu and Cheng (2013), airline services.

The first three primary dimensions (IQ, PEQ, and OQ) were derived from Brady and Cronin's (2001) integrated hierarchical model. These three primary dimensions have been tested in the travel agency industry in only one study, in Spain (Martínez-Caro & Martínez-García, 2008). However, a number of services marketing scholars suggest that the service quality dimensions should be tested since customers of different cultural backgrounds may perceive service quality differently (Martínez Caro & Martínez García, 2008; Cui et al., 2003; Ueltschy & Krampf, 2001; Brady & Cronin, 2001).

Therefore, the three primary dimensions of service quality from Brady and Cronin's (2001) model were included in this current study to determine whether they also have a significant impact on service quality in the travel agency industry in China. In addition, a fourth primary dimension (TQ) has been added into the model to better conceptualise service quality, as travel agency academics note that information and communication technologies (ICT) is an important indicator of travel agency services (Capriello & Riboldazzi, 2020; Pencarelli, 2020; Sharma et al., 2020; Quintana et al., 2016; Yasmin et al., 2015).

Formative Factor Model

The second-order service quality model developed in this research is a formative factor model. Several researchers suggest that service quality should be more appropriately conceptualised as a formative construct rather than a reflective construct, as the direction of causality is determined by the dimensions of the construct (Theodosiou, Katsikea, Samiee, & Makri, 2019; Giovanis, Pierrakos, Rizomyliotis, & Binioris, 2018; Blut, 2016). Two major characteristics of the formative factor model are: (1) the dimensions (indicators) formed the overall construct (Willaby, Costa, Burns, MacCann, & Roberts, 2015; Finn & Wang, 2014; Dagger et al., 2007); and (2) the changes in the dimensions were expected to cause changes in the overall construct rather than vice versa (Theodosiou et al., 2019; Willaby et al., 2015; Finn & Wang, 2014).

In this research model, the primary dimensions of service quality are assumed to form the overall service quality construct. In addition, changes in these primary dimensions are expected to impact the overall service quality construct.

3.1.2 Interrelationships between Higher-Order Constructs

The conceptual research model also illustrates that interrelationships may exist among the five higher-order constructs in the travel agency industry in China; and the five higher-order constructs included in this research are: service quality (SQ), customer perceived value (CPV), brand image (BI), customer satisfaction (CS), and customer loyalty (CL).

The conceptual research model has been used to examine both the direct and indirect impacts that exist between these higher-order constructs (SQ, CPV, BI, CS, and CL); in particular, the **direct impact** in the relationships of: (1) service quality towards customer perceived value, brand image, customer satisfaction, and customer loyalty; (2) customer perceived value towards brand image, customer satisfaction, and customer loyalty; (3) brand image towards customer satisfaction and customer loyalty; and (4) customer satisfaction towards customer loyalty; and the **indirect impact** of customer satisfaction in the relationships between: (1) service quality and customer loyalty, and (2) customer perceived value and customer loyalty (see Figure 3-1).

Findings from previous services marketing studies reveal that interrelationships exist between higher-order marketing constructs (SQ, CPV, BI, CS, and CL) in a variety of industries; examples include Clemes et al.'s (2018) research on upscale restaurant services, Abu Baker's (2017) research on banking services, Channoi et al.'s (2017) research on beach resort hotel services, Hapsari's (2017) research on airline services, and Yan's (2017) research on higher-education services.

To date, no published research has investigated the interrelationships among the higher-order constructs in the travel agency industry in China. Furthermore, none of the previous travel agency literature (Lai, 2014; Kuo et al., 2013; Richard & Zhang, 2012; Setó-Pamies, 2012) has examined the impacts of: (1) service quality on brand image, (2) customer perceived value on brand image and customer loyalty; (3) brand image on customer satisfaction; and (4) the mediating effect of customer satisfaction in influencing the indirect impact of customer perceived value on customer loyalty. Therefore, the conceptual research model has been developed and tested in order to provide comprehensive knowledge about the interrelationships among the five higher-order constructs (SQ, CPV, BI, CS, and CL) in the travel agency context in China.

The proposed research model for this study is shown in Figure 3-1, as are the hypotheses formulated to test each path in the model.

3.1.3 Reflective Measurement Models

The second-order service quality model developed in this research is a reflective measurement model.

Several researchers suggest that whether the measurement model is reflective or formative depends on the nature of the indicator items (Hair Jr., Howard, & Nitzl, 2020; Mikulić & Ryan, 2018; Sarstedt, Hair, Ringle, Thiele, & Gudergan, 2016; Agarwal, Osiyevskyy, & Feldman, 2015; Sarstedt, Ringle, Henseler, & Hair, 2014). In the reflective factor model, the indicators are supposed to be impacted, affected, or caused by the underlying latent variable; any change in the latent construct will be reflected in a change in the indicators (Henseler, Hubona, & Ray, 2016; Sarstedt et al., 2014). In this

research model, the indicator items (primary dimensions of service quality) leads to the latent construct (service quality). As a result, the causality flows from the latent construct to the indicator items.

Furthermore, removing any indicator items will have no effect on the meaning of the latent construct in the reflective measurement model (Hair Jr et al., 2020; Henseler et al., 2016; Sarstedt et al., 2016; Agarwal et al., 2015). In the proposed service quality model in this research, any changes in the indicator items will not cause a change in the conceptual meaning of service quality, indicating that the service quality model is therefore a reflective model.

3.2 Hypotheses Development

3.2.1 Hypotheses Relating to the First Research Objective

In the proposed service quality model, travel agency service quality is measured using the four primary dimensions: interaction quality, physical environment quality, technical quality, and outcome quality. The following four subsections outline the formulations of the first four hypotheses of this current research (H1 to H4), which were developed based on the conceptual research model in order to test whether the four primary dimensions contribute to conceptualising service quality.

Interaction Quality

Interaction quality (IQ) has been identified as one of the key components that conceptualise service quality, as customers value a business, not only from the core products of the business, but also from their interactions with the employees of the business (Grönroos, 2011). Brady and Cronin (2001) noted that a customer perceives the quality of the interaction based on their interpersonal interactions with the employee, which take place when the employee delivers the service to the customer in a service context. Findings from services marketing research reveal that interaction quality has a positive impact on customers' perceptions of overall service quality; examples include: Lien et al.'s (2017) study on mobile communication services, Hossain et al.'s (2015) study on banking services, Clemes et al.'s (2013) study on higher education services, and Wu and Cheng's (2013) study on airline services.

Physical Environment Quality

The quality of a service is often difficult to measure when compared to physical products as many services are intangible (Parasuraman et al., 1988). Bitner et al. (1990) suggested that customers evaluate the quality of the service using the physical environment (the décor, ambience, and the location of the company) where the service is performed. Findings from the services marketing

research also assert that physical environment quality is one of the important primary dimensions of service quality. Examples include upscale restaurant services (Clemes et al., 2018), banking services (Abu Bakar et al., 2017), and higher education services (Teeroovengadum et al., 2016).

Technical Quality

In this current study, technical quality has been added to the research model in order to improve the conceptualisation of service quality in the travel agency industry in China. A number of travel and tourism scholars suggest that information and communication technologies have an impact on customers' decisions about travel-related products. The impact has been addressed in three stages as follows: (1) the use of technologies to search for travel-related information at the travel planning stage (Sharma et al., 2020; Huang, Chang, Yu, & Chen, 2019; Huang, Goo, Nam, & Yoo, 2017; Xiang, Magnini, & Fesenmaier, 2015); (2) the use of technologies to communicate with travel agencies because of the convenience of technologies (Sharma et al., 2020; Amaro & Duarte, 2015; Yasmin et al., 2015; Inversini & Masiero, 2014); and (3) the use of technologies to make payments for the travel products (Capriello & Riboldazzi, 2020; Huang et al., 2017; Kim, Xiang, & Fesenmaier, 2015; Abou-Shouk et al., 2013). In addition, Abou-Shouk et al. (2016) indicate that customers' concerns regarding security issues also influence customers' decisions about whether to use technologies to communicate to, or make purchases from, a travel agency.

Outcome Quality

Outcome quality was originally named as 'technical quality' in Grönroos' (1982) two-dimensional service quality model, and refers to what has been left for customers after the service delivery (Clemes et al., 2018). Findings from contemporary services marketing research confirm that outcome quality is one of the components that conceptualises service quality, with examples coming from research on upscale restaurant services (Clemes et al., 2018), banking services (Jain & Jain, 2015), and professional sports services (Theodorakis et al., 2013; Alexandris et al., 2012; Clemes et al., 2011).

Therefore, the following four hypotheses (H1-H4) were formulated to test whether service quality (SQ) in the travel agency industry in China is determined by the four primary dimensions: interaction quality (IQ), physical environment quality (PEQ), technical quality (TQ), and outcome quality (OQ):

H1. IQ has a significant positive impact on SQ.

H2. PEQ has a significant positive impact on SQ.

H3. TQ has a significant positive impact on SQ.

H4. OQ has a significant positive impact on SQ.

3.2.2 Hypotheses Relating to the Second Research Objective

Several services marketing researchers have conducted research on different industries and determined that customers perceive the importance of each primary dimension of service quality differently. Findings from some studies show that outcome quality is the most significant indicator of service quality (Clemes et al., 2018; Clemes et al., 2013). However, in other studies (Abu Bakar et al., 2017; Hossain et al., 2014), interaction quality was found to have the strongest positive effect on service quality, when compared with outcome quality and physical environment quality.

To date, there is no published literature that has investigated the comparative importance between the primary dimensions and their overall impact on service quality in the context of travel agency services. Therefore, the following hypothesis (H5) was developed to investigate the comparative importance of each primary dimension in conceptualising service quality in the travel agency service context in China.

H5. The importance of each primary dimension is varied from consumers' perceptions.

3.2.3 Hypotheses Relating to the Third Research Objective

The conceptual research model illustrates that in the travel agency industry in China, certain relationships may exist among the five higher-order constructs: service quality (SQ), customer perceived value (CPV), brand image (BI), customer satisfaction (CS), and customer loyalty (CL). The following subsections present the discussion on the formulations of twelve hypotheses (H6, H7, H8, H9a, H9b, H10, H11, H12a, H12b, H13, H14, and H15) that pertain to the direct and indirect impacts that exist on these five higher-order constructs.

3.2.3.1 Service Quality's Impact on Other Higher-Order Constructs

A number of services marketing researchers have reported in their studies that service quality has a direct impact on customer satisfaction (Zhong & Moon, 2020; Farooq et al., 2018; Gong & Yi, 2018; Priporas et al., 2017). These authors indicate that customers' perceptions of satisfaction improve when they consider that the quality of service they received from the service provider to be superior.

In addition, service quality has been determined to have a direct and positive impact on customer perceived value in the services marketing research covering a variety of industries; examples include Suhartanto et al.'s (2020) research on tourists' destination experiences, Clemes et al.'s (2018) study on upscale restaurant services, Abu Bakar et al.'s (2017) study on banking services, and Arslanagić et al.'s (2014) study on higher education services.

Furthermore, services marketing scholars demonstrate that customers' perceptions of **brand image** increase when they have received a high level of quality of service (Teeroovengadum et al., 2019; Hapsari et al., 2017; Akroush et al., 2016).

Service quality has also been found to have a direct and positive impact on **customer loyalty**, as customers tend to be more willing to recommend a brand or product to others or make repeat purchases when they perceive a high quality of service (Famiyeh et al., 2018; Hapsari et al., 2017; Kasiri et al., 2017; Liu et al., 2017; Suhartanto et al., 2013; Cronin et al., 2000).

Lai (2014) explains that service quality has a direct impact on customer perceived value in the context of travel agency services. However, there has been no study conducted to research service quality's influence on other higher-order constructs (customer satisfaction, brand image, and customer loyalty). As a result, the following four hypotheses (H6, H7, H8, H9a) were formulated to test whether service quality (SQ) has a direct impact on the other four higher-order constructs: customer satisfaction (CS), customer perceived value (CPV), brand image (BI), and customer loyalty (CL) in the travel agency industry in China.

H6. SQ has a positive and direct impact on CS.

H7. SQ has a positive and direct impact on CPV.

H8. SQ has a positive and direct impact on BI.

H9a. SQ has a positive and direct impact on CL.

Furthermore, service quality has also been illustrated to have an indirect impact on customer loyalty as suggested by several services marketing researchers. An example is Gong and Yi (2018), in their study on retail services, where service quality was found to have an indirect impact on customer loyalty, and that indirect impact was mediated by customer satisfaction. Further, evidence from several services marketing studies shows that customer satisfaction mediates service quality's effect on customer satisfaction; examples include Kasiri et al.'s (2017) study on three industries (healthcare, hospitality, and education), Demirci-Orel and Kara's (2014) study on supermarket services; and Akter et al.'s (2013) study on healthcare services.

In terms of travel agency services, Kuo et al. (2013) note that customer satisfaction (CS) mediates service quality's (SQ) indirect impact on customer loyalty (CL) in the travel agency industry in Taiwan. However, no research has been conducted to study customer satisfaction's mediating effect on the service quality and customer loyalty relationship in the travel agency industry in China. As a result,

the following hypothesis (H9b) was formulated to test whether the same mediating effect exists in the travel agency industry in China.

H9b. CS mediates the relationship between SQ and CL.

3.2.3.2 Customer Perceived Value's Impact on Other Higher-order Constructs

Customer perceived value is proposed to have a direct and positive impact on **customer satisfaction** in a number of studies covering a wide range of businesses; examples include El-Adly's (2019) research on hotel services, Kim and Park's (2017) research on destination services, El-Adly and Eid's (2016) research on shopping mall services, Wu et al.'s (2016) research on exhibition services, Clemes et al.'s (2014) research on mobile communication services, and Roig et al.'s (2013) research on banking services.

Barich and Kotler (1991) suggested that customer perceived value may lead to a favourable **brand image** and that customers will have a positive impression of a company's image if they believe they are getting great value when they make a purchase. Hu et al. (2019) and Channoi et al. (2019) also assert in their studies on hospitality services that customer perceived value positively and directly impacts brand image.

Parasuraman and Grewal (2000) stated that customer perceived value has a positive influence on customers' intentions of making recommendations and repeat purchasing. In addition, evidence from contemporary studies conducted into a variety of service industries also suggests that customer perceived value has a direct and positive impact on **customer loyalty**; examples of these studies are Li and Shang's (2020) study on e-government services, El-Adly's (2019) research on hotel services, Hapsari et al.'s (2017) research on airline services, and Clemes et al.'s (2014) research on mobile communication services.

However, published literature on the impact of customer perceived value (CPV) on customer satisfaction (CS), brand image (BI), and customer loyalty (CL) in the travel agency industry are still sparse. Therefore, research designed to investigate customer perceived value's impact on other higher-order constructs in the travel agency industry would benefit both the researchers and the travel agency practitioners. As a result, the three hypotheses (H10, H11, and H12a) related to customer perceived value's impact on customer satisfaction, brand image, and customer loyalty were formulated as follows:

H10. CPV has a positive and direct impact on CS.

H11. CPV has a positive and direct impact on BI.

H12a. CPV has a positive and direct impact on CL.

Moreover, customer satisfaction has been determined by services marketing scholars as a mediator in the customer perceived value and customer loyalty relationship. Examples include El-Adly's (2019) research on hotel services; Keshavarz and Jamshidi's (2018) research on hotel services; Hapsari et al.'s (2017) research on high frills airline services; and Howat and Assaker's (2013) research on sport services. To date, customer satisfaction's (CS) mediating effect on the relationship between customer perceived value (CPV) and customer loyalty (CL) in the travel agency industry is still unclear and under investigation; therefore, the hypothesis (H12b) was formulated as follows:

H12b. CS mediates the relationship between CPV and CL.

3.2.3.3 Brand Image's Impact on Other Higher-order Constructs

Brand image has been identified as a significant indicator of customer satisfaction by several services marketing academics (Bolton & Drew, 1991; Fornell, 1982). Services marketing studies on a variety of businesses also reveal that brand image has a positive influence on customer satisfaction; for example, Clemes et al.'s (2018) and Jin et al.'s (2012) research on restaurant services, Abu Bakar et al.'s (2017) research on banking services, Wu and Li's (2017) research on tourist destination experiences, and Srivastava and Sharma's (2013) research on telecommunication services.

Dick and Basu (1994) demonstrated that brand image positively influences a customer's perception of customer loyalty. Evidence from more recent services marketing studies also reveals that brand image has a positive and direct impact on customer loyalty (Subaebasni et al., 2019; Lai & Ka, 2019; Song et al., 2019; Espinosa et al., 2017; Gürlek et al., 2017; Kim, 2017; Setiawan & Sayuti, 2017; Stylos et al., 2017; de Leaniz & del Bosque Rodríguez, 2016).

No study has been conducted on the effect of brand image (BI) on customer satisfaction (CS) and customer loyalty (CL) in the context of the travel agency industry in China and globally. Therefore, the following two hypotheses (H13 and H14) were formulated to examine brand image's impact on customer satisfaction and customer loyalty.

H13. BI has a positive and direct impact on CS.

H14. BI has a positive and direct impact on CL.

3.2.3.4 Customer Satisfaction's Impact on Customer Loyalty

Customer satisfaction has been described as a vital driver for customer loyalty (Gong & Yi, 2018; Amin, 2016; Anderson & Srinivasan, 2003; Bolton & Lemon, 1999). In addition, scholars suggest that customers perceive high customer loyalty when they are satisfied with the services they received (El-

Adly, 2019; Channoi et al., 2018; Hapsari et al., 2017; Suhartanto et al., 2013). To date, no research has been conducted to investigate the effect of customer satisfaction (CS) on customer loyalty (CL) in the travel agency industry in China. Therefore, the following hypothesis (H15) was formulated to examine customer satisfaction's impact on customer loyalty.

H15. CS has a positive and direct impact on CL.

3.2.4 Hypotheses Relating to the Fourth Research Objective

Demographic factors have been identified as factors that influence an individual's perspectives, including expectations, perceptions, and behaviours (Al-jazzazi & Sultan, 2017). Services marketing researchers indicate that customers' perceptions of service quality, satisfaction, brand image, perceived value, and loyalty may vary according to customers' demographic factors (such as gender, age, education, occupation, marital status, and country of origin) (Clemes et al., 2020; Al-jazzazi & Sultan, 2017; Shuv-Ami & Shalom, 2017; Lee, Fairhurst, & Cho, 2013).

The findings from the extant literature reveal that **gender** was found to have an impact on customers' perceptions of service quality (Shuv-Ami & Shalom, 2017), customer satisfaction (Suki, 2014), and service quality's impact on customers' perceived value (Yarimoglu, 2017). **Age** is also found to have a mediating effect on customers' perceptions of service quality (Al-jazzazi & Sultan, 2017; Callan & Bowman, 2000), on customer satisfaction (Jiang, & Zhang, 2016), and on customer quality's effect on customer perceived value (Yarimoglu, 2017; Sorce et al., 2005). **Marital status** has been found to have an impact on patients' perceptions of hospital service quality (Ahmed et al., 2017), customer satisfaction (Ahmed et al., 2017; Kabir, 2016; Guntoro, & Hui, 2013), customer loyalty (Escobar-Rodríguez et al., 2017), and the relationship between food safety and customer loyalty (Psomas et al., 2017). In addition, **income** has been found to impact customers' perceptions of customer loyalty (Sivapalan & Jebarajakirthy, 2017), customer satisfaction (Pitchayadejanant, & Nakpathom, 2016), and mediate their perceptions of the impact of customer satisfaction on their intent to revisit.

To date, only a few studies have been conducted to investigate whether these four demographic characteristics (gender, age, marital status, and income levels) moderate customers' perceptions of the relationships between the higher-order constructs. Gursoy et al. (2014) suggest that in the hospitality and tourism industries, demographic characteristics' possible mediating effect in the loyalty formation theory may benefit the industry practitioners by allowing them to apply more customised marketing segmentation and targeting strategies. Therefore, the following four hypotheses (H16–H19) are formulated to investigate how these demographic characteristics mediate the loyalty formation theory in the travel agency industry in China:

H16. Customer perceptions relating to interrelationships among the five higher-order constructs will differ in terms of gender.

H17. Customer perceptions relating to interrelationships among the five higher-order constructs will differ in terms of age.

H18. Customer perceptions relating to interrelationships among the five higher-order constructs will differ in terms of marital status.

H19. Customer perceptions relating to interrelationships among the five higher-order constructs will differ in terms of income.

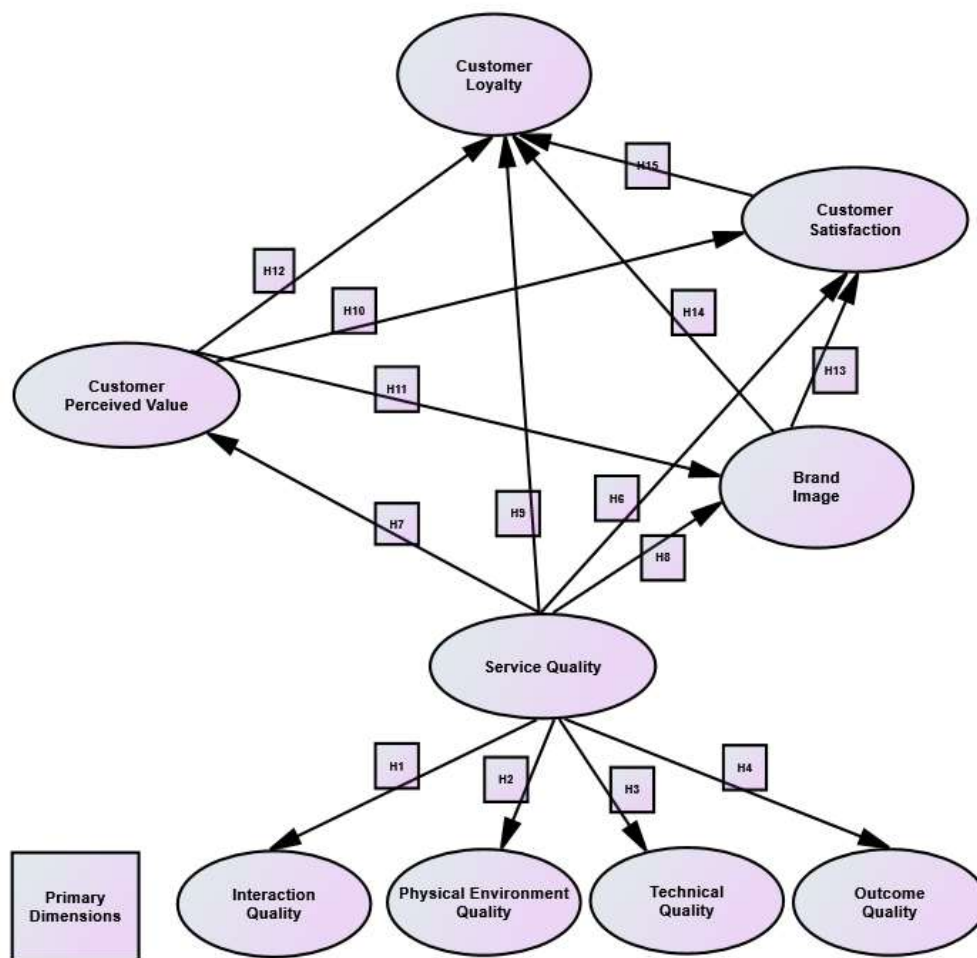


Figure 3-1 Customer Loyalty in the Travel Agency Industry in China: The Proposed Research Model and Hypotheses

Chapter 4

Research Methodology

The mixed method research methodology was applied in this research. Qualitative research was used to develop the measurement items to adequately conceptualise the four dimensions of service quality and the five service marketing constructs. Quantitative research was used to satisfy the four research objectives (as presented in Chapter One) and test the 19 hypotheses (as stated in Chapter Three).

This chapter begins with a discussion of the framework of the data collection process (Section 4.1 Research Design). The research questionnaire was developed using a qualitative research method. The extant literature was reviewed, and the research topic was discussed in focus group interviews. The questionnaire items were developed following this process (Section 4.2, Development of Research Questionnaire). The design of the quantitative research: the sampling method and the procedure for data collection, are discussed in Section 4.3, Sampling Method and Data Collection Procedure. Finally, the research methods employed to access the 19 hypotheses are discussed in detail in Section 4.4: Data Analysis Procedure.

4.1 Research Design

A research design is an overall framework of how the research data are collected and analysed, with the purpose of satisfying the research objectives and testing the research hypotheses (Bell, Bryman, & Harley, 2018; Saris & Gallhofer, 2014).

A research-based survey was conducted in this study based on the research objectives, the conceptual research model and the stated hypotheses, as discussed in the previous chapters. In survey-based research, the researcher interviews a sample from a population, or observes the respondents' behaviour (Zikmund, Babin, Carr, & Griffin, 2013).

Survey-based research was applied in this study for the following reasons: a large sample size can be gathered over a short period of time and inexpensively (Hair, Anderson, Black, & Babin, 2016; Sekaran & Bougie, 2016; Zikmund et al., 2013); while conducting survey research, the researcher can assess the respondents' beliefs, attitudes, and motives (Zikmund et al., 2013); and, finally, survey research is an accurate method that allows the researcher to obtain information about a population (Zikmund et al., 2013).

Research data can be collected using a range of methods: interviews, questionnaires, observations and document analysis (Hair et al., 2016; Sekaran & Bougie, 2016; Altinay, Paraskevas, & Jang, 2015; Zikmund et al., 2013). A questionnaire was chosen to collect the data in this study for the following reasons: a questionnaire is an efficient method that allows researchers to collect responses from a large sample at a low cost (Burns & Bush, 2012; Saunders, Lewis, & Thornhill, 2015); a questionnaire is easier to answer, less time consuming, and requires less skill and understanding compared to other data collection methods (Sekaran & Bougie, 2016; Jankowicz, 2013; Saris & Gallhofer, 2014; Zikmund et al., 2013; Burns & Bush, 2012).

Self-administrated questionnaires have been applied in a variety of empirically based research studies (Leavy, 2017; Agic, Cinjarevic, Kurtovic, & Cicic, 2016; Alnawas & Aburub, 2016; Guo, Denizci Guillet, Kucukusta, & Law, 2016; O'Cass, Ngo, & Siahtiri, 2015). A self-administrated questionnaire was the data collection method used in this research, taking into consideration the time duration, budget constraints, and the large sample size required. In questionnaire research, the respondents are asked to answer a list of structured questions which have been subjected to pre-testing (Saunders et al., 2015; Collis & Hussey, 2013).

4.2 Development of the Research Questionnaire

The development of the research questionnaire used qualitative research methods to develop the measurement items for the research questionnaire. The reasons for using a qualitative research method to develop the questionnaire items for this research include: (1). qualitative research enables the researcher to establish the necessary research conditions when the research topic is of an experimental nature (Yin, 2015); and (2). qualitative research allows researchers access to first-hand information about the participants' views and perspectives on the research topic (Taylor, Bogdan, & DeVault, 2015; Yin, 2015). The development of the research questionnaire consists of five steps and is discussed in detail in the following sections: construct operationalization (Section 4.2.1), questionnaire design (Section 4.2.2), measurement validity (Section 4.2.3), questionnaire pre-testing procedure (Section 4.2.4), and the design of the final questionnaire (Section 4.2.5).

4.2.1 Construct Operationalisation

The questionnaire items were formulated using two steps: (1) an extensive literature review that concentrates on item identification and the constructs analysed in this study (Hair et al., 2016; Kline, 2015; Zikmund et al., 2013; Churchill, 1979); and (2) focus group interviews that assist in defining and exploring the new ideas and issues related to the research concepts (Carey & Asbury, 2016; Hair et al., 2016; Hair, Celsi, Money, Samouel, & Page, 2015; Zikmund et al., 2013; Churchill, 1979).

4.2.1.1 Literature Review

The questionnaire items and the questionnaire constructs were generated based on an extensive review of the relevant literature (Churchill, 1979). In addition, a thorough review of the literature helped the researcher to determine if the existing literature covering the topic was sufficient (Hair et al., 2016). Furthermore, content validity was supported when the researcher reviewed the existing reliable measurements in the literature while developing the questionnaire items (Kline, 2015; Zikmund et al., 2013).

The items for the four primary dimensions of service quality: interaction quality, physical environment quality, outcome quality, and technology quality; and the five higher-order constructs: service quality, customer perceived value, customer satisfaction, brand image, and customer loyalty were derived from the previous literature and have been modified to fit the services offered by a travel agency (discussed in detail in Chapter 2).

4.2.1.2 Focus Groups

In order to cover the broad range of issues related to the research topic, three focus groups were conducted (Barbour, 2018; Hennink & Leavy, 2013). The research content and the focus group procedures were approved by the Lincoln University Human Ethics Community (HEC). The potential items for measuring the primary dimensions and the higher order constructs generated from the literature review were confirmed by the focus groups.

The purpose of conducting focus groups was to identify the potential issues related to the research topic and to generate measurement items from the participants' perspectives (Hennink & Leavy, 2013; Hennink, Hutter, & Bailey, 2010; Morgan, 1996). There are different focus group sample sizes suggested in the marketing research literature. Zikmund et al. (2013) suggested eight to twelve participants, Cooper and Schindler (2013) suggested six to ten participants, and Hennink and Leavy (2013) suggest six to eight participants as the optimal number for a focus group.

In this research, there were eight participants in each group (Group 1 had four female and four male participants, Group 2 had five female and three male participants, and Group 3 had four female and four male participants). The participants explored the issues about the specific research topic in group discussions hosted by the researcher (Barbour, 2018; Hennink & Leavy, 2013; Hennink et al., 2010; Krueger & Casey, 2009). The groups were homogenous in order to produce more accurate conclusions (Hair et al., 2016). The participants were encouraged to share their perceptions in an open-minded environment (Hair et al., 2016; Hennink & Leavy, 2013; Krueger & Casey, 2009). All the

participants were from China, were above 18 years of age, and had at least one travel agency booking experience in the past year.

The focus group discussions began with a brief explanation by the researcher of the objectives of the study, and then the domain of the research structure was introduced to the participants (Churchill, 1979). The researcher emphasized that the focus group members needed to concentrate only on the services provided by the travel agencies and these must be distinguished from the services provided by travel providers. Customers often confuse the services provided by a travel agency with the services provided by travel providers. For example, consumers may blame their travel agency when their flight was delayed or when there was excessive noise next to the 5-star hotel room they stayed in on their overseas trip.

The participants were then encouraged to discuss and list all the factors they believed influenced their perceptions of a travel agency's service quality. The measurement items developed from the literature review were presented to the participants and reviewed by them to ensure that the items were clearly written and easily understood. The participants were then asked to discuss their opinions on the measurement of the constructs developed from the literature review. The three focus group interviews were recorded, transcribed and saved for further clarification if required.

4.2.2 Questionnaire Design

Closed-ended questions were adopted in this research for the following reasons: (1) closed-ended questions allow the researcher to collect a large sample size (Leavy, 2017; Vogt, Gardner, Haeffele, & Vogt, 2014); (2) closed-ended questions are easy to understand (Gobo & Mauceri, 2013; Selltiz, Wrightsman, Cook, & Issues, 1976) as the possibility of receiving unrelated answers is reduced (Gobo & Mauceri, 2013; Bailey, 2007) as the answers are predetermined; and (3) closed-ended questions that are easier and quicker to answer compared to open-ended questions (Saunders et al., 2015; Collis & Hussey, 2013; Gobo & Mauceri, 2013).

Multi-item scales were employed, in preference to single-item scales, to measure the research constructs for the following reasons: multi-item scales are considered to be more reliable and have fewer measurement errors in comparison to single-item scales (Fayers & Machin, 2016; Diamantopoulos, Sarstedt, Fuchs, Wilczynski, & Kaiser, 2012; Anderson & Gerbing, 1982; Churchill, 1979); multi-item scales have greater precision compared to single-item scales as each construct has more than one item, thereby making the questionnaire more explicit (Fayers & Machin, 2016; Diamantopoulos et al., 2012; Gorsuch & McFarland, 1972); multi-item scales have more validity compared to single-item scales (Fayers & Machin, 2016; Diamantopoulos et al., 2012); and the adoption of structural equation modelling (SEM) in this study further encouraged the use of multi-

item scales as a minimum of three (preferably four) items per construct is recommended for structural equation modelling (SEM) to provide a sufficient theoretical domain of the construct (Hair et al., 2016; Kline, 2015; Diamantopoulos et al., 2012).

In line with the multi-item scales, a seven-point Likert scale and a nominal and ordinal scale were applied, respectively, in the first and the second sections of the questionnaire. The Likert scale was first developed by Likert (1932) and has been widely applied in marketing and psychological questionnaire surveys for collecting information about attitudes, attributions, perceptions and beliefs (Retief, Potgieter, & Lutz, 2013; Leung, 2011). In the second section, nominal scales were used to collect information, such as gender, educational background and professional position because nominal scales are recommended for collecting 'mutually exclusive' information (Denis, 2015; Dimitrov, 2011).

4.2.3 Measurement Validity

Before distributing the research questionnaire to the participants, the researcher must make sure that the measurement represents the phenomenon under investigation (Malhotra, 2017; Quinlan, 2011). In addition, a high degree of validity suggests a good measure of the research (Zikmund et al., 2013). The evaluation of the measurement validity is assessed through three steps in this research: face validity, content validity, and construct validity (Malhotra, 2017).

Face validity tests whether the questionnaire items reflect the content the instrument is intended to reflect (Malhotra, 2017; Abbott & McKinney, 2012; Shower, 2011). When assessing face validity, one or more groups of evaluators (experts from academic or practitioners from the industry) are selected to judge and confirm that the measured items have logically reflected the measured concept (Zikmund et al., 2013; Quinlan, 2011).

Content validity tests whether the measurement items have adequately covered "the domain of interest" and did not go beyond the concept they were measuring (Zikmund et al., 2013; Abbott & McKinney, 2012; Shower, 2011). The test of content validity can be assessed by two steps: in the beginning, the researcher evaluated the definition of the construct by reviewing the existing literature; and these steps are followed by inviting a group of experts to evaluate whether the measurement items in the questionnaire represent the domain content of the construct, and whether the items as a whole represent the entire content of the construct (Saunders et al., 2015).

Construct validity examines whether the operational aspects of the construct are clearly and adequately assessed (Malhotra, 2017; Abbott & McKinney, 2012; Shower, 2011; Gall, Borg, & Gall, 1996). The two components that need to be tested within construct validity are: convergent validity and discriminant validity. Confirmatory factor analysis (CFA) is a good method to estimate both

convergent validity and discriminant validity (Hair et al. 2016; Kline, 2015). Therefore, CFA was used in this research and will be discussed in further detail later.

4.2.4 Pre-testing Procedures

A pre-test refines the questionnaire through feedback regarding the following aspects: whether the wording in the questionnaire is appropriate, whether the question order is appropriate, whether there are redundant questions, missing questions or inappropriate questions, whether there are confusing response categories, and whether there are any poor scale items (Saunders et al., 2015).

The pre-test procedure was conducted through two steps in this research. The questionnaire was firstly distributed to two marketing experts and three experienced travel agency practitioners to review and comment on the items, in particular, for relevance, readability, similarity and ambiguity (DeVellis, 2016). Some minor modifications were made based on their comments in terms of sentence clarification, adoption of appropriate wording and any adjustments in the question order.

In the second step, the pre-final draft was distributed to a small representative group. A convenience sample was drawn from 40 travel agency consumers from China (aged above 18 years) who had booked travel through travel agencies in the past year. Participants were encouraged to provide comments and suggestions on the wording and clarity of the questions, and the time taken to complete the questionnaire. Forty questionnaires were returned and minor modifications on the questionnaire items were made based on the participants' feedback. The questionnaire's validity was improved after this step as some measurement items had clearer wording and were more familiar to the respondents (Fink, 2012).

A Cronbach's Alpha test was then conducted in order to test the construct's reliability and the internal consistency of the research questionnaire (Ratten, Braga, & Marques, 2017; Khine, Ping, & Cunningham, 2013; Wang & Wang, 2012; Cronbach, 1951). All coefficient alphas were above the cut-off point of 0.70, indicating good internal consistency of the research questionnaire (Ratten et al., 2017; Khine et al., 2013; Wang & Wang, 2012). The final layout of the research questionnaire was then developed and is presented in the following sub-section.

4.2.5 Layout of the Final Questionnaire

The final questionnaire included two sections and 52 measurement items. Section 1 contains 46 items pertaining to Customer Loyalty, Brand Image, Customer Satisfaction, Customer Perceived Value, Service Quality, Outcome Quality, Physical Environment Quality, Interactive Quality and Technological Quality. Section 2 consists of six items accessing demographic characteristics. A formal cover letter was also included in the questionnaire (see Appendix 1). The aim and purpose of this

research was presented to the participants, the guarantee of confidentiality of the respondent's personal information explained and, finally, the researcher's and supervisor's contact details were provided (Saunders et al., 2015; Collis and Hussey, 2013).

4.2.5.1 Section 1

The 46 items in Section 1 are divided into two parts. Part 1 consists of 25 items for measuring customers' overall perceptions of the higher-order constructs; and part 2 consists of 21 items measuring primary dimensions of service quality.

Table 4-1 Questionnaire items used for measuring the higher-order constructs

	Item Number	Description/Scale Item
Service Quality (5 Items)	Sq1	The overall quality provided by this travel agency is excellent.
	Sq2	The travel agency provides high-quality services.
	Sq3	I consider the service quality of this travel agency to be superior when compared to other travel agencies.
	Sq4	The quality of the service provided by this travel agency is impressive.
	Sq5	This travel agency consistently provides a high-quality service.
Customer Satisfaction (5 Items)	Cs1	I believe that I made the right choice using this travel agency.
	Cs2	I am satisfied with the travel products (e.g. flight tickets, hotel booking, travel insurance) I purchase from this travel agency.
	Cs3	This travel agency provides a very satisfactory experience.
	Cs4	I made a wise choice to be a customer of this travel agency.
	Cs5	Overall, I had a pleasant experience using this travel agency for my booking.
Customer Perceived Value (5 Items)	Cpv1	I am satisfied with the value I received, for the price that I paid at this travel agency.
	Cpv2	The value that this travel agency offers for its price is high.
	Cpv3	The services that this travel agency provides are valuable.
	Cpv4	Compared to what I gave up (e.g. money, time, energy, and effort) the services that I receive from this travel agency are excellent.
	Cpv5	Overall, this travel agency offers good value for money.
Brand Image (5 Items)	Bi1	I have always had a good impression of this travel agency.
	Bi2	I believe that this travel agency has a better image than its competitors.
	Bi3	In my opinion, this travel agency has a good image in the minds of its customers.
	Bi4	I continue to be impressed by the brand image of this travel agency.
	Bi5	Overall, I believe the travel agency has a positive image in the marketplace.
Customer Loyalty (5 Items)	Cy1	I always say positive things about this travel agency to other people.
	Cy2	I intend to repurchase the services of this travel agency in the future.
	Cy3	I always consider this travel agency to be the first on my list when booking travel.
	Cy4	I would encourage relatives and friends to use this travel agency.
	Cy5	I intend to continue my relationship with this travel agency.

Table 4-1 shows the questionnaire items for measuring the customers' overall perceptions of higher-order constructs: service quality, customer satisfaction, perceived value, brand image and customer loyalty. Each of the higher-order constructs consists of five measurement items.

Table 4-2 shows the 21 questionnaire items for measuring the four primary dimensions of service quality: interaction quality, physical environment quality, outcome quality, and technical quality. There are five items for outcome quality, five items for physical environment quality, five items for interaction quality, and six items for technical quality.

Table 4-2 Questionnaire Items for measuring higher-order constructs

Dimensions	Items
Outcome Quality	OQ1. I received my desired outcome when using the services of this travel agency.
	OQ2. The employees of this travel agency provide timely service.
	OQ3. I believe that this travel agency is interested in the outcome of my booking experience.
	OQ4. When I leave this travel agency, I always feel that I received what I wanted.
	OQ5. The service provided by this travel agency is excellent.
Physical Environment Quality	G1. The overall quality of the physical environment of this travel agency is excellent.
	G2. The employees of this travel agency have a neat and professional appearance.
	G3. The travel agency's retail atmosphere (e.g. clean, music, comfortable temperature) is appropriate.
	G4. I feel safe and secure in this travel agency.
	G5. Overall, I am satisfied with the physical environment of this travel agency.
Interaction Quality	H1. The attitude of the employees of this travel agency demonstrates their willingness to help me.
	H2. The employees of this travel agency always seek for the best travel products for me.
	H3. The employees of this travel agency act in a professional manner.
	H4. When a customer has a problem, the employees of this travel agency show a sincere interest in solving it.
	H5. The employees of this travel agency are able to handle my complaints directly and immediately.
Technical Quality	I1. I can contact this travel agency easily because they use the same chatting apps as I use.
	I2. I can easily find basic travel products through this travel agency's website.
	I3. The website of this travel agency is easy to navigate.
	I4. I am confident that my personal information that is associated with this travel agency's service is secure.
	I5. This travel agency recognises that my privacy is important to me.
	I6. Payment for my travel booking is convenient (e.g., credit card, bank transfer, EFTPOS and cash).

4.2.5.2 Section 2

Section 2 contains six socio-demographic questions covering gender, age, marital status, education, travelling companions, and monthly income (see Appendix 1).

4.3 Sampling Method and the Data Collection Procedure

4.3.1 Sample Size

Sample size planning is an important approach in research design (Jarman, 2015; Little, 2013; Myers, Well, & Lorch, 2013; Lavrakas, 2008). When adequate samples have been collected in a study, the

research objective can be satisfied (Lavrakas, 2008), the null hypothesis can be correctly rejected (Little, 2013) and the estimates of effects more precise (Meyers, Gamst, & Guarino, 2016). Therefore, the power of detecting the effects improves in the research (Meyers et al., 2016; Jarman, 2015). The research objectives of this study are: (1) to develop a second order conceptualisation of service quality as perceived by Chinese travel agency customers; (2) to identify the least and most important service quality dimensions as perceived by travel agency customers; and (3) to develop and test the relationships among higher order constructs in the research model. The three research techniques employed to satisfy these research objectives are: Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM). Therefore, the suitable sample size was determined based on these research techniques.

For EFA and CFA techniques, Hinkin (1995) suggested that the items-to-response ratio should range from 1:4 to 1:10; Gorsuch (2014) suggests a ratio of 1:5 and the minimal sample size to be 100. Hair et al. (2016) and Pallant (2016) suggest that a sample size ranging from 100 to 500 observations is acceptable. Fabrigar and Wegener (2011) also note that the proper sample size for EFA and CFA most address: (1) the communalities of the measured variables (e.g. the Keiser-Meyer-Olkin [KMO] value); and (2) the number of measurement items to be included in each factor. Fabrigar and Wegener (2011) consider that a sample of 100 can be adequate when the sample is under optimal condition (KMO value equals 0.70 and above, with three to five items per factor); a sample of 200 and above when under moderately good conditions (KMO value between 0.40 and 0.70 and with three or more items per each factor); at least 400 samples are recommended when under poor conditions (KMO value below 0.40 and only two items per each factor). In this research, since the proposed observations of the primary dimensions include 21 items, a sample size from 84 to 210 was required. Furthermore, the exploratory nature of EFA requires that the sample used for EFA should be different from that the sample used for CFA (Hair et al., 2016), as the CFA analysis will specify the research model based on the results of the EFA (Kline, 2015; Schumacker & Lomax, 2015). Therefore, a sample of 420 is required for the EFA and CFA techniques used in this research (210 for EFA and 210 for CFA, respectively).

There are no up-to-date rules of thumb that suggest sample sizes for SEM. However, Hair et al. (2016) and Kline (2015) recommend that the minimum sample size to ensure the appropriate use of Maximum Likelihood Estimation (MLE) is 200, and the maximum sample size for SEM is 400 (as the methods become “too sensitive” and, this leads to poor goodness-of-fit when the number is above 400, (Hair et al., 2015; Tanaka, 1987). The accepted sample size for conducting the SEM method is between 200 and 400. In line with the above-mentioned discussion, the sample size for this study is 420 (210 for EFA, and another 210 for CFA and for SEM).

4.3.2 Sample Deviation

Primary data were collected in this research as there was no extent research on customer loyalty in the travel agency industry in China. Beijing and Shanghai were selected to conduct this survey as they are two leading urban regions in China (Li & Wu, 2013; Chiu, 2012). All participants were above 18 years of age and had booked travel through a travel agency within one year of the time when they were invited to answer the questionnaire questions.

4.3.3 Data Collection Method and Procedure

The data were collected using convenience sampling in this research. Convenience sampling is a sampling method that is inexpensive, and allows the researcher to collect a large amount of data in a relatively short period (Wolf, Joye, Smith, & Fu, 2016; Hair et al., 2015; Adams, Khan, & Raeside, 2014; Zikmund et al., 2013). In convenience sampling, the research samples are collected at certain venues (Wolf et al., 2016), the possibility of assessing variable demographic, behavioural and other relevant characteristics are maximized (Wolf et al., 2016), and the response rate is high (Bush & Hair, 1985; Zikmund et al., 2013). Convenience sampling has been widely applied in a variety of marketing research (Das, Agarwal, Malhotra, & Varshneya, 2019; Dedeoğlu, van Niekerk, Küçükergin, De Martino, & Okumuş, 2019; Muskat, Hörtnagl, Prayag, & Wagner, 2019; Xie & Ritchie, 2018; Peterson & Merunka, 2014; Brewis, 2014).

A mall-intercept approach was used in this research. When conducting a survey using mall-intercept sampling, the researcher has the opportunity to have personal contact with the participants, therefore, in-depth responses can be assessed (He, Li, & Harris, 2012; Khare, 2012; Mallet, 2006; Bush & Hair, 1985;). In addition, mall-intercept sampling provides the researcher the ability to collect a large amount of data over a short period of time (Zikmund et al., 2013; He et al., 2012; Bush & Hair, 1985). Mall-intercept sampling has been widely applied in recent marketing research (Merrilees, 2016; Srinaruewan, Binney, & Higgins, 2015; Chebat, Michon, Haj-Salem, & Oliveira, 2014; Khare, Ahtani, & Khattar, 2014; El Hedhli, Chebat, & Sirgy, 2013).

In terms of the mode of administration, self-administered questionnaires were used in this study for several reasons: (1) the self-administered questionnaire is efficient in time and budget-- the respondent rate is higher as researchers can collect questionnaires instantly after the questions have been answered (Malhotra, 2017; Sekaran & Bougie, 2016; Zikmund et al., 2013); (2) by distributing the research questionnaire themselves, the researcher has the opportunity to clarify the research questions to the participants thereby avoiding the chance of confusion and increasing the consistency of the questionnaires collected (Aaker, Kumar, Leone, & Day, 2016; Sekaran & Bougie, 2016); and (3) participants tend to be more truthful in answering the questions (Rada & Domínguez-

Álvarez, 2013) as the self-administered survey provided more privacy for the respondents (Wolf et al., 2016; Dillman, Smyth, & Christian, 2014;).

A total of 481 questionnaires were collected from the 1st to the 20th of December, 2017, in four large shopping malls in Beijing and Shanghai (Xin Ao Shopping Centre and the Solana-Beijing Lifestyle Shopping mall in Beijing; and South Bund Soft Spinning Material Market and Yuyuan Bazar in Shanghai). Before inviting people to participate in the research, the researcher made sure they were older than 18 and had booked travel using a travel agency in the past year. There were 25 questionnaires collected each day, and each questionnaire took around 5 to 8 minutes for the participants to finish. The total length of time spent on collecting one questionnaire was around 8 to 10 minutes, including the time of greeting and explanation of the survey. A table calendar was given to each of the participants as a gift to thank them for participating in the survey. The questionnaires were stored securely once they were returned to the interviewers. Incomplete questionnaires were excluded from the analysis, as suggested by Tabachnick, Fidell, and Ullman (2018).

The data analysis procedure is explained in detail in the following section.

4.4 Data Analysis Procedure

4.4.1 Data Screening

The raw data must be screened before analysis to make sure the data are clean and have been coded properly (Afifi, May, Donatello, & Clark, 2019; Blasius & Thiessen, 2012; Martin & Bridgmon, 2012). When conducting data screening, the researcher cleans the data collected by checking for missing data (Kline, 2015; Martin & Bridgmon, 2012), deleting obvious outliers, and checking the assumption of normality (Afifi et al., 2019; Kline, 2015). In order to ensure a high statistical analysis quality, the researcher needs to arrange the collected data appropriately and convert it correctly before further analysis (Aaker et al., 2016).

4.4.1.1 Missing Values

Missing values can be divided into three types. The process that governed these probabilities was first introduced by Rubin (1976) and is supported by many current academic authors (van Buuren, 2018; Meyers et al., 2016; Raghunathan, 2015). Rubin (1976) notes that the three patterns of missing values are: (1) the MCRA which refers to the probability of missing completely at random; (2) the MAR which refers to the probability of missing at random; and (3) the NMAR which refers to the probability of not missing at random.

The solution for the treatment of missing values is based on the percentage of missing values (Hair et al., 2016). When the missing value of an individual case is below 10%, mean substitution is advised

(Schumacker & Lomax, 2015). When the missing value of an individual case is between 10% and 15%, four common approaches are recommended for solving the problems of the missing value: (1) listwise deletion; (2) pairwise deletion; (3) mean substitution; and (4) model-based approaches (Hair et al., 2016; Jackson, Purc-Stephenson, & Gillaspay, 2009). When the missing value is over 25%, incomplete responses should be excluded from the analysis (Tabachnick et al., 2018; Sekaran & Bougie, 2016).

4.4.1.2 Outliers

Outliers are observations that have extreme values (either extremely large or extremely small) that differ greatly from the rest of the data (Anderson, Sweeney, Williams, Camm, & Cochran, 2016; Hair et al., 2016; Kline, 2015). Outliers indicate the data set are not normally distributed or distorted, therefore, the data set may not be suitable for applying data analysis if outliers have been detected (Tabachnick et al., 2018; Pallant, 2016).

There are three outlier detection methods: the univariate, bivariate, and multivariate (Tabachnick et al., 2018; Hair et al., 2016; Kline, 2015). In this study, two methods were adopted to detect outliers: the univariate method and the multivariate method: (1). the univariate outliers detect the extreme values for a single variable. The univariate outliers can be detected using standardized values (z-scores) as suggested by Tabachnick et al. (2018), Hair et al. (2016), and Kline (2015). For samples of more than 80, outliers are detected when the standardized value are not between -4 and 4 (Hair et al., 2016); (2). the detection of multivariate outliers apply when several variables are combined, which examines whether the combination of values was unusual (Tabachnick et al., 2018; Hair et al., 2016). Multivariate outliers can be detected by using Mahalanobis D^2 test (Kline, 2015). The decisions of deleting or retaining the outliers must be made with caution as the deletion may lead to further outlying cases (Pallant, 2016).

4.4.1.3 Normality Test

The normality test examines whether the data have been distributed normally in the metric variable (Anderson et al., 2016; Hair et al., 2016; Martin & Bridgmon, 2012). Normality can be accessed by two standard measures: skewness and kurtosis (Tabachnick et al., 2018; Field, 2017; Martin & Bridgmon, 2012). The skewness value indicates the degree of asymmetry (balance) of the distribution, and the kurtosis value specifies whether the distribution curve is symmetric and normally shaped (Tabachnick et al., 2018; Field, 2017; Martin & Bridgmon, 2012). The distribution is regarded as normal when the skewness and kurtosis values are zero (Tabachnick et al., 2018; Field, 2017; Martin & Bridgmon, 2012).

4.4.2 Exploratory Factor Analysis

Exploratory factor analysis (EFA) is a scale development technique where a number of variables are analysed to investigate whether they can be divided into different groups to define certain components or factors (Tabachnick et al., 2018; Gatignon, 2016; Hair et al., 2016; Meyers et al., 2016). The researcher can use EFA to identify whether the factors are correlated and identify the observed variables that best measure each factor (Schumacker & Lomax, 2015). EFA is therefore conducted before SEM as it helps the researcher to better understand the latent constructs (Hair et al., 2016; Pallant, 2016; Kline, 2015; Schumacker & Lomax, 2015).

4.4.2.1 Assessment of the Appropriateness for Factor Analysis

Before performing factor analysis, the researcher needs to test the appropriateness of the data matrix for performing factor analysis (Pallant, 2016). The appropriateness for factor analysis can be assessed through the following four steps:

1. Examination of the Correlation Matrix

A correlation matrix, which displays the relationships between individual variables, is recommended to determine the appropriateness of factor analysis (Tabachnick et al., 2018; Hair et al., 2016; Pallant, 2016). A correlation coefficient value over 0.30 is considered to be suitable for generating factor analysis (Tabachnick et al., 2018; Hair et al., 2016; Pallant, 2016). Low correlations throughout the correlation matrix indicate that the data matrix is not suitable for factor analysis (Tabachnick et al., 2018; Hair et al., 2016; Pallant, 2016).

2. Inspection of the Anti-Image Correlation Matrix

The anti-image correlation matrix determines the appropriateness of a correlation matrix for factor analysis by presenting the negative value from the partial correlation (Cooper & Schindler, 2014; Harrison, Kemp, Brace, & Snelgar, 2020). A partial correlation value is the part unable to be explained by the effects of the variables (Hair et al., 2016; Meyers et al., 2016) and is represented by off-diagonal elements in the anti-image correlation matrix (Field, 2017). High partial correlations indicate that the unexplained correlations are high in the data matrix (Hair et al., 2016), which also means there are not sufficient underlying factors for performing factor analysis (Harrison et al., 2020). Tabachnick et al. (2018) and Field (2017) explain that for good factoring, the value of the off-diagonal elements should be very small to support the data matrix to be appropriate for factor analysis.

3. Bartlett's Test of Sphericity

Bartlett's Test of Sphericity is a statistical test which examines whether the correlation among the variables in a correlation matrix is significant (Hair et al., 2016; Pallant, 2016; Hinton, McMurray, & Brownlow, 2014). Bartlett's Test of Sphericity should be smaller than 0.05 to be considered appropriate for factor analysis (Hair et al., 2016; Pallant, 2016; Meyer et al., 2016).

4. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy

The Kaiser-Meyer-Olkin measure (KMO) is an index measuring the degree of intercorrelations among the variables (Stewart, 1981). KMO values below 0.50 are considered as unacceptable; 0.50 to 0.59, miserable; 0.60 to 0.69 mediocre; 0.70 to 0.79, middling; 0.80 to 0.89, meritorious; and 0.90 and above, marvellous (Kaiser, 1974). Therefore, the KMO value needs to be greater than 0.50 to be considered acceptable and appropriate for factor analysis (Tabachnick et al., 2018; Hair et al., 2016; Pallant, 2016; Kaiser, 1974).

4.4.2.2 Factor Extraction

After the appropriateness of the correlation matrix's has been confirmed, factor extraction is suggested in order to assess the underlying structure of the original variables (Hair et al., 2016). Factor extraction helps the researcher to decide the minimum number of factors that are used to explain the interrelations among the original variables (Pallant, 2016). The number of extracted factors are determined based on the factor extraction eigenvalues, as well as the conceptual foundation and empirical evidence (Hair et al., 2016; Pallant, 2016; Meyers et al., 2016). Three commonly used factor extraction criteria are: (1) the latent root criterion; (2) the percentage of variance criterion; and (3) the scree test criterion (Hair et al., 2016; Pallant, 2016; Meyers et al., 2016).

4.4.2.2.1 Latent Root Criterion

Latent root criterion is a widely used technique for identifying the number of factors (Hair et al., 2016; Meyers et al., 2016). When using the latent root criterion, only factors or components with eigenvalues of more than 1.00 are suggested to be retained for further analysis; factors or components of less than 1.00 are suggested as insignificant and, therefore, not suitable for further analysis (Hair et al., 2016; Pallant, 2016; Bryman & Bell, 2011). This criterion provides best results when the number of variables are between 20 and 50 (Spencer, 2017; Hair et al., 2016).

4.4.2.2 Percentage of Variance Criterion.

The purpose of examining the percentage of variance criterion is to make sure that the derived factors are significant, in practice, as they explain a certain amount of total variance (Hair et al., 2016). In the social science context, Hair et al. (2016) suggested 60% of variance to be satisfactory (in certain cases, a percentage of lower than 60% could also be considered acceptable).

4.4.2.3 Scree Test Criterion

The scree test criterion provides the optimum number of factors to be retained for further analysis (Hair et al., 2016; Meyers et al., 2016; Pallant, 2016; Osborne, 2014). By inspecting the shape of the latent roots curve, the researcher looks for the point from where the curve become a straight line (Hair et al., 2016; Pallant, 2016). The factors laid before the point are retained (Hair et al., 2016; Pallant, 2016; Meyers et al., 2016).

4.4.2.3 Factor rotation

Factor rotation is important following the factor extraction, as it simplifies the factor structure, thereby, improving the interpretability of the factor solution (Tabachnick et al., 2018; Hair et al., 2016; Pallant, 2016; Meyers et al., 2016; Osborne, 2014; Cooper & Schindler, 2013). Rotation of the factors reduces the ambiguous condition between factors and variables (Hair et al., 2016; Cooper & Schindler, 2013). There are two commonly used rotation methods: orthogonal rotation and oblique rotation (Tabachnick et al., 2018; Hair et al., 2016; Pallant, 2016; Meyers et al., 2016; Cooper & Schindler, 2013; Bryman & Bell, 2011). Both factor rotation methods provide similar results (Tabachnick et al., 2018). However, orthogonal rotation only applies when the underlying constructs are not correlated, while oblique rotation allows the underlying constructs to be correlated (Tabachnick et al., 2018; Hair et al., 2016; Meyers et al., 2016; Cooper & Schindler, 2013).

4.4.2.3.1 Orthogonal rotation

In orthogonal factor rotation, the researchers must assume the factors are uncorrelated (Tabachnick et al., 2018; Hair et al., 2016; Meyers et al., 2016; Cooper & Schindler, 2013).

The three commonly applied orthogonal techniques are: varimax rotation, quartimax rotation, and equimax rotation (Tabachnick et al., 2018; Hair et al., 2016). Varimax rotation simplifies factors by 'maximizing the variance of the loadings within factors' (high loadings become higher, and low loadings become lower) (Hair et al., 2016). By doing this, the factor is easier to interpret (Hair et al., 2016). Conversely, a quartimax rotation simplifies the variables, while equimax simplifies the factors and the variables simultaneously (Tabachnick et al., 2018; Hair et al., 2016; Meyers et al., 2016).

Varimax rotation is the most popular technique among these three techniques (Tabachnick et al., 2018; Hair et al., 2016; Meyers et al., 2016; Cooper & Schindler, 2013). Quartimax rotation is not often applied compared to varimax as researchers usually have more interest in simple factors rather than simple variables (Hair et al., 2016). Furthermore, equimax rotation is not popularly applied because it tends to be unstable, therefore, researchers must be very confident when specifying the number of factors (Hair et al., 2016; Mulaik, 2009). Hence, the varimax rotation was the orthogonal rotation method selected for this study. The factor loadings in varimax rotation indicates how strong the correlation is between the variable and the factor: a factor loading close to ± 1 indicates a strong correlation exists, while a factor loading close to 0 indicates a lack of association (Tabachnick et al., 2018; Hair et al., 2016; Meyers et al., 2016).

4.4.2.3.2 Oblique rotation

Different from orthogonal rotation, oblique rotation does not require the factors to be uncorrelated (Tabachnick et al., 2018; Hair et al., 2016; Pallant, 2016; Meyers et al., 2016). Researchers tend to conduct both orthogonal and oblique rotations and report the clearest and easiest result for interpretation (Pallant, 2016). Two commonly applied oblique rotation methods are: direct oblimin rotation and promax rotation. The direct oblimin rotation is more popular and has been widely adopted in large number of factor analysis research (Pallant, 2016). The direct oblimin rotation adopted as the oblique rotation method in this research.

4.4.3 Structural Equation Modelling

Structural equation modelling (SEM) is a powerful statistical technique that allows researchers from different fields (social, behavioural, educational, biological, economic, marketing, and medical areas) to test their empirical theories (Byrne, 2016; Raykov & Marcoulides, 2012). When conducting SEM, two types of models are accessed separately using different research methods: the measurement model is analysed by the confirmatory factor analysis method, and the structural model uses the path analysis research method (Meyers et al., 2016).

The advantages of SEM include:

- (1) When conducting SEM, a confirmatory approach is used (rather than the exploratory method in traditional techniques) to analyse the structural theory (Byrne, 2016);
- (2) Multiple and interrelated dependent relationships can be accessed at the same time when conducting SEM (Hair et al., 2016; Meyers et al., 2016; Cooper & Schindler, 2013);
- (3). SEM allows the researchers to access both unobserved and observed variables while traditional research techniques only access observed variables (Byrne, 2016);

(4). SEM is the only method which considers the measurement errors while analysing variables in the research model (Raykov & Marcoulides, 2012);

(5). SEM can access complex multivariable models and at the same time access the direct and indirect effects between two variables (Raykov & Marcoulides, 2012).

To satisfy the third research objective of this study-- to develop and test the interrelationships among higher order constructs (service quality, customer satisfaction, customer perceived value, corporate image, perceived switching costs, and customer loyalty), SEM is the most appropriate method to conduct this research. A two-stage approach is conducted: in the first stage the researcher analysed the measurement model, and the structural model was analysed in the second stage following Byrne's (2016) suggestion. The measurement model is first refined and tested as discussed in the following sub-section.

4.4.3.1 Measurement Model

The analysis of the measurement model was conducted using confirmatory factor analysis (CFA) in order to analyse the measured items and their latent constructs (Awang, 2012; Hair et al., 2016; Meyers et al., 2016). Researchers use CFA to evaluate psychometric measurement, validate constructs, test method effect, test construct invariance and test a specific model based on theory (Awang, 2012; Brown, 2015; Hair et al., 2016). CFA was used to confirm the four primary dimensions for the travel agency (interaction quality, physical environment quality, outcome quality, and technology quality). The confirmation and analysis of five higher model constructs were also undertaken. The following sub-sections state the procedures of CFA in further detail.

4.4.3.1.1 Modelling Assessment Procedures

Modelling assessment is conducted through the following five steps: (1) model specification; (2) model identification; (3) model estimation; (4) model evaluation; and (5) model modification (Hair et al., 2016; Kline, 2015; Schumacker & Lomax, 2015).

Step 1: Model Specification

In model specification, the original theoretical model is developed first based on the relevant theories (Schumacker & Lomax, 2015) and then modified using EFA. The original theoretical model was based on the reviews of empirical studies, and the findings from exploratory factor analysis modified the original research model and specified the measurement models and the structural equation model. All relationships and parameters in the measurement model are specified in this step (Kline, 2015; Schumacker & Lomax, 2015).

Step 2: Model Identification

The purpose of model identification is to test whether the proposed model fits the data (Blunch, 2013; Bollen, 2014; Meyers et al., 2016). A model is considered identified when every parameter has a unique solution (Tabachnick et al., 2018; Meyers et al., 2016; Kline, 2015; Blunch, 2013).

The model can be considered as under-identified, just-identified or over-identified based on the correspondence of the known (the number of regression coefficients) and unknown (the number of parameters) (Byrne, 2016; Hair et al., 2016; Schumacker & Lomax, 2015; Kline, 2015; Blunch, 2013).

- (1) A model is considered **under-identified** when the variances and covariances are fewer than the parameters to be estimated (Tabachnick et al., 2018). The model parameters cannot be estimated in such a condition as the information is insufficient (Byrne, 2016).
- (2) A model is considered **just-identified** when the number of the variances and covariances are just equal to the number of parameters to be estimated (Tabachnick et al., 2018). In such conditions the estimated parameters perfectly fit the model and the degree of freedom is zero (Meyers et al., 2016). Just identified is the minimum requirement for a model to be identified (Blunch, 2013).
- (3) A model is considered over-identified when there are more variances and covariances than parameters to be estimated (Tabachnick et al., 2018). The estimated parameters fit the model and the degrees of freedom are greater than 0 (Meyers et al., 2016). The model in such a condition is ideal for estimation (Tabachnick et al., 2018; Byrne, 2016; Hair et al., 2016; Meyers et al., 2016; Blunch, 2013).

Step 3: Model Evaluation

After the model is identified, the next step is to evaluate the measurement of the validity of the model (Tabachnick et al., 2018; Hair et al., 2016). This can be accessed using the goodness of fit of the model (Hair et al., 2016; Schumacker & Lomax, 2015), which can be conducted through two steps: (1). the evaluation of the absolute fit of the model; and (2). the evaluation of comparative fit of the model (Kevin, 2015).

By evaluating the absolute fit indices, the researcher can test the the ability of the measurement model to fit the sample data (Hair et al., 2016; Kevin, 2015). The absolute fit can be assessed through the following measures: (1) chi-square (χ^2); (2) goodness-of-fit index (GFI); (3) standardized root mean residual (SRMR); and (4) root mean square error of approximation (RMSEA) (Hair et al., 2016; Meyers et al., 2016).

The comparative fit assessment consists of two parts: the incremental fit and the parsimony fit (Kevin, 2015). The incremental fit contains four fit statistics: normed fit index (NFI), comparative fit index (CFI), Tucker Lewis index (TLI), and relative noncentrality index (RNI) (Hair et al., 2016; Meyers et al., 2016), while parsimony fit indices comprise two indices: the parsimony goodness-of-fit index (PGFI), and the parsimony normed fit index (PNFI) (Hair et al., 2016; Meyers et al., 2016).

Hair et al. (2016) suggest at least three to four fit indices be used to support the measurement model's validity: at least one fit index should be selected from the incremental index, and one from the absolute index, as well as the χ^2 value and the degrees of freedom. Tabachnick et al. (2018) demonstrate that CFI and RMSEA should also be included in the indices to provide support for the measurement model's validity. In summary, the report of the validity of the model comprises the following indices: chi-square (χ^2) value, normed chi-square (χ^2/df), goodness-of-fit index (GFI), root mean square error of approximation (RMSEA), standardized root mean residual (SRMR), comparative fit index (CFI), and normed fit index (NFI). The thresholds of these indices are presented as follows:

- (1) The Normed Chi-Square (χ^2/df) is a relation of χ^2 over degree of freedom (df) for a model. χ^2 represents the differences between the observed and estimated covariance matrices; while df represents the amount of mathematical information available to estimate the model parameters. The normed chi-square represents the size of inconsistency between the sample and the estimated covariance matrices. A value of normed chi-square (χ^2/df) between 1.0 and 5.0 indicated an acceptable or good model fit; a value less than 1.0 indicates a poor model fit, and a value of more than 5.0 indicates a requirement for model improvement (Byrne, 2016; Meyers et al., 2016; Brown, 2015; Schumacker & Lomax, 2015; Awang, 2012).
- (2) The Goodness-of-Fit (GFI) represents a weighted proportion of variance in the sample covariance accounted for by the estimated population covariance matrix (Blunch, 2013; Kline, 2015; Tanaka, 1987). The GFI value varies from 0 to 1, where 0 indicates no fit while 1 indicates a perfect fit (Hair et al., 2016; Meyers et al., 2016; Kline, 2015). A value of 0.90 is suggested as a good model fit, and 0.95 as a superior fit, while the higher value, indicates a better goodness-of-fit (Byrne, 2016; Hair et al., 2016; Kline, 2015; Awang, 2012).
- (3) The Standardized Root Mean Residual (SRMR) measures the mean absolute correlation residual derived from the overall differences between the actual and proposed correlation (Kline, 2015). A SRMR value smaller than 0.08 is considered desirable as suggested by Tabachnick et al. (2018), Hair et al. (2016), and Kline (2015).

- (4) The Comparative Fit Index (CFI) is a measure that quantifies the relative improvement of the model fit compared with an independent model (Kline, 2015). The CFI value is a normed value, which ranges from 0 to 1 (Hair et al., 2016; Meyers et al., 2016; Kline, 2015). The closer the value is to 1 indicates a better model fit; in addition, the CFI value has to be greater than 0.90 to be considered as a good model fit (Hair et al., 2016; Meyers et al., 2016; Kline, 2015).
- (5) The Normed Fit Index (NFI) is a measure that quantifies the differences in the χ^2 value for the fitted model and an independent model divided by the χ^2 value for the independent model (Hair et al., 2016). The value can range between 0 and 1. The threshold for the NFI is 0.90 so a larger value indicates a better model fit (Byrne, 2016; Hair et al., 2016; Kline, 2015; Awang, 2012).
- (6) The Root Mean Square Error of Approximation (RMSEA) is a 'badness-of-fit' measure which indicates how well a model fits a population (Hair et al., 2016). The lower the value, the better the model fits, where: (1) a value of 0 indicates a perfect fit; (2) a value between 0 and 0.05 indicates a close fit; (3) a value between 0.05 and 0.08 a fair fit; (4) a value between 0.08 and 0.1 a 'mediocre fit'; and (5) a value above 0.10 a poor fit (Loehlin & Beaujean, 2017; Byrne, 2016; Hair et al., 2016; Meyers et al., 2016; Kline, 2015; Awang, 2012).

Altogether, the recommended cut-off point for each model fit indices has been summarised in detail and presented in Table 4-3.

Table 4-3 Model Fit Indices and Recommended Thresholds

Model Fit Indices	Level of Acceptance	Description	Reference
Absolute Fit Indices:			
RMSEA	≤ .08	Represents a ‘badness-of-fit’ which indicates how well a model fits a population.	(Loehlin & Beaujean, 2017; Byrne, 2016; Hair et al., 2016; Kline, 2015; Meyers et al., 2016; Awang, 2012;)
The Normed Chi-Square (χ^2/df)	between 1 and 5	Represents the differences between the observed and estimated covariance matrices.	(Byrne, 2016; Brown, 2015; Meyers et al., 2016; Awang, 2012; Schumacker & Lomax, 2015)
GFI	≥ .90	Represents a weighted proportion of variance in the sample covariance accounted for by the estimated population covariance matrix	(Byrne, 2016; Hair et al., 2016; Kline, 2015; Meyers et al., 2016; Blunch, 2013; Awang, 2012; Tanaka, 1987)
SRMR	≤ .09	The mean absolute correlation residual derived from the overall difference between the actual and proposed correlation	(Tabachnick et al., 2018; Hair et al., 2016; Kline, 2015)
Model Fit Indices	Level of Acceptance	Description	Reference
Incremental Fit Indices:			
CFI	≥ .90	A measure that quantifies the relative improvement in the model fit compared with an independent model	(Hair et al., 2016; Kline, 2015; Meyers et al., 2016)
NFI	≥ .90	A measure that quantifies the differences in the χ^2 value for the fitted model and an independent model divided by the χ^2 value for the independent model	(Byrne, 2016; Hair et al., 2016; Kline, 2015; Awang, 2012;)

Step 4: Model Modification

The two reasons for modifying the model are: (1) to improve the overall model fit to the sample data; and (2) to test hypotheses in the theoretical work (Tabachnick et al., 2018; Byrne, 2016; Schumacker & Lomax, 2015). If the model does not satisfy the data adequately, the researcher performs a specification search to let the model better fit to research sample (Schumacker & Lomax, 2015; Raykov & Marcoulides, 2012;). The two commonly conducted diagnostic measures are: modification indices and standardized residuals (Tabachnick et al., 2018; Schumacker & Lomax, 2015; Raykov & Marcoulides, 2012;), although any modifications on the model must be made in line with the theoretical insights and the researcher’s judgement (Hair et al., 2016; Meyers et al., 2016; Kline, 2015).

- (1) Inspection of the model indices (MI) examines the expected decrease in a model's chi-square value if a previously corresponding parameter is set free in a following run (Byrne, 2016; Meyers et al., 2016). A small MI value indicates a good model fit, and an MI value greater than 3.84 suggests that the corresponding path is excluded to improve the model fit (Hair et al., 2016; MacKenzie, Podsakoff, & Podsakoff, 2011). Byrne (2016) also suggests that a large MI value indicates the presence of a factor cross-loading problem.
When assessing model modification, the interpretation of the expected parameter change statistics (EPC) is also important as it enables the researcher to know the approximate value of the new parameter (Schumacker & Lomax, 2015). The following rules are suggested by Byrne (2016) and Meyers et al. (2016): (1) when a fixed parameter has a large MI and large EPC at the same time, it should be eliminated especially when the theoretical evaluation suggested the same solution; (2) when a fixed parameter has a large MI and a small EPC, the fixed parameter can be retained as it suggests that the deletion of the parameter is not necessary; (3) when a fixed parameter has a small MI and a large EPC, the solution is ambiguous as this can be due to different reasons: sampling variability, or the insensitivity of the chi-square test to the fixed parameter; and (4) when a fixed parameter has a small MI and a small EPC, the fixed parameter should be kept.
- (2) Standardized residuals are the value of residuals divided by their estimated standard errors (Jöreskog & Sörbom, 1993). Standardized residual values larger than 2.58 indicate suggested as a possible misfit in a model (Schumacker & Lomax, 2015; De Pelsmacker, Van Kenhove, Janssens, & Wijnen, 2010; Jöreskog & Sörbom, 1993), and those greater than 4.0 suggest a potentially unacceptable degree of error (Hair et al., 2016).

Step 5: Construct Validity and Reliability

Construct validity examines whether the instrument used to measure a set of latent variables has the ability to reflect the theoretical latent construct; while Construct Reliability examines the consistence and stability of the instrument (Hair et al., 2016; Sekaran & Bougie, 2016).

(1) Unidimensionality test

Unidimensionality tests are suggested to be conducted before accessing the construct validity and reliability of a research model (Hair et al., 2016), and to examine whether only one underlying construct in the instrument can be used to explain a set of measured variables (Hair et al., 2016). The test of the unidimensionality is important especially when more than two constructs are involved in a research. The unidimensionality of the construct

can be justified by the CFI value (comparative fit index); a CFI value of 0.90 or higher suggested that the unidimensionality of the constructs is strongly supported (Kline, 2015).

(2) Construct Reliability (CR)

Construct reliability tests the internal consistency of the construct indicators (Byrne, 2016; Hair et al., 2016). “High construct reliability means internal consistency exists, meaning that the measures all consistently represent the same latent construct”, (Hair et al., 2016). CR assessed using the following equation:

Equation 4.1 Construct Reliability (CR)

$$\text{Construct Reliability} = \frac{(\sum \text{standard loadings})^2}{(\sum \text{standard loadings})^2 + \sum \text{measurement errors}}$$

The CR value is conducted separately for each item measuring a construct in the model; and a value of 0.70 or higher indicates good reliability (Byrne, 2016; Hair et al., 2016; Awang, 2012).

(3) Convergent Validity

Convergent validity tests whether the indicators of a specific construct converge or share a high proportion of variance in common (Hair et al., 2016). Convergent validity can be assessed by factor loadings and the average variance extracted (AVE). In this study, AVE was calculated to assess the convergent validity of the research model by using the following equation:

Equation 4.2 Average Variance Extracted (AVE)

$$AVE = \frac{\sum (\text{standardized loadings})^2}{\sum (\text{standardized loadings})^2 + \sum \text{Measurement errors}}$$

An AVE value of 0.50 or higher indicates a good rule of thumb and suggests a relatively high level of variance and adequate convergence (Hair et al., 2016; MacKenzie et al., 2011).

4.4.3.1.2 Structural Equation Modelling (SEM)

The structural equation model (SEM) is used to test the relationships among latent variables and the relationships among the higher-order constructs (Byrne, 2016). After confirming all the measurement

models, structural equation modelling tests are carried out (Hair et al., 2016; Kline, 2015; Schumacker & Lomax, 2015). The first step is to test the relationships between each of the four primary dimensions and service quality (see Figure 4-1), and the second step tests the relationships between the five higher-order constructs (see Figure 4-2).

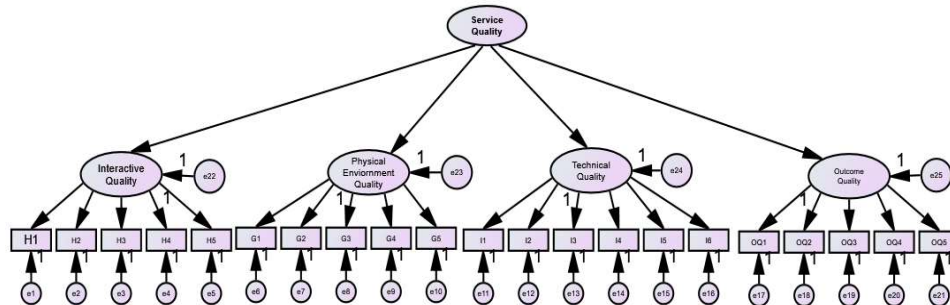


Figure 4-1 Structural Model for Service Quality

The examination of each model consists of two steps: (1) the first step examines the first-order model which accesses the correspondence between the latent factors and their measured items; (2) to examine whether the second-order constructs consist of, and significantly explains, the multiple first-order factors and their corresponding measured items (Byrne, 2016). The model-fit-indices used to examine the measurement model are also assessed in the structural equation model, as well as an examination of the path estimates for the hypothesized relationships as suggested by Hair et al. (2016) and Bagozzi and Yi (2012).

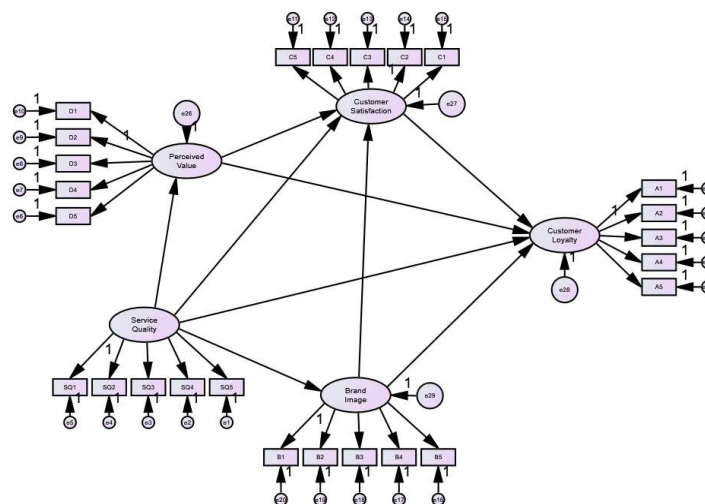


Figure 4-2 Structural Model for Higher-Order Constructs

4.4.3.1.3 Mediation Effects

The mediation effect tests were conducted to satisfy Hypotheses H9b and H12b. The test of mediation effects involved two steps: (1) to find out whether the mediator variable (M) had a mediation effect on the relationship between the predictor variable (X) and the criterion variable (Y) (Hair et al., 2016; Iacobucci, 2010). The conclusion about M plays a mediating role on the relationship between X and Y is made when the path from X to M is statically significant, and the path from M to Y is also significant (Hair et al., 2016; Iacobucci, 2010); (2) to find out whether M's mediation effect exists in the relationship between X and Y. The mediation effects is a partial mediation or a full mediation based on the standardized coefficient (β) among the three variables (X, Y and M) (see Table 4-4) (Meyers et al., 2013; Awang, 2012).

Table 4-4 Two conditions of mediation effect based on the value of β among variables of X, Y and M.

Partial Mediation	
X→M (β)	significant
M→Y (β)	significant
X→Y (with M) compared to X→Y (without M) (β)	Both significant but diminished
Full Mediation	
X→M (β)	significant
M→Y (β)	significant
X→Y (with M) (β)	Insignificant and diminished

4.4.3.1.4 Multiple Group Analysis (MGA)

A multiple group analysis (MGA) is conducted to test whether the research model has any differences across different groups (e.g., gender, age, marital status, or income level) (Myers et al., 2013). This research conducted an MGA using two steps: (1) to analyse whether the items share similar relationships with their factors in the different groups; and (2) to analyse whether the path coefficient on each path is different across the different groups (Lee, Lee, Lee, & Park, 2014; Myers et al., 2013).

Chapter 5

Data Analysis and Results

This chapter presents the results of the data analysis using EFA, CFA, SEM and multi-group analysis. The results are presented in the following three main sections: The Response Rate and Preliminary Data Analysis; Respondents' Demographic Characteristics; and Data Interpretation.

5.1 The Response Rate and Preliminary Data Analysis

The survey was conducted in selected shopping mall complexes in Beijing and Shanghai between the 1st and the 20th December, 2017. Four hundred and eighty-one self-administrated questionnaires were distributed and returned. Sixty-one questionnaires were excluded from the research as their non-completion rate was more than 25% (Tabachnick et al., 2018; Sekaran & Bougie, 2016). The remaining 420 questionnaires were then divided into two sub-samples of equal size: 210 questionnaires per sample respectively for the EFA, and SEM analysis. The sample size of each sub-sample was based on the suggested sample size discussed in Chapter 4. The sample size of 210 used to conduct the EFA is within Hinkin's (1995) recommendation (4 to 10 samples per item *21 items = 84 to 210 samples), and was also within Hair et al.'s (2016) and Pallant's (2016) suggested sample range (100 to 500) to conduct EFA. The sample of 210 used to conduct the SEM is also above the minimal sample size for conducting SEM as suggested by Hair et al. (2016) and Kline (2015).

5.1.1 Missing Values

The observations of missing values were screened using an SPSS sheet. Only a small number of missing values were detected, and the non-response rate was no more than 5%. The mean substitution method was used to replace the missing values (Tabachnick et al., 2018; Hair et al., 2016; Schumacker & Lomax, 2015; Grey, 2014).

5.1.2 Outliers

No outliers were identified based on the standardised value (z-score) method suggested by Hair et al. (2016). Based on Hair et al.'s (2016) criterion, a case with standardised value higher than +4 or less than -4 should be removed from the dataset. No value was detected in the dataset. All the cases were retained for further analysis.

5.1.3 Normality

The normality test was conducted by assessing the absolute value of Z-skewness scores and the Kurtosis index. No absolute value of Z-skewness scores should be greater than 3, while no absolute value of Kurtosis index should be greater than 8 (Kline, 2015). In this study, the two values are both below the cut-off point (as shown in Appendix 2). The dataset in this study was considered normally distributed.

5.2 Respondents' Demographic Characteristics

The demographic characteristics are presented in Tables 5-1 to 5-4. Respondents' demographic characteristics in terms of their gender, age, marital status, education background, travel companionship, and income are discussed in detail in this section.

Table 5-1 shows that the percentage of males to females is 46% to 54%.

Table 5-1 Gender Result

	Frequency	Percent	Cumulative Percent
Male	193	46.0	46.0
Female	227	54.0	100.0
Total	420	100.0	

Table 5-2 illustrates that most respondents fall in the age group of 18-25 years, representing 38.6% of the total sample. Respondents from the age group of 26-35 years account for 33.3% of the total sample, making up the second largest proportion. Respondents from the age group of 36-45 years account for 18.1% of the total sample. The final 10% of the total sample fall in the age groups of 46 to 55, and 55 and above.

Table 5-2 Age Result

	Frequency	Percent	Cumulative Percent
18-25	162	38.6	38.6
26-35	140	33.3	71.9
36-45	76	18.1	90.0
46-55	32	7.6	97.6
55 and above	10	2.4	100.0
Total	420	100.0	

Table 5-3 indicates that respondents from the never married group and married group account for 53.1% and 45% of the total sample respectively. Respondents who are widowed or divorced account for only 2.1% of the total sample.

Table 5-3 Marital Status Result

	Frequency	Percent	Cumulative Percent
Married	188	45.0	45.0
Never Married	223	53.1	97.9
Widowed or Divorced	9	2.1	100.0
Total	420	100.0	

Table 5-4 shows that the respondents in this study who have graduated from college or university, account for 72.9% of the total sample. Respondents whose highest qualification is high school account for 10.2% of the total sample. Respondents who have completed a postgraduate account for 16.7% of the total sample.

Table 5-4 Education Background

	Frequency	Percent	Cumulative Percent
High School	43	10.2	10.2
College or University	306	72.9	83.1
Postgraduate or above	71	16.9	100.0
Total	420	100.0	

Table 5-5 shows most respondents travel with family, representing 58.1% of the total sample. Only a few respondents travel alone, accounting for 9% of the total sample. Respondents who travel with friends represent 32.9% of the total sample.

Table 5-5 Travel Companionship

	Frequency	Percent	Cumulative Percent
Travel Alone	38	9.0	9.0
Travel with family	244	58.1	67.1
Travel with friends	138	32.9	100.0
Total	420	100.0	

Table 5.6 illustrates the distribution of participants from different income groups based on their monthly income. As shown in Table 5.6, participants from the group earning less than RMB 3,000 represents the largest portion of the total sample, accounting for 26.2%, which is 6% more than participants from the second largest group (earning RMB 5,000 – RMB 8,999). Table 5.6 also shows that participants from the highest income group account for the smallest portion of the total sample (15.7 % from the group earning over RMB 9,000).

Table 5-6 Income Result

	Frequency	Percent	Cumulative Percent
Less than RMB 3,000	110	26.2	26.2
RMB 3,000--RMB 4,999	77	18.3	44.5
RMB 5,000--RMB 6,999	85	20.2	64.8
RMB 7,000--RMB 8,999	82	19.5	84.3
Over RMB 9,000	66	15.7	100.0
Total	420	100.0	

5.3 Common Method Bias

Marketing researchers have expressed concerns about the possibility of common method bias (CMB) when using self-administrated surveys as the data collection method (Jakobsen & Jensen, 2015; Kock, Berbekova, & Assaf, 2021; MacKenzie & Podsakoff, 2012). MacKenzie and Podsakoff (2012) note that CMB can affect the reliability and validity of the empirical results in two ways: (1) the 'bias' of the estimates of construct validity and reliability; and (2) the 'bias' of the parameter estimates of the relationship between two different constructs.

Previous studies show that there are several methods for preventing CMB, which can be divided into two categories: procedural controls and statistical controls (Kock et al., 2021; MacKenzie & Podsakoff, 2012).

Procedure control is the method used to reduce the effects of CMB through the careful design of questionnaires. Mackenzie and Podsakoff (2012) suggested that CMB may occur as a result of three types of questionnaire design issues: a decrease in the ability to respond accurately; a decrease in the motivation to respond accurately; and a decrease in the difficulty of satisfying.

In this research, all the research questions were accurate and did not contain any worded or duplicated information. A brief introduction has been given to the participants while distributing the questionnaires to the participants. All participants were given consent to present true information and had the confidence that their answers would not be exposed to others. All of the people who took part also knew that the research questions were only about the services provided by travel agencies. This was to make sure that they didn't mix up the services with those of airlines, hotels, or destination tour groups.

Statistical controls are the statistical techniques that are employed following the completion of data collection (Fuller, Simmering, Atinc, Atinc, & Babin, 2016; Kock et al., 2021). Harman's single-factor test is the most widely used technique in detecting CMB problems. The threshold to decide whether the data has a CMB issue is to check whether the unrotated solution produces one factor that accounts for more than 50% of the variance (Fuller et al., 2016; Kock et al., 2021).

The single-factor test as presented in Table 5-7 shows that the sum of squared percentage of variance is less than 50%, indicating that the result is under the threshold recommended.

Table 5-7 Single-factor Test Result

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.167	48.415	48.415	10.167	48.415	48.415
2	1.976	9.408	57.824			
3	1.226	5.839	63.662			
4	1.122	5.341	69.004			
5	.790	3.763	72.766			
6	.719	3.424	76.190			
7	.533	2.537	78.728			
8	.521	2.483	81.211			
9	.477	2.273	83.484			
10	.443	2.110	85.594			
11	.412	1.963	87.557			
12	.374	1.779	89.336			
13	.332	1.579	90.915			
14	.305	1.453	92.367			
15	.293	1.396	93.763			
16	.263	1.253	95.016			
17	.248	1.180	96.196			
18	.229	1.091	97.287			
19	.219	1.041	98.328			
20	.185	.881	99.209			
21	.166	.791	100.000			

Extraction Method: Principal Component Analysis.

5.4 Data Analysis Interpretation

After screening the data, the whole sample was randomly divided into two groups (210 samples in each group). The first group was subjected to Exploratory Factor Analysis (EFA) in order to investigate the four primary dimensions of service quality (interaction quality, physical environment quality, outcome quality and technological quality). The other group was subjected to Confirmatory Factor Analysis (CFA) and Structure Equation Modelling (SEM). The results of EFA and SEM analysis are presented in the following subsections.

5.4.1 Exploratory Factor Analysis

Twenty-one items were proposed to measure the four primary dimensions of service quality: interaction quality, physical environment quality, outcome quality and technical quality. The assessment of the appropriateness of the data matrix were conducted prior to the factor analysis as recommended by Pallant (2016). The four steps and the results of the appropriateness test are presented in the following section.

5.4.1.1 Test of the Appropriateness of EFA for Service Quality

The appropriateness test consists of four steps: (1). Examination of the correlation matrix (Tabachnick et al., 2018; Hair et al., 2016; Pallant, 2016); (2) Inspection of the anti-image correlation matrix (Harrison et al., 2020; Tabachnick et al., 2018; Field, 2017; Hair et al., 2016; Cooper & Schindler, 2013); (3) Bartlett's Test of Sphericity (Hair et al., 2016; Meyers et al., 2016; Tian et al., 2016; Hinton et al., 2014); and (4) The Kaiser Meyers Olkin Measure of Sampling Adequacy (KMO) (Tabachnick et al., 2018; Hair et al., 2016; Stewart, 1981; Kaiser, 1974).

- (1) **Examination of the correlation matrix:** Most of the correlation matrix (as presented in Appendix 3) is above the recommended level of 0.30 and no correlations are beyond 0.90, which suggested that the data matrix is appropriate for factor analysis (Tabachnick et al., 2018; Hair et al., 2016; Pallant, 2016).
- (2) **Inspection of the Anti-Image Correlation Matrix:** All the values of the off-diagonal elements are very small (as presented in Appendix 4); therefore, the data matrix is appropriate for factor analysis (Tabachnick et al., 2018; Field, 2017; Hair et al., 2016; Cooper & Schindler, 2014; Brace et al., 2012).
- (3) **Bartlett's Test of Sphericity:** The value is significant at the .001% level, as shown in Table 5-8; suggesting the data matrix is appropriate for factor analysis (Hair et al., 2016; Meyers et al., 2016; Tian et al., 2016; Hinton et al., 2014).

Table 5-8 Bartlett's Test (Service Quality)

Bartlett's Test of Sphericity	Approx. Chi-Square	2952.445
	df	210
	Sig.	0.000

- (4) **The Kaiser-Meyers-Olkin (KMO):** The KMO value, 0.933 (see Appendix 5), is desirable for factor analysis, as suggested by Tabachnick et al. (2018), Hair et al. (2016) and Kaiser and Rice (1974).

5.4.1.2 Exploratory Factor Analysis for Service Quality

After confirming the appropriateness of the data matrix for conducting factor analysis, principal component factor analysis was performed on the items measuring Service Quality obtained from the focus group interviews and literature review. Results are presented in following sections.

5.4.1.2.1 Latent Root Criterion

All the factors with an eigenvalue greater than one are considered significant in the latent root criterion (Hair et al., 2016). The results presented in Appendix 6 shows that 4 primary dimensions of service quality should be extracted from the 21 variables submitted for exploratory factor analysis. The four primary dimensions explained approximately 69% of the total variance, which is above the threshold of 60% recommended by Hair et al. (2016).

5.4.1.2.2 Scree Test Criterion

The results of the latent root criterion confirm that four primary dimensions should be extracted in this analysis (see Figure 5-1).

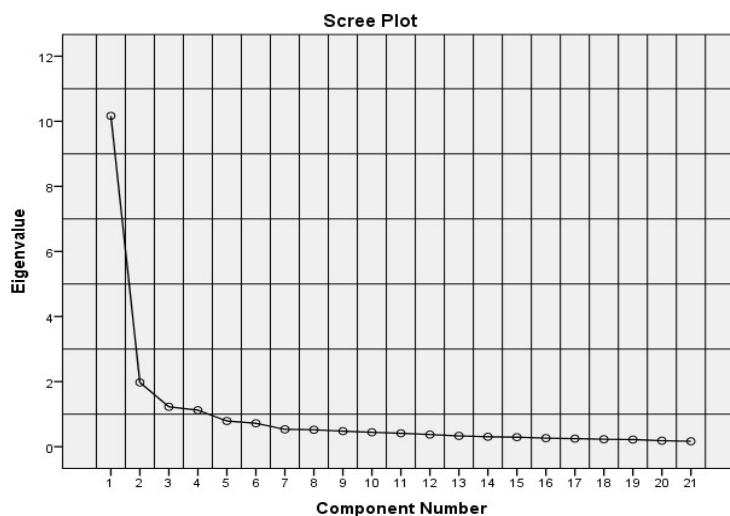


Figure 5-1 Scree Plot

5.4.1.2.3 Factor Rotation

Both the VARIMAX and OBLIMIN rotation demonstrated the same pattern for the 21 items. All items were loaded exactly on four factors as originally proposed. No item highly loaded on more than one factor, indicating an adequate undimensionality (Bernard, 2012).

In the VARIMAX rotation presented in Appendix 7, all the factor loading values ranged from 0.552 to 0.776. Each factor was named based on the leading themes among the items (Hair et al., 2016;

Pallant, 2016), namely: Interaction Quality (Factor 1); Outcome Quality (Factor 2); Physical Environment Quality (Factor 3); and Technical Quality (Factor 4). The OBLIMIN rotation demonstrates the same pattern and the factor loading values ranged from 0.552 to 0.857 (as presented in Appendix 8).

The 21 variables were then subjected to reliability testing. All factors have a Cronbach's coefficient alpha greater than 0.70 (see Table 5-9), indicating internal consistency of the variables (Nunnally & Bernstein, 1994).

Table 5-9 Reliability of Scale Items for Service Quality

Dimensions	Items	Cronbach's Coefficient Alpha
Outcome Quality	OQ1. I have received my desired outcome by using the services of this travel agency.	0.897
	OQ2. The employees of this travel agency provide a timely service.	
	OQ3. I believe that this travel agency is interested in the outcome of my booking experience.	
	OQ4. When I leave this travel agency, I always feel that I received what I wanted.	
	OQ5. The service provided by this travel agency is excellent.	
Physical Environment Quality	G1. The overall quality of the physical environment of this travel agency is excellent.	0.909
	G2. Employees of this travel agency have a neat and professional appearance.	
	G3. The travel agency's retail atmosphere (e.g. clean, music, comfortable temperature) is appropriate.	
	G4. I feel safe and secure in this travel agency.	
	G5. Overall, I am satisfied with the physical environment of this travel agency.	
Interaction Quality	H1. The attitude of employees of this travel agency demonstrates their willingness to help me.	0.892
	H2. The employees of this travel agency always seek the best travel products for me.	
	H3. The employees of this travel agency act in a professional manner.	
	H4. When a customer has a problem, the employees of this travel agency show a sincere interest in solving it.	
	H5. The employees of this travel agency are able to handle my complaints directly and immediately.	
Technological Quality	I1. I can contact this travel agency easily because they use the same chatting apps I use.	0.853
	I2. I can easily find basic travel products through this travel agency's website.	
	I3. The website of this travel agency is easy to navigate.	
	I4. I am confident that my personal information that is associated with this travel agency's service is secure.	
	I5. This travel agency recognises that my privacy is important to me.	
	I6. Payment for my travel booking is convenient (e.g. credit card, bank transfer, EFTPOS, cash).	

5.4.2 Structural Equation Modelling (SEM)

5.3.2.1 Confirmatory Factor Analysis

The following sections present the results of the confirmatory factor analysis for Service Quality. Two models are presented and discussed: (1) the First-Order Confirmatory Factor Analysis investigates the relationship between the four primary dimensions (interaction, physical environment, outcome and technological quality); (2) the Second-Order Confirmatory Factor Analysis examines the relationship between the four primary dimensions and Service Quality.

5.3.2.1.1 The First-Order Confirmatory Factor Analysis Model for the Service Quality

Construct

The model fit results presented in Table 5.10 indicate a misfit model as the NFI value is below the recommended threshold of 0.9 (Byrne, 2016; Hair et al., 2016; Kline, 2015; Awang, 2012). Other than this value, the rest of the indicators are beyond their recommended threshold: (1) Chi-square value of 319.219 is significant at .001 level with degrees of freedom of 183; (2) Normed Chi-square value of 2.072 is between the acceptable range of 1 to 5; (3) SRMR value of 0.0524 is less than the cut-off points of 0.09; (4) the CFI value of 0.925 and GFI value 0.847 are both above the acceptable threshold.

Table 5-10 Goodness-of-Fit Results of First-Order Confirmatory Factor Analysis Model for Service Quality

Goodness-of-Fit Indices	Values
Chi-square (χ^2)	379.219
P-value	.000
Degrees of Freedom (df)	183
Normed Chi-square (χ^2/df)	2.072
Root Mean Square Error of Approximation (RMSEA)	0.072
Standardized Root Mean Residual (SRMR)	0.0524
Comparative Fit Index (CFI)	0.925
Goodness-of-Fit Index (GFI)	0.847
Normed Fit Index (NFI)	0.866

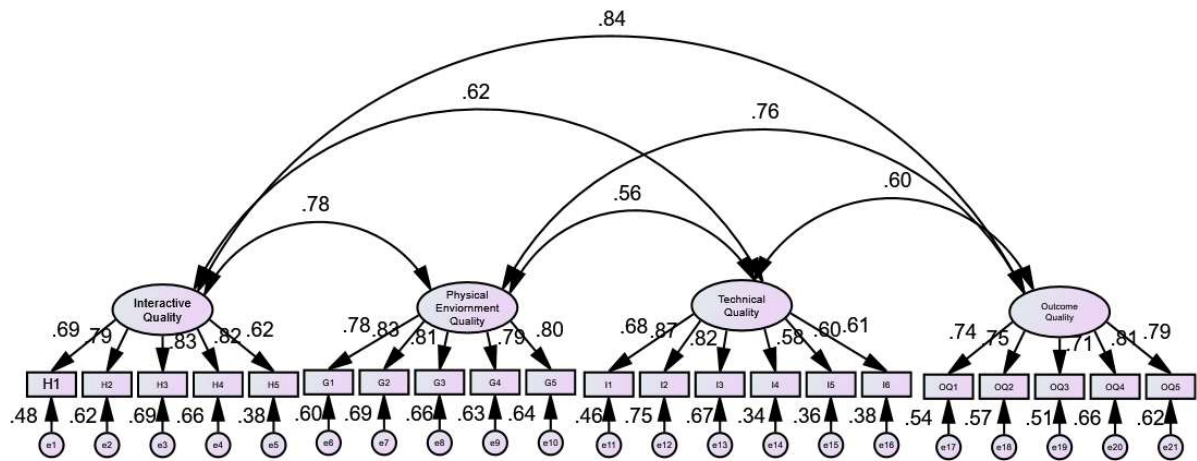


Figure 5-2 The Preliminary First-Order Model for Service Quality

All items had a factor loading above the recommended cut-off point of 0.50 and were statistically significant at the 0.001% level (Figure 5-2). However, the Modification Indices (MI) value of I4 and I5 pair is higher than 15 (Table 5-11), indicating they are redundant items to measure service quality (Meyers et al., 2016; Awang, 2012). The model was required to be re-specified when the MI value is above 15, and the deletion decision was based on both MI value index (Meyers et al., 2016; Awang, 2012). Accordingly, item I4 was deleted from the model as its high MI values pair with I5, and also because its factor loading is lower than I5 (see Figure 5-2 and Table 5-11).

Table 5-11 The Deleted Item for Service Quality (Step One)

Item	Attribute	Reason for Deletion
I4	I am confident that my personal information that is associated with this travel agency's service is secure.	23.275 (with I5)

The preliminary first-order model for Service Quality is specified after the removal of item I4, and the improvement in the model fit is presented in Table 5-12.

Table 5-12 The Improvement in the Fit of the First-Order Model for the Service Quality (Step One)

Model	RMSEA	SRMR	GFI	CFI	NFI	χ^2/df
I. Original Model	0.072	0.0524	0.847	0.925	0.866	2.072
II. Deleting I4	0.662	0.0442	0.877	0.947	0.889	1.799

The NFI value was improved, however, the value of 0.889 is still below the recommended threshold of 0.9 (Byrne, 2016; Hair et al., 2016; Kline, 2015; Awang, 2012). Using the second highest MI value and the item's factor loading as the reference to decide which item should be deleted (Meyers et al., 2016; Awang, 2012), OQ5 is removed from the model as its MI being G5 is 13.594 (see Table 5-13), and the factor loading of OQ5 is lower than G5 (see Figure 5-2).

Table 5-13 The Deleted Item for Service Quality (Step Two)

Item	Attribute	Reason for Deletion
OQ5	The service provided by this travel agency is excellent.	13.594 (with G5)

The improvement of model fit is presented in Table 5-14 as follows:

Table 5-14 The Improvement in the Fit of the First-Order Model for the Service Quality (Step Two)

Model	RMSEA	SRMR	GFI	CFI	NFI	χ^2/df
I. Original Model	0.072	0.0524	0.847	0.925	0.866	2.072
II. Deleting I4	0.662	0.0442	0.877	0.947	0.889	1.799
III. Deleting OG5	0.054	0.0453	0.894	0.960	0.903	1.618

Two items were deleted from the preliminary first-order model as their NFI values being below the recommended threshold. The two items were deleted one at a time, as the other part of the model might change simultaneously when one item is deleted from the model (Boomsma, 2000). The deletion of the two items makes the modified model a better model fit, as well as meeting the two model deletion principles suggested by Hair et al. (2016) and Kline (2015). Hair et al. (2016) note that the removal of the items should not exceed 20% of the total items in the construct, as the conceptualised content of the construct may change if a deletion of more than 20% is carried out. In addition, Kline (2015) suggest that every construct should have at least four items to adequately define a construct. The modified first-order model for Service Quality is presented in Figure 5-3 as follows:

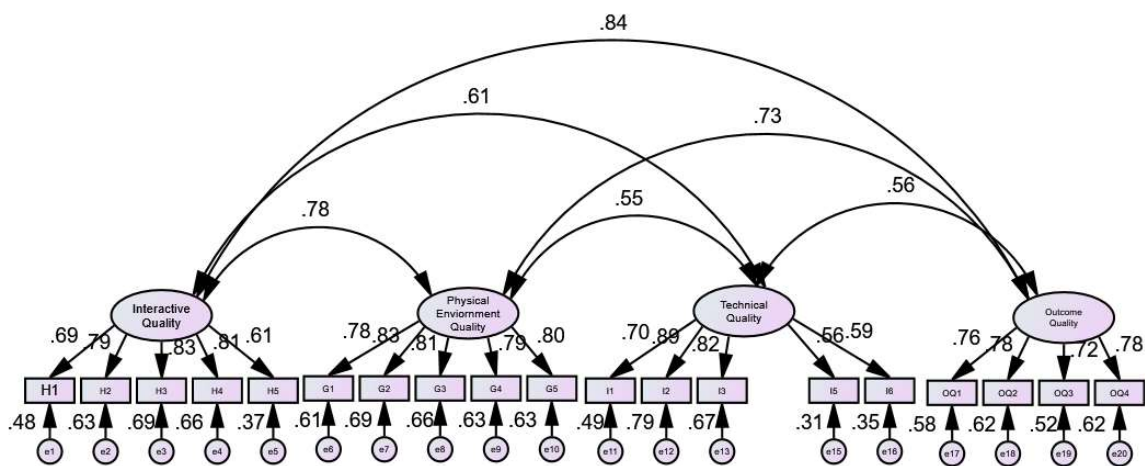


Figure 5-3 The Modified First-Order Model for Service Quality

The modified first-order model for Service Quality consists of 19 items generating 190 pieces of information ($19[19+1]/2=190$) with 44 estimated parameters (9 regression weights, 10 covariances

and 25 variables). The model was over-identified with 146 degrees of freedom (190 pieces of information – 44 parameters) (Byrne, 2016; Kline, 2015).

The modified model fit result presented in Table 5.15 indicates a good model fit to the data matrix: (1) Chi-square value of 236.208 is significant at .001 level with 146 degrees of freedom; (2) Normed Chi-Square value 1.618 is between the acceptable range of 1 to 5; (3) SRMR value 0.0421 is less than the cut-off point of 0.09; (4) CFI value 0.960 and GFI value 0.894 are both above the acceptable threshold; and (5) NFI value 0.903 is above the suggested threshold.

The modified model’s standardised factor loadings are statistically significant at $p < 0.001$ and range from 0.557 to 0.890. There are three factor loadings below the ideal recommended threshold of 0.7 (Hair et al., 2016) (see Table 5-15). However, Hair et al. (2016) also suggests that 0.5 is an acceptable threshold; in addition, Bagozzi and Yi (2012) suggest that a factor loading is acceptable when the construct reliability (CR) and average variance extracted (AVE) are all above the recommended cut-off points. Therefore, the factor loadings are acceptable as they are all above the acceptable threshold of 0.5, as well as yielding acceptable CR and AVE values.

Table 5-15 Goodness-of-Fit Results of First-Order Confirmatory Factor Analysis Model for Service Quality

Goodness-of-Fit Indices	Values
Chi-square (χ^2)	236.208
P-value	.000
Degrees of Freedom (df)	146
Normed Chi-square (χ^2/df)	1.618
Root Mean Square Error of Approximation (RMSEA)	0.054
Standardized Root Mean Residual (SRMR)	0.0421
Comparative Fit Index (CFI)	0.960
Goodness-of-Fit Index (GFI)	0.894
Normed Fit Index (NFI)	0.903

Table 5-16 The Reliability and Validity Tests of the First-Order Model for Service Quality

Construct	Indicator	Factor Loading	AVE	CR
Interactive Quality	H1	0.695***	0.559	0.814
	H2	0.788***		
	H3	0.832***		
	H4	0.791***		
	H5	0.612***		
Outcome Quality	OQ1	0.763***	0.582	0.848
	OQ2	0.784***		
	OQ3	0.718***		
	OQ4	0.785***		
Physical Environment	G1	0.778***	0.643	0.900
	G2	0.832***		
	G3	0.812***		
	G4	0.791***		
	G5	0.796***		
Technological Quality	I1	0.697***	0.523	0.841
	I2	0.89***		
	I3	0.82***		
	I5	0.557***		
	I6	0.594***		

CR= Construct Reliability (> 0.70); AVE= Average Variance Extracted (> 0.50)

*** Statistically significant at the 0.001 level ($t > 3.291$)

** Statistically significant at the 0.01 level ($t > 2.576$)

* Statistically significant at the 0.1 level ($t > 1.645$)

The CR values ranging from 0.814 to 0.900 (see Table 5-16), are above the 0.7 cut-off point (Byrne, 2016; Hair et al., 2016; Awang, 2012); also, the AVE value exceeds the minimum criterion of 0.50 (Hair et al., 2016; MacKenzie et al., 2011), ranging from 0.523 to 0.643 (see Table 5-16); the convergent validity is therefore achieved as the CR and AVE results both indicate that the reliability and validity of each construct is supported. The correlation coefficients of the four constructs are all below the recommended threshold of 0.85 (Kline, 2015), ranging from 0.55 to 0.84 (see Figure 5-3), indicating the adequate discriminant validity of the modified first-order model of Service Quality.

5.3.2.1.2 The Second-Order Confirmatory Factor Analysis Model for the Service Quality Construct

The second-order model for Service Quality was designed to test the relationships between the four primary dimensions (interaction quality, physical environment quality, technical quality and outcome quality) and one independent second-order construct (service quality) (see Figure 5-4). The model presented 19 observed variables. The number of observed variances and covariances was 190 (= $19[19+1]/2$), and the number of estimated parameters was 42 (= 19 regression weights and 23 variables). Based on the t-rule, the model was over-identified with 148 degrees of freedom (190 pieces of information – 42 parameters) (Byrne, 2016; Kline, 2015). In addition, Byrne (2016) suggests

that it is necessary to check the identification status of the higher order portion when a model consists of more than one level. The second-order confirmatory factor analysis model for service quality with four first-order factors was over-identified with 2 degrees of freedom [10 pieces of information $(4[4+1]/2) - 8$ estimated parameters (4 factor loadings and 4 residuals)].

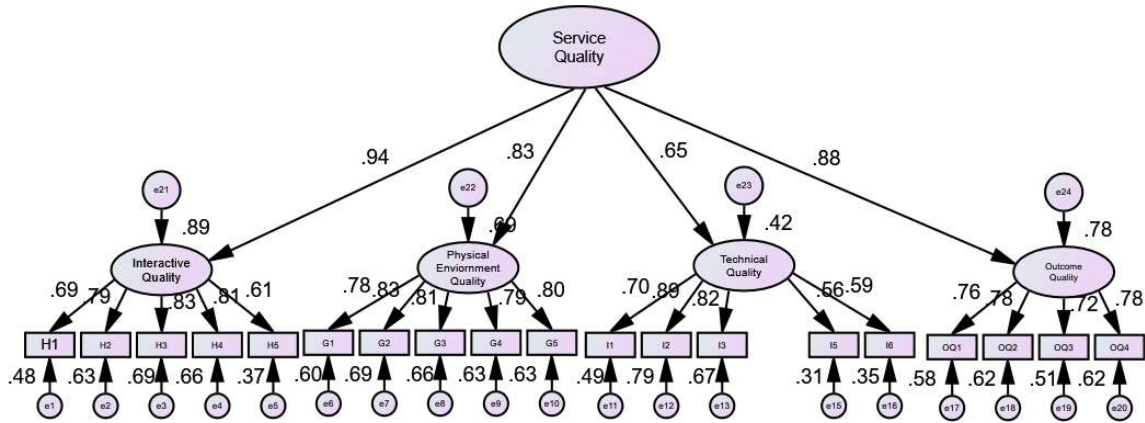


Figure 5-4 The Second-Order Model for the Service Quality

All model-fit indices were sufficiently within their relative recommended thresholds (see Table 5-17). The second-order model for Service Quality fitted the sample data adequately.

Table 5-17 Goodness-of-Fit Results of Second-Order Confirmatory Factor Analysis Model for Service Quality

Goodness-of-Fit Indices	Values
Chi-square (χ^2)	236.435
P-value	.000
Degrees of Freedom (df)	148
Normed Chi-square (χ^2/df)	1.598
Root Mean Square Error of Approximation (RMSEA)	0.053
Standardized Root Mean Residual (SRMR)	0.0420
Comparative Fit Index (CFI)	0.961
Goodness-of-Fit Index (GFI)	0.894
Normed Fit Index (NFI)	0.903

All the factor loadings were greater than 0.50, ranging from 0.558 to 0.943 and were all significant at the 0.001% level (see Table 5-18), supporting the convergent validity of the second-order model for Service Quality (Hair et al., 2016). The CRs and AVEs for the four first-order factors and one independent second-order construct were all above 0.70 and 0.50, respectively (as presented in Table 5-18). Both the reliability and validity of the second-order model for service quality are supported.

The four first-order factor loadings indicated that Interaction Quality ($\lambda = 0.943$, t-value = 9.873, $p < 0.001$) was the strongest indicator of the second-order factor (Service Quality), followed by Outcome Quality ($\lambda = 0.882$, t-value = 9.265, $p < 0.001$), Physical Environment Quality ($\lambda = 0.833$, t-value =

8.854, $p < 0.001$), and Technological Quality ($\lambda = 0.65$, t -value = 7.620, $p < 0.001$) (see Table 5-18). Service Quality, as the second-order construct, explained 94% of Interaction Quality, 88% of Outcome Quality, 83% of Physical Environment Quality, and 65% of Technological Quality (Figure 5-4). Therefore, Hypotheses H1 to H5, as stated in Chapter Three, are all supported.

Table 5-18 The Reliability and Validity Tests of the Second-Order Model for Service Quality

Construct	Indicator	Factor Loading	AVE	CR
Interactive Quality (IQ)	H1	0.695***	0.566	0.819
	H2	0.791***		
	H3	0.832***		
	H4	0.810***		
	H5	0.612***		
Outcome Quality (OQ)	OQ1	0.763***	0.582	0.847
	OQ2	0.784***		
	OQ3	0.717***		
	OQ4	0.785***		
Physical Environment Quality (PEQ)	G1	0.778***	0.643	0.900
	G2	0.832***		
	G3	0.812***		
	G4	0.791***		
	G5	0.795***		
Technological Quality (TQ)	I1	0.697***	0.523	0.841
	I2	0.890***		
	I3	0.819***		
	I5	0.558***		
	I6	0.594***		
Service Quality	PEQ	0.833***	0.695	0.844
	IQ	0.943***		
	TQ	0.647***		
	OQ	0.882***		

CR= Construct Reliability (> 0.70); AVE= Average Variance Extracted (> 0.50)

*** Statistically significant at the 0.001 level ($t > 3.291$)

** Statistically significant at the 0.01 level ($t > 2.576$)

* Statistically significant at the 0.1 level ($t > 1.645$)

5.3.2.2 The Measurement Model for the Five Higher-Order Constructs

The five higher-order constructs in the measurement model are: service quality, customer satisfaction, perceived value, brand image, and customer loyalty (Figure 5.5). The measurement model was designed to assess the relationship between the five higher-order constructs and their observed indicators. The preliminary model contains 25 items that resulted in 325 pieces of information ($25[25+1]/2=325$) and 60 estimated parameters (20 regression weight, 10 covariances and 30 variances). The model was over-identified with 265 degrees of freedom (325 pieces of information – 60 parameters) (Byrne, 2016; Kline, 2015).

The factor loadings were all above the cut-off point of 0.50 (Hair et al., 2010) (ranging from 0.59 to 0.87) (Figure 5-5), and were statically significant at the 0.001% level, indicating the undimensionality of the model.

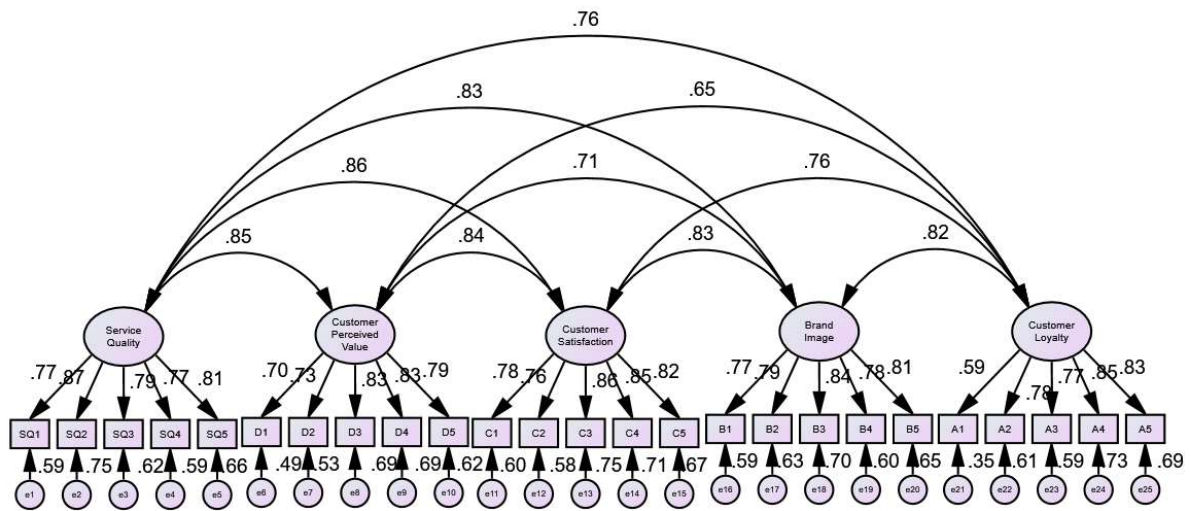


Figure 5-5 The Preliminary First-Order Model for the Five Higher-Order Constructs

The goodness-of-fit results indicated that the NFI value was below the suggested threshold of 0.90 (Byrne, 2016; Hair et al., 2016; Kline, 2015; Awang, 2012) (see Table 5-19). Also, the correlation between perceived value and brand image was higher than the cut-off point of 0.85 (Kline, 2015). Model modification was required in order to improve the model (Byrne, 2016; Schumacker & Lomax, 2015).

Table 5-19 Goodness-of-Fit Results of the Preliminary First-Order Model for the Five Higher-Order Constructs

Goodness-of-Fit Indices	Values
Chi-square (χ^2)	475.93
P-value	.000
Degrees of Freedom (df)	265
Normed Chi-square (χ^2/df)	1.796
Root Mean Square Error of Approximation (RMSEA)	0.062
Standardized Root Mean Residual (SRMR)	0.0413
Comparative Fit Index (CFI)	0.945
Goodness-of-Fit Index (GFI)	0.851
Normed Fit Index (NFI)	0.886

The model was re-specified used the MI value index. The item C1 was firstly deleted in order to perform a better model-fit, as C1 has the highest MI value (16.562) paired with A1 (see Table 5-20) (Meyers et al., 2016; Awang, 2012).

Table 5-20 The Deleted Item for the Five Higher-Order Constructs (Step One)

Item	Attribute	Reason for Deletion
C1	I believe that I made the right choice using this travel agency.	16.562 MI (with A1)

The preliminary first-order model for the Five Higher-Order Constructs is improved after the removal of C1, and the improvement in the model fit is presented in Table 5-21.

Table 5-21 The Improvement in the Fit of the First-Order Model for the Five Higher-Order Constructs (Step One)

Model	RMSEA	SRMR	GFI	CFI	NFI	χ^2/df
I. Original Model	0.062	0.0413	0.851	0.945	0.886	1.796
II. Deleting C1	0.061	0.0394	0.858	0.949	0.891	1.779

The NFI value is improved, however it is still below the recommended threshold of 0.9 (Byrne, 2016; Hair et al., 2016; Kline, 2015; Awang, 2012); the model needs to be re-specified using the MI value as an indicator. A3 is deleted as its MI with C2 is the highest (9.354) in the model (see Table 5-22) (Meyers et al., 2016; Awang, 2012).

Table 5-22 The Deleted Item for the Five Higher-Order Constructs (Step Two)

Item	Attribute	Reason for Deletion
A3	I always consider this travel agency to be the first one on my list when booking travel.	9.354 MI (with C2)

The improved model fit of the re-specified preliminary first-order model for the Five Higher-Order Constructs is presented in Table 5-23.

Table 5-23 The Improvement in the Fit of the First-Order Model for the Five Higher-Order Constructs (Step Two)

Model	RMSEA	SRMR	GFI	CFI	NFI	χ^2/df
I. Original Model	0.062	0.0413	0.851	0.945	0.886	1.796
II. Deleting C1	0.061	0.0394	0.858	0.949	0.891	1.779
III. Deleting A3	0.056	0.379	0.872	0.959	0.903	1.652

The model fit results are all within the recommended threshold after deleting C1 and A3. However, the correlation coefficient between Service Quality and Customer Satisfaction is still higher than the recommended threshold of 0.85 indicating the model needs to be re-specified (Kline, 2015). Using the highest MI value as the indicator, D2 was then deleted due to its high MI value (7.241) with B5 (see Table 5-24) (Meyers et al., 2016; Awang, 2012), and the improved model-fit is presented in Table 5-25.

Table 5-24 The Deleted Item for the Five Higher-Order Constructs (Step Three)

Item	Attribute	Reason for Deletion
D2	The value that this travel agency offers for its price is high.	7.241 MI (with B5)

Table 5-25 Improvement in the Fit of the First-Order Model for the Five Higher-Order Constructs (Step Three)

Model	RMSEA	SRMR	GFI	CFI	NFI	χ^2/df
I. Original Model	0.062	0.0413	0.851	0.945	0.886	1.796
II. Deleting C1	0.061	0.0394	0.858	0.949	0.891	1.779
III. Deleting A3	0.056	0.379	0.872	0.959	0.903	1.652
IV. Deleting D2	0.051	0.354	0.884	.0967	0.913	1.548

The model fit results are still within the recommended thresholds, however, the model needed to be re-specified as the correlation coefficient between Service Quality and Customer Satisfaction is still above the recommended threshold of 0.85 (Kline, 2015). SQ1 was deleted due to its high MI value with D1 (see Table 5-26) (Meyers et al., 2016; Awang, 2012), and the improvement of the model fit is presented in Table 5-26.

Table 5-26 The Deleted Item for the Five Higher-Order Constructs (Step Four)

Item	Attribute	Reason for Deletion
SQ1	The overall quality provided by this travel agency is excellent.	5.397 MI (with D1)

The correlation coefficients are all below the recommended threshold of 0.85 (Kline, 2015) after deleting SQ1, and all the model fit results are within the recommended threshold (see Table 5-27).

Table 5-27 The Improvement in the Fit of the First-Order Model for the Five Higher-Order Constructs (Step Four)

Model	RMSEA	SRMR	GFI	CFI	NFI	χ^2/df
I. Original Model	0.062	0.0413	0.851	0.945	0.886	1.796
II. Deleting C1	0.061	0.0394	0.858	0.949	0.891	1.779
III. Deleting A3	0.056	0.379	0.872	0.959	0.903	1.652
IV. Deleting D2	0.051	0.354	0.884	0.967	0.913	1.548
V. Deleting SQ1	0.049	0.347	0.892	0.971	0.919	1.501

The modified first-order model for the Five Higher-Order Constructs is presented as follows:

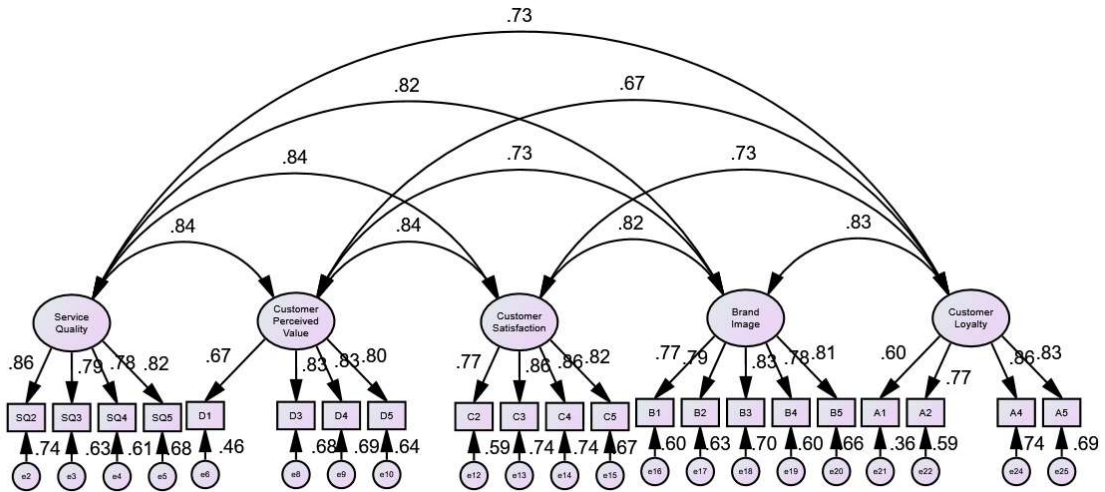


Figure 5-6 The Modified First-Order Model for the Five Higher-Order Constructs

The modified five higher-order constructs contain 21 items that resulted in 231 pieces of information ($21[21+1]/2=231$) and 52 estimated parameters (16 regression weight, 10 covariances and 26 variances); the model was over-identified with 179 degree of freedom (231 pieces of information – 52 parameters) (Byrne, 2016; Kline, 2015).

All model-fit indices were sufficiently within their relative recommended thresholds (see Table 5-28), indicating the first-order model for the Five Higher-Order Constructs fitted the sample data adequately.

All the factor loadings were greater than 0.50, ranging from 0.597 to 0.87 and were all significant at the 0.001% level (see Table 5-29), supporting the convergent validity of the first-order model for the five higher-order constructs (Hair et al., 2016). The CRs and AVEs for the five higher order constructs were all above the thresholds of 0.70 and 0.50, respectively (see Table 5-29). The reliability and validity of the first-order model for the five higher-order constructs are supported.

Table 5-28 Goodness-of-Fit Results of the Modified First-Order Model for the Five Higher-Order Constructs

Goodness-of-Fit Indices	Values
Chi-square (χ^2)	268.667
P-value	.000
Degrees of Freedom (df)	179
Normed Chi-square (χ^2/df)	1.501
Root Mean Square Error of Approximation (RMSEA)	0.049
Standardized Root Mean Residual (SRMR)	0.0347
Comparative Fit Index (CFI)	0.971
Goodness-of-Fit Index (GFI)	0.892
Normed Fit Index (NFI)	0.919

The correlation coefficients of the five higher-order constructs are below the recommended threshold of 0.85 (Kline, 2015), ranging from 0.67 to 0.84 (see Figure 5.6), indicating the adequate discriminant validity of the first-order model for the five higher-order constructs.

Table 5-29 The Reliability and Validity Tests of the First-Order Model for the Five Higher-Order Constructs

Construct	Indicator	Factor Loading	AVE	CR
Customer Loyalty	A1	0.597***	0.593	0.0851
	A2	0.769***		
	A4	0.859***		
	A5	0.828***		
Brand Image	B1	0.771***	0.635	0.897
	B2	0.792***		
	B3	0.834***		
	B4	0.776***		
	B5	0.81***		
Customer Satisfaction	C2	0.766***	0.685	0.897
	C3	0.862***		
	C4	0.858***		
	C5	0.82***		
Perceived Value	D1	0.675***	0.618	0.865
	D3	0.826***		
	D4	0.831***		
	D5	0.801***		
Service Quality	SQ2	0.862***	0.697	0.902
	SQ3	0.87***		
	SQ4	0.781***		
	SQ5	0.823***		

CR= Construct Reliability (> 0.70); AVE= Average Variance Extracted (> 0.50)

*** Statistically significant at the 0.001 level ($t > 3.291$)

** Statistically significant at the 0.01 level ($t > 2.576$)

* Statistically significant at the 0.1 level ($t > 1.645$)

5.3.2.3 Structural Equation Model

The structural equation model presented in Figure 5-7 was designed to test the interrelationships between the five higher-order constructs, which included one exogenous variable (service quality), and four endogenous variables (customer satisfaction, customer perceived value, brand image and customer loyalty). The model presented 21 observed variables. The number of observed variances and covariances was 231 ($= 21[21+1]/2$), and the number of estimated parameters was 52 (= 26 regression weights and 26 variables). The model was over-identified with 179 degrees of freedom (231 pieces of information – 52 parameters) (Byrne, 2016; Kline, 2015).

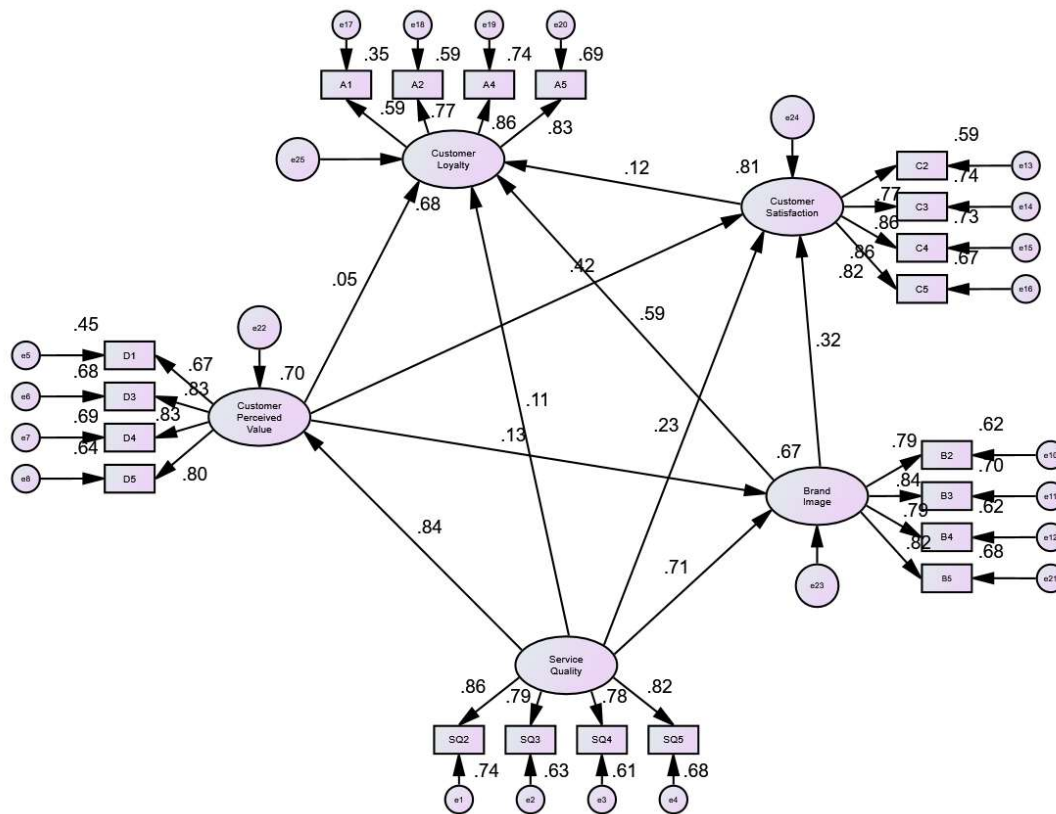


Figure 5-7 The Structural Equation Model for the Five Higher-Order Constructs

The model fit results presented in Table 5-30 indicated that the model fit the sample data well. All the indices were sufficiently satisfied with their recommended thresholds, and model modification was not required.

Table 5-30 Goodness-of-Fit Results of the Structural Equation Model

Goodness-of-Fit Indices	Values
Chi-square (χ^2)	227.343
P-value	.000
Degrees of Freedom (df)	160
Normed Chi-square (χ^2/df)	1.421
Root Mean Square Error of Approximation (RMSEA)	0.045
Standardized Root Mean Residual (SRMR)	0.0335
Comparative Fit Index (CFI)	0.977
Goodness-of-Fit Index (GFI)	0.902
Normed Fit Index (NFI)	0.927

Table 5-31 presents the direct and total effects on the four endogenous variables (e.g., customer loyalty, customer satisfaction, perceived value, and brand image) in the structural equation model and the results of the hypotheses assessment.

Table 5-31 The Standardised Casual Effects of the Structural Equation Model and Hypotheses Assessment

Outcome	Determinant	Standardised Coefficient Path (β)		Hypotheses	Assessment
		Direct Path	Critical Ratio		
Customer Loyalty ($R^2 = 0.70$)	Service Quality	0.106	0.695 (0.487)	H9a	Not Supported
	Customer Satisfaction	0.124	0.813 (0.416)	H15	Not Supported
	Perceived Value	0.047	0.337 (0.736)	H12a	Not Supported
	Brand Image	0.589	4.251***	H14	Supported
Customer Satisfaction ($R^2 = 0.81$)	Service Quality	0.226	1.803*	H7	Supported
	Perceived Value	0.420	3.936***	H10	Supported
	Brand Image	0.324	3.478***	H13	Supported
Brand Image ($R^2 = 0.68$)	Service Quality	0.706	5.408***	H8	Supported
	Perceived Value	0.131	1.062 (0.288)	H11	Not Supported
Perceived Value ($R^2 = 0.70$)	Service Quality	0.837	9.460***	H6	Supported

CR= Construct Reliability (> 0.70); AVE= Average Variance Extracted (> 0.50)

*** Statistically significant at the 0.001 level ($t > 3.291$)

** Statistically significant at the 0.01 level ($t > 2.576$)

* Statistically significant at the 0.1 level ($t > 1.645$)

Hypotheses H9a, H15, H12a and H14 were formulated to test the relationships between service quality, perceived value, brand image and customer satisfaction (exogenous constructs) on customer loyalty (endogenous construct). The four exogenous constructs explain 70% of the variance of the customer loyalty. The most important direct determinant of customer loyalty is brand image, which, with a standardised beta (β) value of 0.589, is statistically significant at the 0.001% level with a 4.251 critical ratio. The relationships between customer perceived value, service quality and customer satisfaction to customer loyalty (Hypotheses H9a, H12a, and H15) are not supported, as the standardised β values of these two exogenous constructs were not statistically significant (with 0.106, 0.047, and 0.124 in β value respectively). In summary, only Hypothesis H14 are supported, and H9a, H12a, and H15 are not supported.

The relationships between service quality, perceived value, and brand image (exogenous constructs) on customer satisfaction (endogenous construct) were tested in Hypotheses H7, H10 and H13. The three exogenous constructs explain 81% of the variance of customer satisfaction. The most important direct determinant of customer satisfaction is customer perceived value, which, with a standardised β value of 0.420, is statistically significant at the 0.001% level with a 3.936 critical ratio. Brand image follows, with a standardised β value of 0.324, which is statistically significant at the 0.001% level with a 3.478 critical ratio. Service quality has the least impact on customer satisfaction

with a standardised β value of 0.226, which is statistically significant at the 0.1% level with a 1.803 critical ratio. Hypotheses H7, H10, and H13 are all supported.

In terms of the relationship between service quality and perceived value on brand image (Hypotheses H8 and H11), the two exogenous constructs explain 68% of the variance of brand image. Hypothesis H8 is supported, as the standardised β value of 0.706 is statistically significant at the 0.001% level with a 5.408 critical ratio; however, Hypothesis H11 is not supported as the standardised β value of 0.131 is not statistically significant.

Service quality, as the only exogenous construct of customer perceived value, explains 70 % of the variance of customer perceived value; with 0.837 being the standardised β value, and significance at 0.001% level with a 9.460 critical ratio. Hypothesis H6 is thus supported.

5.5 Testing the Mediation Effect

Customer satisfaction's mediating role in the relationship between service quality and customer perceived value to customer loyalty has been discussed by several scholars (Howat & Assaker, 2013; Kuo et al., 2013; Yu & Ramanathan, 2012). In this research, the mediating variable analysis was designed to test the mediating effect of customer satisfaction on the relationship between service quality and customer perceived value to customer loyalty (as presented in the following sections). The mediating variable analysis consists of two steps: Step One tests the direct effect of the exogenous variables (service quality and customer perceived value on each model) on the endogenous variable (customer loyalty); in Step Two, the mediating variable (customer satisfaction) was included in the model. Whether the mediation of the relationship was full or partial depended on whether the direct effect between the exogenous variables and endogenous variable was no longer significant or was still significant but reduced (Meyers et al., 2016; Awang, 2012).

5.5.1 The Mediating Effect of Customer Satisfaction on the Relationship between Service Quality and Customer Loyalty

Figure 5-8 and Table 5-32 present the direct effect between service quality and customer loyalty. The results show that service quality had a significant direct effect on customer loyalty as the regression weight value was 0.727 and it was statistically significant at the 0.001% level.

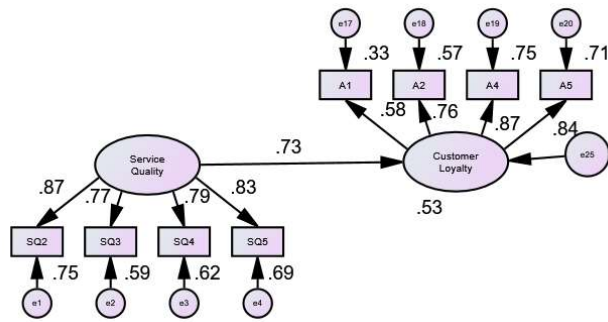


Figure 5-8 The Direct Effect of Service Quality on Customer Loyalty

Table 5-32 The Standardised Casual Effects of Direct Effect of Service Quality on Customer Loyalty

Outcome	Determinant	Standardised Coefficient Path (β)		Result
		Direct Path	Critical Ratio	
Customer Loyalty	Service Quality	0.727	7.337***	Significant

CR= Construct Reliability (> 0.70); AVE= Average Variance Extracted (> 0.50)

*** Statistically significant at the 0.001 level ($t > 3.291$)

** Statistically significant at the 0.01 level ($t > 2.576$)

* Statistically significant at the 0.1 level ($t > 1.645$)

The direct effect between Service Quality and Customer Loyalty was reduced as the regression weight was reduced from 0.727 to 0.387 when Customer Satisfaction was added into the model as the mediator variable (see Figure 5.9 and Table 5.33). Customer Satisfaction partially mediated the relationship between service quality and customer loyalty. Hypothesis H9b is supported.

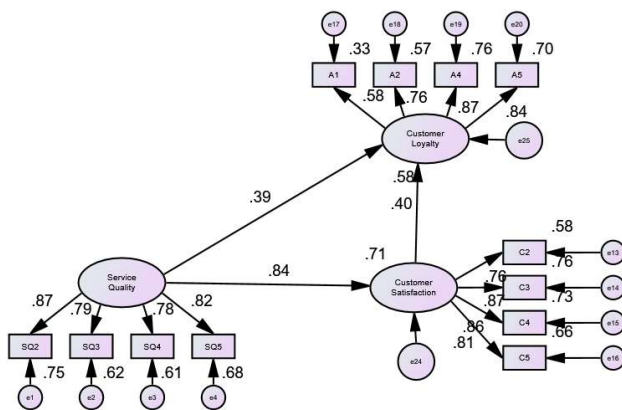


Figure 5-9 The Mediating Effect of Customer Satisfaction on the Relationship between Service Quality and Customer Loyalty

Table 5-33 The Standardised Mediating Effects of Customer Satisfaction on the Relationship between Service Quality and Customer Loyalty

Outcome	Determinant	Standardised Coefficient Path (β)		Result
		Direct Path	Critical Ratio	
Customer Satisfaction	Service Quality	0.841	10.938***	Significant
Customer Loyalty	Service Quality	0.387	2.871**	Significant
Customer Loyalty	Customer Satisfaction	0.405	2.977**	Significant

CR= Construct Reliability (> 0.70); AVE= Average Variance Extracted (> 0.50)

*** Statistically significant at the 0.001 level ($t > 3.291$)

** Statistically significant at the 0.01 level ($t > 2.576$)

* Statistically significant at the 0.1 level ($t > 1.645$)

5.5.2 The Mediating Effect of Customer Satisfaction on the Relationship between Customer Perceived Value and Customer Loyalty

The direct effect between Customer Perceived Value and Customer Loyalty. Results show that Customer Perceived Value had a significant direct effect on Customer Loyalty as the regression weight value was 0.661 and this was statistically significant at the 0.001% value (Figure 5-10 and Table 5-34).

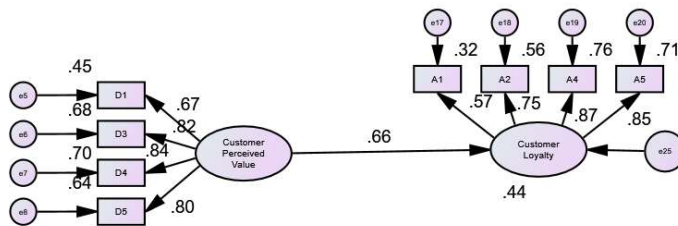


Figure 5-10 The Direct Effect of Customer Perceived Value on Customer Loyalty

Table 5-34 The Standardised Casual Effects of Direct Effect of Customer Perceived Value on Customer Loyalty

Outcome	Determinant	Standardised Coefficient Path (β)		Result
		Direct Path	Critical Ratio	
Customer Loyalty	Perceived Value	0.661	6.141***	Significant

CR= Construct Reliability (> 0.70); AVE= Average Variance Extracted (> 0.50)

*** Statistically significant at the 0.001 level ($t > 3.291$)

** Statistically significant at the 0.01 level ($t > 2.576$)

* Statistically significant at the 0.1 level ($t > 1.645$)

The direct effect was reduced as the regression weight was reduced from 0.661 to 0.167 and was no longer statistically significant when customer satisfaction was added into the model as the mediator variable. Customer satisfaction has fully mediated the relationship between customer perceived value and customer loyalty (see Figure 5-11 and Table 5-35). Hypothesis H12b is thus supported.

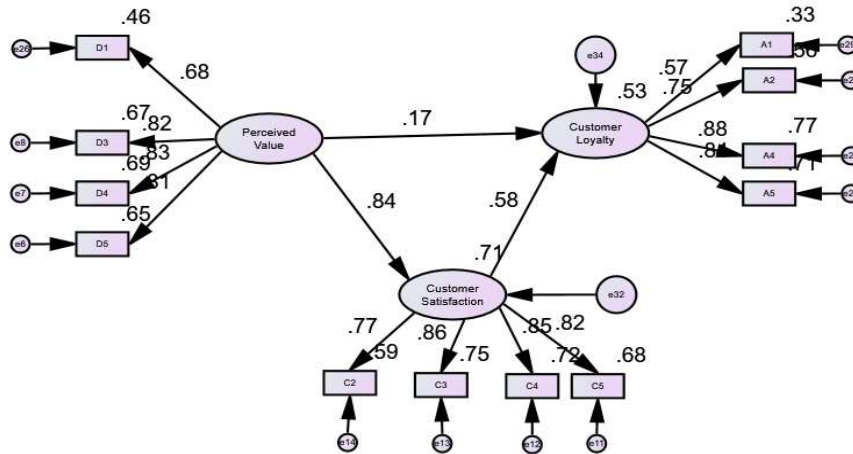


Figure 5-11 The Mediating Effect of Customer Satisfaction on the Relationship between Customer Perceived Value and Customer Loyalty

Table 5-35 The Standardised Mediating Effects of Customer Satisfaction on the Relationship between Customer Perceived Value and Customer Loyalty

Outcome	Determinant	Standardised Coefficient Path (β)		Result
		Direct Path	Critical Ratio	
Customer Satisfaction	Perceived Value	0.844	8.889***	Significant
Customer Loyalty	Perceived Value	0.167	1.195	Not Significant
Customer Loyalty	Customer Satisfaction	0.585	3.818***	Significant

CR= Construct Reliability (> 0.70); AVE= Average Variance Extracted (> 0.50)

*** Statistically significant at the 0.001 level ($t > 3.291$)

** Statistically significant at the 0.01 level ($t > 2.576$)

* Statistically significant at the 0.1 level ($t > 1.645$)

5.6 Multiple Group Analysis

A multiple group analysis (MGA) was performed in this study to test whether the research model was different in terms of gender, age, marriage status, and income level. The research was conducted in two steps: (1) analysing whether the items share similar relationships with their factors through different models, and (2) analysing whether the path coefficient is different across models (Lee et al., 2014; Meyers et al., 2013).

5.6.1 Multiple Group Analysis Results in terms of Gender

Using gender as the moderating variable, the analysis evaluates the difference between a constrained model and an unconstrained model. The analysis starts from a chi-square test, which assesses the goodness-of-fit indices and model differences between the constrained model and the unconstrained model. The chi-square difference between the unconstrained model and constrained model is 20.888, which is significant at the 0.01 level when $\Delta df = 10$ demonstrating that difference between the two groups (male and female) exists (see Table 5-36).

Table 5-36 The Chi- square Test and Goodness-of-Fit Indices (Gender)

Model Fit Indices	Unconstrained Model	Constrained Model	Model Difference
Chi-Square	537.851	558.739	20.888***
DF	358	368	10
x^2/df	1.502	1.514	
CFI	0.943	0.940	
RMSEA	0.049	0.050	

The path coefficients presented in Table 5-36 shows that gender plays a moderating role on the relationships between service quality and perceived value, service quality and customer satisfaction, service quality and brand image, and on the relationship between brand image and customer loyalty.

On the relationship between service quality and perceived value, service quality and customer satisfaction, and brand image to customer loyalty, the coefficients of female respondents (0.860, 0.630, and 0.856, respectively) are higher than the coefficients of male respondents (0.808, 0.538, and 0.829, respectively) (Table 5-37). Service quality’s direct impact on customer perceived value has been perceived more importantly by females compared to males. In addition, on the relationship between service quality and brand image, females also evaluate service quality to have more impact on customer loyalty than males. Females also perceived brand image has more impact on customer loyalty, compared to males. On the relationship between service quality and brand image, the coefficient of males (0.876) is higher than females (0.845) (see Table 5-37). Males evaluate service quality as influencing the outcome of brand image more than females. **Hypothesis H16 is therefore, supported.**

Table 5-37 The Multiple Group Analysis Result (Gender)

Model	Chi-Square	df	x^2/df	CFI	RMSEA	Δ Chi-Square	Δ df	Male	Female
Unconstrained Model	537.851	358	1.502	0.943	0.049				
SQ → PV	558.644	369	1.514	0.940	0.050	20.793**	11	0.808***	0.860***
SQ → CS	558.983	369	1.515	0.940	0.050	21.132**	11	0.538***	0.630***
SQ → BI	558.614	369	1.514	0.940	0.050	20.763**	11	0.876***	0.845***
BI → CL	558.739	369	1.514	0.940	0.050	20.888**	11	0.829***	0.856***

5.6.2 Multiple Group Analysis Results in terms of Age

Three age group are included in this analysis: 18–25 years old, 26–35 years old, and 36 years and above. The chi-square difference between the unconstrained model and constrained model is 57.906, which is significant at 0.01 level when Δ df = 20 (Table 5-38). This result indicates a difference exists among the three age groups.

Table 5-38 The Chi- square Test and Goodness-of-Fit (Age)

Model Fit Indices	Unconstrained Model	Constrained Model	Model Difference
Chi-Square	699.226	757.132	57.906***
DF	537	557	20
x^2/df	1.302	1.359	
CFI	0.949	0.938	
RMSEA	0.038	0.042	

On the relationship between service quality and perceived values, participants from the age group of 26-35 years old believe that service quality influences perceived value more than participants from the other two age groups (0.928 for 26-35 years old, 0.859 for 18-25 years old, and 0.835 for 36 and above) (see Table 5-38). In the relationship between service quality and customer satisfaction, participants from the age group of 18-25 years old perceive service quality as influencing customer satisfaction more when compared to participants from the other two age groups (0.909 for 18-25 years old, 0.883 for 26-35 years old, and 0.903 for 36 and above) (see Table 5-38). In the relationship between service quality and brand image, participants from the age group of 36 years old and above rate service quality as having a stronger influence on brand image compared to participants from the other two younger age groups (0.903 for 36 and above, 0.877 for 18-25 years old, 0.867 for 26-35 years old) (see Table 5-38). In the relationship between brand image and loyalty, participants from the age group of 18--25 years old perceive service quality as having a stronger influence on loyalty compared to participants from the other two age groups (0.895 for 18-25 years old, 0.867 for 26-35 years old, and 0.804 for 36 and above) (see Table 5-39). **Hypothesis H17 is therefore, supported.**

Table 5-39 The Multiple Group Analysis Result (Age)

Model	Chi-Square	df	x^2/df	CFI	RMSEA	Δ Chi-Square	Δ df	18-25	26-35	36 and above
Unconstrained Model	699.226	537	1.302	.949	.038					
SQ→PV	754.483	557	1.355	.938	.041	55.257***	20	.859***	.928***	.835***
SQ→CS	753.989	557	1.354	.939	.041	54.763***	20	.909***	.883***	.904***
SQ→BI	757.137	557	1.359	.938	.042	57.911***	20	.877***	.832***	.903***
BI→CL	758.273	557	1.361	.937	.042	59.047***	20	.895***	.867***	.804***

5.6.3 Multiple Group Analysis Results in terms of Marital Status

The chi-square difference between the unconstrained model and constrained model in terms of marital status is 33.536, which is significant at 0.01 level when Δ df = 12 (see Table 5-40). A difference exists between married and unmarried participants.

Table 5-40 The Chi- square Test and Goodness-of-Fit (Marital Status)

Model Fit Indices	Unconstrained Model	Constrained Model	Model Difference
Chi-Square	506.995	540.531	33.536***
DF	358	370	12
x^2/df	1.416	1.461	
CFI	0.954	0.947	
RMSEA	0.046	0.048	

Married participants rate service quality as having a stronger effect on the relationship between service quality and perceived value, service quality and customer satisfaction, and service quality and brand image, compared to unmarried participants (Table 5-41). The coefficients of married participants are 0.888 (SQ→PV), 0.910 (SQ→CS), and 0.895 (SQ→BI), and the coefficients of unmarried participants are 0.842 (SQ→PV), 0.881 (SQ→CS), and 0.879 (SQ→BI). In the relationship between brand image and customer loyalty, unmarried participants (coefficient 0.901) rate brand image as having a stronger influence on customer loyalty compared to married participants (0.786). **Hypothesis H18 is therefore, supported.**

Table 5-41 The Multiple Group Analysis Result (Marriage Status)

Model	Chi-Square	df	x^2/df	CFI	RMSEA	Δ Chi-Square	Δ df	Married	Un-married
Unconstrained Model	506.995	358	1.416	.954	.046				
SQ → PV	542.933	371	1.463	.947	.048	35.938***	13	.888***	.842***
SQ → CS	540.860	371	1.458	.947	.048	33.865***	13	.910***	.881***
SQ → BI	541.292	371	1.459	.947	.048	34.297***	13	.895***	.879***
BI → CL	540.929	371	1.458	.947	.048	33.934***	13	.786***	.901***

5.6.4 Multiple Group Analysis Results (Income)

The participants were divided into three income groups: A (below 3,000), B (3,000—6,999) and C (above 7,000). The chi-square difference between the unconstrained model and constrained model in terms of income is 50.205, which is significant at 0.01 level when Δ df = 20 (see Table 5-42). There is a difference among the three income groups.

Table 5-42 The Chi- square Test and Goodness-of-Fit (Income)

Model Fit Indices	Unconstrained Model	Constrained Model	Model Difference
Chi-Square	690.775	740.980	50.205***
DF	537	557	20
x^2/df	1.286	1.335	
CFI	0.952	0.942	
RMSEA	0.037	0.040	

In the relationship between service quality and perceived value, and the relationship between service quality and customer satisfaction, participants from income group C rate service quality as having a stronger influence on perceived value and customer satisfaction compared to participants from the other two lower income groups (0.900 and 0.918 for Group C, 0.878 and 0.879 for Group A, 0.827 and 0.890 for Group B) (see Table 5-43). In the relationship between customer satisfaction and brand image, participants from Group B perceive customer satisfaction as having a stronger effect on brand image compared to the other two groups (0.872 for group B, 0.838 for group A, and 0.854 for Group C) (see Table 5-43). In the relationship between brand image and loyalty, participants from group A rate service quality as having a stronger influence on brand image compared to participants from the other two higher income groups (0.920 for group A, 0.813 for group B, and 0.870 for group C) (Table 5-43). **Hypothesis H19 is therefore, supported.**

Table 5-43 The Multiple Group Analysis Result (Income)

Model	Chi-Square	df	x^2/df	CFI	RMSEA	Δ Chi-Square	Δ df	A (<3000)	B (3000~6999)	C (>7000)
Unconstrained Model	690.775	537	1.286	.952	.037					
SQ→PV	741.389	557	1.331	.943	.040	50.614***	20	.878***	.827***	.900***
SQ→CS	741.390	557	1.331	.943	.040	50.615***	20	.879***	.890***	.918***
CS→BI	742.053	557	1.332	.942	.040	50.278***	20	.838***	.872***	.854***
BI→CL	748.134	557	1.343	.940	.041	57.359***	20	.920***	.813***	.870***

5.6.5 Summaries of the Findings from Multiple Group Analysis

Findings from this current research reveal that:

First, all four demographic factors (gender, age, marital status, and income) have mediated the impacts of some higher-order constructs on the others, including service quality on customer perceived value, service quality on customer satisfaction, and brand image on customer loyalty.

Second, three demographic factors (gender, age, and marital status) were found to mediate the impact of service quality on brand image.

Third, one demographic factor (income) was found to mediate the influence of brand image on customer loyalty.

In summary, in the relationship between service quality and customer perceived value, married female customers from the age group of 26–35 years old with higher income (income group C) rate service quality as having a stronger influence on perceived value. In the relationship between service quality and customer satisfaction, married female customers from the age group of 18–25 years old with higher income (income group C) perceive that service quality has a greater impact on customer loyalty. In the relationship between service quality and brand image, married male customers from the age group of 36 and above evaluate service quality as influencing the outcome of brand image more than other customers. In the relationship between brand image and customer loyalty, unmarried female customers from the age group of 18–25 years old with lower income (income group A) rate brand image as having a stronger influence on customer loyalty. In the relationship between customer satisfaction and brand image, customers from the middle-income group (income group B) perceive customer satisfaction as having a stronger effect on brand image compared to the other two income groups.

5.7 Summary

The results of the 19 hypotheses tested were presented in detail in the previous sections in this chapter, and the results are summarised and presented in Table 5-44.

Table 5-44 Summary of the Hypotheses Testing Results

Hypotheses	Result
H1. Interaction quality has a significant positive impact on service quality.	Supported , interaction quality has a positive impact on service quality.
H2. Physical environment quality has a significant positive impact on service quality.	Supported , physical environment quality has a significant positive impact on service quality.
H3. Technology quality has a significant positive impact on service quality.	Supported , technology quality has a significant positive impact on service quality.
H4. Outcome quality has a significant positive impact on service quality.	Supported , outcome quality has a significant positive impact on service quality.
H5. The importance of each primary dimension is varied from consumers' perceptions.	Supported , interaction quality being the most importance of the primary dimensions, followed by outcome quality, technology quality, and physical environment quality.
H6. Service quality has a positive, direct impact on customer satisfaction.	Supported , service quality has a positive and direct impact on customer satisfaction.
H7. Service quality has a positive, direct impact on customer perceived value.	Supported , service quality has a positive and direct impact on customer perceived value.
H8. Service quality has a positive, direct impact on brand image.	Supported , service quality has a positive, direct impact on brand image.

H9a. Service quality has a positive, direct impact on customer loyalty.	Not Supported , service quality does not have a direct impact on customer loyalty.
H9b. Customer satisfaction mediates the relationship between service quality and customer loyalty.	Supported , service quality's indirect impact on customer loyalty is mediated by customer satisfaction.
H10. Customer perceived value has a positive, direct impact on customer satisfaction.	Supported , customer perceived value has a positive and direct impact on customer satisfaction.
H11. Customer perceived value has a positive, direct impact on brand image.	Not Supported , customer perceived value does not have a positive, direct impact on brand image.
H12a. Customer perceived value has a positive, direct impact on customer loyalty.	Not Supported , customer perceived value does not have a positive, direct impact on customer loyalty.
H12b. Customer satisfaction mediates the relationship between customer perceived value and customer loyalty.	Supported , customer perceived value's indirect impact on customer loyalty is mediated by customer satisfaction.
H13. Brand image has a positive, direct impact on customer satisfaction.	Supported , brand image has a positive and direct impact on customer satisfaction.
H14. Brand image has a positive, direct impact on customer loyalty.	Supported , brand image has a positive and direct impact on customer loyalty.
H15. Customer's satisfaction has a positive, direct impact on customer loyalty.	Not Supported , customer satisfaction does not have a positive and direct impact on customer loyalty.
H16. Customer's perceptions on interrelationships among five higher-order constructs will differ in terms of gender.	Supported , females and males perceived the interrelationships among five higher-order constructs differently.
H17. Customer's perceptions on interrelationships among five higher-order constructs will differ in terms of age.	Supported , customers from different age group perceived the interrelationships among five higher-order constructs differently.
H18. Customer's perceptions on interrelationships among five higher-order constructs will differ in terms of marriage status.	Supported , customer's perceptions on interrelationships among five higher-order constructs differ in terms of their marriage status.
H19. Customer perceptions on interrelationships among five higher-order constructs will differ in terms of income.	Supported , customers have different income perceived the interrelationships among five higher-order constructs differently.

Chapter 6

Discussion and Conclusion

This chapter discusses the findings of this current research based on the statistical results reported in Chapter 5. In addition, a discussion of the theoretical and managerial implications is also presented, as are the limitations of this research and suggestions for future research.

6.1 The Service Quality Model in China's Travel Agency Industry

Service quality has been conceptualised by several services marketing academics as a hierarchical construct which is composed of a variety of sub and primary dimensions (Clemes et al., 2018; Wu et al., 2018; Abu-Bakar et al., 2017; Hossain et al., 2015; Dagger et al., 2007). However, there is no general agreement on the structure and content of the sub and primary dimensions of service quality (Brady & Cronin, 2001). The first objective of this study was to examine the validity and reliability of the proposed primary dimensions in the Chinese travel agency business using a multidimensional and second-order model derived from Brady and Cronin's (2001) integrated service quality model.

In terms of previous studies on service quality in the travel agency industry, Martínez-Caro and Martínez-García (2008) in their research conducted in Spain, conceptualised service quality using three primary dimensions: (1) personal interaction (check whether higher-cases or not), (2) physical environment, and (3) outcome quality. Martínez-Caro and Martínez-García's (2008) study established that the three primary dimensions of service quality in Brady & Cronin's (2001) integrated service quality model were also valid in the travel agency context in Spain.

However, services marketing scholars suggest that the number and content of the service quality primary dimensions need to be confirmed not only in different business contexts but also in different cultures, as customers from different cultural backgrounds may perceive service quality differently (Clemes et al., 2018; Wu & Cheng, 2013; Martínez-Caro & Martínez-García, 2008; Brady & Cronin, 2001).

The four primary dimensions in the service quality model used in this current research are: interaction quality (IQ), physical environment quality (PEQ), outcome quality (OQ) and technical quality (TQ). The first three primary dimensions (IQ, PEQ, and OQ) were established based on the extant literature, while the fourth primary dimension (TQ) was developed from the focus group discussions and the travel industry literature (Pencarelli, 2020; Sharma et al., 2020; Capriello & Riboldazzi, 2019; Quintana et al., 2016; Yasmin et al., 2015).

Interaction quality refers to the nature of the interpersonal interactions that occur between the customer and the employee, when the employee delivers the service to the customer in a service setting (Hossain et al., 2015; Ranjan et al., 2015; Wu et al., 2015; Grönroos & Gummerus, 2014). Grönroos (2011) reported that customers' perceptions of business value are developed not only from the core products of the business but also from their interactions with the employees of the business. Additionally, Echeverri and Salomonson (2017) note that an employee's attitude and behaviour can positively or negatively impact the customers' perceptions of the quality of service provided by the company.

Physical environment quality relates to the tangible features of services (décor, ambience, and location of the company) (Bitner et al., 1990). The intangible nature of service makes the level of service quality difficult to measure when compared to the quality of physical products (Parasuraman et al., 1988). Bitner et al. (1990) suggested that the tangible features of services (buildings, surrounding environment) can be used in services marketing research when evaluating service quality. Furthermore, a number of services marketing academics have identified that physical environment quality is a crucial determinant of how customers perceive the quality of service (Abu Bakar et al., 2017; Lien et al., 2017; Teeroovengadum et al., 2016; Brady & Cronin, 2001; Parasuraman et al., 1988; Grönroos, 1984).

Outcome quality refers to the result of the purchasing process (Grönroos, 1982), and has also been further explained by a number of services marketing academics as what is left for customers after the service delivery (Clemes et al., 2018; Clemes et al., 2014; Theodorakis et al., 2013; Alexandris, Douka, & Balaska, 2012). Additionally, scholars of services marketing have also demonstrated that outcome quality is an important primary dimension of service quality in a variety of business sectors, including upscale restaurants (Clemes et al., 2018), retail banks (Hossain et al., 2015; Jain & Jain, 2015), and professional football games (Theodorakis et al., 2013).

Technical quality has been added to the research model to improve the conceptualisation of service quality in the travel agency industry in China. A number of travel and tourism scholars note that new technologies (internet, smart phone applications) have influenced customers' information-searching and purchasing behaviours regarding travel-related products. The impact has been addressed in three stages as follows: (1) use of technologies to search for travel-related information at the travel planning stage (Sharma et al., 2020; Huang et al., 2019; Huang et al., 2017; Xiang et al., 2015); (2) use of technologies to communicate with travel agencies because of the convenience of technologies (Sharma et al., 2020; Amaro & Duarte, 2015; Yasmin et al., 2015; Inversini & Masiero, 2014; Law et al., 2014); and (3) use of technologies to make payments for travel products (Capriello & Riboldazzi,

2020; Sharma et al., 2020; Malik & Sharma, 2020; Huang et al., 2017; Kim et al., 2014; Abou-Shouk et al., 2013).

In addition, Abou-Shouk et al. (2016) indicated that customers' concerns regarding security issues also influence customers' decisions about whether to use technologies to communicate with, or make purchases from, a travel agency. As a result, technical quality has been included as the fourth primary dimension to better conceptualise travel agency service quality in China.

The statistical results of this current study reveal that service quality can be conceptualised by the proposed second-level and multidimensional model in the travel agency industry in China. The four primary dimensions for conceptualising service quality have been established as follows: interaction quality (IQ), physical environment quality (PEQ), outcome quality (OQ), and technical quality (TQ). Therefore, Hypotheses H1, H2, H3, and H4 are supported.

The first three primary dimensions (IQ, PEQ, and OQ) of service quality are consistent in kind and number with Martínez-Caro and Martínez-García's (2008) findings from their research conducted on travel agency services in Spain.

The identification of four primary dimensions to be included in the service quality model is consistent with findings from previous services marketing research. Examples include Dagger et al.'s (2007) research, in which an additional primary dimension (administrative quality) was included, together with the other three primary dimensions (interaction quality, physical environment quality, and outcome quality) in order to conceptualise healthcare service quality; Wu et al. (2018) also added a fourth primary dimension (access quality) in their service quality model to conceptualise cruise line service quality. In addition, Martínez-Caro and Martínez-García (2008) also suggested that there are at least three primary dimensions involved in conceptualising travel agency service quality. The findings of this research reveal that service quality in China's travel agency industry is conceptualised by more than three primary dimensions as represented by the sample.

The findings reveal that travel agency customers will also attribute the overall level of service quality to whether the travel agency could use new technology in the processes of: (1) providing travel-related information to customers; (2) communicating with customers; and (3) accepting new payment methods. As a result, technical quality is identified as the fourth primary dimension of service quality in this study. Additionally, the findings also imply that the four primary dimensions (IQ, PEQ, OQ, and TQ) together provide an improved conceptualisation of service quality in the travel agency industry in China.

6.2 The Comparative Importance of Primary Dimensions in Conceptualising Service Quality

Identifying the relative importance of each primary dimension in determining service quality is crucial for business managers as they can use the rankings to allocate their resources (time and money) in their business strategic planning. Resources in most organisations are limited in terms of both time and money. Therefore, allocating resources appropriately from the most important primary dimension to the least important primary dimension will assist the business to gain a sound competitive advantage in the marketplace (Clemes et al., 2014). Business managers can prioritise more resources to the most important primary dimension, then the second, the third, and the least important resource. When time and money are really limited in some businesses, management could even reduce resources focused on the least important primary dimension.

The results of the statistical analysis reveal that interaction quality is the most important indicator for measuring service quality in the travel agency context in China, followed by outcome quality, physical environment quality, and technical quality. Hypothesis H5 is therefore supported.

In their research on banking services in Malaysia, Abu Baker et al. (2017), also reported that interaction quality is the most important primary dimension in conceptualising service quality. Hossain et al.'s (2014) research on retail banking services in Australia and Bangladesh, also asserted that interaction quality is the most important primary dimension. However, to date, there has been no published research that has examined the relative importance of each primary dimension in the travel agency context.

The decision-makers at individual travel agencies, as well as the industry as a whole, with the information and understanding that the four primary dimensions differ in their importance to customers, will be able to make sound decisions regarding the allocation of resources. While outcome quality, physical environment quality and technical quality are very important, interaction quality has the greatest impact on service quality in the Chinese travel agency industry, as represented in the sample.

6.3 The Five Marketing Constructs and Their Interrelationship

The third research objective of this study is to investigate the relationships between the five marketing constructs (service quality, customer perceived value, customer satisfaction, brand image, and customer loyalty) in the Chinese travel agency industry, as prior research on these relationships in the travel agency context is scarce. All the relationships have been examined based on the hypotheses developed in Chapter 3 (H6 to H15). The following subsections provide an in-depth discussion of the structural equation modelling results presented in Chapter 5.

6.3.1 Customer Loyalty

Customer loyalty has been described as a customer's deep commitment to a product or service (Oliver, 2014). Maintaining customer loyalty is an important strategy for a business to pursue in order to keep its' competitive advantage in the fiercely competitive marketplace (Keshavarz et al., 2019; Chai et al., 2015). In this study, Hypotheses H9a, H9b, H12a, H12b, H14, and H15 were developed to explore the possible impacts of the other four marketing constructs (service quality, customer perceived value, brand image, and customer satisfaction) on customer loyalty in the travel agency industry in China. The research results reveal that 70% of customer loyalty is explained by these marketing constructs. Only one marketing construct (brand image) is found to have a direct effect on customer loyalty. However, the research results reveal that two constructs (service quality and customer perceived value) are found to have an indirect impact on customer loyalty, which is mediated through customer satisfaction.

First, the findings show that brand image is the only significant indicator of customer loyalty as reflected by the sample. The standard coefficient path of $\beta = 0.589$ indicates that brand image has a direct impact on customer loyalty. Any changes in brand image will correspondingly influence customer loyalty (supporting H14). This finding is consistent with findings from a number of studies conducted on a variety of industries; including Espinosa et al.'s (2017) research on full-service restaurants in the USA; Song et al.'s (2019) research on franchise coffee stores in Korea; Stylos et al.'s (2017) research on tourists' revisit intentions in Greece; and de Leaniz and del Bosque Rodriguez's (2016) research on Spanish national hotels.

In the travel agency sector, Richard and Zhang (2012) revealed in their research conducted in New Zealand that brand image is an important antecedent of customer loyalty. The findings of this current research provide support to the services marketing literature that brand image is shown to have a favourable and direct effect on customer loyalty in China's travel agency sector. This finding implies that building a strong brand image is a worthwhile investment for Chinese travel agency practitioners. Developing a positive brand image must be seen as a beneficial strategy for Chinese travel agency practitioners in order to build customer loyalty and therefore retain customers over time.

Second, the research results show that there is no direct correlation between service quality and customer loyalty; however, service quality indirectly impacts customer loyalty through customer satisfaction.

The standardised coefficient path of $\beta = 0.103$ (from service quality to customer loyalty) indicates that service quality does not have a direct impact on customer loyalty (Hypothesis H9a is not

supported). This conclusion contradicts findings from previous services marketing studies, including those conducted by Famiyeh et al. (2018) on banking services, Kasiri et al. (2017) on higher education services, Liu et al. (2017) on fast-food services, and Hapsari et al. (2017) on airline services. However, Channoi et al. (2018) also found in their research on beach resort hotel services in Thailand that service quality does not impact on customer loyalty directly. Channoi et al. (2018) established that service quality influenced customer loyalty indirectly and that the impact is mediated by customer satisfaction.

In this research, Hypothesis H9b examines customer satisfaction's mediating effect on service quality and customer loyalty connections. The research results reveal that the standardised coefficient path from service quality to customer loyalty was reduced from $\beta = 0.727$ to $\beta = 0.387$ when customer satisfaction was added into the model as the mediator variable (supporting H9b). This finding is consistent with Channoi et al.'s (2018) finding on beach resort hotel service in Thailand. Furthermore, another study conducted by Kuo et al. (2013) supports the finding that customer satisfaction mediates service quality's impact on customer loyalty in the travel agency industry in Taiwan. Service quality's impact on customer loyalty is strengthened through customer satisfaction. The findings of this current research confirm that in the cultural context of China, customer satisfaction is also partially mediating the relationship between service quality and customer loyalty in the travel agency sector.

Third, the findings of this research reveal that there is no direct correlation between customer perceived value and customer loyalty. Nevertheless, customer satisfaction mediates the perceived value's indirect impact on customer loyalty.

The standardised coefficient path of $\beta = 0.047$ (from customer perceived value to customer loyalty) signifies that there is no direct connection between customer perceived value and customer loyalty. Therefore, Hypothesis 12a is not supported. The result is inconsistent with findings from prior studies on a variety of service industries, including e-government services (Li & Shang, 2020), hotel services (El-Adly, 2019), mobile communication services (Clemes et al., 2014), and banking services (Roig et al., 2013). However, Hapsari et al.'s (2017) research on high-frills airline services provide support for this finding. Hapsari et al. (2017) study found that although no direct connection was found in the relationship between airline customer perceived value and customer loyalty, an indirect impact was found through customer satisfaction.

In this research, Hypothesis H12b is established to examine customer satisfaction's mediating effect on the relationship between customer perceived value and customer loyalty. The research result pertaining to Hypothesis H12b in this research shows that an indirect impact of customer perceived value on customer loyalty is found; and additionally, customer satisfaction plays a mediating effect

on the relationship between customer perceived value and customer loyalty. The standardised coefficient path between customer perceived value and customer loyalty reduced from $\beta = 0.667$ to $\beta = 0.167$ when customer satisfaction was added into the model as the mediator variable, suggesting that customer satisfaction fully mediates the relationship between customer perceived value and customer loyalty (Hypothesis H12b is supported). The findings concur with the studies of El-Adly (2019) and Channoi et al. (2018) on hotel services, and Hapsari et al. (2017) on high frills airline services. This finding reveals that in the Chinese travel agency industry, customer perceived value has an effect on customer satisfaction, which in turn has an effect on customer loyalty.

Fourth, the standardised coefficient path between customer satisfaction and customer loyalty was $\beta = 0.124$, indicating that customer satisfaction does not have a significant direct impact on customer loyalty (no support for Hypothesis H15). This finding contradicts the findings of some earlier services marketing studies; examples include Gong and Yi's (2018) research on retail services, Amin's (2016) research on internet banking services, and Suhartanto et al.'s (2013) research on hotel services. Customer satisfaction is not directly linked to customer loyalty in the travel agency business in China, although it plays an important mediating role in enhancing service quality and customer perceived value's indirect impact on customer loyalty.

6.3.2 Customer Satisfaction

The research results pertaining to Hypotheses H7, H10, and H13 show that service quality, customer perceived value, and brand image are three important indicators of customer satisfaction. These three important indicators account for 81% of the variation in customer satisfaction. Furthermore, the relative relevance of these three indicators in determining customer satisfaction varies; the research results reveal that the most important indicator is customer perceived value, followed by brand image and service quality.

First, the research results pertaining to Hypothesis H7 show that service quality is an important determinant of customer satisfaction in the travel agency industry. The standardised coefficient path of $\beta = 0.226$ demonstrates that service quality has a direct and positive effect on customer satisfaction, supporting Hypothesis H7. This finding is consistent with findings from other prior services marketing studies and adds to the body of knowledge on services marketing. The prior research that provided support for service quality's impact on customer satisfaction includes the studies conducted by Zhong and Moon (2020) on fast-food restaurant services; Gong and Yi (2018) on retail shop services; Priporas et al. (2017) on Airbnb accommodation services; and Farooq et al. (2018) on airline services. The findings of this research reveal that in the travel agency industry in China, service quality is found to positively influence customer satisfaction, implying that travel agency practitioners could improve customer satisfaction by delivering high-quality services.

Second, the research results pertaining to Hypothesis H10 show that customer perceived value has a positive effect on customer satisfaction. The standard coefficient path of $\beta = 0.420$ suggests that customers perceive value in a direct and positive way that influences customer satisfaction (supporting H10). This finding is consistent with other services marketing research on hotel services in the UAE (El-Adly, 2019), destination services in Korea (Kim & Park, 2017), and exhibition services (Wu et al., 2016). The findings of this research confirm that service quality is an important predictor of customer satisfaction in the travel agency industry in China.

Third, the research results pertaining to Hypothesis H13 reveal that brand image has a significant effect on customer satisfaction. The standard coefficient path of $\beta = 0.324$ implies that brand image has a significant effect on customer satisfaction (supporting H13). In the previous services marketing research, brand image was found to have a favourable effect on customer satisfaction in several service industries; examples include the restaurant industry (Clemes et al., 2018), the banking industry (Abu Bakar et al., 2017), the telecommunication industry (Clemes et al., 2014), and the higher education industry (Clemes et al., 2013). The findings of this current study reveal that the same impact is found in the travel agency industry in China, which further suggests that a positive impression and image might increase customer satisfaction in the travel agency context.

Fourth, the research results reveal that customer perceived value is the most important indicator of customer satisfaction, followed by brand image and service quality. This finding is different from earlier services marketing research. In Abu Bakar et al.'s (2017) research on retail banking services in Malaysia, the ranking of the three marketing constructs in impacting customer satisfaction, from the most important to the least important, were: service quality, corporate image, and customer perceived value. In addition, Clemes et al. (2020) also demonstrate in their research on day spa services in Thailand that service quality is the most important indicator in customers' perceptions of customer satisfaction. Customer perceived value, in their study, was not as important as service quality in impacting customer satisfaction. The findings of this current research suggest that in the travel agency sector in China, customers may be more satisfied when they feel what they paid for is good value compared to what they have received.

To summarise, service quality, customer perceived value, and brand image are three important antecedents of customer satisfaction in the travel agency industry in China. However, the importance of each antecedent varies; customer perceived value is the most important indicator of customer satisfaction, followed by brand image and service quality.

6.3.3 Brand Image

The findings for H8 and H11 reveal that 68% of variation in the brand image construct is explained by service quality and customer perceived value. However, only the causal path from service quality to brand image demonstrates a significant and direct impact on brand image. Service quality is the only indicator for the travel agency industry as reflected in the sample.

The research result pertaining to Hypothesis H8 reveals that customers' perceptions of brand image is closely influenced by the quality of service they received, as the standardised coefficient path between service quality and brand image is $\beta = 0.706$ (H8 is supported). This finding is corroborated by a number of prior studies on various service industries; for example, Teeroovengadum et al.'s (2019) research on higher-education services, Hapsari et al.'s (2017) research on airline services, and Akroush et al.'s (2016) research on hotel services. The findings of this research provide further evidence to the services marketing literature that a higher level of service quality can lead to a positive brand image, in the context of the travel agency industry in China.

The research result pertaining to Hypothesis H11 shows that customer perceived value has no significant impact on brand image, as the standardised coefficient path from customer perceived value to brand image is $\beta = 0.131$. Hypothesis H11 is therefore not supported. There has been a longstanding debate in the services marketing literature on the connection between customer perceived value and brand image. A group of scholars demonstrated that higher customer perceived value will lead to a higher brand image; these include early studies by Barich and Kotler (1991) and Hu et al. (2009), as well as contemporary research by Channoi et al. (2017). In contrast, another group of scholars found a reciprocal relationship between customer perceived value and brand image, suggesting that brand image results in increased customer perceived value. Examples of these authors include Zameer et al. (2015) in their research on banking services in Pakistan, Suhartanto et al. (2013) in their research on three-star and four-star hotel services in Indonesia, and Kim et al. (2012) in their research on destination services.

The findings of this research reveal that in the travel agency industry in China, customer perceived value has no beneficial impact on brand image. However, this current research did not examine whether the relationship between these two marketing constructs existed in the opposite way; implying that future services marketing research might look into the influence of brand image on customer perceived value.

6.3.4 Customer Perceived Value

The standardised coefficient path between service quality and customer perceived value is $\beta = 0.837$, showing that there is a confirmed relationship between service quality and customer perceived value

in the travel agency industry. Hypothesis H6 is therefore supported. The research results also show that 70% of customer perceived value is explained by service quality. This finding is consistent with prior findings in a variety of service industries, including tourist destination services (Suhartanto et al., 2020; Oriade & Schofield, 2019;); upscale restaurant services (Clemes et al., 2018); exhibition services (Wu et al., 2016), and banking services (Abu Bakar et al., 2017; Zameer et al., 2015). The findings of this study add to the body of knowledge in the field of services marketing, by examining the correlation between these two marketing constructs (service quality and customer perceived value) in the Chinese travel agency industry.

6.3.5 Conclusions from the Causal Model

The results of the causal model imply three important findings:

First, brand image is the only construct that has a direct and positive impact on customer loyalty among the four marketing constructs (service quality, customer perceived value, customer satisfaction, and brand image). However, the findings of this research reveal that two constructs (service quality and customer perceived value) are found to have an indirect impact on customer loyalty, and these impacts are mediated by the construct of customer satisfaction. Customer satisfaction partially mediates service quality's impact on customer loyalty, and fully mediates customer perceived value's effect on customer loyalty.

Second, the empirical results confirm that there are three important indicators of travel agency customer satisfaction in the travel agency industry in China. These three indicators are: service quality, customer perceived value, and brand image. In addition, the findings also reveal that the importance of these three antecedents varies, where customer perceived value has the greatest impact on customer satisfaction, followed by service quality and brand image.

Third, service quality is found to be an important marketing construct as the research results reveal that service quality directly impacts on customer perceived value, customer satisfaction, and brand image. Although a direct impact on customer loyalty was not found, service quality has an indirect impact on customer loyalty through customer satisfaction.

6.4 The Impact of Demographic Factors

The fourth objective of this study is to identify whether China's travel agency customers from different demographic groups (gender, age, marital status, and income level) have varied perceptions on the connections between the five marketing constructs. A multi-group analysis was performed to examine whether the standardised coefficient paths differ between these groups. In this study, the

groups used in the analysis were established by the participants' gender, age, marital status, and income level.

Empirically examining the multi-group analysis elicits valuable insights into customers' perceptions of the interrelationships between the five marketing constructs: service quality (SQ), customer perceived value (CPV), brand image (BI), customer satisfaction (CS), and customer loyalty (CL). The subsections that follow present the discussions on the research results from four hypotheses (H16 to H19), which were developed to satisfy Research Objective Four.

6.4.1 Gender

The statistical results for Hypothesis H16 reveal that females and males perceive the relationship among the five marketing constructs differently. The chi-square difference between the unconstrained model and the constrained model is 20.888 (significant at the 0.01% level), showing that there is a difference between the two gender groups.

The research results reveal that the path coefficients from the female (f) group are greater than those from the male (m) group for three causal paths: service quality to customer perceived value (0.860 vs 0.808), service quality to customer satisfaction (0.630 vs 0.538); and brand image to customer loyalty (0.856 vs 0.829). This indicates that females who hold a good perception of service quality would tend to have a higher perceived value and a higher level of customer satisfaction. In addition, when females perceive a favourable brand image, they are more likely to recommend the business to their family and friends and more likely to repurchase from that business.

The research results also reveal that for service quality's impact on brand image, the path coefficient from the male group is greater than from the female group (0.876 vs 0.845). This finding suggests that males who experience a higher level of service quality may also perceive a higher level of brand image.

6.4.2 Age

The statistical results for Hypothesis H17 reveal that customers across the three age groups have varying perceptions of the links between the five marketing constructs. The chi-square difference between the unconstrained model and the constrained model was 57.906 (significant at the 0.001% level), implying that there are differences between the three age groups.

In particular, the path coefficient for the youngest group (18-25 years old) is greater in the service quality and customer satisfaction relationship (0.909 compared to "0.883 for the middle age group" and "0.904 for the older age group"). In addition, the path coefficient for the youngest group is also greater in the brand image and customer loyalty relationship (0.895 compared to "0.867 for the

middle age group” and “0.804 for the older age group”). The findings imply that younger customers who have received high-quality service are more likely to perceive a greater degree of customer satisfaction. Younger customers are also shown to exhibit customer loyalty when they perceive a positive brand image.

In the connection between service quality and customer perceived value, the path coefficient from the middle aged group (26-35 years old) is greater than for the other two age groups (0.928 compared to “0.859 for the younger group” and “0.835 for the older group”). In Yarimoglu’s (2017) and Sorce’s (2005) studies on online shopping services, age has a significant effect on service quality and its impact on perceived value. The findings from this research provide empirical support to Yarimoglu’s (2017) and Sorce’s (2005) findings and further demonstrate that customers aged 26-35 believe that service quality has a stronger impact on customer perceived value than customers from the other two age groups.

The research results reveal that the path coefficient from the older age group (36 years old and above) is greater in the service quality and customer satisfaction relationship (0.903 compared to “0.877 for the younger group” and “0.832 for the middle age group”). This finding suggests that customers from the older age group have a greater perception of customer satisfaction when they encounter a higher degree of service quality than customers from the other two age groups.

6.4.3 Marital Status

The statistical results for Hypothesis H18 reveal that customers from the two marital groups have varying perceptions on the interrelationships among the five marketing constructs. The chi-square difference between the unconstrained model and the constrained model was 33.536 (significant at the 0.01% level), showing that there is a difference between the two marital groups.

The research results reveal that for three causal paths, the path coefficients for the married group are greater than the unmarried group; they are: service quality to customer perceived value (0.888 compared to 0.808 for the unmarried group); service quality to customer satisfaction (0.910 compared to 0.881 for the unmarried group); and service quality to brand image (0.985 compared to 0.879 for the unmarried group). These findings reveal that married customers have a greater perception of customer perceived value, higher levels of customer satisfaction, and a more favourable brand image after experiencing a high-level quality of service.

Nevertheless, the research results indicate that the path coefficient for unmarried customers is greater in the brand image and customer loyalty relationship (0.901 compared to “0.786 for the married group”). This finding demonstrates that when unmarried customers have a favourable impression of a brand, then they will become more loyal to that brand.

6.4.4 Income

The statistical results for Hypothesis H19 reveal that customers from the three income groups perceive the relationships among the five marketing constructs differently. The chi-square difference between the unconstrained model and the constrained model was 50.205 (significant at the 0.01% level), showing that there are differences among the three income groups.

For the relationships between service quality and perceived value, and between service quality and customer satisfaction, the path coefficients for the customers with higher incomes are greater than from the other groups. The path coefficient for the service quality and perceived value relationship is 0.900 for the higher income group, (compared with “0.878 for the lower income group”, and “0.827 for the medium income group”). The path coefficient for the service quality and customer satisfaction relationship is 0.918 for the higher income group, (compared with “0.879 for the lower income group” and “0.890 for the medium income group”). The research results reveal that customer with the highest incomes rate service quality as having a stronger influence on perceived value and customer satisfaction.

In terms of the relationship between customer satisfaction and brand image, the path coefficient for the customers from the medium income group is greater than for the other two groups (0.872 compared to “0.838 for the lower income group” and “0.854 for the higher income group”). The finding demonstrates that customers with medium incomes perceive customer satisfaction as having a stronger effect on brand image compared to the other two groups.

In the relationship between brand image and customer loyalty, the path coefficient for the customers with lower income is greater than for the other two groups (0.920 compared to “0.813 for the medium income group” and “0.870 for the higher income group”). This finding reveals that customers with lower incomes rated service quality as having a stronger influence on brand image than customers from other income groups.

6.5 Theoretical Contribution

This study adds to the body of knowledge on services marketing by conceptualising service quality and examining the interrelationship between the higher-order marketing constructs in China’s travel agency industry using a single conceptual research model. This study contributes to the services marketing literature by examining the four primary dimensions of travel agency service quality. Furthermore, the interrelationships between five marketing constructs in the setting of a travel agency were explored. The impact of demographic factors in mediating the interrelationship among the five marketing constructs is also investigated. The important theoretical contributions of this study are detailed in the subsections that follow.

First, this study contributes to the services marketing literature by presenting a thorough and complex model of customer loyalty in China's travel agency context. This study is the first to empirically examine the complex interrelationships between all five marketing constructs (service quality, customer perceived value, customer satisfaction, brand image, and customer loyalty) in a single framework using structural equation modelling in the travel agency industry in China. The theoretical model developed in this study is the first methodological attempt in travel agency research to concurrently examine all five marketing constructs in a single framework simultaneously. Previous research on travel agency services has never investigated the interrelationships between all five of the marketing constructs (Lai, 2014; Kuo et al., 2012; Richard & Zhang, 2012; Seto-Pamies, 2012). No prior studies have been found to have looked at the effects of: (1) service quality on brand image, (2) customer perceived value on brand image and customer loyalty; (3) brand image on customer satisfaction; and (4) the mediating effect of customer satisfaction in influencing the indirect impact of customer perceived value on customer loyalty. Research on the comprehensive interrelationships between the five marketing constructs in the travel agency industry adds value to the body of knowledge in the travel agency literature and improves the understanding of the interrelationships between these marketing constructs.

The findings from the statistical results reveal that brand image is the only direct indicator of customer loyalty in the travel agency industry in China, although service quality and customer perceived value are both found to have an indirect impact on customer loyalty. Customer satisfaction is found to have a mediating effect in the relationships between service quality and customer loyalty as well as between customer perceived value and customer loyalty. In addition, among the three antecedents of customer satisfaction, customer perceived value was found to have the greatest impact, followed by service quality and brand image. The research results also reveal that service quality is an important construct in influencing all the other four marketing constructs. Service quality has been shown to directly impact three marketing constructs (customer satisfaction, customer perceived value, and brand image) and have an indirect impact on the other marketing construct (customer loyalty).

Second, this study contributes to providing a service quality model in the travel agency industry context in China. The empirical results confirm that service quality in the travel agency industry in China, is multidimensional and can be conceptualised by four primary dimensions. The four primary dimensions are: interaction quality (IQ), physical environment quality (PEQ), outcome quality (OQ), and technical quality (TQ). The first three primary dimensions (IQ, PEQ, and OQ) of service quality are consistent in kind and number with Martínez-Caro and Martínez-García's (2008) findings from their research conducted on travel agency services in Spain. However, services marketing scholars suggest that the number and content of the service quality primary dimensions need to be confirmed not

only in different business contexts but also in different cultures, as customers from different cultural backgrounds may perceive service quality differently (Martínez-Caro & Martínez-García, 2008; Brady & Cronin, 2001). The research results reveal that technical quality also has a significant impact on overall service quality. Technical quality is therefore, identified as the fourth primary dimension of service quality. The four primary dimensions together, provide an improved understanding of service quality in China's travel agency industry.

Third, this current research contributes to the services marketing literature by examining the difference in importance of each primary dimension in contributing to measuring service quality in the travel agency industry in China. The research results reveal that interaction quality is the most important indicator for measuring service quality, followed by outcome quality, physical environment quality, and technical quality.

Fourth, this current study adds to the body of services marketing literature that demographic factors do influence customers' perceptions of the interrelationships between five marketing constructs (service quality, customer satisfaction, customer perceived value, and customer loyalty). The demographic factors examined in this study are: the gender, age, income, and marital status of customers. The research results reveal that customers of different demographic background do perceive the interrelationships between marketing constructs differently. The findings contribute to the services marketing literature in providing improved understanding on the impact of demographic characteristics on the formation of customer loyalty in the travel agency context.

6.6 Practical Implications

This study benefits travel agency practitioners by providing vital information for them to improve their understanding of the antecedents of travel agency customer loyalty. The findings from the statistical results provide valuable information for travel agency managers to establish and execute successful marketing strategies and tactics for them to compete in the fiercely competitive marketplace.

The first practical implication of this study relates to the findings from the customer loyalty antecedents. A number of researchers have highlighted the importance of maintaining customer loyalty as an important marketing strategy (Hapsari et al., 2017; Chai et al., 2015; Gursoy et al., 2014; Liat et al., 2014). The benefits of establishing customer loyalty include the increase in income and the savings on marketing and advertising costs as loyal customers will make repeat purchases and are willing to recommend the brand to their family and friends (Liat et al., 2014; Walls, 2013). The findings of this current study reveal that only brand image has a direct impact on customer loyalty.

As a result, travel agency managers could take actions to establish and maintain a strong and positive brand image in order to achieve a direct increase in customer loyalty.

The research results of this study also reveal that, in addition to brand image, the other three marketing constructs (service quality, customer perceived value, and customer satisfaction) also have an effect on customer loyalty in the travel agency industry in China. Service quality and customer perceived value were found to have an indirect impact on customer loyalty, with customer satisfaction mediating their impacts on customer loyalty. The findings suggest that travel agency managers should not only concentrate on establishing brand image, but also invest in the other three marketing constructs, as they also contribute to customer loyalty.

The second practical implication of this study relates to the findings from multi- group analysis. The findings of this research provide empirical evidence that customers from different demographic backgrounds do perceived interrelationships between marketing constructs differently. Travel agency marketers could apply different marketing strategies when they are targeting customers with demographic characteristics.

The third practical implication of this research relates to the confirmation of the service quality model in the travel agency industry in China. The second order service quality model confirms that there are four primary dimensions that contribute to the conceptualisation of service quality in the travel agency industry in China; the four primary dimensions are: interaction quality, physical environment quality, outcome quality, and technical quality. The confirmation of these four primary dimensions helps travel agency managers to improve their understanding of how their customers perceive the quality of travel agency services. Travel agency managers could use these four primary dimensions as a tool for them to narrow the problem areas and facilitate resolutions when problems occur.

The fourth practical implication of this study relates to the identification of the most and least important primary dimensions of service quality in the travel agency context in China. The relative importance of each primary dimension identified in this research provides valuable information for travel agency managers to effectively allocate resources. The empirical findings of this study reveal that interaction quality is the most important indicator of travel agency service quality, followed by outcome quality, physical environment quality, and technical quality. This finding will help travel agencies in their strategic planning. Travel agency managers could use the findings to devote more time and resources to interaction quality than to the other three primary dimensions (outcome quality, physical environment quality, and technical quality).

6.7 Study Limitations and Future Research Directions

This research contributes to the services marketing literature by improving the knowledge of travel agency service quality and the understanding of the interrelationships between marketing constructs. However, there are some limitations that must be considered when interpreting the findings of this research. These limitations are mostly connected to the study design (including the sampling and data collection techniques) and the conceptual framework of the research model. The specifics of these limitations and recommendations for future research are discussed in detail in the following sections.

First, the sample frame of this study was limited to the Beijing and Shanghai metropolitan regions. The samples were collected in four large shopping malls in Beijing and Shanghai City (Xin Ao shopping center, Solana-Beijing lifestyle shopping mall in Beijing; and South Bund Soft Spinning Material Market and Yuyuan Bazar in Shanghai). The samples obtained for this study may not fully represent travel agency customers from other cities in China. Customers from other cities in China may have different perceptions of the primary dimensions of service quality. They may perceive the interrelationships between marketing constructs differently. Therefore, future researchers in their studies on travel agency services could include other cities in China as their sample locations.

Second, the confirmation of the four primary dimensions of service quality has aided in the comprehension of travel agency services. However, the sub-dimensions of the four primary dimensions have not been investigated in this study. This implies that future researchers could expand on this study by identifying the sub-dimensions of each primary dimension in their research on travel agency services in order to gain a better understanding of travel agency services.

Third, this study has only examined the impacts of four marketing constructs (service quality, perceived value, customer satisfaction, and brand image) on customer loyalty. There are some potential relationships that may be omitted from the conceptual research model. For example, customer loyalty may be influenced by the marketing constructs of switching costs, trust, customer engagement, and service recovery. Future researchers should include these additional marketing constructs in their models in order to acquire a more complete picture of customer loyalty.

6.8 The outbreak of COVID-19 in January 2020 has impacted the world's economies The Impact of COVID-19 on the Travel Agency Industry in China

because of the ever-increasing number of cases (Zhong, Sun, Law, & Li, 2021). In the tourism sector, the World Tourism Organisation (UNWTO) revealed that by 2022, the number of foreign visitor arrivals had decreased by 72% as compared to pre-pandemic levels. Experts also predicted that

COVID-19 will have a long-term effect on the tourism industry, and the global tourism sector will only be fully recovered by the year 2024 (UNWTO, 2021).

Travel agency customers' perceptions of the service quality model and their perceptions toward the interrelationships between the five marketing constructs (service quality, customer perceived value, customer satisfaction, brand image, and customer loyalty) may change as it is likely that customers behaviour will change due to the long-lasting impact of COVID-19 (Zhong et al.,2021). This section is written in reaction to the consequences of the global pandemic on the travel agency industry.

6.8.1 The Possible Change in Technical Quality's Importance on Overall Service Quality Model

The importance of the four primary dimensions that conceptualised travel agency service quality may change as face-to-face communication has been restricted during the COVID-19 period. The findings of this research indicate that the importance of four primary dimensions on overall service quality ranked from the most important to the least important are: interaction quality, outcome quality, physical environment quality, and technical quality.

However, the importance of these primary dimensions may change over the post-pandemic era. Physical environment quality and interaction quality may have less impact on overall service quality, compared with outcome quality and technical quality. Mohanty, Hassan, and Ekis (2020) found in their research on the possible change in the tourism industry in the post-COVID period that social distancing will continue to influence tourist's behaviour after COVID-19. As a consequence of this transformation, technical quality may increase in importance, as customers of travel agencies may have the possibility of relying more on new technologies in their communications and purchasing with travel agencies.

6.8.2 The Possible Change in Interrelationships between the Five Marketing Constructs (Service Quality, Customer Perceived Value, Customer Satisfaction, Brand Image, and Customer Loyalty)

The findings of this study reveal that customer loyalty is directly impacted by brand image and indirectly impacted by service quality and customer perceived value. The research results also indicate that customer satisfaction mediates the impact of service quality and customer perceived value on customer loyalty. Following the COVID-19 outbreak, travel agency customers' perceptions of the interrelationships between these marketing constructs may change.

First, travel agency customers may be more concerned with safety issues and try to avoid high-density packages (Bonfanti, Vigolo, & Yfantidou, 2021; Zhong et al., 2021; Mohanty et al., 2020). Future services marketing researchers should include customer perceived risk into their customer

loyalty model to investigate customer perceived risk's impact on customer loyalty. In addition, the importance of customer perceived value in impacting customer loyalty may increase after COVID.

Second, service quality may have a stronger impact on customer loyalty after COVID. The demographic characteristics of travellers may change due to the outbreak of COVID-19. Only customers with time and money could afford the increased costs of flight tickets and the uncertainty of potential cost owing to a possible outbreak of COVID-19 at the destination. These customers may be less sensitive with the price they pay and place higher value on a high standard of service quality. Therefore, in the post-COVID period, service quality's impact on customer loyalty may increase in the travel agency sector in China and globally.

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Appendices

Appendix 1: Cover Letter and Questionnaire

Lincoln University

Faculty, Department or Research Centre: Faculty of Agribusiness and Commerce

Research Information Sheet

You are invited to participate as a subject in thesis research entitled

An empirical analysis of the factors that influence Chinese travellers' booking decisions

The aim of this research is to:

- 1. Identify the factors that influence consumers' decisions as to whether to use online booking systems or travel agents or when arranging travel;*
- 2. Rank the factors from most important to least important; and*
- 3. Determine whether demographic factors influence consumers' travel decisions and examine how they influence travel decisions.*

Your participation is very important to this research. This survey will take approximately 10-15 minutes to complete. If you are 18 years or older, I would be grateful if you would take a few minutes to complete the questionnaire and return it to me once you have finished. This research is completely voluntary in nature and you are free to decide not to participate at any time during the process of completing the questionnaire. However, if you complete the questionnaire and returned it to the researcher, it is understood that you are 18 years of age or older and have consented to participate in this survey.

Complete anonymity is assured in this survey. No questions are asked which would identify you as an individual. All responses will be aggregated for analysis only, and no personal details will be reported in the thesis or any resulting publications.

The project is being carried out by:

Name of principal researcher: Ran Wei

Contact details : aran51@hotmail.com/[+64 21 2800667](tel:+64212800667)

My supervisor will be pleased to discuss any concerns you have about your participation in the research.

Please contact Michael Clemes, my main supervisor at Lincoln University

Email: Michael.Clemes@lincoln.ac.nz

The project has been reviewed and approved by the Lincoln University Human Ethics Committee.

A SURVEY OF TRAVEL AGENCY CUSTOMERS' EXPERIENCES

This questionnaire is for postgraduate research only, and your consent to participate in this research project is deemed to be given by completing and returning the questionnaire. The questionnaire contains two sections. Please answer all of the statements in the relevant sections. The statements listed below are designed to obtain your opinion on several aspects of the travel agency you most frequent use.

Please circle to indicate how strongly you agree or disagree with each of the following statements on a scale of 1 to 7.

1 = you strongly disagree, 7 = you strongly agree. If you are unable to answer a question, use the neutral value of 4 on the scale.

SECTION 1:

Customer Loyalty		Strongly disagree			Strongly agree			
1	I always say positive things about this travel agency to other people.	1	2	3	4	5	6	7
2	I intend to repurchase the services of this travel agency in the future.	1	2	3	4	5	6	7
3	I always consider this travel agency to be the first one on my list when booking travel.	1	2	3	4	5	6	7
4	I would encourage relatives and friends to use this travel agency.	1	2	3	4	5	6	7
5	I intend to continue my relationship with this travel agency.	1	2	3	4	5	6	7

Brand Image		Strongly disagree			Strongly agree			
1	I have always had a good impression of this travel agency.	1	2	3	4	5	6	7
2	I believe that this travel agency has a better image than its competitors.	1	2	3	4	5	6	7
3	In my opinion, this travel agency has a good image in the minds of its customers.	1	2	3	4	5	6	7
4	I continue to be impressed by the brand image of this travel agency.	1	2	3	4	5	6	7
5	Overall, I believe the travel agency has a positive image in the marketplace.	1	2	3	4	5	6	7

Customer Satisfaction		Strongly disagree			Strongly agree			
1	I believe that I made the right choice using this travel agency.	1	2	3	4	5	6	7
2	I am satisfied with the travel products (e.g. flight tickets, hotel booking, travel insurance) I purchase from this travel agency.	1	2	3	4	5	6	7
3	This travel agency provides a very satisfactory experience.	1	2	3	4	5	6	7
4	I made a wise choice to be a customer of this travel agency.	1	2	3	4	5	6	7
5	Overall, I had a pleasant experience using this travel agency for my booking.	1	2	3	4	5	6	7

Customer Perceived Value		Strongly disagree			Strongly agree		
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1	I am satisfied with the value I received, for the price that I paid at this travel agency.	1	2	3	4	5	6	7
2	The value that this travel agency offers for its price is high.	1	2	3	4	5	6	7
3	The services that this travel agency provides are valuable.	1	2	3	4	5	6	7
4	Compared to what I gave up (e.g. money, time, energy, and effort) the services that I receive from this travel agency are excellent.	1	2	3	4	5	6	7
5	Overall, this travel agency offers good value for money.	1	2	3	4	5	6	7

Service Quality		Strongly disagree			Strongly agree			
1	The overall quality provided by this travel agency is excellent.	1	2	3	4	5	6	7
2	The travel agency provides high quality services.	1	2	3	4	5	6	7
3	I consider the service quality of this travel agency to be superior when compared to other travel agencies.	1	2	3	4	5	6	7
4	The quality of the service provided by this travel agency is impressive.	1	2	3	4	5	6	7
5	This travel agency consistently provides a high quality service.	1	2	3	4	5	6	7

Outcome Quality		Strongly disagree			Strongly agree			
1	I have received my desired outcome by using the services of this travel agency.	1	2	3	4	5	6	7
2	The employees of this travel agency provide a timely service.	1	2	3	4	5	6	7
3	I believe that this travel agency is interested in the outcome of my booking experience.	1	2	3	4	5	6	7
4	When I leave this travel agency, I always feel that I received what I wanted.	1	2	3	4	5	6	7
5	The service provided by this travel agency is excellent.	1	2	3	4	5	6	7

Physical Environment Quality		Strongly disagree			Strongly agree			
1	The overall quality of the physical environment of this travel agency is excellent.	1	2	3	4	5	6	7
2	Employees of this travel agency have a neat and professional appearance.	1	2	3	4	5	6	7
3	The travel agency's retail atmosphere (e.g., clean, music, comfortable temperature) is appropriate.	1	2	3	4	5	6	7
4	I feel safe and secure in this travel agency.	1	2	3	4	5	6	7
5	Overall, I am satisfied with the physical environment of this travel agency.	1	2	3	4	5	6	7

Interaction Quality		Strongly disagree			Strongly agree			
1	The attitude of employees of this travel agency demonstrates their willingness to help me.	1	2	3	4	5	6	7
2	The employees of this travel agency always seek the best travel products for me.	1	2	3	4	5	6	7
3	The employees of this travel agency act in a professional manner.	1	2	3	4	5	6	7
4	When a customer has a problem, the employees of this travel agency show a sincere interest in solving it.	1	2	3	4	5	6	7

5	The employees of this travel agency are able to handle my complaints directly and immediately.	1	2	3	4	5	6	7
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Technical Quality		Strongly disagree			Strongly agree			
1	I can contact this travel agency easily because of they use the same chatting apps I use.	1	2	3	4	5	6	7
2	I can easily find basic travel products through this travel agency's website.	1	2	3	4	5	6	7
3	The website of this travel agency is easy to navigate.	1	2	3	4	5	6	7
4	I am confident that my personal information that is associated with this travel agency's service is secure.	1	2	3	4	5	6	7
5	This travel agency recognizes that my privacy is important to me.	1	2	3	4	5	6	7
6	Payment for my travel booking is convenient (e.g., credit card, bank transfer, eftpos, cash).	1	2	3	4	5	6	7

SECTION 2: DEMOGRAPHIC INFORMATION

The questions below relate to personal data. Please tick one box which is best applicable to you under each category.

1. Your gender: Male Female
2. Your age group: 18-25 26-35 36-45 46-55 56 and over
3. Marital status: Married Never married Divorced
4. Your highest education level:
- High School College or University
- Postgraduate or above
5. When you are travelling, are you travelling **primarily**?
- Alone With my families
- With my friends
6. What is your monthly income?
- Less than RMB 3,000 RMB 3,000--RMB 4,999
- RMB 5,000--RMB 6,999 RMB 7,000--RMB 8,999
- Over RMB 9,000

Thank you.

Appendix 2: Normality Test

Item	Skewness	Kurtosis
A1	-0.219	-0.524
A2	-0.125	-0.369
A3	0.044	-0.480
A4	-0.152	-0.408
A5	-0.078	-0.427
B1	-0.275	-0.497
B2	-0.144	-0.444
B3	-0.002	-0.502
B4	-0.056	-0.479
B5	-0.274	-0.392
C1	-0.285	-0.299
C2	-0.208	-0.525
C3	-0.279	-0.537
C4	-0.269	-0.457
C5	-0.321	-0.296
D1	-0.245	-0.208
D2	-0.143	-0.247
D3	-0.282	-0.074
D4	-0.164	-0.299
D5	-0.338	-0.198
SQ1	-0.339	-0.125
SQ2	-0.283	-0.114
SQ3	-0.199	-0.395
SQ4	-0.335	-0.176
SQ5	-0.100	-0.548

Item	Skewness	Kurtosis
OQ1	-0.320	-0.290
OQ2	-0.378	-0.319
OQ3	-0.226	-0.378
OQ4	-0.247	-0.248
OQ5	-0.365	-0.200
G1	-0.213	-0.510
G2	-0.416	-0.215
G3	-0.275	-0.365
G4	-0.318	-0.140
G5	-0.281	-0.250
H1	-0.296	-0.335
H2	-0.271	-0.307
H3	-0.309	-0.382
H4	-0.238	-0.600
H5	-0.373	-0.166
I1	-0.468	-0.203
I2	-0.520	-0.260
I3	-0.354	-0.320
I4	-0.323	-0.348
I5	-0.580	-0.333
I6	-1.061	0.857
DI1	-0.163	-1.983
DI2	0.875	0.103
DI3	0.119	-1.120
DI4	0.093	0.682
DI5	-0.167	-0.506
DI6	0.132	-1.301

Appendix 3: Correlation Matrix (Service Quality)

Correlation Matrix

Correlation	H1	H2	H3	H4	H5	G1	G2	G3	G4	G5	I1	I2	I3	I4	I5	I6	OQ1	OQ2	OQ3	OQ4	OQ5
H1	1.000	0.715	0.643	0.588	0.541	0.540	0.554	0.411	0.475	0.476	0.382	0.392	0.346	0.321	0.314	0.317	0.532	0.508	0.480	0.503	0.487
H2	0.715	1.000	0.681	0.627	0.567	0.496	0.573	0.478	0.480	0.486	0.397	0.373	0.424	0.357	0.342	0.286	0.504	0.567	0.527	0.502	0.444
H3	0.643	0.681	1.000	0.669	0.558	0.471	0.548	0.524	0.449	0.514	0.431	0.463	0.436	0.340	0.371	0.322	0.493	0.531	0.505	0.477	0.477
H4	0.588	0.627	0.669	1.000	0.663	0.488	0.503	0.545	0.494	0.535	0.358	0.424	0.334	0.345	0.343	0.242	0.536	0.563	0.564	0.471	0.545
H5	0.541	0.567	0.558	0.663	1.000	0.417	0.470	0.449	0.515	0.435	0.361	0.461	0.352	0.412	0.401	0.224	0.504	0.556	0.503	0.520	0.495
G1	0.540	0.496	0.471	0.488	0.417	1.000	0.748	0.654	0.595	0.672	0.381	0.431	0.324	0.276	0.300	0.231	0.542	0.458	0.523	0.429	0.563
G2	0.554	0.573	0.548	0.503	0.470	0.748	1.000	0.653	0.655	0.648	0.333	0.415	0.362	0.281	0.311	0.214	0.524	0.506	0.496	0.468	0.523
G3	0.411	0.478	0.524	0.545	0.449	0.654	0.653	1.000	0.640	0.681	0.237	0.423	0.333	0.319	0.351	0.182	0.474	0.515	0.523	0.436	0.508
G4	0.475	0.480	0.449	0.494	0.515	0.595	0.655	0.640	1.000	0.706	0.303	0.455	0.341	0.357	0.341	0.179	0.498	0.504	0.534	0.492	0.545
G5	0.476	0.486	0.514	0.535	0.435	0.672	0.648	0.681	0.706	1.000	0.336	0.493	0.371	0.416	0.364	0.273	0.502	0.510	0.462	0.461	0.569
I1	0.382	0.397	0.431	0.358	0.361	0.381	0.333	0.237	0.303	0.336	1.000	0.671	0.600	0.362	0.357	0.342	0.280	0.340	0.244	0.272	0.255
I2	0.392	0.373	0.463	0.424	0.461	0.431	0.415	0.423	0.455	0.493	0.671	1.000	0.652	0.437	0.494	0.409	0.308	0.401	0.299	0.361	0.390
I3	0.346	0.424	0.436	0.334	0.352	0.324	0.362	0.333	0.341	0.371	0.600	0.652	1.000	0.478	0.514	0.444	0.289	0.378	0.306	0.305	0.349
I4	0.321	0.357	0.340	0.345	0.412	0.276	0.281	0.319	0.357	0.416	0.362	0.437	0.478	1.000	0.669	0.398	0.319	0.393	0.362	0.386	0.387
I5	0.314	0.342	0.371	0.343	0.401	0.300	0.311	0.351	0.341	0.364	0.357	0.494	0.514	0.669	1.000	0.539	0.312	0.349	0.383	0.381	0.441
I6	0.317	0.286	0.322	0.242	0.224	0.231	0.214	0.182	0.179	0.273	0.342	0.409	0.444	0.398	0.539	1.000	0.203	0.275	0.195	0.224	0.285
OQ1	0.532	0.504	0.493	0.536	0.504	0.542	0.524	0.474	0.498	0.502	0.280	0.308	0.289	0.319	0.312	0.203	1.000	0.698	0.629	0.646	0.608
OQ2	0.508	0.567	0.531	0.563	0.556	0.458	0.506	0.515	0.504	0.510	0.340	0.401	0.378	0.393	0.349	0.275	0.698	1.000	0.623	0.629	0.552
OQ3	0.480	0.527	0.505	0.564	0.503	0.523	0.496	0.523	0.534	0.462	0.244	0.299	0.306	0.362	0.383	0.195	0.629	0.623	1.000	0.612	0.633
OQ4	0.503	0.502	0.477	0.471	0.520	0.429	0.468	0.436	0.492	0.461	0.272	0.361	0.305	0.386	0.381	0.224	0.646	0.629	0.612	1.000	0.731
OQ5	0.487	0.444	0.477	0.545	0.495	0.563	0.523	0.508	0.545	0.569	0.255	0.390	0.349	0.387	0.441	0.285	0.608	0.552	0.633	0.731	1.000

Appendix 4: Anti-Image Correlation Matrices

Table A4-1 Anti-image Covariance Matrix

Anti-image Covariance																					
	H1	H2	H3	H4	H5	G1	G2	G3	G4	G5	I1	I2	I3	I4	I5	I6	OQ1	OQ2	OQ3	OQ4	OQ5
H1	0.374	-0.132	-0.072	-0.027	-0.025	-0.055	-0.015	0.058	-0.024	0.011	-0.002	-0.012	0.027	-0.008	0.020	-0.058	-0.037	0.013	0.018	-0.023	-0.007
H2	-0.132	0.335	-0.072	-0.047	-0.030	0.001	-0.041	-0.004	-0.002	-0.005	-0.023	0.057	-0.061	-0.007	3.693E-06	-0.001	0.025	-0.037	-0.028	-0.033	0.047
H3	-0.072	-0.072	0.369	-0.086	-0.017	0.044	-0.039	-0.053	0.045	-0.027	-0.039	-0.013	-0.022	0.026	-0.005	-0.030	-0.005	0.005	-0.023	-0.009	0.002
H4	-0.027	-0.047	-0.086	0.354	-0.128	0.016	0.022	-0.047	0.021	-0.033	-0.020	-0.015	0.036	0.004	0.013	0.006	-0.020	-0.015	-0.046	0.058	-0.057
H5	-0.025	-0.030	-0.017	-0.128	0.428	0.008	-0.010	0.011	-0.065	0.051	0.005	-0.056	0.026	-0.045	-0.031	0.043	-0.010	-0.039	0.008	-0.032	0.002
G1	-0.055	0.001	0.044	0.016	0.008	0.299	-0.128	-0.079	0.021	-0.064	-0.074	-0.012	0.034	0.017	0.014	-0.016	-0.049	0.039	-0.051	0.046	-0.054
G2	-0.015	-0.041	-0.039	0.022	-0.010	-0.128	0.321	-0.043	-0.075	-0.015	0.014	0.010	-0.026	0.029	-0.009	0.014	-0.007	-0.012	0.025	-0.010	0.003
G3	0.058	-0.004	-0.053	-0.047	0.011	-0.079	-0.043	0.363	-0.057	-0.068	0.078	-0.031	-0.016	0.014	-0.036	0.041	0.021	-0.041	-0.026	-0.002	0.019
G4	-0.024	-0.002	0.045	0.021	-0.065	0.021	-0.075	-0.057	0.368	-0.120	0.000	-0.034	0.003	-0.002	0.003	0.037	0.000	0.007	-0.059	-0.008	-0.012
G5	0.011	-0.005	-0.027	-0.033	0.051	-0.064	-0.015	-0.068	-0.120	0.320	0.016	-0.038	0.016	-0.075	0.028	-0.026	-0.013	-0.019	0.054	0.011	-0.042
I1	-0.002	-0.023	-0.039	-0.020	0.005	-0.074	0.014	0.078	0.000	0.016	0.445	-0.164	-0.111	-0.026	0.019	-0.003	-0.009	-0.013	0.012	-0.010	0.044
I2	-0.012	0.057	-0.013	-0.015	-0.056	-0.012	0.010	-0.031	-0.034	-0.038	-0.164	0.353	-0.120	0.016	-0.045	-0.033	0.037	-0.014	0.040	-0.024	0.003
I3	0.027	-0.061	-0.022	0.036	0.026	0.034	-0.026	-0.016	0.003	0.016	-0.111	-0.120	0.435	-0.057	-0.041	-0.060	-0.004	-0.015	-0.010	0.036	-0.035
I4	-0.008	-0.007	0.026	0.004	-0.045	0.017	0.029	0.014	-0.002	-0.075	-0.026	0.016	-0.057	0.476	-0.206	-0.002	0.012	-0.027	-0.014	-0.026	0.017
I5	0.020	3.693E-06	-0.005	0.013	-0.031	0.014	-0.009	-0.036	0.003	0.028	0.019	-0.045	-0.041	-0.206	0.404	-0.170	-0.005	0.038	-0.039	0.000	-0.043
I6	-0.058	-0.001	-0.030	0.006	0.043	-0.016	0.014	0.041	0.037	-0.026	-0.003	-0.033	-0.060	-0.002	-0.170	0.619	0.016	-0.047	0.033	0.024	-0.024
OQ1	-0.037	0.025	-0.005	-0.020	-0.010	-0.049	-0.007	0.021	0.000	-0.013	-0.009	0.037	-0.004	0.012	-0.005	0.016	0.374	-0.134	-0.052	-0.069	-0.019
OQ2	0.013	-0.037	0.005	-0.015	-0.039	0.039	-0.012	-0.041	0.007	-0.019	-0.013	-0.014	-0.015	-0.027	0.038	-0.047	-0.134	0.368	-0.067	-0.059	0.018
OQ3	0.018	-0.028	-0.023	-0.046	0.008	-0.051	0.025	-0.026	-0.059	0.054	0.012	0.040	-0.010	-0.014	-0.039	0.033	-0.052	-0.067	0.399	-0.038	-0.059
OQ4	-0.023	-0.033	-0.009	0.058	-0.032	0.046	-0.010	-0.002	-0.008	0.011	-0.010	-0.024	0.036	-0.026	0.000	0.024	-0.069	-0.059	-0.038	0.340	-0.160
OQ5	-0.007	0.047	0.002	-0.057	0.002	-0.054	0.003	0.019	-0.012	-0.042	0.044	0.003	-0.035	0.017	-0.043	-0.024	-0.019	0.018	-0.059	-0.160	0.322

Table A4-2 Anti-Image Correlation Matrix

Anti-image Correlation																					
	H1	H2	H3	H4	H5	G1	G2	G3	G4	G5	I1	I2	I3	I4	I5	I6	OQ1	OQ2	OQ3	OQ4	OQ5
H1	.944 ^a	-0.373	-0.193	-0.074	-0.061	-0.166	-0.044	0.157	-0.064	0.032	-0.004	-0.033	0.068	-0.019	0.051	-0.121	-0.098	0.035	0.046	-0.065	-0.019
H2	-0.373	.939 ^a	-0.204	-0.138	-0.079	0.002	-0.124	-0.011	-0.005	-0.015	-0.059	0.166	-0.159	-0.018	1.005E-05	-0.003	0.069	-0.106	-0.078	-0.098	0.144
H3	-0.193	-0.204	.956 ^a	-0.237	-0.043	0.131	-0.112	-0.144	0.123	-0.078	-0.096	-0.035	-0.056	0.062	-0.012	-0.062	-0.013	0.014	-0.059	-0.027	0.006
H4	-0.074	-0.138	-0.237	.942 ^a	-0.330	0.050	0.064	-0.130	0.059	-0.099	-0.050	-0.042	0.092	0.010	0.035	0.014	-0.055	-0.042	-0.122	0.166	-0.170
H5	-0.061	-0.079	-0.043	-0.330	.952 ^a	0.024	-0.026	0.029	-0.164	0.139	0.012	-0.144	0.061	-0.100	-0.075	0.084	-0.026	-0.097	0.020	-0.084	0.004
G1	-0.166	0.002	0.131	0.050	0.024	.910 ^a	-0.412	-0.241	0.063	-0.208	-0.204	-0.036	0.093	0.045	0.041	-0.036	-0.147	0.117	-0.147	0.143	-0.175
G2	-0.044	-0.124	-0.112	0.064	-0.026	-0.412	.946 ^a	-0.126	-0.219	-0.048	0.038	0.030	-0.070	0.075	-0.024	0.032	-0.020	-0.036	0.069	-0.030	0.010
G3	0.157	-0.011	-0.144	-0.130	0.029	-0.241	-0.126	.942 ^a	-0.156	-0.201	0.195	-0.086	-0.039	0.033	-0.094	0.086	0.056	-0.113	-0.068	-0.006	0.055
G4	-0.064	-0.005	0.123	0.059	-0.164	0.063	-0.219	-0.156	.944 ^a	-0.349	0.001	-0.093	0.007	-0.005	0.008	0.077	0.001	0.019	-0.154	-0.022	-0.035
G5	0.032	-0.015	-0.078	-0.099	0.139	-0.208	-0.048	-0.201	-0.349	.936 ^a	0.043	-0.113	0.042	-0.192	0.079	-0.059	-0.036	-0.056	0.151	0.035	-0.130
I1	-0.004	-0.059	-0.096	-0.050	0.012	-0.204	0.038	0.195	0.001	0.043	.889 ^a	-0.415	-0.252	-0.057	0.044	-0.006	-0.022	-0.032	0.029	-0.025	0.118
I2	-0.033	0.166	-0.035	-0.042	-0.144	-0.036	0.030	-0.086	-0.093	-0.113	-0.415	.909 ^a	-0.305	0.040	-0.119	-0.070	0.101	-0.038	0.106	-0.069	0.008
I3	0.068	-0.159	-0.056	0.092	0.061	0.093	-0.070	-0.039	0.007	0.042	-0.252	-0.305	.923 ^a	-0.125	-0.098	-0.116	-0.011	-0.038	-0.025	0.093	-0.093
I4	-0.019	-0.018	0.062	0.010	-0.100	0.045	0.075	0.033	-0.005	-0.192	-0.057	0.040	-0.125	.906 ^a	-0.471	-0.004	0.029	-0.065	-0.033	-0.066	0.043
I5	0.051	1.005E-05	-0.012	0.035	-0.075	0.041	-0.024	-0.094	0.008	0.079	0.044	-0.119	-0.098	-0.471	.885 ^a	-0.340	-0.012	0.099	-0.098	0.001	-0.119
I6	-0.121	-0.003	-0.062	0.014	0.084	-0.036	0.032	0.086	0.077	-0.059	-0.006	-0.070	-0.116	-0.004	-0.340	.903 ^a	0.033	-0.098	0.067	0.052	-0.054
OQ1	-0.098	0.069	-0.013	-0.055	-0.026	-0.147	-0.020	0.056	0.001	-0.036	-0.022	0.101	-0.011	0.029	-0.012	0.033	.951 ^a	-0.360	-0.134	-0.194	-0.056
OQ2	0.035	-0.106	0.014	-0.042	-0.097	0.117	-0.036	-0.113	0.019	-0.056	-0.032	-0.038	-0.038	-0.065	0.099	-0.098	-0.360	.949 ^a	-0.174	-0.166	0.053
OQ3	0.046	-0.078	-0.059	-0.122	0.020	-0.147	0.069	-0.068	-0.154	0.151	0.029	0.106	-0.025	-0.033	-0.098	0.067	-0.134	-0.174	.956 ^a	-0.102	-0.166
OQ4	-0.065	-0.098	-0.027	0.166	-0.084	0.143	-0.030	-0.006	-0.022	0.035	-0.025	-0.069	0.093	-0.066	0.001	0.052	-0.194	-0.166	-0.102	.920 ^a	-0.484
OQ5	-0.019	0.144	0.006	-0.170	0.004	-0.175	0.010	0.055	-0.035	-0.130	0.118	0.008	-0.093	0.043	-0.119	-0.054	-0.056	0.053	-0.166	-0.484	.925 ^a



Appendix 5: KMO and Bartlett's test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.933
Bartlett's Test of Sphericity	Approx. Chi-Square	2952.445
	df	210
	Sig.	0.000

Appendix 6: Latent Root Criterion

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.167	48.415	48.415	10.167	48.415	48.415
2	1.976	9.408	57.824	1.976	9.408	57.824
3	1.226	5.839	63.662	1.226	5.839	63.662
4	1.122	5.341	69.004	1.122	5.341	69.004
5	0.790	3.763	72.766			
6	0.719	3.424	76.190			
7	0.533	2.537	78.728			
8	0.521	2.483	81.211			
9	0.477	2.273	83.484			
10	0.443	2.110	85.594			
11	0.412	1.963	87.557			
12	0.374	1.779	89.336			
13	0.332	1.579	90.915			
14	0.305	1.453	92.367			
15	0.293	1.396	93.763			
16	0.263	1.253	95.016			
17	0.248	1.180	96.196			
18	0.229	1.091	97.287			
19	0.219	1.041	98.328			
20	0.185	0.881	99.209			
21	0.166	0.791	100.000			

Extraction Method: Principal Component Analysis.

**Appendix 7: EFA Results for the Primary Dimensions of Service Quality using
VARIMAX Rotation**

Rotated Component Matrix^a				
	Component			
	1	2	3	4
OQ1		0.658		
OQ2		0.607		
OQ3		0.683		
OQ4		0.742		
OQ5		0.682		
G1	0.776			
G2	0.746			
G3	0.757			
G4	0.728			
G5	0.767			
H1			0.707	
H2			0.733	
H3			0.708	
H4			0.633	
H5			0.552	
I1				0.607
I2				0.683
I3				0.735
I4				0.688
I5				0.758
I6				0.689

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 9 iterations.

Appendix 8: EFA Results for the Primary Dimensions of Service Quality using OBLIMIN Rotation

Pattern Matrix^a

	Component			
	1	2	3	4
OQ1		0.629		
OQ2		0.560		
OQ3		0.662		
OQ4		0.751		
OQ5		0.649		
G1	0.857			
G2	0.788			
G3	0.841			
G4	0.788			
G5	0.849			
H1			0.769	
H2			0.802	
H3			0.755	
H4			0.649	
H5			0.556	
I1				0.552
I2				0.637
I3				0.729
I4				0.736
I5				0.820
I6				0.748

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

a. Rotation converged in 9 iterations.