

# **FACTORS AFFECTING INTENSIONS OF BUSINESS AND LEISURE PASSENGERS: AN EMPIRICAL INVESTIGATION OF CHINA LOW-COST AIR SERVICE**

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## **ABSTRACT**

This paper employs structural equation modelling approach to investigate and compare the factors affecting the behavioural intentions of business and leisure passengers in the context of low-cost air service. The empirical results on the passengers of the Spring Airlines, the first China low-cost carrier, show that discrepancies between these two types of passengers do exist, suggesting the marketing strategies should be differentiated. The estimated results show that, for business passengers, service quality has the largest effect on behavioural intentions, followed by servicescape, indicating that business passengers not only value service quality but also the spatial environment. In contrast, for leisure passengers, service value is found to have the largest effect on behavioural intentions, implying the effectiveness of a low-fare policy. However, it is worth noting that service quality still exerts the second largest effect, implying that even in the context of low-cost air service, airlines still have to devote themselves to improving service quality to attract greater patronage of business and leisure passengers.

*Keywords: Low cost carriers, business passengers, leisure passengers, structural equation modelling.*

## **1. INTRODUCTION**

The successful low-cost air service business model developed by Southwest Airlines in the early 1970s has since spread worldwide. Numerous low-cost carriers were established in the EU during the late 1990s to the early 2000s. During the mid 2000s, low-cost carriers business model entered the Asian market, first in Southeast Asia, and then in China and India. In the past decade, there has been a dramatic increase in the airline/airway by low-cost carriers. Frank (2004) indicates that in the US low-cost airlines carry 24% of passengers and account for 9% industry revenues. In Europe, low-cost airlines account for 8% of passengers and 3% of revenue in 2002, and rapidly expanding. Therefore, many studies examine the consumer behaviour, service quality, marketing strategies and competitive response of low-cost carriers (e.g. Windle and Dresner, 1999; Morrell, 2005; O'Connell and Williams, 2005; Mason and Alamdari, 2007), but most of these focused on the airlines in the US and EU market. Due to the late introduction of low-cost air service business model to China, few studies have focused on the greater China air transport market. With the rapid growth in income combined with the development of the air transportation infrastructure, air travel is now possible for many millions of people in China, making China is one of the most rapidly growing air transport markets in the world and deserving a careful examination.

In addition, the increased penetration by low-cost carriers has spurred full service carriers to lower their cost and to offer competitive fares. Although the lower offered by both low-cost carriers and full service carriers are attractive to business travellers (Mason, 2000; 2001), they have also served to generate travel among nonbusiness or leisure passengers. There is evidence that the low fare have shifted the mix between business and leisure travellers, such that the percentage of leisure passengers has increased. The increased penetration of low-cost carriers is only one factor that has generated growth in the leisure passenger market (Dresner, 2006). Such a trend indicates the equal importance for low-cost carriers to understand the needs of leisure passengers as they do for business passengers. Given the growth of the leisure market, a question arises as to how the leisure passengers may be similar to or different from business passengers. This question is important because the passenger mix may affect the business operations of both airlines and airports. For example, it has long been held in the literature that leisure passengers are more price elastic than business passengers (De Vany, 1974). As a result, leisure passengers are thought to have a lower value of time than business passengers. And airlines operating on routes for leisure markets may be able to offer lower frequencies than airlines operating in full service airline market. Dresner (2006) differentiated between business and leisure passengers in their estimation of airlines and airports in Baltimore Washington International airport to examine the different and similar factors. There is, however, little research examining how differences between business and leisure passengers from the price and time value may affect carrier or airport operations.

Based on this, Chiou and Chen (2009) employed important performance analysis (IPA) technique to analyze the gaps in expectation and perception between business and leisure passengers regarding the service provided by the first China low-cost carrier – Spring Airlines. Results show that significant remarkable differences in expectation and perception between business and leisure passengers can be identified. However, how passenger intentions will be affected due to the improved service quality has not been investigated yet. To achieve an ever more successful low-cost air service business model, in-depth insights into the difference in the structural relationships among factors affecting the intentions of business and leisure passengers are essential. In doing so, this study employs structural equation modelling (SEM) approach to investigate and compare the factors affecting the behavioural intentions of business and leisure passengers in the context of low-cost air service.

The remainder of the present paper is organized as follows: Section 2 explains theoretical background and hypotheses. Section 3 details the questionnaire design and survey, including profiling the survey respondents. Section 4 presents the estimated results of business and leisure passengers along with the comparisons and implications. Finally, concluding remarks and suggestions for future research follow.

## 2. THEORETICAL BACKGROUND AND HYPOTHESES

The conceptual framework of the proposed model is depicted in Figure 1, where a total of six constructs directly or indirectly affecting intentions via service value or satisfaction. The theoretical background of the framework is delineated below.

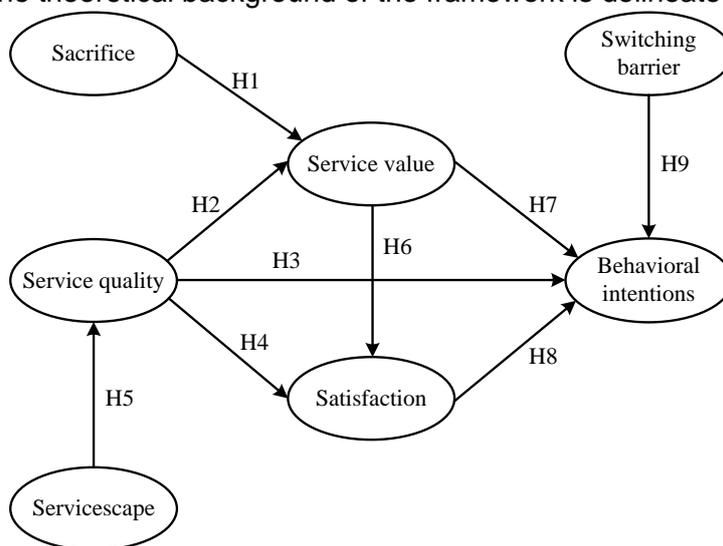


Figure 1 – The conceptual framework

## **2.1 Sacrifice**

Sacrifice is defined as what is given up or sacrificed to acquire a service/product (Zeithaml, 1988). The measured scale of the sacrifice can be described as the consumers' perceptions of the monetary and the non-monetary price when they acquire a service/product. Monetary price is evaluated by a direct measure of the dollar price of the service, and non-monetary price is evaluated by direct measures of time and effort of the service (Cronin et al., 2000). Because risk is an inherent part of the cost of the acquisition and use of any service/product, Sacrifice is described as a composite of perceived monetary price, perceived non-monetary price, and perceived risk (Cronin et al., 1997).

## **2.2 Service quality**

Airline service quality can be defined as a customer's overall impression of the efficiency of the organization and its services (Park et al., 2004) or as a chain of services in which the entire service delivery is divided into a series of process (Chang and Chen, 2005; Chiou and Chen, 2009). These direct relationships have been largely unexplored to this point in the international service literature (Knight, 1999). Parasuraman et al. (1985) address service quality as expectation and perceptions of service. If customers perceive high service quality they are likely to increase the intention of repurchasing the brand. Service value is an overall evaluation of costs and benefits of the transaction (Zeithaml, 1988; Dodds et al., 1991; Fornell et al., 1996; Andreassen and Lindestad, 1998; Cronin et al., 2000; Hellier et al., 2003). A number of studies have addressed service quality issues in the airline industry. Elliott and Roach (1993) used on-time performance, baggage handling, food quality, seat comfort, check-in service, and in-flight service as the criteria for evaluating airline service quality. Bowen and Headley (2000) have undertaken research on Airline Quality Rating (AQR) which has met with national and international acceptance and acknowledgement. The latest report is based on attributes related to airline performance areas which are important to air passengers. All of those attributes are reported monthly in the Air Travel Consumer Report maintained by the US Department of Transportation. They include: on-time arrival, being 'bumped' from a flight, mishandled baggage and airline safety. It also includes passenger complaints: flight problems, reservations, ticketing, boarding problems, fares, refund, customer service, advertising and frequency flyer program. Aksoy et al. (2003) explored the differences in customer expectations of airline services and those on four foreign airlines on the same route. They found that the underlying dimensions of service expectations varied between the two groups, although there was some overlap in the results. Gilbert and Wong (2003) developed a 26-item questionnaire incorporating reliability, assurance, facilities, employees, flight patterns, customization, and responsiveness dimensions to measure and compare the differences in passengers' expectations of the desired airline service quality. Chen and Chang (2005) evaluated airline in-flight and ground service quality. The results

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revealed these gaps of passenger perception and expectation did significantly exist. Liou and Tzeng (2007) exercised seating comfort, in-flight entertainment service, meal service, on-time performance, safety record, promptness and accuracy of baggage delivery, convenient flight schedule, appearance of employees, service efficiency of airline personnel, frequent flyers programs, customer complaints handing, and language skill of airline personnel to develop a non-additive model for evaluating and improving the service quality of airlines and compare its results with the conventional additive model.

Airline service is composed of a set of processes. Passengers have distinct expectations and perception at different stages of service chain (Park et al., 2004; Chen and Chang, 2005; Chiou and Chen, 2009). Along with complain response and flight operation, air travel consists of seat reservation, ground service, cabin facility, meal service, cabin service and baggage delivery. Based on these related studies, a total of eight attributes are selected to represent the service quality of low-cost air service: seat reservation, ground service, cabin facility, meal service, cabin service, baggage delivery, complaint response, and flight operation.

### **2.3 Servicescape**

The production and consumption of services occur simultaneously in a physical environment or servicescape created and controlled by a service organization. The servicescape, which is considered a package of services, has three components: ambient conditions, spatial layout, and décor and orientation signals (Bitner, 1992). Conventionally, servicescape has not been considered as important as price and advertising when determining corporate policy. However, in today's era of the image, several researchers have underlined its very influential role in the process of managing corporate image (Bitner, 1990; Clark and Schmidt, 1995). With a better understanding of the effects of servicescape on the purchase decision processes of customers, practitioners should adjust their marketing plans to achieve a sustainable advantage over their competition. Hightower et al. (2002) and Sureshchandar et al. (2002) investigated and validated the significant influence of servicescape on service quality.

### **2.4 Service value**

The issue of value creation or value added has been widely discussed in consumer and industrial marketing articles and is often treated as the main part of organization's mission statements and objectives. Service value has been defined as an important variable of customer satisfaction and behavioural intentions (McDougall and Kevesque, 2000). Zeithaml (1988) described perceived value is conceptualized as the consumer's overall assessment of the utility of a product based on perceived of what is received and what is given. She also identified four unique definitions of the value construct by an exploratory investigation: (1) Value is low price, (2) Value is

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whatever I want in a product, (3) Value is equality I get for the price I pay, (4) Value is what I get for what I give. Overall, value is a trade-off between get (benefits) and give up (sacrifices) something, no matter what is given and what is received vary across consumers.

## **2.5 Satisfaction**

Customer satisfaction (or dissatisfaction) has become an important issue for marketing practitioners because of the rapidly changed business environment. Customer satisfaction can be defined as a judgment made on the basis of a specific service encounter. Satisfaction and loyalty are not surrogates for each other (Bloemer and Kasper, 1995; Oliver, 1999). It is possible for customers to be loyal without being highly satisfied (e.g., when they are few other choices) and to be highly satisfied and yet not loyal (e.g., when many alternatives are available). Firms are needed to gain a better understanding of the relationship between satisfaction and loyalty in the online environment and to allocate the online marketing efforts between satisfaction initiatives and loyalty program. Past studies have suggested that perceptions of service quality and value affect satisfaction, and satisfaction furthermore affect loyalty and behavioural intentions.

## **2.6 Switching barriers**

Switching barriers represent anything that makes it more difficult or costly for customers to change providers. Jones et al. (2000) examined three switching barriers in the context of customer services, namely interpersonal relationships, perceived switching costs, and the attractiveness of competing alternatives. Patterson and Smith (2003) studied the impact of switching barriers on customer propensity to stay with service providers. Chang and Chen (2007) developed a model of looking at switching barriers and customer loyalty stemming from customer relational benefits. Switching barriers also include hard or soft benefits provided by the firm (Chang and Chen, 2007). Hard benefits are economic gains that customers receive (discount or free tickets) while soft benefits relate to the customer's sense of special circumstance and recognition directed at the customer. Generally, the longer a customer stays with a firm, the more benefits that are received thus engendering loyalty. Though various forms of switching barriers exist, some are more easily manipulated by the firm than are others.

## **2.7 Behavioural intentions**

Favourable behavioural intentions frequently represent customer's conative loyalty. Customer loyalty is an important goal in the consumer marketing community as it is a key component for a company's long-term viability or sustainability (Chen and Chen, 2010). Past studies have established the antecedent, mediating and consequent

relationships overall customer perceptions of sacrifice, service quality, servicescape, service value, satisfaction, switching barriers, and behavioural intentions (Jones et al., 2000; Hightower et al., 2002; Bready et al., 2005; Chang and Chen, 2007; Chen, 2008; Chen and Kao, 2009). Several researchers suggest that service quality has a direct effect on behavioural intentions (Bitner, 1990; Zeithaml, 1996; Cronin et al., 2000; Brady, et al., 2001; Brady et al., 2005). More specifically in the context of airline service, the importance of the relationships between service quality and behavioural intention has been examined by some studies (Park et al. 2004; Chen, 2008). The importance of the relationships between airline service quality, satisfaction and behavioural intentions have been examined by Ostrowski et al. (1993) and Sultan and Simpson (2000). Both satisfaction and service value are direct antecedents of behavioural intentions (Cronin et al., 2000; Tam, 2000; McDougall and Levesque, 2000; Petrick and Backman, 2002).

Based on the aforementioned related studies, the conceptual model (Figure 1) is proposed by this study with nine hypotheses being tested:

H1: There is a direct and positive relationship between sacrifice and service value.

H2: There is a direct and positive relationship between service quality and service value.

H3: There is a direct and positive relationship between service quality and behavioural intentions.

H4: There is a direct and positive relationship between service quality and satisfaction.

H5: There is a direct and positive relationship between servicescape and service quality.

H6: There is a direct and positive relationship between service value and satisfaction.

H7: There is a direct and positive relationship between service value and behavioural intentions.

H8: There is a direct and positive relationship between satisfaction and behavioural intentions.

H9: There is a direct and positive relationship between switching barrier and behavioural intentions.

### **3. DATA**

To examine the validity of the proposed hypothetical model and to investigate the differences between business and leisure passengers, an empirical case study on a Chinese low-cost carrier, Spring Airlines, is conducted. Spring Airlines was established in 2004 and uses Shanghai Hongqiao International Airport as its base. The airline operates 28 domestic flight routes as depicted in Figure 2 with only one aircraft type, the Airbus 320 (180 seats).

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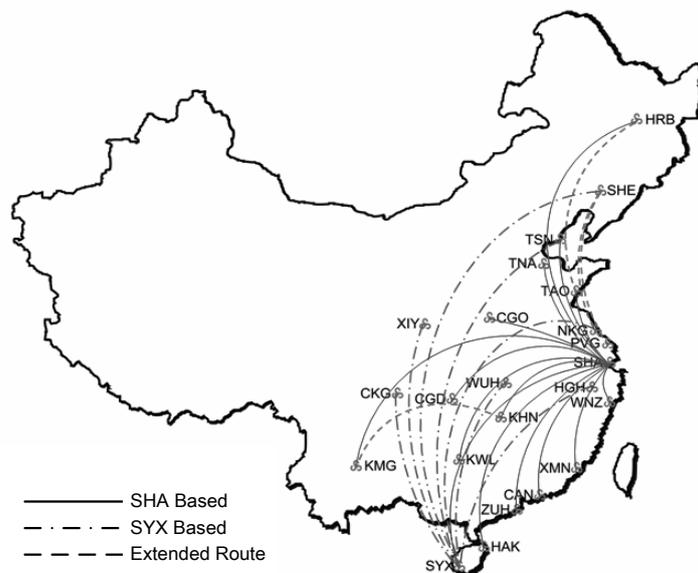


Figure 2 – Domestic air routes operated by Spring Airlines

The questionnaire comprised five parts. The first part gathered passenger travel information, including origin and destination airports, purpose of journey, flight frequency, frequent flyer membership, booking channel, and reasons for flying Spring Airlines. The second part contained 21 statements reflecting importance dimensions for LCC service levels, which are primarily based on the SERVQUAL scale developed by Parasuraman et al. (1988) and the questionnaire designed by Park et al. (2004), together with insights gained from in-depth interviews with airline managers and focus group responses. Since the survey aims at passengers of LCC, some questionnaire items are moderately revised from those of Park et al. (2004) to account for the distinctive differences between FSC and LCC. Firstly, due to the operating characteristics of LCC, such as no-frilled service and no reserved seat, the items of meal service, in-flight entertainment service, frequency flyer program and providing seat that passenger prefer are not included. In addition, three items of service of offering a bottle of mineral water, reasonable price of foods and drinks, and variety choice of meals are added instead. Besides, according to Chen and Chang (2005), the airline service can be evaluated from a process perspective. To obtain more detailed information, the importance and satisfaction survey on a sequence of services provided by various types of airline crew during embarking and disembarking process are designed, including appearance and attitude of reservation staff towards customer service and quick response to reservation lines (for reservation staff), appearance and attitude of check-in staff towards customer service, check-in service, easily-operated automatic check-in machine (for check-in staff), appearance and attitude of cabin crew towards customer service, clear boarding broadcasting and staffs' instructions, easy to understand cabin crews' broadcasting, and quick response to passengers' requests (for cabin crew) and appearance and attitude of baggage-handling staff towards customer service and quick and well-managed baggage claim service (for baggage-handling staff).

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The respondents were asked to rate the degree of importance they ascribed to the 21 statements using a five-point Likert scale. Identical statements were included in the third part to survey respondent satisfaction (namely the performance of Spring Airlines). The fourth part surveyed passenger perceptions of the aspects of service value, airline image, overall satisfaction and behavioural intentions, respectively, represented by two to three items. The final part included respondent demographic information. Sacrifice, service quality, servicescape, service value, satisfaction, switching barriers and behavioural intentions were “indirectly measured” by questions (Table 1). A reliability test based on Cronbach’s  $\alpha$  was used to test whether these factors are consistent and reliable. All reliability values exceeded 0.7, suggesting that the level of reliability is satisfactory (Hair et al., 1998).

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Table 1 – Reliability of latent constructs with their observed indicators

Latent Construct	Observed indicators	Cronbach $\alpha$	
		Business	Leisure
Sacrifice (SF)	1. I feel the ticket price is reasonable. (SF1) 2. I am satisfied with the reimbursement and ways for flight delay or cancellation. (SF2) 3. I am satisfied with the reimbursement and ways for luggage delay or loss. (SF3)	0.739	0.832
Service quality (SQ)	1. I feel the reservation lines are easily connected. (SQ1) 2. I feel the reservation and ticketing channels are designed with a wide choice. (SQ2) 3. I feel the reservation staffs are friendly. (SQ3) 4. I feel the ticketing and check-in services are quick and correct. (SQ4) 5. I feel the automatic check-in machines are easily-operated. (SQ5) 6. I feel the boarding broadcasting and staffs' instructions are clear. (SQ6) 7. I feel the check-in staffs are friendly. (SQ7) 8. I feel the cabin environment is clean. (SQ8) 9. I feel the passenger seats are comfortable. (SQ9) 10. I feel the marks and signs are clear and easy to understand. (SQ10) 11. I feel I am satisfied with the service of spring water offered. (SQ11) 12. I feel the price of foods and drinks is reasonable. (SQ12) 13. I feel the meals are served with a wide choice. (SQ13) 14. I feel the cabin crews are friendly and the broadcasting is easy to understand. (SQ14) 15. I feel the cabin crews are friendly. (SQ15) 16. I feel the baggage claim service is quick and well-managed. (SQ16) 17. I feel the baggage-handling staffs are friendly. (SQ17) 18. I feel the passengers' complaints are appropriately responded. (SQ18) 19. I feel passengers' requests are quickly responded. (SQ19) 20. I feel the flights always depart and arrive as scheduled. (SQ20) 21. I feel the flight safety is good. (SQ21)	0.950	0.952
Servicescape (SS)	1. I feel I don't need to wait a long time to buy a ticket at the service places of the airline. (SS1) 2. I feel the service places of the airline are widely-located and satisfy my needs. (SS2) 3. I feel the business hours of the service places of the airline can satisfy my needs. (SS3)	0.838	0.715
Service value (SV)	1. I feel the service is acceptable at this ticket price. (SV1) 2. I feel the airline offers more valuable services than other airline companies. (SV2) 3. I feel the service is valuable at this ticket price. (SV3)	0.775	0.828
Satisfaction (ST)	1. As a whole, I am satisfied with the services of the airline. (ST1) 2. I feel I am satisfied with the experience flying with the airline. (ST2)	0.875	0.781
Switching barrier (SB)	1. I feel the cost flying with other airlines is very high. (SB1) 2. I feel other airlines can provide better services to satisfy my needs. (SB2)	0.786	0.810
Behavioural intention (BI)	1. I am willing to fly with the airline for the same flight route next time. (BI1) 2. I am willing to recommend the airline to someone else. (BI2)	0.847	0.910

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A total of 2,000 questionnaires were disseminated to travelers flying Spring Airlines in airports and airplane cabins from March 5 to March 11, 2007. Customers completed the questionnaires themselves before arriving at their destination airport. A total of valid 968 questionnaires were returned. The demographics of respondents with different journey purposes, business and leisure, are given in Table 2. Note that leisure travel, including tourism and visiting family or friends, takes lion's share (67.4%) of total patronage, while business travel only accounts for 32.6%. Interestingly, the majority of business customers are male (65.8%), while leisure customers are roughly even split between males and females. Moreover, most of both business and leisure customers of Spring Airlines are aged below 40 years old (73.6%), suggesting that young people are the major market of the airline. In terms of personal occupation, the majority of business passengers work for private or foreign-funded enterprises (58.9%). However, the leisure customers of the airline are a very diverse group. The largest percentage of the education level is university for both business and leisure passengers. The majority of both business and leisure passengers earned monthly incomes ranging from RMB2001-4000, representing a low income group in the context of China. Anyhow, compared to leisure passengers, business passengers earn higher income.

Table 2 – Demographics of respondents with different journey purposes

Demographics	Business passengers		Leisure passengers	
	Sample	Percentage	Sample	Percentage
<i>Gender</i>				
Male	208	65.8%	304	46.6%
Female	108	34.2%	348	53.4%
<i>Age</i>				
20 or Younger	9	2.8%	41	6.2%
21-30	120	38.0%	243	37.3%
31-40	105	33.2%	194	29.8%
41-50	57	18.0%	93	14.3%
51-60	16	5.1%	62	9.5%
61 or Older	9	2.8%	19	2.9%
<i>Occupation</i>				
Government	43	13.6%	132	20.3%
Science / Academia	33	10.4%	106	16.3%
Foreign-funded Enterprise	84	26.6%	129	19.8%
Private Enterprise	102	32.3%	96	14.7%
Government-owned Enterprise	39	12.3%	77	11.8%
Farming	10	3.2%	52	8.0%
Others	5	1.6%	60	9.2%
<i>Education</i>				
Primary or below	11	3.5%	35	5.4%
High school	65	20.6%	196	30.1%
University	207	65.5%	370	56.7%
Master or above	33	10.4%	51	7.8%
<i>Monthly income (RMB)</i>				
2000 or Lower	39	12.4%	143	21.9%
2001-4000	86	27.2%	255	39.1%
4001-6000	56	17.7%	108	16.6%
6001-8000	60	19.0%	80	12.3%
8001 or Higher	75	23.7%	66	10.1%
<i>Subtotal</i>	316	32.6%	652	67.4%

## **4. RESULTS**

To investigate the difference in the factors affecting intentions of business and leisure passengers, two SEM models based on the hypothesized framework are respectively estimated below.

### **4.1 Estimated measurement models**

Table 3 presents the estimated results of the measurement models of business and leisure passengers. Convergent validity of CFA results should be supported by item reliability, construct reliability, and average variance extracted (Hair et al., 1998). As shown in Table 3, Note that all observed variables are significantly tested and all constructs have high composite reliability and variance extracted.

Three types of goodness-of-fit indices are used here to evaluate the model performance: absolute fit measures, incremental fit measures, and parsimonious fit measures. An absolute fit index is used to directly evaluate how well the priori theoretical model fits the sample data. An incremental fit index assesses the proportionate fit by comparing a target model with a more restricted, nested baseline model. A parsimonious fit measure is used to diagnose whether model fit has been achieved by over fitting the data with too many coefficients (Hu and Bentler, 1995). Table 4 gives the goodness-of-fit indices for the business and leisure measurement models. Note that all three types of goodness of fit indices of both models are acceptable, except for RMR and NFI values of the business measurement model (0.056 and 0.849) slightly exceeding 0.05 and falling below 0.9, respectively.

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Table 3 – Convergent validity of the proposed measurement model

Latent construct	Observed indicator	Factor loading		Standardized factor loading		t-value		Construct reliability		Average variance extracted	
		Business	Leisure	Business	Leisure	Business	Leisure	Business	Leisure	Business	Leisure
Sacrifice (SF)	SF1	-	-	0.330	0.583	-	-				
	SF2	1.052	1.509	0.918	0.899	5.864**	16.029	0.815	0.830	0.738	0.771
	SF3	1.174	1.541	0.939	0.908	5.841**	16.037				
Service quality (SQ)	SQ1	-	-	0.635	0.699	-	-	0.835	0.838	0.713	0.768
	SQ2	1.030	1.042	0.682	0.690	10.685**	17.009**				
	SQ3	1.194	1.111	0.743	0.739	12.373**	17.917**				
	SQ4	1.120	1.073	0.732	0.739	12.204**	17.928**				
	SQ5	1.100	1.080	0.725	0.727	12.102**	17.641**				
	SQ6	1.284	1.138	0.795	0.759	13.155**	18.379**				
	SQ7	1.346	1.123	0.775	0.747	12.855**	18.101**				
	SQ8	1.210	1.111	0.728	0.705	12.142**	17.153**				
	SQ9	0.820	0.660	0.513	0.469	8.729**	11.581**				
	SQ10	1.143	1.018	0.709	0.710	11.850**	17.256**				
	SQ11	1.037	1.094	0.590	0.704	9.982**	17.128**				
	SQ12	1.086	1.136	0.605	0.678	10.209**	16.516**				
	SQ13	1.034	1.108	0.587	0.677	9.934**	16.501**				
	SQ14	1.155	1.071	0.679	0.703	11.381**	17.098**				
SQ15	1.014	1.021	0.713	0.727	11.912**	17.655**					
SQ16	1.214	1.116	0.770	0.747	12.776**	18.110**					
SQ17	1.255	1.135	0.760	0.737	12.634**	17.872**					
SQ18	1.112	1.195	0.678	0.725	11.373**	17.608**					
SQ19	1.133	1.126	0.696	0.726	11.645**	17.627**					
SQ20	1.134	0.950	0.587	0.581	9.923**	14.249**					
SQ21	1.153	1.002	0.728	0.671	12.138**	16.370**					
Servicescape (SS)	SS1	-	-	0.769	0.373	-	-	0.827	0.797	0.763	0.695
	SS2	1.171	1.000	0.801	0.847	14.009**	9.172**				
	SS3	1.070	0.946	0.792	0.819	13.849**	9.124**				
Service Value (SV)	SV1	-	-	0.725	0.812	-	-	0.820	0.831	0.743	0.772
	SV2	1.098	0.952	0.760	0.801	11.715**	21.460**				
	SV3	1.091	0.886	0.712	0.731	11.128**	19.329**				
Satisfaction (ST)	ST1	-	-	0.844	0.771	-	-	0.823	0.825	0.667	0.770
	ST2	1.043	1.166	0.921	0.827	17.431**	19.565**				
Switching barrier (SB)	SB1	-	-	0.820	0.801	-	-	0.807	0.821	0.736	0.763
	SB2	1.079	1.152	0.793	0.849	11.397**	17.871**				
Behavioural Intention (BI)	BI1	-	-	0.679	0.901	-	-	0.786	0.832	0.721	0.783
	BI2	0.919	0.995	0.715	0.910	4.191**	30.588**				

Note: \* denotes  $p < 0.01$ ; \*\*  $p < 0.01$ .

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Table 4 – Goodness of fit indices for both business and leisure models

Index	Threshold	Business	Leisure
<i>Absolute fit measures</i>			
$\chi^2/df$	< 5	3.372	4.674
GFI	> 0.9	0.941	0.951
RMR	< 0.05	0.056	0.048
RMSEA	< 0.08	0.079	0.078
<i>Incremental fit measures</i>			
AGFI	> 0.9	0.903	0.912
NFI	> 0.9	0.849	0.921
NNFI	> 0.9	0.909	0.952
CFI	> 0.9	0.908	0.951
<i>Parsimonious fit measures</i>			
PNFI	> 0.5	0.721	0.758
PGFI	> 0.5	0.647	0.685

Note:  $\chi^2$ =Chi-square; *df*=degrees of freedom; GFI=goodness-of-fit index; RMR=root mean residual; RMSEA=root mean square error of approximation; AGFI=adjusted goodness-of-fit index; NFI=normed fit index; NNFI=non-normed fit index; CFI= comparative fit index; PNFI= parsimonious normed fit index; PGFI=parsimonious goodness-of-fit index.

## 4.2 Estimated structural models

Figures 3 and 4 present the tested results for the business and leisure structural models, respectively. As shown in Figure 3, all hypotheses of the business structural model are successfully supported, except for H7, suggesting that service value does not exert a direct and positive effect on behavioural intentions for business passengers. However, in Figure 4, all hypotheses are successfully supported, except for H3, suggesting that service quality does not have a direct and positive effect on behavioural intentions for leisure passengers.

Furthermore, Table 5 summarizes the direct, indirect, and total effects of factors on the behavioural intentions. For business passengers, service quality exhibits the highest total effects of 0.494, including a direct effect of 0.309 and an indirect effect of 0.185 moderated by service value and satisfaction, suggesting that business passengers even in the context of low-cost air service still value service quality most just as they do in flying with full service carriers (e.g. Bready et al., 2005; Chen and Kao, 2009). Servicescape has the second largest effect on behavioural intentions (0.369), indicating that business passengers not only expect for the high-quality service provided by the airline staffs but also ask for luxury spatial layout of waiting space or cabin space. Interestingly, the most essential feature of low-cost air service, service value (low price), only has rather small effect on behavioural intentions (0.147). Two reasons may support such a finding. Firstly, the air travel expenses of some business passengers are partially or fully financial supported by their companies. Secondly, business passengers averagely earn higher income and have lower price elasticity than leisure passengers.

However, for leisure passengers, service value becomes the most important factor affecting behavioural intentions with total effect of 0.589, including a direct effect of 0.338 and an indirect effect of 0.251 moderated by satisfaction, indicating the low-fare strategy is very competitive to leisure passengers. The policy to maintain relatively low fare is definitely essential to attract greater patronage of leisure passengers. Especially, for the Spring Airlines, about two-thirds of customers fly with leisure purpose. However, it is worth noting that service quality still exerts the second largest effect on behavioural intentions (0.505),

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implying that even in the context of low-cost air service, airlines still have to devote themselves to improving service quality to attract both business and leisure passengers.

To sum up, the factors affecting intentions of business and leisure passengers are rather different. Business passengers care about service quality and spatial environment, but leisure passengers enjoy the cheap air tickets, implying the marketing strategies for both types of passengers should be remarkably differentiated. Except for following the golden rule to improve service quality and create a better spatial environment, price discrimination between business and leisure passengers is suggested. However, the price discrimination will not be successful, if the journey purpose of passengers cannot be clearly identified. Therefore, the lower price tickets can be offered to leisure passengers for those traveling in groups through a distribution channel of travel agencies and for students who can barely gain financial supports from government or private companies.

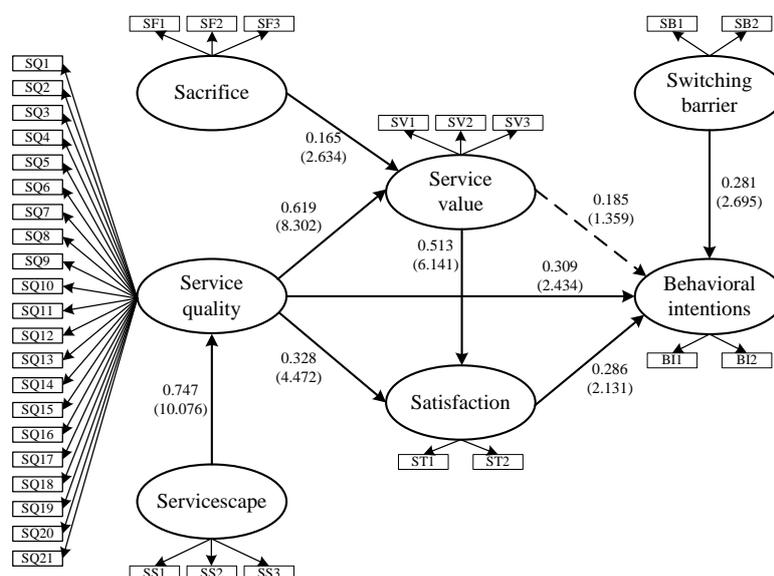


Figure 3 – Estimated business structural model (t-values in the parentheses)

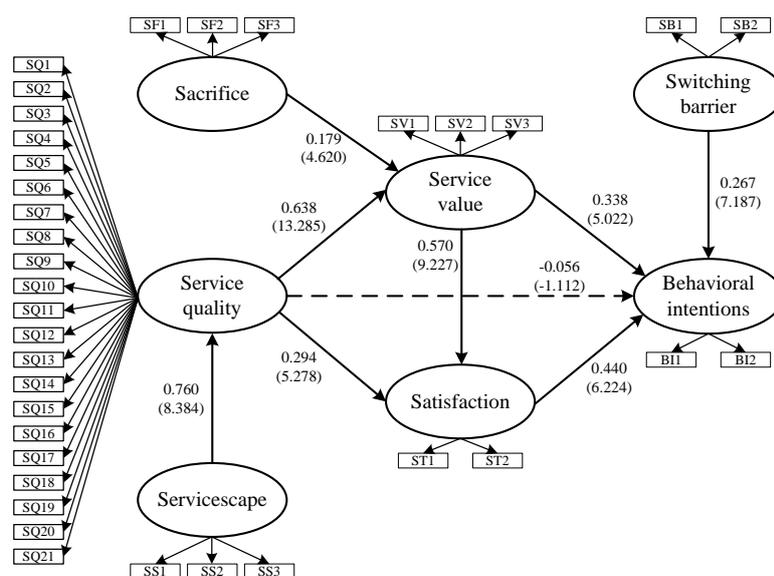


Figure 4 – Estimated leisure structural model (t-values in the parentheses)

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Table 5 – Direct, indirect and total effects of business and leisure structural models

Path	Business			Leisure		
	Direct effect	Indirect effect	Total effect	Direct effect	Indirect effect	Total effect
Sacrifice → behavioural intentions	-	0.024	0.024	-	0.105	0.105
Service quality → behavioural intentions	0.309	0.185	0.494	-	0.505	0.505
Servicescape → behavioural intentions	-	0.369	0.369	-	0.384	0.384
Service value → behavioural intentions	-	0.147	0.147	0.338	0.251	0.589
Satisfaction → behavioural intention	0.286	-	0.286	0.440	-	0.440
Switching barrier → behavioural intentions	0.281	-	0.281	0.267	-	0.267

## 5. CONCLUSIONS

This paper investigates and compares the factors affecting the behavioural intentions of business and leisure passengers in the context of low-cost air service. The empirical results on the passengers of the Spring Airlines, the first China low-cost carrier, show that discrepancies between these two types of passengers do exist, suggesting the marketing strategies should be differentiated. The estimated results show that, for business passengers, service quality has the largest effect on behavioural intentions, followed by servicescape, indicating that business passengers not only value intangible service quality but also the physical spatial environment. In contrast, for leisure passengers, service value is found to have the largest effect on behavioural intentions, implying the effectiveness of a low-fare policy. However, it is worth noting that service quality still exerts the second largest effect, implying that even in the context of low-cost air service, airlines still have to devote themselves to improving service quality to attract greater patronage of business and leisure passengers. However, these findings are primarily based on the questionnaire survey of passengers of Spring Airlines. Further surveys and comparisons of passengers of other low-cost carriers and full service carriers can be undertaken to verify the model applicability and generate more general in-depth investigations.

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