The Relationship among E-service Quality, Perceived Value on Customer Satisfaction and Customer Loyalty of Online Tourism in China

Abstract

**Purpose:** The objective of this study is to investigate the relationship among e-service quality, perceived value on customer satisfaction, and customer loyalty of online tourism in China.

**Methodology:** Survey mainly used questionnaire to investigate the relationship among e-service, customer relationship, and customer loyalty. There are 482 questionnaires were collected from 7 websites between 20 to 26 May 2017 in China. The data was analysed by correlation analysis, confirmatory factor analysis, and structural equation modelling analysis.

**Finding:** E-service quality has a positive relationship to Perceived value; E-service quality has a positive relationship to customer loyalty; perceived value has a positive relationship to customer loyalty; perceived value is not positively related to customer satisfaction.

**Practical implications:** To complete online travel service quality theory, find a standard for judging online travel websites, to improve the design and service of
online travel companies. To help travel agencies build processional online travel service websites through investigating tourists’ perceived E-service quality and effective evaluation.

**Keywords:** Online Travel, Service Quality, Customer Satisfaction, Loyalty, Perceived Value.

1. Introduction

   Because of the rapid development of the economy in China, the scale of tourism consumption is rising annually; the level of tourism has become literally trillions. According to the China National Tourism Administration about Chinese Tourism Statistics Report of 2015, Chinese tourism consumption for the whole year of 2015 reach 3.35 trillion Yuan (Chinese Tourism Statistics, 2015); the tourism industry has become an extensive and socially influential, huge industry.

   The online travel industry in China is a large industry. For this research, the major companies focused on are B2C and User-generated Content (UGS). These types of companies contain almost exclusively online travel services, such as travel information, transportation, travel packages, and so on.

   While recent years have seen the emergence of companies such as Ctrip, YL.com, Tuniu cooperation, and other online travel, the trend has mainly included the rapid growth of large and influential enterprises. The result of online travel is an open platform, so product updates and marketing management require openness and transparency; this led directly to an increase in online travel market competition. In 2016, according to the annual report of these companies, results showed that the top three companies did not gain profit. Competition necessitates that companies find out how to satisfy customers and gain more market share.

   The objective of this study is to see the relationship among E-service quality, perceived value, customer satisfaction, and customer loyalty—to study whether there are any effects of E-service quality and perceived value on customer satisfaction and loyalty. The most significant is to, through this research, enrich online travel service quality research related theory system, construction of effective measuring dimension, and help improve the online travel service industry management standards, so as to improve the service level of the online travel industry, promote scientific development in the future, and help online travel companies analyse their own situations, formulated in accordance with their own strategic planning, and build effective quality evaluation systems through objective evaluation, in order to improve the service quality level of online travel sites, improve the online travel industry
management standards, and solve dilemmas in the online travel service market development.

2. Literature review

2.1 Service quality

Service quality refers to the contrast between customer expectations and the actual service quality (Gronroos, 1982). For the quality of service, there are two dimensions: a functional (or process) dimension and technical (or outcome) dimension can be perceived by customers (Gronroos, 1982; 1990). The determinants of service quality are also called SERVQUAL in a list by Parasuraman et al. (1988): reliability; assurance; tangibles; empathy; and responsiveness. SERVQUAL model is the most commonly used to measure the quality of service (Cronin and Taylor, 1992).

2.2 Electronic service quality

Service quality in e-commerce can be defined as the consumers' overall evaluation and judgment of the excellence and e-service quality offerings in the virtual marketplace (Santos, 2003). Ho & Lee (2007) noted that information quality, security, ease of use, availability, customization, community, responsiveness, and delivery fulfilment all are important indicators. Kaynama & Black (2000) state that content and purpose, accessibility, navigation, design and presentation, responsiveness, background, and penalization and customization are the most important dimensions. Kim & Lee (2004) said information content, structure and ease of use, reputation and security, and usefulness are important. Based on previous studies, Hongjuan Jiang (2015) studied the service quality the online travel customer received via Chinese online travel websites. Combining Kim & Lee’s (2004) and Ho & Lee’s (2007) theories, there are six dimensions of E-service quality. This information is shown in Figure 1 Dimensions of E-service quality.

**Figure 1** Dimensions of E-service quality.

![Diagram of E-service quality dimensions](image-url)
2.3 Customer satisfaction

Consumer satisfaction is the enterprise to establish a long-term relationship, the key factors that make its produce and patronage intentions. Bai (2008) found efforts to improve the satisfaction of virtual consumers, in order to increase their willingness to buy travel products online again, is critical. Philip Kotler (2000) thinks that customer satisfaction is a person’s perception of a product or result, as compared with his expectations after the formation of the state of the feeling of pleasure or disappointment.

2.4 Customer loyalty

Tsllis (1988) defines loyalty as repeated, frequent purchases or buying in large quantities of the same brand. This way of measuring loyalty ignores the attitude of consumers, the change of external environment, and the impact of the consumption process of loyalty. Monroe (1991) required respondents to remove the price factor and then measure loyalty as high and low in the questionnaire for judging consumer purchase intention and customer loyalty without considering the price. Oliver (1999) says that, according to the three components of cognitive attitude, emotion, and intention, customer loyalty can be divided into cognitive loyalty, affective loyalty, conative loyalty, and action loyalty (four levels), and the previous level of loyalty affect after.

2.5 Perceived value

Zeithaml (1988) defined consumer value as the ratio of perceived benefits to perceived costs. Bolton and Drew (1991) also confirmed that performance level and service will influence customer perceived value. Consumption-value theory falls under dimensional measurement, where the value can be summed up in functional, social, emotional, cognitive, and situational factors. Sweeney et al. (1996), on this basis, developed a 3-dimension measurement: functional, social, and emotional.

   Emotional value: a customer's various emotional factors, such as self-confidence, excitement, anger, or fear.

   Social value: whether the product image and customer cognitive concepts from friends or society are consistent with the perceived image.

   Functional value: the utility from the perceived quality and expected performance of the product.
2.6 The American Customer Satisfaction Index theory

The American Customer Satisfaction Index (ACSI) is a measure of customer satisfaction in the United States, established in 1994. The American Customer Satisfaction Index model is the most complete system and applies effects of customer satisfaction theory model. From Figure 2, ACSI consist of 6 elements: perceived overall quality, perceived value, and customer expectations are independent variables; customer complaints, and customer satisfaction and loyalty are dependent variable.

Figure 2 American ACSI model

2.7 The relationship among E-service Quality, Perceived Value, Customer Satisfaction and Loyalty

2.7.1 E-service quality with customer satisfaction and loyalty

Based on the literature review of empirical studies, E-service quality has a positive effect on customer satisfaction (Kim & Lee, 2004; Lee & Lin, 2005; Zhou bo, 2007; Hongjuan Jiang, 2015). Parasuraxnan et al. (1996) proposed that service quality will positively influence customer willingness to recommend to others, and recommendation intention is an important index of customer loyalty. Service quality has a positive relationship on customer loyalty. Taylor (2001) proposed that E-service quality has an effect on purchase intention.

**Hypothesis 1:** E-service quality has a positive relationship with customer satisfaction.

**Hypothesis 5:** E-service quality has a positive relationship with customer loyalty.

2.7.2 Perceived value with customer satisfaction and loyalty.
Many studies found that perceived value has a positive effect on customer satisfaction (Sweeny & Soutar, 2001; Fandos, 2009; Lloyd et al., 2011). For the relationship between perceived value and customer loyalty, many research results show that perceived value has a positive influence customers’ purchase intention (Lee et al., 2001; Cronin et al., 1997). Perceived value has an indirect effect on customer loyalty through customer satisfaction (Cronin et al., 2000) and trust factors (Chaudhuri et al., 2001).

**Hypothesis 2:** Perceived value has a positive relationship with customer satisfaction.

**Hypothesis 6:** Perceived value has a positive relationship with customer loyalty.

### 2.7.3 Customer satisfaction with customer loyalty

Empirical evidence shows that customer satisfaction has a positive relationship with customer loyalty (Brady et al., 2001; Johnson & Fornell, 1991). Ribbink (2004) thinks that customer satisfaction has significant positive effects on customer loyalty in e-commerce. Shankar (2003) found online customer satisfaction has a more significant impact on loyalty than offline.

**Hypothesis 3:** Customer satisfaction has a positive relationship with customer loyalty.

### 2.7.3 E-service quality with perceived value

Many studies have pointed out a positive relationship between perceived value and E-service quality (T.Sunitha, 2014, Fandos, 2009). Drew & Bolton (1991) found that the quality of service by customer perceived value intermediary factors influencing customer buying behavior.

**Hypothesis 4:** E-service quality has a positive relationship with perceived value.

### 2.8 Conceptual Framework
Base on the ACSI model, this conceptual framework considers perceived overall quality as E-service quality, as measured by 6 dimensions. This framework will use functional value, social value, and emotional value to measure perceived value. It will remove customer expectations, as this does not significantly influence the level of customer satisfaction (Johnson et al., 2001; Martensen et al., 2000). This conceptual framework is based on the literature review and the ACSI model shown in Figure 2, in order to measure the relationship among E-service quality, perceived value, customer satisfaction, and loyalty of the online travel market in China.

![Figure 2 The Conceptual Framework](source)

**2.9 Research Hypothesis**

Hypothesis 1: E-service quality has a positive relationship with customer satisfaction.

Hypothesis 2: Perceived value positively relates to customer satisfaction.

Hypothesis 3: Customer satisfaction has a positive relationship with customer loyalty.

Hypothesis 4: E-service quality has a positive relationship with perceived value directly.

Hypothesis 5: E-service quality has a positive relationship with customer loyalty.

Hypothesis 6: Perceived value has a positive relationship with customer loyalty.

**3. Research Methodology**

**3.1 Sampling and data collection**

The method of this research is by questionnaire. 482 questionnaires were
distributed from 20 to 26 May 2017 via 7 websites in China. Those destinations included online travel agencies, survey websites, E-mail, and Wechat. By using a screening question (No.1 in the questionnaire’s first part) and deleting invalid questionnaires, a total of 381 usable questionnaires were received, generating a response rate of 79.05%.

This questionnaire included 5 parts. Part 1 is about demographic and basic information on use of online travel websites, totalling 13 items. Part 2 is about E-service quality, using 18 items and five point Likert scales method to investigate responsiveness, ease of use, content, security, Structure & Layout, and appropriate pricing 6 factors. Part 3 is about perceived value; it includes 7 items by using five point Likert scales to survey customers’ feelings of perceived value. Part 4 is about customer satisfaction, including 4 items by five point Likert scales. Part 5 is about customer loyalty, with 4 items by using five point Likert scales.

3.2 Data analysis

This study uses SPSS to do descriptive statistics analysis and agreement level analysis. The SEM method was used to examine the hypothesised relationship in this study. In this research, there are three steps to use statistical methods to analyse data, as follows:

1) Descriptive Statistics Analysis

Use frequency and percentage to describe the demography of Chinese active online travel service users, including gender, age, monthly income, education, experience booking travel products online, and so on.

2) Agreement Level Analysis

Mean and Standard Deviation are used to describe each factor’s agreement dimension of variable. E-service towards six dimensions which are structure & layout, content, ease of use, appropriate pricing, responsiveness, security. Perceived value refers to functional value, social value, and emotional value.

3) Hypothesis Testing

Correlation analysis, Structural Equation Modelling (SEM) analysis, and Confirmatory Factor Analysis (CFA)

4. Results
4.1 Descriptive Statistics Analysis

In the demographic information, there were roughly equal numbers of male (49.3%) and female (50.7%) respondents. For age distribution, 25-30 (with 37.8%) is a major part of the sample, followed by age 18-24 (28.3%), and age 31-35 (17.3%). The data shows that the users of online travel websites mostly come from the youth group. The sample seemed to be a highly-educated group, with the majority of respondents (68%) holding a bachelor’s degree. Among those who reported income in this study, 33.6% of the respondents earned monthly income between 3,501-5,000 yuan, followed by 2,001-3,500 yuan (27.6%), and 5,001-6,500 yuan (17.6%). The average travel experience (times per year) in those respondents saw a majority of 3-4 times (47.5%), followed by 1-2 times (44.4%). Results indicate that the respondents’ average travel spending per year as 3,501-5,000 yuan (25.5%), followed by 2,001-3,500 yuan (23.1%).

In online website use situation, Qunar is the most frequently used by respondents, with 31.2%, compared with other online travel websites. Ctrip and LY.com were roughly equal, with 21.8% and 21.5%. In addition, users of the "other" travel websites mainly listed taobao travel, qyer.com, and other travel agencies. The online travel sites’ mobile application coverage ratio has reached 73.5%. User access frequency is not high; 50% of respondents average using the travel website for less than an hour at one time. The online travel segments frequented by tourists mainly concentrated on tickets (airplane, train, bus), with 23.4%. Hotel and tickets (admission tickets) were slightly behind, with 15.8% and 14.5%, respectively.

4.2 Analysis of the Level of Agreement

The mean of E-service quality is 3.61, and standard deviation is 0.932, which consisted of Structure & Layout, Content, Ease of use, Appropriate pricing, Responsiveness, and Security.

Based on the mean of each item, in order to list the rank, the top three in E-service quality are Q2.9, Q2.6, Q2.8.

The mean of perceived value is 3.60, and standard deviation is 0.913, consisting of Functional value, Social value, and Emotional value. The top item in perceived value is Q3.6, followed by Q3.1, which is ranked by Mean.

The mean of customer satisfaction is 3.63, and St.d is 0.927. The top item in customer satisfaction is Q4.1, followed by Q4.3, as ranked by Mean.

The mean of customer satisfaction is 3.66, and St.d is 0.9023. The level of agreement for customer loyalty is agree. The top item in customer satisfaction is Q5.1, followed by Q5.2, when ranked by Mean.
4.3 Reliability and validity

In table 5, the Cronbach’s Alpha for four variables is 0.923 which is in excellent reliability. In general, the reliability for this questionnaire was reliable.

Table 5 The Cronbach’s Alpha for Four Variables

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>Cronbach’s Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.923</td>
<td>.923</td>
<td>29</td>
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</table>

Construct validity is divided into two kinds: convergent validity and discriminant validity (Anderson & Gerbing, 1988). From Table 6, all standardized factor loadings are higher than 0.5, which means the variables in this research have convergent validity.

Table 6 Convergent Validity

<table>
<thead>
<tr>
<th>Variables</th>
<th>Items</th>
<th>Standardized factor loading</th>
<th>Construct reliability</th>
<th>Average variance extracted</th>
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Note: CS is customer satisfaction, CL is customer loyalty, EQ is E-service quality, SL is Structure & Layout, EU is Ease of use, AP is Appropriate pricing, FV is functional value, SV is social value, and EV is emotional value.

4.3 Correlation Analysis

From Table 9, all coefficients are higher than 0, which means all the factors have positive relationships with one another. In general, all the dimensions in the conceptual framework are reasonable.

Table 9 Correlation Matrix

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<tr>
<th></th>
<th>CS1</th>
<th>CS2</th>
<th>CS3</th>
<th>CS4</th>
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<th>CL2</th>
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<th>SL</th>
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<th>Security</th>
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<th>SV</th>
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</table>

Note 1: Correlation is significant at the 0.01 level (2-tailed).

Note 2: CS is customer satisfaction, CL is customer loyalty, SL is Structure & Layout, EU is Ease of use, AP is Appropriate pricing, FV is functional value, SV is social value, EV is emotional value, and RP is responsiveness.

4.4 Assessing model fits
CFA was used in this research to confirm the factor loadings of four variables, namely E-service quality, perceived value, customer satisfaction, and customer loyalty. The measurement model for CFA is shown in Figure 1. The criteria of fit indices of original model. The $X^2/df$ is 2.814, and is significant at $p < 0.05$, CFI is 0.928, RMESA is 0.069, IFI is 0.929, and TLI is 0.914, indicating an acceptable fit. NFI is lower than the recommend value but close to 0.9.

**Figure 1** The Measurement Model for CFA

Table 10 shows the top 3 Modification Indices of Covariances. $e_3$ and $e_8$ have a high relationship, if change error item $e_3$ and $e_8$ from fixed parameter to free parameter can reduce the value of $X^2$ for 14.68.

**Table 10** The Top 3 Modification Indices of Covariances

<table>
<thead>
<tr>
<th>M.I.</th>
<th>Par Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>$e_{10}$ $&lt;--&gt;$ $e_{15}$</td>
<td>13.505</td>
</tr>
<tr>
<td>$e_{5}$ $&lt;--&gt;$ $e_{13}$</td>
<td>13.711</td>
</tr>
<tr>
<td>$e_{3}$ $&lt;--&gt;$ $e_{8}$</td>
<td>14.68</td>
</tr>
</tbody>
</table>

Figure 2 shows the measurement model after modification.
Figure 2 The Second Measurement Model After Modification

Note: CS is customer satisfaction, CL is customer loyalty, EQ is E-service quality, SL is Structure & Layout, EU is Ease of use, AP is Appropriate pricing, FV is functional value, SV is social value, and EV is emotional value.

The criteria of fit indices of second measurement model. The X²/df is 2.684, and it is significant at p < 0.05, CFI is 0.934, RMESA is 0.067, IFI is 0.935, and TLI is 0.920, indicating an acceptable fit. By comparing the result of the original model and modification model, the criteria of fit indices correspond more to recommended value. In general, E-service quality, perceived value, customer satisfaction, and customer loyalty path coefficients were significant; thus, Hypotheses H1, H2, H3, and H4 can be tested by modification model.

4.5 Hypothesis Testing

From Chapter 2, there are 6 hypotheses in this research:

Hypothesis 1: E-service quality has a positive relationship with customer satisfaction.

Hypothesis 2: Perceived value positively relates to customer satisfaction.

Hypothesis 3: Customer satisfaction has a positive relationship with customer loyalty.

Hypothesis 4: E-service quality has a positive relationship with perceived value directly.

Hypothesis 5: E-service quality has a positive relationship with customer loyalty.

Hypothesis 6: Perceived value has a positive relationship with customer loyalty.

At present, mediating effect method is the most widely used to test mediating role operations (Baron & Kenny, 1986). This kind of test method is expressed in detail as:
Step 1, make the dependent variable on the independent variable regression, satisfied level of significance of regression coefficient;

Step 2, make the intermediary variable of the independent variable regression, satisfied level of significance of regression coefficient;

Step 3, the dependent variable to intermediary variable regression, factor still significantly;

Step 4, the introduction of intermediary variable continues to verify. If the influence of the independent variable on the dependent variable is significantly weakened, this indicates that the mediation variables are part of the intermediary effect. If the influence was not significant, on behalf of the intermediary variable had complete mediation effect.

Table 11 shows the result of the hypothesis tests; 5 hypotheses are supported. E-service quality has a positive effect on customer loyalty with CR of 10.024, and P value is smaller than 0.05. Perceived value has a significant positive effect on customer loyalty, with CR of 9.706, and P value is smaller than 0.05. E-service quality has a significant positive effect on perceived value, with CR of 13.878, and P value is smaller than 0.05. E-service quality has a significant positive effect on customer satisfaction, with CR of 4.339, and P value is smaller than 0.05. Customer satisfaction has a significant positive effect on customer loyalty, with CR of 8.060, and P value is smaller than 0.05.

### Table 11 The Steps of Testing Hypotheses

<table>
<thead>
<tr>
<th>Step</th>
<th>Path</th>
<th>CR</th>
<th>P</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.1</td>
<td>E-service quality↔customer loyalty</td>
<td>10.024</td>
<td>***</td>
<td>Support</td>
</tr>
<tr>
<td></td>
<td>Perceived value↔customer loyalty</td>
<td>9.706</td>
<td>***</td>
<td>Support</td>
</tr>
<tr>
<td></td>
<td>E-service quality↔Perceived value</td>
<td>13.878</td>
<td>***</td>
<td>Support</td>
</tr>
<tr>
<td>No.2</td>
<td>E-service quality↔customer satisfaction</td>
<td>4.339</td>
<td>***</td>
<td>Support</td>
</tr>
<tr>
<td></td>
<td>Perceived value↔customer satisfaction</td>
<td>1.219</td>
<td>0.437</td>
<td>Unsupported</td>
</tr>
<tr>
<td>No.3</td>
<td>Customer satisfaction↔customer loyalty</td>
<td>8.060</td>
<td>***</td>
<td>Support</td>
</tr>
<tr>
<td>No.4</td>
<td>E-service quality↔customer satisfaction↔customer loyalty</td>
<td>1.372</td>
<td>0.170</td>
<td>Unsupported</td>
</tr>
<tr>
<td></td>
<td>Perceived value↔customer satisfaction↔customer loyalty</td>
<td>1.474</td>
<td>0.141</td>
<td>Unsupported</td>
</tr>
</tbody>
</table>

Note: *P <0.05 (2 tailed), CR equal to Structural coefficients divided by SE.

Table 12 shows the final result of the hypothesis test: H1, H3, H4, H5, and H6 are supported, while H2 is rejected
### Table 12 The Final Result of Hypothesis Test

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Path</th>
<th>P</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>E-service quality ↔ customer satisfaction</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>Perceived value ↔ customer satisfaction</td>
<td>0.437</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3</td>
<td>Customer satisfaction ↔ customer loyalty</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>E-service quality ↔ Perceived value</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H5</td>
<td>E-service quality ↔ customer loyalty</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H6</td>
<td>Perceived value ↔ customer loyalty</td>
<td>***</td>
<td>Supported</td>
</tr>
</tbody>
</table>

5. Conclusion

The findings of demographic information reveal the detail of the sample group; for gender, female respondents are 234, equal to 50.7% of the survey number. Age is 25-30 years old (37.8%). Education level is bachelor’s degree (68%). Monthly income is 3,501-5,000 yuan (33.6%). Average travel experience is 3-4 times per year (47.5%). Average travel spending per year is 3,501-5,000 yuan (25.5%).

In this research, SEM technique used to test the hypothesised model. SPSS and Amos are used to test model reliability and validity. The CFA model of SEM was employed to verify the relationship among E-service quality, perceived value, customer satisfaction, and customer loyalty. By using Cronbach's Alpha and Convergent validity test, this questionnaire is reliable and has good validity. Model fits were assessed according to criteria of fit indices to ensure that the model and the data can be a good fit. The hypotheses were tested by using C.R. and P value. The result is that that H1, H3, H4, H5, and H6 are supported, while H2 is rejected. H1 is that E-service quality has a positive relationship with customer satisfaction. H2 is that perceived value positively relates to customer satisfaction. H3 is that customer satisfaction has a positive relationship with customer loyalty. H4 is that E-service quality has a positive relationship with perceived value. H5 is that E-service quality has a positive relationship with customer loyalty. H6 is that perceived value has a positive relationship with customer loyalty.

6. Discussion

The literature review shows that Kim & Lee’s (2004) information content, structure and ease of use, reputation and security, and usefulness are important dimensions of E-service quality and have positive effects on customer satisfaction. A literature review of Chinese research, such as Jiang hongjuan (2015), develop
E-service quality to include interface, usefulness, the quality of the information provided, timeliness, and economy, and that these all have a positive effect on customer satisfaction. Considering previous studies, this study combined the Chinese situation design model for E-service quality to include Structure & Layout, content, ease of use, responsiveness, appropriate pricing, and security—six dimensions that have a positive effect on customer satisfaction. The results agreed with previous studies. The result of this study shows that perceived value did not have a positive relationship with customer satisfaction. The results show that C.R. is 1.219, but p is non-significant at 0.437—much larger than 0.05. The reasons for this may be that questions on the questionnaire are too subjective—causing the answer to be unobjectionable—or that some questions of measurement are less than 3 and have similar questions in questionnaires, causing the measurement to lack accuracy. Although the relationship between customer satisfaction and loyalty are asymmetry correlation exists between the two, especially in e-commerce (Balanbanis et al., 2006). In this study, based on the e-commerce and online travel website situation, combine Fandos (2009) theory that evaluate perceived value of website from functional value, social value and emotional value 3 dimensions with E-service quality, get the result as same with previous study that it has positive relationship between this two. Parasuraxnan, Zeithaml & Berry (1996) propose that service quality will be a positive influence on customers’ willingness to recommend to others, and recommendation intention is an important index of customer loyalty, so service quality has a positive relationship with customer loyalty. This study saw the same results as previous studies. Perceived value has an indirect effect on customer loyalty through customer satisfaction (Cronin et al, 2000); the same applies to trust factors (Chaudhuri et al., 2001). This study shows that customer satisfaction serves as an intermediary factor between perceived value and customer loyalty, with a positive effect between the two.

7. Recommendations

1) Improve the quality of service by improving the usability of online services from the aspects of tangibility.

Various functions on the operation should simple and intuitive. Clear site navigation can effectively help customers find the products and information to satisfy the demand for purchase. The design of the website should let users feel relaxed, comfortable, and easy to use; it should attract users. Technique support capacity is also an important factor to improve ease of use for online travel websites. Good technical support and research & development of products can improve the stability of the product and ease of use. The site must strengthen attention to technology, establishing strong and stable technical operations teams to monitor website operation. Providing a variety of payment methods, such as online banking, credit cards, Alipay
2) Improve "security" in E-service quality.

Adopt advanced security technology and cooperate with third-party companies and banks to reduce site loopholes, in order to avoid cracking by hackers on the web server. Establishing effective, feasible security compensation mechanisms, active trading for customers to buy safety insurance, once customer lose profit, web site can provide advance processing and compensation mechanisms for responsibility tracing.

3) Improve service quality by strengthening the quality of content.

Ensure safety of the original information, at the same time keeping the information updated, such as ensuring the time tables of flight, rail traffic, and buses are accurate. Ticket prices and costs for hotel rooms should be accurate. Strengthen information transmission to improve the transmission method—not only including text, but also high-quality photos, third-party logs, and tourism videos—to ensure the quality of information is safe and reliable.

4) Improve service quality by guaranteeing the "responsiveness" of service.

Respond to feedback in time, in order to improve the service of "responsiveness". Online travel companies generally need to set up special training for personnel in the service "call centre". This should also extend to other channels that can handle customer requirements, including email, telephone, and online complaints.

8. Research Limitations and Prospects

1) Research limitations

First of all, the respondents are mainly university students, colleagues, and the young; some came from the social media platforms—such as weibo and wechat—which could lead to the questionnaire’s difficulty in fully reflecting the reality of popular online travel service quality perceptions. In addition, the paper, in the process of research, focused on exploring overall loyalty influence factors of online travel sites, thus lacking detailed classification of online travel sites. Travel sites examined include Ctrip, Qunar, LY.com, and LVMAMA.com, but there are numerous other sites, so this may make the research conclusions not comprehensive.

Because this research used the SERVQUAL model and maturity scale on the basis of the questionnaire design and survey, it may lack some intermediary variables, and adjust the setting of the variables, data statistical and analysis are fine enough.
2) The prospect of research

Online travel website service quality needs both additional academic research and industry development, so future studies should do further research on practical problems in the development of online travel sites in China, focusing on actual service problems, by attention to the problems of online tourism services extended the model conforms to Chinese tourism service quality improvement.

REFERENCES


Lee, M. K O. A. (1999), Comprehensive model of Internet consumer satisfaction [W]. unpublished working paper, City University of Hong Kong


