Customer satisfaction, loyalty, and commitment in online markets

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Abstract

In recent years, online markets have exploded as a meeting point for businesses and consumers. By studying the online tourist services market, the present study offers a model that explains the process of loyalty generation in online markets. The authors apply structural equation modeling to a sample of consumers of online tourist services. Through this analysis, service quality is shown to be an antecedent of both customer satisfaction and on-line loyalty. Furthermore, customer satisfaction and commitment are also found to be antecedents of online loyalty.

Keywords: Commitment, loyalty, service, satisfaction, tourism.

JEL code: M31.

1. Introduction

Online commerce in Spain continues to grow at a rapid pace (2008: 13.2%; 2009: 15.9%). In 2009, 17% more shoppers than the previous year decided to purchase their products and/or services online (ONTSI, 2010).

Research on the growth of online commerce has identified service quality as being positively related to customer satisfaction (Cronin and Taylor, 1992; Zeithaml et al., 1996). Despite this, Parasuraman et al. (2005) point out that there are not enough studies on how customers perceive online service quality, or on its antecedents and consequences.

Customer loyalty is crucial for companies that want to become profitable and succeed online (Chiu et al., 2009). The literature shows that, in online environments,
customer loyalty may be influenced by service quality (Reidenbach and Sandifer-Smallwood, 1990; Parasuraman et al., 1991; Cronin and Taylor, 1992; Getty and Thompson, 1994; Gotlieb et al., 1994; McAlester et al., 1994; Zeithaml et al., 1996; Cronin et al., 2000; Dabholkar et al., 2000; Brady and Robertson, 2001; Choi et al., 2004; Olorunniwo et al., 2006), satisfaction levels (Reynolds and Beatty, 1999; Hennig-Thurau et al., 2002; Yen and Gwinner, 2003; Marzo-Navarro, 2004), or by customer commitment (Moorman et al., 1993; Castañeda, 2005; Sánchez-Franco et al., 2007).

In this context, the present study strives to 1) develop an analytical framework to evaluate online quality of service that is based on technical issues, outcomes, and post-service factors; and 2) analyze the effect of service quality on satisfaction and commitment levels as well as on customer loyalty towards online tourism companies.

2. Literature review

Marketing researchers have shown great interest in the feelings of loyalty that are sometimes aroused by a product or brand (i.e. Jacoby and Chesnut, 1978; Selnes, 1993; Bloemer and De Ruyter, 1998; Barroso et al., 2004).

In online markets, this interest is related to the need to improve customer retention. Numerous scholars state that loyalty is essential for companies to succeed and survive (Smith, 2002; Harris and Goode, 2004). Therefore, businesses that operate in online markets must concentrate their resources on improving all aspects of their interaction with customers (Zeithaml, 2002). Once a certain degree of loyalty is obtained, a business can count on future income from repeat business from these loyal clients (Sharp and Sharp, 1997). In fact, loyal customers are the most profitable in online markets (Reichheld et al. 2000).

Loyalty is defined as the degree of affinity of a customer towards repeatedly purchasing from the same company, as well as a set of positive feelings toward it, and the fact that a company is a “first choice” for purchases (Gremler and Brown, 1996). Therefore, the simple availability of a website to a large number of consumers does not imply that they will feel satisfied or loyal (Heim and Sinha, 2005). Customer loyalty is more difficult to achieve in online markets than in physical ones (Danaher et al., 2003; Harris and Goode, 2004).

Considering this theoretical background, the authors identify a need for a model that explains loyalty creation in online markets. This model would have service quality, customer satisfaction, and commitment levels as key antecedents to online loyalty (see Figure 1).

Lastly, the authors approach the study of online loyalty by evaluating consumers’ behavioral intentions. These intentions include aspects such as the intention of recommending a given service or product to others, the intention of repeating a purchase, or the intention of alerting others to not purchase a product or service (Swan and Oliver, 1989). Unlimited connectivity has made word-to-mouth recommenda-
tions even more important in developing loyalty and repeat customers (Raajpoot et al., 2009). This phenomenon is reinforced by the difficulty of evaluating online services prior to their purchase and the greater perceived risk versus physical products and services (Moliner et al., 2012). It is a well-established fact in the literature that unsatisfied customers tend to tell more people about their unsatisfactory experience than satisfied customers (Moliner et al., 2012); and negative communications also have a greater effect on consumers (Laczniak et al., 2001).

Figure 1. Model of the online loyalty generation process

Source: Own work derived from Parasuraman et al. (2005), Collier and Bienstock (2006).

2.1. Service quality

In the study of online service quality there are two main approaches within the literature. On the one hand, several researchers study online service quality through the effect of user interfaces and new self-service categories. Notable studies in this area are those by Dabholkar (2000), Szymanski and Hise (2000), Meuter et al. (2000 y 2005), and Padgett and Mulvey (2007). On the other hand, Grönroos et al. (2000), Parasuraman and Grewal (2000), Zeithaml et al. (2000), Zeithaml et al. (2002), Parasuraman et al. (2005), Bauer et al. (2006), study online quality through its component elements. They study the impact of online service quality —and customer’s perceptions of service quality— on satisfaction and loyalty levels.

It must be noted that studies on online service quality do not show convergent results. This is a consequence of their differing research goals and contexts (Zeithaml et al., 2002; Parasuraman et al., 2005; Collier and Bienstock, 2006; Li et al., 2009).

For instance, Wolfinbarger and Gilly (2003) identify the elements or attributes that customers use to judge online quality and that create a satisfactory virtual purchase. Their work identifies four dimensions of online service quality: website design, fulfillment/reliability, privacy/security, and customer service. Parasuraman et al. (2005) develop a model to explain service quality customer perceptions. This model is composed of two multi-item scales that the authors call E-S-QUAL and E-RecS-QUAL. The E-S-QUAL scale measures the principal dimensions of online serv-
Service quality in the main service or product and is composed of four elements: efficiency, fulfillment, system availability, and privacy. The E-RecS-QUAL scales only measures aspects relevant to customers that interact with online purchasing process in nonroutine ways and is made up of three dimensions: responsiveness, compensation, and contact.

Collier and Bienstock (2006) measure online service quality through an expansive model that includes not only the purchasing process per se but also outcome quality and recovery quality. The model groups its dimensions according to quality type: process quality (privacy, design, information accuracy, ease of use, and functionality), outcome quality (order timeliness, order accuracy, and order condition), and recovery quality (interactive fairness, procedural fairness, and outcome fairness).

Synthesizing the findings in the literature on online service quality (Cox and Dale, 2001; Yoo and Douthu, 2001; Loiacono et al., 2002; Madu and Madu, 2002; Zeithaml et al., 2000 y 2002; Wolfinbarger and Gilly, 2002, 2003; Kim and Lee, 2004; Gounaris, 2005; Parasuraman et al., 2005; Bauer et al., 2006; Collier and Bienstock, 2006; Ho y Lee, 2007; Park y Gretzel, 2007), the authors test a tri-dimensional online service quality model based on process quality, outcome quality, and recovery quality.

Process quality measures the technical quality of the interaction between client and company in an online commercial exchange (Collier and Bienstock, 2006). There are five component elements of process quality: design, functionality, ease of use, privacy, and information accuracy. The design element refers to the ease of navigation on the website, the ease with which customers can make purchase, website attractiveness, and the degree of clarity in communicating information and purchase options (Szymanski and Hise, 2000). Functionality is defined as the ease of use and speed of a given company’s website (Parasuraman et al., 2005). Ease of use is the degree of facility with which a client can find the information he or she needs or how effortlessly they can carry out a given transaction (Collier and Bienstock, 2006). Privacy is defined as the degree of preoccupation a customer shows over the process of acquisition and use of information on the Internet (Culnan and Milberg, 1998 y 1999; Hoffman et al., 1999; Culnan and Amstrong, 1999; Phelps et al., 2000). Finally, information accuracy includes aspects related to the quantity and quality of information that a company transmits through its website. Information quality is determined by how useful this information is for customers in order to satisfy their interests and needs, the veracity of said information, and how updated it is (Deshpande and Zaltman, 1982 and 1987).

Outcome quality measures the final result of the online purchase (Collier and Bienstock, 2006) and contains only one element: reliability. Impressions of reliability are originated by the reliability of the company’s website itself as well as by how well it fulfills the promises it has made to the client (Wolfinbarger and Gilly, 2003).

The final dimension of online service quality is recovery quality. Recovery measures all quality-related aspects occurring after the sale, such as how the company handles returns or post-sale problems (Parasuraman et al., 2005). Recovery quality is made up of contact and responsiveness. Contact is defined as the company’s avail-
ability through a phone line or other virtual mode of communication (Parasuraman et al., 2005). Responsiveness measures both the effective management of any problems that may arise (Parasuraman et al., 2005) as well as the level of flexibility, promptness, coherence, and precision of the sales process (Madu and Madu, 2002; Surjadjaja et al., 2003).

With a model of online service quality in hand it is possible to analyze its effect on online customer satisfaction and loyalty. The literature states that both online service quality and the service or products themselves influence demand (Flores and García, 2012). From the consumer’s perspective, online service quality can be seen as an antecedent to a certain level of satisfaction (Cronin and Taylor, 1992), which supports findings in this line by multiple scholars (Szymanski and Sise, 2000; Wolfinbarger and Gilly, 2002; Bansal et al., 2004). Businesses that operate online must allocate resources to guarantee high quality in all aspects of their customer interactions before, during, and after the sale (Zeithaml, 2002). Otherwise, customers will quickly and surely leave their website and possibly patronize a competitor’s operation (Holloway et al., 2003). Even though the final result of the electronic sale is important, other aspects such as first impressions or the sales process itself contribute to a successful commercial relation.

Having identified three dimensions of online service quality (process quality, outcome quality, and recovery quality) the following hypotheses are proposed:

*Hypothesis H1*: Process quality positively affects online customer satisfaction

*Hypothesis H2*: Outcome quality positively affects online customer satisfaction

*Hypothesis H3*: Recovery quality positively affects online customer satisfaction

It is widely accepted that service quality influences customer loyalty (Patterson and Spreng, 1997; Roest and Pieters, 1997). Despite this, modeling this relationship has proved difficult (Alén and Fraiz, 2005) due to the difficulty of determining whether service quality is a direct modifier of customer loyalty or whether this effect occurs through mediating variables such as customer satisfaction.

Certain authors posit a direct link between service quality and loyalty (Parasuraman et al., 1991; Zeithaml et al., 1996). Others propose that this influence is indirect, with customer satisfaction as a mediating element between service quality and customer loyalty in either a partial (Reidenbach and Sandifer-Smallwood, 1990; Getty and Thompson, 1994; McAlexander et al., 1994; Cronin et al., 2000; Brady and Robertson, 2001; Choi et al., 2004; Olorunniwo et al., 2006), or total manner (Cronin and Taylor, 1992; Gotlieb et al., 1994; Dabholkar et al., 2000; Olorunniwo et al., 2006).

*Hypothesis H4A*: Process quality directly and positively affects online customer loyalty

*Hypothesis H4B*: Process quality indirectly —through customer satisfaction— and positively affects online customer loyalty
Hypothesis H5A: Outcome quality directly and positively affects online customer loyalty
Hypothesis H5B: Outcome quality indirectly —through customer satisfaction— and positively affects online customer loyalty
Hypothesis H6A: Recovery quality directly and positively affects online customer loyalty
Hypothesis H6B: Recovery quality indirectly —through customer satisfaction— and positively affects online customer loyalty

2.2. Commitment

Commitment may be defined as a permanent wish to maintain a relationship (Sosa-Varela et al., 2011). Moorman et al. (1993) state that consumers that are already committed will be more prone to act in a way that is consistent with this commitment.

Based on Porter et al. (1974), it is possible to affirm that customers that have developed a certain sense of commitment towards an online operation will have a strong connection with it. Loyalty that is preceded by a sense of commitment towards the brand will be stronger and produce a more stable relation between customer and company (Castañeda, 2005). A customer’s commitment implies their will to establish a long-term relationship, make certain short-term sacrifices to keep up this relationship, and a feeling of trust towards the stability of the commercial relation (Anderson and Weitz, 1992).

In accordance to these views, commitment is an essential element in the development of long-term business relationships (Sánchez-Franco et al., 2007).

Hypothesis H7: Commitment positively affects online customer loyalty

2.3. Satisfaction

Satisfaction has been defined as an overall sense of satisfaction or dissatisfaction with an organization derived from all contacts and experiences with said organization over a period of time (Bitner and Hubert, 1994). Olsen et al. (2005) define satisfaction as an overall measure or state of feelings toward a product or service. Satisfied clients will seek to maintain and reinforce the commercial relationship.

Marketing literature shows that satisfaction with a company or supplier can motivate repeat sales to a customer (Currás-Pérez and Sánchez-García, 2012). In an online context, satisfied customers will remain longer on the website, visit it more frequently, and/or recommend it to their friends (Flavián et al., 2011).

Satisfaction is widely seen as an antecedent to loyalty (Taylor and Baker, 1994; Rust and Oliver, 1994; Setó, 2003). Thus, a company should develop organization-
al and technical processes that efficiently satisfy their customer’s needs in an online environment. As confirmed by Oliver (1999) and Reynolds and Beatty (1999), creating feelings of loyalty depends on a business’ capacity to satisfy its clients’ needs better than its competitors.

In conclusion, for a client to feel loyal towards a company he or she must feel satisfied by its products or services (Reynolds and Beatty, 1999; Hennig-Thurau et al., 2002; Yen and Gwinner, 2003; Marzo-Navarro, 2004).

Hypothesis H8: Satisfaction positively affects online client loyalty

Nevertheless, satisfaction does not only predict loyalty but also significantly influences commitment—as shown by the research of Abdul-Muhmin (2005) and Hsu et al. (2010). High satisfaction levels will lead to elevated customer commitment (Morgan and Hunt, 1994) which, in its turn, leads to repeat purchases and a wish to defend a company from critique (Hsu et al., 2010). Satisfaction and commitment create a cooperative situation that is more long-term oriented and reduces the chances of discontinuing the commercial relationship (Ganesan, 1994; Morgan and Hunt, 1994).

Based on this knowledge as well as on the specific research ofCurrás-Pérez and Sánchez-García (2012), a link appears between consumer commitment and satisfaction levels.

Hypothesis H9: Satisfaction positively affects online customer commitment

3. Methodology

The online tourism services market was chosen as the context for this investigation. Tourism has showed tremendous growth as an online market and is a significant component of all e-commerce (ONTSI, 2010). To research this market, a survey was developed with three blocks of questions delving on a) consumer spending on online tourism services, types of services, number of persons he or she acquires services for, and the most commonly used webpages to purchase these services; b) evaluating on a 1-to-5 Likert scale the different constructs of the model previously presented; and c) questions used to segment the consumer sample.

The study examined a population of all Internet users in Spain using a convenience sampling technique. Survey responders were on average in an age range of 30 to 44 years old, mostly single, had graduate or undergraduate studies, and a monthly income between 2,001 and 3,000 euros. This profile approximates that of the entire population of Internet users (AIMC, 2011). 889 surveys were filled, of which 578 were valid for the purposes of this study. Information was collected for 45 days (July-August 2011) through an online survey.
Table 1. Economic and socio-demographic sample characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Categories</th>
<th>Total Sample (Percentage)</th>
<th>Online Touristic Service Consumer Sample (Percentage)</th>
<th>Non-Online Touristic Service Consumer Sample (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>44%</td>
<td>46.50%</td>
<td>38.30%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>56%</td>
<td>53.50%</td>
<td>61.70%</td>
</tr>
<tr>
<td>Age</td>
<td>Under 30</td>
<td>38%</td>
<td>37.40%</td>
<td>40.30%</td>
</tr>
<tr>
<td></td>
<td>30 to 44 years old</td>
<td>41%</td>
<td>43.80%</td>
<td>34.30%</td>
</tr>
<tr>
<td></td>
<td>45 to 64 years old</td>
<td>18%</td>
<td>17.30%</td>
<td>19.30%</td>
</tr>
<tr>
<td></td>
<td>Over 65</td>
<td>3%</td>
<td>1.50%</td>
<td>6.10%</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Single</td>
<td>50%</td>
<td>51%</td>
<td>47.50%</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>40%</td>
<td>41.40%</td>
<td>37.60%</td>
</tr>
<tr>
<td></td>
<td>Widowed</td>
<td>1%</td>
<td>0.80%</td>
<td>2.80%</td>
</tr>
<tr>
<td></td>
<td>Divorced</td>
<td>5%</td>
<td>3.80%</td>
<td>8.80%</td>
</tr>
<tr>
<td></td>
<td>In a partnership</td>
<td>3%</td>
<td>3%</td>
<td>3.30%</td>
</tr>
<tr>
<td>Size of Family Unit</td>
<td>Small family (1-2)</td>
<td>24.94%</td>
<td>29.76%</td>
<td>16.07%</td>
</tr>
<tr>
<td></td>
<td>Average family (3-4)</td>
<td>38.99%</td>
<td>43.43%</td>
<td>31.19%</td>
</tr>
<tr>
<td></td>
<td>Large family (5-6)</td>
<td>12.13%</td>
<td>14.36%</td>
<td>8.05%</td>
</tr>
<tr>
<td></td>
<td>Very large family (7-10)</td>
<td>1.12%</td>
<td>1.21%</td>
<td>0.96%</td>
</tr>
<tr>
<td></td>
<td>NA</td>
<td>22.82%</td>
<td>11.24%</td>
<td>43.73%</td>
</tr>
<tr>
<td>Employment Status</td>
<td>Self-employed</td>
<td>9%</td>
<td>9.40%</td>
<td>6.10%</td>
</tr>
<tr>
<td></td>
<td>Salaried worker</td>
<td>68%</td>
<td>72.50%</td>
<td>55.80%</td>
</tr>
<tr>
<td></td>
<td>Temporarily unemployed</td>
<td>7%</td>
<td>5.40%</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Retiree / Pensioner</td>
<td>2%</td>
<td>1.10%</td>
<td>6.10%</td>
</tr>
<tr>
<td></td>
<td>Housewife</td>
<td>1%</td>
<td>1%</td>
<td>2.20%</td>
</tr>
<tr>
<td></td>
<td>Student</td>
<td>13%</td>
<td>10.70%</td>
<td>18.80%</td>
</tr>
<tr>
<td>Most Advanced Level of Studies</td>
<td>No studies</td>
<td>1%</td>
<td>0%</td>
<td>3.30%</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>2%</td>
<td>0.80%</td>
<td>5.60%</td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>10%</td>
<td>6.90%</td>
<td>17.20%</td>
</tr>
<tr>
<td></td>
<td>Vocational training</td>
<td>9%</td>
<td>6.30%</td>
<td>17.80%</td>
</tr>
<tr>
<td></td>
<td>Undergraduate</td>
<td>37%</td>
<td>39.40%</td>
<td>31.10%</td>
</tr>
<tr>
<td></td>
<td>Graduate</td>
<td>41%</td>
<td>46.70%</td>
<td>25%</td>
</tr>
<tr>
<td>Net Monthly Income</td>
<td>No income</td>
<td>13%</td>
<td>10.40%</td>
<td>19.10%</td>
</tr>
<tr>
<td></td>
<td>Under 1,000 euros</td>
<td>16%</td>
<td>13.10%</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>From 1,001 to 1,500 euros</td>
<td>19%</td>
<td>18.10%</td>
<td>22.50%</td>
</tr>
<tr>
<td></td>
<td>From 1,501 to 2,000 euros</td>
<td>18%</td>
<td>20.30%</td>
<td>12.90%</td>
</tr>
<tr>
<td></td>
<td>From 2,001 a 3,000 euros</td>
<td>23%</td>
<td>25.90%</td>
<td>15.70%</td>
</tr>
<tr>
<td></td>
<td>Over 3,001 euros</td>
<td>11%</td>
<td>12.20%</td>
<td>6.70%</td>
</tr>
</tbody>
</table>

Finally, the authors developed various structural equation models to test the data. As a first step, they determined the reliability and discriminant validity of the underlying measurement scales. Following that, they analyzed structural relations between variables and tested the hypotheses.
4. Results

Tables 2 and 3 show the results of the reliability analysis on the measurement scales used in the study. Reliability indicators reached the values recommended in the literature: over 0.7 for the Cronbach Alpha and composite reliability and over 0.5 for average variance extracted. Thus, the indicators used are reliable measure of the underlying variables.

Table 2. Reliability analysis of the scales for process quality, outcome quality, and recovery quality

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Item</th>
<th>Standardized loading</th>
<th>t value</th>
<th>Cronbach α</th>
<th>Composite Reliability</th>
<th>Variance extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>DIS1</td>
<td>0.814</td>
<td>21.208</td>
<td>0.858</td>
<td>0.860</td>
<td>0.607</td>
</tr>
<tr>
<td></td>
<td>DIS2</td>
<td>0.811</td>
<td>21.092</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DIS3</td>
<td>0.786</td>
<td>20.179</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DIS4</td>
<td>0.700</td>
<td>17.176</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functionality</td>
<td>FUN1</td>
<td>0.798</td>
<td>20.906</td>
<td>0.884</td>
<td>0.882</td>
<td>0.653</td>
</tr>
<tr>
<td></td>
<td>FUN2</td>
<td>0.887</td>
<td>24.581</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FUN3</td>
<td>0.808</td>
<td>21.285</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FUN4</td>
<td>0.732</td>
<td>18.483</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ease of use</td>
<td>USO1</td>
<td>0.821</td>
<td>21.982</td>
<td>0.892</td>
<td>0.893</td>
<td>0.675</td>
</tr>
<tr>
<td></td>
<td>USO2</td>
<td>0.848</td>
<td>23.097</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>USO3</td>
<td>0.831</td>
<td>22.413</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>USO4</td>
<td>0.786</td>
<td>20.583</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Privacy</td>
<td>PRI1</td>
<td>0.745</td>
<td>18.879</td>
<td>0.869</td>
<td>0.876</td>
<td>0.703</td>
</tr>
<tr>
<td></td>
<td>PRI2</td>
<td>0.919</td>
<td>25.414</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PRI3</td>
<td>0.843</td>
<td>22.374</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td>INF1</td>
<td>0.745</td>
<td>18.778</td>
<td>0.868</td>
<td>0.869</td>
<td>0.625</td>
</tr>
<tr>
<td>Accuracy</td>
<td>INF2</td>
<td>0.744</td>
<td>18.748</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>INF3</td>
<td>0.841</td>
<td>22.363</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>INF4</td>
<td>0.828</td>
<td>21.881</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

X² (g.l.=142) = 385.8513 (p=0.000); NFI=0.918; NNFI=0.935; CFI=0.946; IFI=0.947; GFI=0.905; AGFI=0.873; RMSEA=0.058

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Item</th>
<th>Standardized loading</th>
<th>t value</th>
<th>Cronbach α</th>
<th>Composite Reliability</th>
<th>Variance extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>FIA1</td>
<td>0.856</td>
<td>20.821</td>
<td>0.903</td>
<td>0.912</td>
<td>0.723</td>
</tr>
<tr>
<td></td>
<td>FIA2</td>
<td>0.884</td>
<td>21.943</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FIA3</td>
<td>0.830</td>
<td>19.845</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FIA4</td>
<td>0.829</td>
<td>19.824</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

X² (g.l.=41) = 131.4249 (p=0.000); NFI=0.938; NNFI=0.941; CFI=0.956; IFI=0.956; GFI=0.941; AGFI=0.905; RMSEA=0.070
The next step was to test the discriminating validity of the variables through the average variance extracted and confidence interval tests (Table 4). A priori results of the discriminating validity tests showed that the elements of online recovery quality—contact and responsiveness—measured similar aspects. Different methods of testing for discriminant validity showed contradictory results. The average variance extracted test did not show discriminant validity for these variables while the confidence interval did. On the other hand, contact and responsiveness have shown to be independent in previous research (Parasuraman et al., 2005). Contact and responsiveness were thus considered independent.
Finally, the authors studied causal relationships between the latent variables in the model and tested the hypotheses. The results of the estimated model are illustrated by Figures 2 and 3; and Tables 5 and 6.

With regards to consumer satisfaction levels, online service quality explains 64.1% ($R^2 = 0.641$) of all changes. Process quality shows a positive and significant influence on online customer satisfaction ($\beta = 0.403; p<0.01$), which confirms Hypothesis 1. Outcome quality similarly confirms Hypothesis 2, since it has a positive and significant influence on satisfaction ($\beta = 0.323; p<0.01$). Finally, recovery quality also confirms Hypothesis 3 by showing a positive and significant influence on customer satisfaction ($\beta = 0.216; p<0.01$).

Online customer commitment is explained in 29.4% ($R^2 = 0.294$) by customer satisfaction levels. Results show that satisfaction is a relevant variable in generating customer commitment ($\beta = 0.542; p<0.01$), which confirms Hypothesis 9.

Variations of online customer loyalty are explained in 56.4% ($R^2 = 0.564$) by service quality. Commitment has a positive and significant effect on loyalty ($\beta = 0.332; p<0.01$) which validates Hypothesis 7. Hypothesis 8 is also confirmed, since satisfaction also has a positive and significant influence on loyalty levels ($\beta = 0.391; p<0.01$).
Lastly, the effects of service quality on customer loyalty were studied under two perspectives: direct and indirect influence. With regards to the direct influence of online service quality on loyalty, results only confirmed outcome quality as a relevant variable in influencing loyalty ($\beta = 0.230; p<0.01$). Hypothesis 5A is thus confirmed, and Hypotheses 4A and 6A are dismissed. With regards to the indirect influence of service quality on loyalty levels, the results showed that process quality ($\beta = 0.230; p<0.01$), outcome quality ($\beta = 0.184; p<0.01$), and recovery quality ($\beta = 0.123; p<0.01$) have a significant effect on customer loyalty through their satisfaction levels. Hypotheses 4B, 5B, and 6B are thus confirmed.
Table 5. Estimated structural equations for the loyalty model

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Link between variables</th>
<th>Standardized loading</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Online process quality – Satisfaction</td>
<td>0.403**</td>
<td>9.412</td>
</tr>
<tr>
<td>H2</td>
<td>Online outcome quality – Satisfaction</td>
<td>0.323**</td>
<td>8.026</td>
</tr>
<tr>
<td>H3</td>
<td>Online recovery quality – Satisfaction</td>
<td>0.216**</td>
<td>6.021</td>
</tr>
<tr>
<td>H4A</td>
<td>Online process quality – Loyalty</td>
<td>-0.022</td>
<td>-0.430</td>
</tr>
<tr>
<td>H5A</td>
<td>Online outcome quality – Loyalty</td>
<td>0.230**</td>
<td>4.813</td>
</tr>
<tr>
<td>H6A</td>
<td>Online recovery quality – Loyalty</td>
<td>-0.062</td>
<td>-1.508</td>
</tr>
<tr>
<td>H7</td>
<td>Commitment – Loyalty</td>
<td>0.322**</td>
<td>8.461</td>
</tr>
<tr>
<td>H8</td>
<td>Satisfaction – Loyalty</td>
<td>0.542**</td>
<td>12.930</td>
</tr>
<tr>
<td>H9</td>
<td>Satisfaction – Commitment</td>
<td>0.391**</td>
<td>6.633</td>
</tr>
</tbody>
</table>

*P<0.05; **P<0.01; n=578

R² (Satisfaction) = 0.641; R² (Commitment) = 0.294; R² (Loyalty) = 0.564
X² (g.l.=3) = 39.1877 (p=0.000); NFI=0.954; NNFI=0.783; CFI=0.957; IFI=0.957; GFI=0.962; AGFI=0.735; RMSEA=0.152

Table 6. Indirect effect of online service quality on loyalty through satisfaction

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Link between variables</th>
<th>Standardized loading</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4B</td>
<td>Online process quality – Satisfaction – Loyalty</td>
<td>0.230**</td>
<td>6.873</td>
</tr>
<tr>
<td>H5B</td>
<td>Online outcome quality – Satisfaction – Loyalty</td>
<td>0.184**</td>
<td>6.275</td>
</tr>
<tr>
<td>H6B</td>
<td>Online recovery quality – Satisfaction – Loyalty</td>
<td>0.123**</td>
<td>5.166</td>
</tr>
</tbody>
</table>

*P<0.05; **P<0.01; n=578

5. Conclusions, limitations, and future research

The main contribution of this analysis of the online market for tourist services is to identify several elements that explain how feelings of loyalty towards an online touristic services provider are originated in customers (Harris and Goode, 2004; Smith, 2002). Satisfaction levels, commitment, and high quality service have been shown to be essential factors in generating repeat purchases and loyalty feelings.

Online tourist service companies must strive to satisfy their customers through high service quality. To do so, any service delivery process must 1) properly define all commercial interactions between company and customer (Collier and Bienstock, 2006), 2) find a way of measuring the final results of the online purchase (Collier and Bienstock, 2006), as well as 3) measuring other aspects that affect a commercial relationship such as the capacity to respond to customer complaints or returns (Parasuraman et al., 2005). Furthermore, by satisfying clients’ needs the clients will feel more committed to the company (Morgan and Hunt, 1994). In a nutshell, to generate feelings of loyalty a company must provide adequate services before, during, and after the purchase.
The size of the sample imposed certain limitations on the study. While a theoretically robust model could be generated, it was not possible to identify different groups of online tourist service customers. Restricting the sample to Spanish customers in a specific sector was another limitation of the study. While it is possible to extrapolate results to other sectors and geographic areas, it is not possible to guarantee that they will be completely applicable.

As a consequence, future research should approach different consumer groups within the online tourist services market, test different variables that could affect loyalty, use a more heterogeneous sample, and attempt to identify the differing effect of the variables on each group of consumers. Finally, applying this apparatus to other sectors would contribute to a holistic—and more generalizable—view of how feelings of loyalty are generated.

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