저비용 항공사의 웹사이트 품질, e-만족, e-신뢰, e-충성도 간의 구조적 관계 연구

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요 약


Keywords : 웹사이트 품질, e-만족, e-신뢰, e-충성도, 저비용 항공사

Abstract

The low-cost carriers(LCC)'s website represents their public face to the world. Furthermore, distribution through their own websites is generally regarded as the being most cost effective for airlines. The Internet website has become an effective marketing vehicle for low-cost carriers (LCC). The objective of this study was to examine theoretical relationship of website quality, e-satisfaction, e-trust, and e-loyalty to the low-cost carriers' website. The study sample included respondents who had visited any LCC websites in the last 12 months. Data were collected by

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conducting a web-based survey to maintain respondents' anonymity and overcome time and place constraints. From the 334 usable data obtained, hypotheses are tested using structural equation modeling. The results indicate that website quality, e-satisfaction, and e-trust are antecedents of e-loyalty in loyalty relationships between passengers and low-cost carriers’ websites. Website quality positively influences e-satisfaction, e-trust while e-satisfaction. However, contrary to our expectation, e-satisfaction has a negative effect on e-trust. Managerial implications are provided following presentation of the findings.

Keywords: Website Quality, e-Satisfaction, e-Trust, e-Loyalty, Low-Cost Carriers

I. 서 론

A low-cost carriers (LCC)'s website represents their public face to the world. Websites are frequently the first point of contact between a company and their customers[1]. Furthermore, distribution through their own websites is generally regarded as the being most cost effective for airlines. They are thus attempting to migrate consumers from traditional channels to their own online channels as fast as possible[2]. Since websites serve as an important point of contact for most LCC, assessing their quality of their website is important as a way to understand whether LCC are providing quality of interaction to satisfy website users. This is especially importance for LCC selling air tickets and services on their websites. Passengers must be satisfied with their experience with the website or they will not return. Thus, the assessment of website quality has become a priority for LCC.

Previous studies have clearly demonstrated that a high quality website can attract more browsers and shoppers compared to competing low quality sites[3, 4, 5]. As a result, website quality has been recognized as a core determinant of an online company’s success[6]. In this sense, understanding the differences among passengers profile, such as the perception of website quality and its effect on e-satisfaction, e-trust, and e-loyalty, is fundamental for LCC that aim to increase customers' positive experiences and loyalty to their websites[7]. Therefore, further understanding the relationships between website quality and the related variables which e-satisfaction, e-trust, and e-loyalty, that effect it is the main concern of this study.

This study is structured as follows. We first discuss the concept and relationship of website quality, e-satisfaction, e-trust, and e-loyalty. Then, we describe the methodology and discuss the results of an empirical study. We conclude by noting the implications of the study’s findings.

II. Literature Review

1. Website Quality

There is a growing body of research addressing the topic of managing website quality. Website quality is an instrument for assessing the quality of website from the perspective of the customer[8, 9]. Given its importance, website quality is widely studied in the course website literature[10].

Aladwani and Palvia(2002) have defined customer's perception of website quality as 'users' evaluations of a website's features meeting users' needs and reflecting overall excellence of the website[11]. That is, LCC needs to have a clear knowledge of what online customers expect for the quality that a website should offer. Numerous prior researchers have presented outstanding methods for measuring website quality by hypothesizing about their own dimensions of website quality. Vishwanath and Barnett(2005), has identified numerous website quality dimensions, including information quality,

Studies carried out in the online environment have shown that website quality is an antecedent of e-satisfaction, of e-trust[16], and of e-loyalty[17]. Thus, we, therefore, propose the following hypotheses:

**H1**: Website quality is positively related to e-satisfaction in LCC's website.

**H2**: Website quality is positively related to e-trust in LCC's website.

**H3**: Website quality is positively related to e-loyalty in LCC's website.

2. e-Satisfaction

Consumer satisfaction is defined by Oliver(1981, p.27) as "the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with a consumer's prior feelings about the consumer experience"[18]. In other words, satisfaction is "the outcome of an evaluative process, where consumers examine the results of their prior service use and decide whether or not to continue using the service"[19]. In the online environment, and taking into account that the authors assume the definitions used for traditional sales channels[17], we define e-satisfaction as the contentment of the customer with respect to his or her prior purchasing experience with a given website[20]. The rationale is that customers' satisfying experiences with a LCC's website quality become the source of their trusting beliefs about the LCC. Previous studies of e-satisfaction posit that satisfaction is an antecedent of trust[21]. A positive effect of satisfaction on trust can be expected in the online environment as well, so we propose the following hypothesis:

**H4**: E-satisfaction is positively related to e-trust in LCC's website.

Satisfaction has been shown to be positively related to loyalty[22] and this effect also occurs in online environment. Shankar et al (2003) indicated that the effect of satisfaction on loyalty is stronger online than offline[23], so we propose the following hypothesis:

**H5**: E-satisfaction is positively related to e-loyalty in LCC's website.

3. e-Trust

E-trust has been conceptualized as "online trust includes consumer perception of how the site would deliver on expectation, how believable the site's information is, and the level of confidence in site"[24]. E-trust has been the subject of various studies[25] and in the airline sector one study warns of the emergence of opaque practices in LCC, such as incomplete information or prices much lower than the real final price[26]. Trust in the website is of special importance, there must be no inaccurate information, unauthorized use of credit card information, violation of data privacy or unauthorized transactions[27], since the lack of security, guarantees, regulation and legal protection is the principal reason for not buying through the internet[28]. A number of previous studies have modeled e-trust as having a direct impact on e-loyalty and have tested the positive relationship of e-trust with e-loyalty[29, 30, 31], so we propose the following hypothesis:
There is positive and direct relationship between e-trust and e-loyalty in LCCs website.

3. e-Loyalty

Customer loyalty has been defined as "a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior"[22]. The concept of e-loyalty extends the traditional loyalty concept to online consumer behavior. Anderson and Srinivasan(2003) defined e-loyalty as "the customer's favorable attitude toward an electronic business resulting in repeat buying behavior"[20]. In addition, e-loyalty refers to a consumer's intention to buy from a website[17] or intention to revisit to a website[32]. In this study, e-loyalty to a LCC website was defined as a passengers' intention to revisit a LCC website of Oliver’s (1999) conceptualization[22]. Loyalty toward a website may be cultivated and strengthened as online consumers repetitively use various quality functions and services offered by the website[33]. Identifying and understanding these various predictors of e-loyalty can help a website succeed in a fierce online business environment[34].

III. Research Method

1. Study Sample and Data Collection

This study is an applied field study and the method employed is descriptive and quantitative. The study sample included respondents who had visited any LCC websites in the last 12 months. Data were collected by conducting a web-based survey to maintain respondents' anonymity and overcome time and place constraints, thus helping our study to contact respondents more easily than with other survey methods such as personal and telephone interview and other self-administered survey techniques[4], between July 2 and October 3 2012. The respondents were volunteers who were also interested in the research topic. A total of 348 responses were received. After eliminating duplicate responses, a total of 334 usable responses were included in the sample for analysis. Descriptive statistics was applied to provide the profile of the respondents. The structural equation modeling (SEM) was also used to examine the hypothesized relationship among the constructs in this study. The required data is gathered through stratified random sampling method using a research-made questionnaire with four demographic and 23 specialized questions.

2. Measurement Development

We have measured the website quality construct by reference to the contributions of the following authors: for the construction of the ease of use and security/privacy dimensions from Casaló et al.(2007)[25], the information dimension from Ho and Lee(2007)[14] and Li et al.(2002)[35], the responsiveness dimension from Ho and Lee(2007)[14], and Parasuraman et al.(2005)[13]. E-trust was measured by four items, which were developed by Monliner et al.(2007)[36] who studied e-trust in. Finally, to measure both e-satisfaction(three items) and e-loyalty(four items), we followed Oliver(1999)[22] and Flavián et al.(2006)[17]. Each item was measured on a seven-point Likert scale(i.e. 1 = disagree strongly, 7 = agree strongly).

2. Data Analysis

This study used AMOS 18.0 to test relationships hypothesised and used SPSS 18.0 to analyse the data which include descriptive statistics. Path analysis was conducted and the path coefficients were estimated in this study(Arbuckle, 1999). This analysis method permits systematic constraints on
causal relationships among variables, such that models can be tested only for hypothesized paths[36].

IV. Results

1. Sample Description

Of these 334 questionnaires, 44.9% of the responses were from male respondents, while 55.1% were from females. The respondents of ages 18-44 (82.2%) accounted for the biggest portion of the sample. More than 88.4% of the respondents’ education was at college level or above. Of the respondents, 36.1% were unemployment (e.g. student, retired, housewife), 29.3% were business, followed by manufacturing(21.1%) and so on. The detailed demographic profile is shown in Table 1.

Table 1. Characteristics of Respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency(s)</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>Age</td>
<td>18-24</td>
</tr>
<tr>
<td></td>
<td>25-34</td>
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<tr>
<td></td>
<td>35-44</td>
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<tr>
<td></td>
<td>45-54</td>
</tr>
<tr>
<td></td>
<td>55 and over</td>
</tr>
<tr>
<td>Education Level</td>
<td>High school or below</td>
</tr>
<tr>
<td></td>
<td>College</td>
</tr>
<tr>
<td></td>
<td>Graduate school or above</td>
</tr>
<tr>
<td>Occupation</td>
<td>Public servants</td>
</tr>
<tr>
<td></td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Business</td>
</tr>
<tr>
<td></td>
<td>Unemployment (e.g. student, retired, housewife)</td>
</tr>
</tbody>
</table>

2. Analysis of the Measurement Model

We first developed the measurement model by conducting confirmatory factor analysis(CFA). The SEM was then estimated for hypotheses testing. The model was assessed by the maximum likelihood method using AMOS 18.0. To evaluate the fit of the models, a chi-square with degrees of freedom, normed fit index(NFI), adjusted goodness of fit index(AGFI), comparative fit index(CFI), and RMSEA were employed. A good fit is normally deemed to exist when NFI, GFI and CFI were all greater than 0.9. AGFI was greater than 0.8, and RMSEA was less than 0.08.
The results of the measurement of website quality, e-satisfaction, e-trust, and e-loyalty were acceptable ($\chi^2=258.61$, df=164 (p-value=0.00), GFI=.941, AGFI=.913, CFI=.932, NFI=.943, RMSEA=.046, RMR=.025) for the testing the model. After purifying the measurement model, each construct was evaluated separately by examining the indicator loading, construct reliability, convergent validity, and discriminant validity. All of the loadings of the items on their latent constructs were statistically significant (t-value>2). The reliability assessment was based on the composite reliability(CR) and average variance extracted(AVE). As shown in Table 2, the CRs ranged from 0.79 to 0.91 and the AVEs ranged from 0.52 to 0.66, both above their respective recommended cut-off levels of 0.70 and 0.50. Furthermore, the item loading ranged from 0.75 to 0.93, which was above the recommended cut-off level of 0.60, demonstrating adequate convergent validity.

### Table 3. Direct, Indirect and Total Effects

<table>
<thead>
<tr>
<th>Dependent</th>
<th>Website Quality</th>
<th>e-Satisfaction</th>
<th>e-Trust</th>
<th>e-Loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e-Satisfaction</td>
<td>0.721</td>
<td>-</td>
<td>n.s.</td>
<td>816</td>
</tr>
<tr>
<td>e-Trust</td>
<td>0.672</td>
<td>n.s.</td>
<td>-</td>
<td>853</td>
</tr>
<tr>
<td>e-Loyalty</td>
<td>-</td>
<td>0.816</td>
<td>0.853</td>
<td>-</td>
</tr>
<tr>
<td>Indirect effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e-Satisfaction</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: a. All nonzero effects are significant at $p<.05$. b. n.s. means a non-significant effect.

Lastly, discriminant validity was tested, we performed the chi-square difference test for all the constructs in pairs to examine whether the restricted model was significantly different from the freely estimated model. In the restricted model, the correlation was fixed at 1 for the pair of constructs under examination. A significant chi-square different indicated discriminant validity between the pair of constructs. The results of the chi-square differences ranged from 12.6 to 505(p<0.01), suggesting that the constructs under analysis were distinct and discriminately valid.

### 3. Analysis of the SEM

Table 3 shows the various fit indices calculated for the model. A comparison of all fit indices with their corresponding recommended values indicated a good fit ($\chi^2=247.69$, df=159 (p-value=0.00), GFI=.937, AGFI=.922, CFI=.948, NFI=.936, RMSEA=.046, RMR=.021). Table 3 shows the structural model estimates, where the estimate parameters were standardized path coefficients, and all path coefficients, except for the path of e-satisfaction to e-loyalty, were significant at the 95% level.
Table 4. Test Results of Hypothesis

<table>
<thead>
<tr>
<th>Casual path</th>
<th>Estimates</th>
<th>t-value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 Website quality→e-Satisfaction</td>
<td>282</td>
<td>2.314</td>
<td>Accept</td>
</tr>
<tr>
<td>H2 Website quality→e-Trust</td>
<td>474</td>
<td>5.357</td>
<td>Accept</td>
</tr>
<tr>
<td>H3 Website quality→e-Loyalty</td>
<td>269</td>
<td>3.514</td>
<td>Accept</td>
</tr>
<tr>
<td>H4 e-Satisfaction→e-Trust</td>
<td>531</td>
<td>0.134</td>
<td>Reject</td>
</tr>
<tr>
<td>H5 e-Satisfaction→e-Loyalty</td>
<td>522</td>
<td>7.522</td>
<td>Accept</td>
</tr>
<tr>
<td>H6 e-Trust→e-Loyalty</td>
<td>412</td>
<td>2.332</td>
<td>Accept</td>
</tr>
</tbody>
</table>

Note: ** denoted p<.01.

H1 posited that website quality would positively affect e-satisfaction, and the results in Table 3 provided support for this hypothesis (γ=.28, p<.01). The results also showed that website quality positively influenced e-trust (γ=.47, p<.001), providing strong support for H2. H3 proposed that website quality would positively affect e-loyalty, and the result strongly supported this(γ=26, p<.001). Unexpectedly, e-satisfaction did not influence e-trust (β=.53, p>.5). thus, H4 was not supported. As respected in H5 and H6, e-satisfaction was related positively related to e-loyalty(β=.52, p<.001) and e-trust influenced e-loyalty (β=.41, p<.001), and both hypotheses were thus supported. Table 3 also shows the $R^2$ values, which indicated how well the antecedents explained an endogenous variables. Altogether, the predictors accounted for 82.4% of the variation in e-satisfaction, 65.1% of the variation in e-trust, and 61.9% of the variation in e-loyalty. Finally, Table 4 summarizes the decomposition of the effects of the constructs in the model on website quality, e-satisfaction, e-trust, and e-loyalty.

V. Conclusions

The examination of online customers behavior deserves continuous endeavor from both academic scholars and industry practitioners. Website quality is clearly critical in driving traffic, making people stay, and eventually attracting people to purchase online products. In an online purchase context, e-loyalty is a difficult challenge that may require consideration by LCC wishing to differentiate themselves from competitors. E-loyalty brings high rate of customer retention and reduced cost for recruiting new customers. The purpose of this study is to propose a comprehensive model of the e-loyalty development process by conceptualizing that e-loyalty is influenced by website quality, e-satisfaction, and e-trust. This study tests all of the impacts that these factors can have on each other and in turn on customer e-loyalty, and presents a comprehensive model on their relationship which goes beyond what previous researches have studied.

The results of the SEM provided support for a proposed structural model to examine the hypotheses. The model was tested to verify the hypotheses relating to purchase with experience customers, and the results(see. Table 4). Our results confirm that the e-loyalty of LCC website customer is affected by satisfaction and trust in a website, which in turn are determined by website quality. The website quality has an impact on both e-satisfaction and e-trust. It means that the high quality of website, the more customer e-satisfaction and e-trust because of high website quality suited to the customer’s need enables customers to reduce the costs of searching and processing. Further, e-satisfaction has an impact on e-loyalty but has not an influence through e-trust. When comparable to the physical environment in the real world, researchers indicate that website interface features provide cues in virtual service encounters which trigger customers’ emotional responses. Affective reactions are of crucial important for the customers’ evaluation of website quality[37, 38]. However, trust beliefs is long term relationships, thus the weaker relationship between e-satisfaction and e-trust. When passengers evaluate LCC’s website quality through accumulated interactions in long
term relationships.

The present study contributes to the existing literature by providing empirical support for the research into e-loyalty to an LCC website. Results from this study suggest that website quality, e-satisfaction, and e-trust are a strong determinant of e-loyalty to the LCC website. Furthermore, the same causal relationship occurs in the off-line model, developed by Forgas et al. (2010)[38] who deal with perception of the service, satisfaction, trust and loyalty of the passenger towards the airline companies. This means that for the intention to revisit, purchase, and recommend, the website to exist, affect towards it has to be produced, in the same way as in order to fly again with the same airline company, affect towards it has first to be produced. The results show that the process leading to e-loyalty in the context of experienced purchasers of e-tickets passes through website quality, e-satisfaction, and e-loyalty. To improve e-satisfaction, airline management needs to improve the passengers’ expectations of the website, on the basis of improving the quality dimensions of the website.

Any study has limitations, and the main one here is that the sample does not consider the passengers of foreign LCC operating the same route in South Korea. It would be fruitful, for future studies, to expand the sample in this direction. Also, the results were obtained in a specific industry, that of LCC, and one must be cautious in generalizing them to other sectors. Future study could examine the improvements made over time. Also, LCC website would be evaluated by many users of various ages, gender, educational and social levels in order to discover any differences in their preferences. Finally, the concepts presented in this framework could be extended to other market domains.

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참고문헌


