A study of factors that affect user intentions toward email service switching

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Received 5 March 2005; received in revised form 24 March 2006; accepted 18 August 2006
Available online 28 September 2006

Abstract

Internet portals have long been using email services to attract new members and retain existing customers. Recent announcements by major Internet portals of increases in email storage capacity demonstrate this strategy. It is, however, uncertain how people react to such announcements. We wished to understand the mechanisms associated with users’ intention to switch their current email service provider. Key variables pertaining to customer satisfaction with email service, attractive alternatives, and switching cost were examined to explain the dynamics of switching. An empirical study based on 1408 survey responses confirmed the importance of user satisfaction for service continuation. The variables attractive alternatives and continuity cost also demonstrated strong association with intention to switch. We found that the variable attractive alternatives moderated the relationship between customer satisfaction and intention to switch, but a moderating effect of switching cost was not found. Our investigation indicated that the findings of extant studies on the dynamics of service switching or re-purchase also apply to email services.

Keywords: Email service; Service switching; Service conversion; User satisfaction; Switching cost

1. Introduction

As email has become a major application, Internet portals have used email services to attract new customers and to retain existing ones. Recent announcements of increased capacity for email accounts have demonstrated the strategic role of email in boosting site traffic and augmenting business value. But however attractive an alternative email service may seem, there are visible and invisible costs incurred in service switching. Account conversion costs time and effort in registering with a new portal site, archiving and importing emails, configuring new settings, and distributing new account information. Conversion also carries the risk of losing existing contacts. Naturally, firms try to raise switching costs as a key defense strategy to fend off competition.

Thus, when people encounter an attractive alternative service, they face a dilemma: the new service may seem appealing, even when switching costs are counted, but people may not want to take the risk because the change may seem too expensive. Our research was initiated in an attempt to provide a way to assess users’ intention to switch email services. There has been much research reported on customer switching behavior in IT settings [23,26]. But, there has been no study reported on the motivating forces in switching email service providers.
2. Literature review and theories

2.1. Customer satisfaction and service switching

Much effort has been conducted to examine the effect of customer satisfaction on service re-purchase or discontinuation [9]. Satisfaction with on-line services has been measured in various dimensions, including information quality (e.g., consistency, accuracy, timeliness, and ease of understanding), quality of user interface (e.g., feedback mechanism, learning effect, and system performance), perceived usefulness and ease of use, and perceived quality of on-line stores (e.g., price competitiveness, brand, security, product differentiation, and product quality) [6, 16]. Customer satisfaction should lead to increased customer loyalty and, therefore, service continuation. Szymanski and Henard’s [28] meta-analysis showed that, among the consequences of customer satisfaction, repeat purchase had the highest correlation with satisfaction. However, it was also found that the relationship between customer satisfaction and customer loyalty is not always positive [24].

The email service may be considered to be a weak form of application service provision (ASP) [27]. Nonetheless, email services differ from other services in several ways, and the differences may have distinct implications for customer satisfaction and intention to switch email services (abbreviated as IES here). First of all, email services are mostly offered without fees; portals do not generate revenue directly from them. The portals offer email accounts to integrate their network services and ensure customer lock-in, hoping for revenue generation from other value activities, such as advertising. Second, email services have reached utility status [25] and brand names carry little value. These facts make it more challenging for service providers to develop user relationships based on the notion of customer loyalty.

In addition to their general characteristics (e.g., non-paying service and low brand effect), customers’ reactions to a particular email service may differ greatly depending on their experience. Any email service carries distinctive application characteristics and administrative policies in terms of spam blocking, privacy and authentication, handling of subscriber information, and storage capacity provided. When email users have low psychological and financial attachment to a service, satisfaction and non-system factors play an important role in customer retention. Satisfaction can lead to a long-term, continued relationship [7, 11]. However, Fornell [12] cautioned that customer satisfaction does not necessarily correlate with customer loyalty. In addition, service migration occurs at the corporate level [19].

2.2. Attractive alternatives and switching costs

Besides the elements of service satisfaction, IES may be influenced by the availability of attractive alternatives and perceived switching costs, etc. Several studies have indicated that these factors not only have a direct influence on service re-purchase, but they also moderate the dynamics between customer satisfaction and re-purchase decision-making [1, 14].

Some studies have examined how the quality of alternative services affects customer attitudes [13]. Less attractive alternatives discourage customers from changing. Rusbuilt and Farrell [22] suggested that the intention to continue service use was a function of the attractiveness of the existing service versus that of alternatives. Customer perceptions of the attractiveness of alternative email services may be shaped via various information channels, including commercials, hearsay, word of mouth, and the media.

Obstacles to switching include the economic, psychological, and emotional sacrifices that may be necessary before, during, and after service conversion. Jones [17] proposed the following cost classifications: continuity, contractual, searching, learning, setup, and sunk. Continuity costs result from lost opportunities due to the disruption of service; they include benefits lost (e.g., discounts) from the existing service. Learning costs are the time and effort spent in information acquisition, exchange, and evaluation of alternative services. Setup costs are the mental and financial efforts necessary to sign up for and customize a new service. Sunk costs include the non-recoverable time and effort already spent on the existing service relationship; they are economically irrelevant but psychologically important and constitute a hurdle that keeps a customer from replacing an existing service.

Porter [20] suggested that unsatisfied customers stay with their service providers because of switching costs. The psychological, logistic, and economic expense may simply be too high to justify the switch. Accordingly, switching costs negatively affect customer motivation to defect.

3. Research model and hypotheses

3.1. Research model and variables

A research model was developed to predict the dynamics of IES in terms of three endogenous
constructs: customer satisfaction with email service, availability of attractive alternatives, and perceived switching costs (see Fig. 1). In addition, attractive alternatives and switching costs were expected to moderate the strength of the relationship between customer satisfaction and IES.

The customer satisfaction construct was assumed to depend on storage capacity, spam blocking, interface design, and system stability. The first two can play a pivotal role in users’ choice of an email service [29], while the other two are generally accepted as critical success factors of IS and web stores [10,21]. Customer satisfaction with the system features, therefore, was expected to have a significant impact on IES.

Among the types of switching cost, we chose setup and continuity because these are important during the migration of email accounts. The continuity cost includes the creation of a new address list, distribution and notification of the email address change, with potential disruption.

The effect of the other cost items on IES was expected to be weak; for example, the cost of searching for alternative email services would not be a significant deterrent because Internet portals are widely available and their search engines make the search process fast and accurate.

3.2. Research hypotheses

3.2.1. Customer satisfaction and IES

The general relationship between customer satisfaction and intention to re-purchase has been frequently investigated. Bolton’s study [4] of cellular service providers indicated a positive association between customer satisfaction and re-purchase. Bearden and Teel’s [3] study of drug and automobile maintenance services produced identical outcomes. Accordingly, we hypothesized:

**H1.** The higher a customer’s satisfaction with an existing email service, the lower will be his or her intention to switch services.

Among many general features that may affect customer satisfaction with an email service, we identified two particular elements: web site design and system stability. The site should offer convenient navigation, ease of use, and inviting content. Also, lack of system stability and performance degradation can be extremely frustrating to email users [30].

Some application-specific factors may make a particular email service appealing. Spam blocking may be important due to the potential emotional (e.g., irritation) and financial (e.g., system overload) effects. Email users waste time and effort removing unwanted emails. Naturally, an email service that can effectively block spam emails without disrupting legitimate correspondence can attract users.

Storage capacity is also important for email service. This is especially significant because traditional forms of correspondence are now often replaced by electronic messaging, and messages are, therefore, increasing in size. Recent announcements of storage capacity increases from Google and Yahoo! exemplify the importance of expanded storage.

People have different levels of satisfaction with these issues. We, therefore, hypothesized that:

**H1a.** The higher a customer’s satisfaction with the storage capacity of an email service, the lower will be his or her intention to switch services.
H1b. The higher a customer’s satisfaction with the spam blocking of an email service, the lower will be his or her intention to switch services.

H1c. The higher a customer’s satisfaction with the interface design of an email service, the lower will be his or her intention to switch services.

H1d. The higher a customer’s satisfaction with the system stability of an email service, the lower will be his or her intention to switch services.

3.2.2. Switching costs and IES

With increases in switching costs, a customer’s willingness to change service providers reduces. Many studies empirically confirm this (e.g., [2]). Thus, we hypothesized that:

H2. The higher the cost of switching to an email service, the lower the intention to switch services.

Email users were expected to be especially reluctant to pay initial setup (e.g., evaluation of service providers, registration of personal information, detailing of user profile, defining the email import source, and customization of a new account) and continuity cost (e.g., the creation of a new address list, email archiving and importing, distribution and notification of the address change, and any disruptions or delays). Accordingly, we hypothesized:

H2a. The higher a customer perceives the setup cost of an email service to be, the lower his or her intention to switch from the current service.

H2b. The higher a customer perceives the continuity cost of an email service to be, the lower his or her intention to switch from the current service.

Conversion costs may redefine the association between customer satisfaction and IES: a person’s IES may be understood in terms of the dynamics between switching costs and subsequent benefits. Jones et al. [18] suggested that customer defection does not take place when the sacrifice is expected to be higher than the benefits but that this moderating effect was especially strong when customer satisfaction was low. We, therefore, postulated that email users would have higher IES when the switching costs were deemed to be lower than the ensuing benefits:

H3. Switching costs moderate the association between a customer’s satisfaction with the current email service and his or her intention to switch to a new one.

3.2.3. Attractive alternatives and IES

Unattractive alternatives keep customers from defecting from their current services. The relationship between availability of attractive alternatives and IES appears to be present among business customers as well as individual users. For instance, retailers change wholesalers when they recognize the value of alternatives. We, therefore, hypothesized:

H4. The more attractive a customer perceives alternative email services to be, the higher his or her intention to change from the current service.

Even disgruntled customers will not switch service providers when there are no attractive alternatives. The dynamics in social and business relationships are similar to those of on-line email services, where dissatisfaction with an existing email service may trigger heightened interest in service switching. But interest will be moderated when there are no appealing alternatives. We hypothesized that:

H5. Attractiveness of alternative email services moderates the association between a customer’s satisfaction with the current service and his or her intention to change to a new one.

4. Research methodology

4.1. Survey development and validation

A questionnaire was designed to use in collecting data. The elements of the survey are shown Table 1. An attempt was made to derive question items from existing works in order to ensure the validity and reliability of the study, however, the authors had to develop items for measuring the behavioral effect associated with spam blocking and storage capacity. In

<table>
<thead>
<tr>
<th>Variables</th>
<th>No. of indicators</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer satisfaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>4</td>
<td>[30]</td>
</tr>
<tr>
<td>Stability</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Spam</td>
<td>4</td>
<td>NA</td>
</tr>
<tr>
<td>Storage</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Switching cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setup</td>
<td>3</td>
<td>[17,18]</td>
</tr>
<tr>
<td>Continuity</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Attractive alternatives</td>
<td>3</td>
<td>[17]</td>
</tr>
<tr>
<td>Switching intention</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
total, 27 question items were included to measure the variables (please see Appendix A for some details). Responses were measured on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The survey instrument was first pilot tested with college students. For this, 55 and 106 responses were gathered through off-line and on-line channels, respectively. To enhance content validity, question items that carried semantic ambiguities were identified and corrected by requesting input from industry and academic reviewers.

4.2. Data gathering and analysis

The final survey instrument was distributed by Bestsite (www.bestsite.com), an on-line marketing research company, to a group of randomly chosen people from its proprietary panel list, which included members representing general population demographics in terms of gender, age, geographical location, and education. If a selected individual had multiple email accounts (s)he was asked to answer questions based on the one mainly used. About 1430 responses were received, but 22 with many unanswered items were removed, leaving 1408. The population demographics are shown in Table 2.

4.3. Validity and reliability testing

The constructs were first tested for convergence and discrimination using VARIMAX rotation. Cronbach’s α values were used to measure the reliability of the factor structure, and 0.6 was considered a threshold value for determining factor reliability. The result of this exploratory factor analysis indicated highly reliable convergence among related question items and discrimination between different factor items (see Table 3). The smallest factor loading was 0.716. Most indicators had loadings larger than 0.800, indicating a highly stable loading structure. Also, Cronbach’s α values, ranging from 0.780 to 0.960, confirmed the high reliability of the identified factors. The average value of indicators of a construct was, therefore, used as the observation point.

5. Analysis of results

The proposed hypotheses were validated in two groups. First, hypotheses 1 (including 1a, etc.), 2 (including 2a and 2b), and 4 were tested using an ordinary multiple regression model. Then, the moderating effects of switching costs and attractive alternatives (hypotheses 3 and 5) were tested through a hierarchical regression analysis that takes advantage of the Type 1 sum of squares (conditional sum of squares). With this, the order in which the predictors are listed reflects the order in which they are entered into the regression model. It, therefore, allows the computation of statistical significance of interaction terms by comparing the full model with moderating terms and the reduced model without the moderating terms. This statistical comparison was conducted separately for each moderator. A 95% confidence level was used as the threshold value for hypothesis validation. A summary of the hypotheses testing is shown in Table 4.

5.1. Analysis of main effects

The regression analysis of Table 5 indicated that, except for the design variable, customer satisfaction with system stability, storage capacity, and spam blocking were all highly significant in affecting IES. Standardized coefficients indicated that, among the satisfaction variables, storage capacity had the strongest association with the dependent variable. As for the switching cost variables, continuity cost significantly deterred IES, but the effect of setup cost was not substantial. In addition, attractive alternatives was shown to have the most powerful influence on shaping IES. The seven variables explained about 22% ($R^2$) of the variations in IES.

5.2. Analysis of moderating effects

Regression analysis was conducted to test the roles of switching costs and attractive alternatives in moderating the association between the satisfaction...
variables and IES. Conventional testing of moderating effects requires a three-step hierarchical analysis in which the independent variable(s), the moderator variable(s), and the multiplicative cross-product terms are entered in sequence [8]. Carte and Russell [5] called for caution when measuring moderating effects in MIS research. Two sets of analysis were conducted (see Tables 6A and 6B).

Table 4
Summary of hypotheses testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Category</th>
<th>Variables</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>User satisfaction</td>
<td></td>
<td>Partially accepted</td>
</tr>
<tr>
<td>H1a</td>
<td>User satisfaction</td>
<td>Storage capacity</td>
<td>Accepted</td>
</tr>
<tr>
<td>H1b</td>
<td>User satisfaction</td>
<td>Spam blocking</td>
<td>Accepted</td>
</tr>
<tr>
<td>H1c</td>
<td>User satisfaction</td>
<td>Design</td>
<td>Not accepted</td>
</tr>
<tr>
<td>H1d</td>
<td>User satisfaction</td>
<td>System stability</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>Switching cost</td>
<td></td>
<td>Partially accepted</td>
</tr>
<tr>
<td>H2a</td>
<td>Switching cost</td>
<td>Setup cost</td>
<td>Not accepted</td>
</tr>
<tr>
<td>H2b</td>
<td>Switching cost</td>
<td>Continuity cost</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3</td>
<td>User satisfaction × switching cost (moderating effect)</td>
<td></td>
<td>Not accepted</td>
</tr>
<tr>
<td>H4</td>
<td>Attractive alternatives (AA)</td>
<td></td>
<td>Accepted</td>
</tr>
<tr>
<td>H5</td>
<td>User satisfaction × AA (moderating effect)</td>
<td></td>
<td>Accepted</td>
</tr>
</tbody>
</table>
The moderating effects of switching costs and attractive alternatives were tested by an increase in $R^2$ and the associated $F$ value. Because there were many interaction terms (8 “satisfaction and switching costs” and 4 “satisfaction and attractive alternatives”), statistical significance was measured by comparing the main effect model with the full model, which included all interaction terms of either switching costs or attractive alternatives. Results indicated that the intervening role of attractive alternatives was significant ($F = 4.96, p = 0.001$ in Table 6A; thus, $\Delta R^2 = 0$ is rejected), but that of switching costs was not ($F = 0.975, p = 0.454$ in Table 6B).

### 6. Discussion

In general, we found that satisfaction with service quality, switching costs, and attractive alternatives had a significant bearing on people’s IES. Also for service satisfaction, stability, spam blocking, and storage capacity were significant indicators of IES. The interface design of an email system was not a distinctive issue in shaping users’ switching intention. In fact, most web-based email services have similar functional features and interface designs. Accordingly, users seem to place much emphasis on system strengths (e.g., reliability) rather than aesthetic appeal.

The influence of storage capacity was especially striking and it, with stability, had a stronger association with satisfaction than spam blocking. Spam, while annoying, does not limit service usability and accessibility. Obviously, in order for email services to be successful, system features must be sensitive in serving user needs.

The strong association between attractive alternatives and IES demonstrates the former’s vital role in service switching. Overall, our results seem to imply

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### Table 5

Coefficients of main effects

<table>
<thead>
<tr>
<th>Hypothesis Variables</th>
<th>Standard coefficient</th>
<th>$t$-Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction with the email service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H1 Design</td>
<td>$-0.038$</td>
<td>$-1.29$</td>
<td>0.197</td>
</tr>
<tr>
<td>System stability</td>
<td>$-0.114$</td>
<td>$-3.72$</td>
<td>$0.000^*$</td>
</tr>
<tr>
<td>Spam blocking</td>
<td>$-0.091$</td>
<td>$-3.50$</td>
<td>$0.000^*$</td>
</tr>
<tr>
<td>Storage capacity</td>
<td>$-0.189$</td>
<td>$-7.42$</td>
<td>$0.000^*$</td>
</tr>
<tr>
<td>Switching costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H2 Setup cost</td>
<td>$-0.010$</td>
<td>$-0.41$</td>
<td>0.682</td>
</tr>
<tr>
<td>Continuity cost</td>
<td>$-0.130$</td>
<td>$-5.13$</td>
<td>$0.000^*$</td>
</tr>
<tr>
<td>H4 Attractive alternatives</td>
<td>$0.303$</td>
<td>12.7</td>
<td>$0.000^*$</td>
</tr>
</tbody>
</table>

* $p < 0.05$.

---

### Table 6A

A hierarchical regression model (attractive alternatives as the moderator)

<table>
<thead>
<tr>
<th>Category</th>
<th>Variables</th>
<th>Reduced model</th>
<th>Full model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Regression coefficient, $\beta$</td>
<td>Significance</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Constant</td>
<td>3.2</td>
<td>0.000*</td>
</tr>
<tr>
<td></td>
<td>Design</td>
<td>$-0.057$</td>
<td>0.078</td>
</tr>
<tr>
<td></td>
<td>Stability</td>
<td>$-0.124$</td>
<td>0.000*</td>
</tr>
<tr>
<td></td>
<td>Spam</td>
<td>$-0.069$</td>
<td>0.000*</td>
</tr>
<tr>
<td></td>
<td>Capacity</td>
<td>$-0.128$</td>
<td>0.000*</td>
</tr>
<tr>
<td></td>
<td>AA</td>
<td>0.334</td>
<td>0.000*</td>
</tr>
<tr>
<td>Satisfaction $\times$ AA</td>
<td>Design $\times$ AA</td>
<td>0.032</td>
<td>0.231</td>
</tr>
<tr>
<td></td>
<td>Stability $\times$ AA</td>
<td>$-0.060$</td>
<td>0.032*</td>
</tr>
<tr>
<td></td>
<td>Spam $\times$ AA</td>
<td>$-0.024$</td>
<td>0.125</td>
</tr>
<tr>
<td></td>
<td>Capacity $\times$ AA</td>
<td>$-0.027$</td>
<td>0.082</td>
</tr>
<tr>
<td></td>
<td>$R^2$ (adjusted $R^2$)</td>
<td>0.20 (0.20)</td>
<td>0.21 (0.21)</td>
</tr>
<tr>
<td></td>
<td>$F$-value (d.f.)</td>
<td>70.6 (5)</td>
<td>41.9 (9)</td>
</tr>
<tr>
<td></td>
<td>Change of $F$ ($p$-value)</td>
<td>4.95 ($p = 0.00$)</td>
<td></td>
</tr>
</tbody>
</table>

* $p < 0.05$. 

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that the availability of attractive alternatives has a particular effect on email users’ IES. Besides, although there are significant continuity costs during the transition, users can use two (or more) email accounts concurrently during the transition period. This gradual migration approach could relieve some of the difficulty of switching and make the continuity cost less painful.

The moderating effect of attractive alternatives on the relationship between customer satisfaction and IES was significant. That significance, however, was specific to the interaction between system stability and attractive alternatives, not any other interaction effects. None of the interaction terms between the variables of service satisfaction and switching costs were significant, indicating a general inability of the latter to weaken the association between service satisfaction and IES.

There are some limitations inherent in this study. First, the focus of our research was to understand the intention of email users in switching email services. However, the strength of the association between switching intention and actual conversion remained unclear. Survey data were gathered in Korea by an online company, and, therefore, the analysis results may be subject to cultural bias [15].

7. Conclusions

Our empirical study reconfirmed the vital importance of user satisfaction to service continuation and re-use. It also showed that the availability of attractive alternatives plays a larger role than perceived switching costs in choosing an email service. This may imply that retaining the users of an email service is tougher than in other services because of the difficulty of customer lock-in and that Internet portal firms should offer attractive service features to differentiate themselves from competitors.

Acknowledgement

This research is supported by the ubiquitous Autonomic Computing and Network Project, the Ministry of Information and Communication (MIC) 21st Century Frontier R&D Program in Korea.

Appendix A. Questionnaire

Unless otherwise indicated, the questions were answered on a 7-point Likert scale with extremes being strongly agree/strongly disagree.

A.1. Satisfaction with current email service—Part I

Storage capacity
1. I am satisfied with the storage capacity.
2. The storage capacity is large enough for me.
3. Current email service provides adequate storage capacity.

Table 6B
A hierarchical regression model (switching costs as the moderator)

<table>
<thead>
<tr>
<th>Category</th>
<th>Variables</th>
<th>Reduced model</th>
<th>Full model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Regression coefficient, β</td>
<td>Significance</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Constant</td>
<td>3.2</td>
<td>0.000*</td>
</tr>
<tr>
<td></td>
<td>Design</td>
<td>-0.009</td>
<td>0.790</td>
</tr>
<tr>
<td></td>
<td>Stability</td>
<td>-0.114</td>
<td>0.000*</td>
</tr>
<tr>
<td></td>
<td>Spam</td>
<td>-0.064</td>
<td>0.000*</td>
</tr>
<tr>
<td></td>
<td>Capacity</td>
<td>-0.147</td>
<td>0.000*</td>
</tr>
<tr>
<td>Switching cost</td>
<td>Setup</td>
<td>-0.038</td>
<td>0.100</td>
</tr>
<tr>
<td></td>
<td>Continuity</td>
<td>-0.108</td>
<td>0.000*</td>
</tr>
<tr>
<td>Satisfaction × switching cost</td>
<td>Design × setup</td>
<td>-0.001</td>
<td>0.975</td>
</tr>
<tr>
<td></td>
<td>Stability × setup</td>
<td>-0.009</td>
<td>0.683</td>
</tr>
<tr>
<td></td>
<td>Spam × setup</td>
<td>-0.005</td>
<td>0.730</td>
</tr>
<tr>
<td></td>
<td>Capacity × setup</td>
<td>-0.002</td>
<td>0.902</td>
</tr>
<tr>
<td></td>
<td>Design × continuity</td>
<td>0.000</td>
<td>0.988</td>
</tr>
<tr>
<td></td>
<td>Stability × continuity</td>
<td>-0.013</td>
<td>0.603</td>
</tr>
<tr>
<td></td>
<td>Spam × continuity</td>
<td>-0.027</td>
<td>0.097</td>
</tr>
<tr>
<td></td>
<td>Capacity × continuity</td>
<td>0.021</td>
<td>0.157</td>
</tr>
</tbody>
</table>

$R^2$ (adjusted $R^2$) 0.13 (0.13) 0.13 (0.13)
F-value (d.f.) 34.5 (6) 15.3 (14)
Change of F $(p$-value) 0.98 $(p = 0.45)$

* $p < 0.05.$
Spam blocking
1. I am satisfied with the spam blocking.
2. Spam blocking is effective.
3. I am satisfied with the spam filtering function.
4. Current email service provides adequate spam filtering capability.

Website design
1. It is easy to understand the overall structure of the website.
2. The website is easy to understand.
3. The website is easy to use.
4. The website is adequately structured for easy navigation.

Stability
1. The email system is stable.
2. Downloading speed of the initial page is consistent.
3. Downloading files and other information is fast.
4. The speed of downloading files and other information is always consistent.

A.2. Intention to switch from current email service—Part II

1. I am considering switching from my current email service.
2. The chance of my switching to another email service is high.
3. I am determined to switch to another email service.

A.3. Cost of switching email services—Part III

Setup cost
1. Signing up for a new email service is inconvenient.
2. Signing up for a new email service takes up too much time and effort.
3. Entering required information to join a new email service is annoying.

Continuity cost
1. It takes too much time and effort to notify people about a changed email address.
2. I may lose some contacts if I change from my current email address.
3. Changing my email address may cause a delay in communications with existing contacts.

A.4. Attractive alternatives—Part IV

1. I know that there are alternative email services I can switch to.
2. There are other email services that provide high service quality.
3. There are email services I find more attractive than the one I am using.

References


