

Research note: Factors influencing online flight ticket purchasing

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In spite of the rapid growth in Internet purchasing of products and services in Korea, the buying rate of online flight ticketing remains low. This research investigates the factors that influence online ticket purchasing through a survey of Internet consumers to determine the relationships between convenience, willingness to purchase and trust. From these, the present satisfaction levels can be assessed and future upgrades and requirements can be planned. It is also necessary to determine the background factors that influence Internet-using consumers who visit websites, with a view to simplifying procedures and encouraging repeat visits to the sites.

Keywords: online marketing; flight tickets; purchasing intention; Korea

E-commerce provides many advantages, such as continuous availability, time saving, global reach, price and product transparency, real-time competitive responsiveness and faster supply chain processes (Morganosky and Cude, 2000). Customers have the availability, convenience, ease of use and contextual information, while businesses obtain objective behavioural data on customers and competitors, and save costs (Rayport and Jaworski, 2001; Chiang and Jang, 2006). South Korea (hereafter Korea) is one of the fastest countries in the world at adopting new technology. The number of Korean Internet users grew to more than 35 million in 2008 from merely 138,000 in 1994, in a country with a population of 49 million. Koreans use Internet services to communicate with others, such as operating a blog (42.9%), following blogs (56.8%), Instant Messenger (48.5%) and Internet News (86.7%). They also use e-mail (87.8%), Internet shopping (61.3%) and Internet banking (45.0%). Generation Y are more active in using the Internet than other age groups: e-mail (97.7%), Instant

Messenger (77.3%), operating a blog (77.7%) and following a blog (80.6%), Internet shopping (84.2%) and Internet news (92.2%) (Korea Network Information Centre, 2009).

The main purpose of this study is to identify the factors that impact on the choice of purchasing airline tickets online. The objectives are (i) to identify if there is a relationship between convenience and the willingness to purchase airline tickets on the Internet, (ii) to explore if there is a relationship between trust and the willingness to purchase airline tickets on the Internet, and (iii) to examine whether satisfaction with the earlier purchase of an airline ticket on the Internet is associated with repeat purchases.

Airline e-commerce services

Park and Han (1998) describe two types of airline ticket services; the voucherless service in which the consumer reserves the ticket by telephone or the Internet and collects the ticket at the airport, and the direct reservation service in which the consumer uses an Internet site to reserve a ticket directly and receives the ticket through a delivery service. Most airline companies and travel agencies use both methods. Samenfink (1999) finds that airlines are using the Internet as an information dissemination and revenue-generating channel. Rather than going to the nearest travel agency, travellers visit one of the many websites and complete reservations online (Kim *et al.*, 2005). Standing (2000) argues that the Web has forced firms to change from pushing services to pulling clients. Internet shops stay open 24 hours a day, seven days a week to allow access to relevant information whenever and wherever it is wanted. The Internet also welcomes customers from all over the world.

Research methodology

Three hypotheses are tested in this study: (i) there is a relationship between convenience and the willingness to purchase airline tickets on the Internet; (ii) there is a relationship between trust and the willingness to purchase airline tickets on the Internet; and (iii) there is a relationship between satisfaction and willingness to repeat purchase airline tickets on the Internet.

Non-probability sampling was used to target current Internet users in Korea. The study used community sites such as the 'Daum Café' and 'MSN Community' to access Internet users. These communication sites have millions of members of different genders, ages, occupations and levels of education. The research chose the 15 most popular sites and sent requests to e-mail members. Six gave permission to use their e-mail addresses for the survey. As a result, approximately 12,000 addresses were available and used as the sample population. Data collection was by an e-mail questionnaire. Questionnaires included a cover letter explaining the purpose of study, the importance of the respondents' assistance and the requested date of return. A total of 950 questionnaires were distributed, 700 to respondents provided by the Internet communication sites and 250 by the additional method explained above. Of the 128 questionnaires received, 125 were usable, representing a 13.5%

response rate. The questionnaire comprised mainly closed-ended questions and was translated into Korean. A 10-point numerical or 5-point Likert scale was used. A Pearson's correlation test was applied to test the connection between the dependent variables ('willingness of purchase' and 'repeat purchase of airline tickets on the Internet') and independent variables (convenience, trust and satisfaction). The Statistical Package for Social Science (SPSS) software program was used.

Analysis of findings

Respondents were categorized by gender, age, occupation, working hours, education level, Internet experience and frequency of Internet use. For 'occupation', 13 categories were identified. Slightly more than half of the respondents were male (53.6%). Most of the respondents (60%) were between 21 and 30 years old, and 38% belonged to the 31–40 age group. Also, 61% and 37.6% of the respondents had used the Internet for 3–5 years and 6 years or more, respectively. The data also showed that 30.4% and 28% of the respondents worked on average more than 7–8 hours and 9–10 hours a day, respectively, and surprisingly, 12.8% of respondents were working more than 10 hours a day on average. More than 52% of them had white-collar jobs, while 87.2% had at least an undergraduate education.

Most of the Internet airline ticket buyers were male. This is consistent with Caswell's (2000) conclusion that women lag behind men in online shopping. Internet airline ticket buyers tended to be the more experienced Internet users (50% having six or more years of Internet experience) and more frequent Internet users (71% use the Internet at least once a day). To date, little has been published about the relationship between the amount of Internet experience and the likelihood of the online purchasing of airline tickets. However, the current findings suggest that Internet users with more Internet experience are more likely to purchase online (Forsythe and Shi, 2002).

Hypothesis 1: There is a relationship between convenience and willingness to purchase airline tickets on the Internet

Table 1 shows the relationship between the variables for all respondents. The associated *p*-values are zero and the Pearson correlation coefficient is 0.430, indicating a positive relationship between perceived convenience and willingness to purchase airline tickets online.

The test for those who had actually bought airline tickets online showed no significant differences. Table 2 describes the results for each convenience factor. More than 65% of respondents ranked the three convenience factors ('any time', 'any place' and 'speed and save time') as high. Because most respondents were working many hours a day, these results suggested that they agreed that shopping any time and any place saved time and was important.

Almost 50% of respondents ranked 'easy to purchase' at 4 or 5, suggesting Korean people believed that the Internet purchasing of airline tickets was not

Table 1. Relationships between convenience and willingness to purchase airline tickets online.

		Willingness	Convenience
Willingness	Pearson correlation	1	0.430**
	Sig (2-tailed)	–	0.000
	N	125	125
Convenience	Pearson correlation	0.430**	1
	Sig (2-tailed)	0.000	–
	N	125	125

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

Table 2. Attitudes towards convenience factors and correlation with willingness to purchase airline tickets online (N = 125).

Motivator	Mean	Frequency (points 4 and 5)		Correlation with willingness	
		N	Per cent	r	p-value
Any time	4.14	99	79.2	0.345**	0.000
Any place	4.13	96	76.8	0.388**	0.000
Speed and save time	3.89	83	66.4	0.336**	0.000
Easy to purchase	3.53	61	48.8	0.441**	0.000
Delivery service	3.32	53	42.4	0.225*	0.012
Information capability	3.30	60	48.0	0.106	0.240

Note: *Correlation is significant at the 0.05 level (2-tailed); **correlation is significant at the 0.01 level (2-tailed).

easy. The relationship ($r = 0.441$) had the highest value among the convenience factors, which meant that some Korean people were influenced by this factor more than any other. There is no relationship between 'information capability' and willingness to purchase. One respondent said that some sites presented too much information in one window; another noted that he normally bought tickets online but always doubted the information given. Therefore, information capability does not influence ticket purchasing online. One respondent talked about 'speed and saving time'; with a fast Internet, more commercial banners come up in a window and it takes time to download the site. He suggested that windows should be simple and well designed, and thus easier to use. Another respondent commented that, if each site were designed differently, it would be difficult to search for information, and this would take time unless users were familiar with the sites.

Hypothesis 2: There is a relationship between trust and willingness to purchase airline tickets on the Internet

There is a relationship between perceived 'trust' and 'willingness' to purchase airline tickets online. As can be seen in Table 3, the p -value is zero and the

Table 3. Relationships between trust and willingness to purchase airline tickets online.

		Willingness	Trust
Willingness	Pearson correlation	1	-0.351**
	Sig (2-tailed)	–	0.000
	N	125	125
Trust	Pearson correlation	-0.351**	1
	Sig (2-tailed)	0.000	–
	N	125	125

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

Table 4. Attitudes toward trust factors and the correlation with willingness to purchase airline tickets online (N = 125).

Motivator	Mean	Frequency (points 4 and 5)		Correlation with willingness	
		N	Per cent	r	p-value
Security (credit card information)	3.66	78	62.4	-0.119	0.186
Privacy (personal information)	3.62	72	57.6	-0.080	0.374
Customer service	2.82	32	25.6	-0.344**	0.000
Product quality	2.43	17	13.6	-0.411**	0.000
Delivery service	2.45	26	12.8	-0.232**	0.009

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

Pearson correlation coefficient is -0.351 , indicating a moderate negative relationship. This implies that Koreans are not strongly affected by trust issues when buying airline tickets online.

Again, for the same relationship with the actual airline ticket buyers, the associated p -value is close to zero and the correlation coefficient -0.233 , a weak negative. This is not significantly different to the result for all the respondents.

About 60% of respondents ranked two factors ('security' and 'privacy') at 4 or 5, but there was no correlation with the willingness to purchase (Table 4). This result contradicts previous research. About 25% of respondents ranked 'customer service' at 4 or 5 having a moderate relationship with the willingness to purchase airline tickets online. About 13% of respondents ranked 'product quality' at 4 or 5, with a -0.411 correlation coefficient. This suggests that only a few people are concerned with product quality issues.

The lack of relationship between the 'security' and the 'privacy' factors and willingness to purchase airline tickets online may suggest that some customers are concerned about the quality of the merchandise, while others worry about the security of the modes of payment. More than 55.2% of respondents were willing to buy airline tickets online (Table 5), seeing purchasing airline tickets as reasonable because they trusted the 'customer service' and 'product quality'.

Table 5. Frequency of willingness to purchase airline tickets online factor ($N = 78$).

	Frequency	Per cent
Never buy a ticket online	0	0
2	3	3.8
3	1	1.3
4	4	5.1
5	5	6.4
6	7	9.0
7	16	20.5
8	19	24.4
9	11	14.1
Always buy a ticket online	12	15.4

One respondent mentioned that she felt uncomfortable giving out private information when buying airline tickets online, but there was no other choice if she wanted to buy a ticket during busy working hours. In addition, travel agents also required this information (unless purchasing by cash).

Hypothesis 3: There is a relationship between satisfaction and willingness to repeat purchase airline tickets on the Internet

The results indicate that there is a relationship between 'satisfaction' and 'willingness to repeat purchase online'. The p -values are zero and the Pearson correlation coefficient is 0.443, indicating a moderate positive relationship (Table 6). This implies that the satisfaction of the online purchase of airline tickets in Korea somewhat influences repeat purchases.

As seen in Table 7, more than 70% of respondents ranked the four satisfaction factors ('any place', 'any time', 'speed and save time' and 'easy to purchase') at 4 or 5, indicating they were highly satisfied with those factors. The correlation coefficient was more than 0.50, indicating the factors were not strongly correlated but influenced the repeat purchasing of airline tickets online. The 'payment method' and 'delivery service' satisfied 40–50% of the respondents, but the relationship with the willingness to repeat purchase was weak. 'Customer service' (33.3%) was ranked the lowest. This meant not many people were satisfied with the customer service provided by airlines and travel agents in Korea, but it did not strongly influence the repeat purchasing of airline tickets online. In addition, the online buyers did not think that the customer service provided was as good as the overall perceptions of respondents.

Conclusions

The research reported here examined the relationship between various factors and the willingness to purchase airline tickets on the Internet in Korea. The findings suggest that 'convenience' and 'trust' are the major issues in terms of

Table 6. Relationships between satisfaction and willingness to repeat purchase airline tickets online.

		Repeat purchasing	Satisfaction
Willingness to repeat purchase online	Pearson correlation	1	0.443**
	Sig (2-tailed)	–	0.000
	N	78	78
Satisfaction	Pearson correlation	0.443**	1
	Sig (2-tailed)	0.000	–
	N	78	78

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

Table 7. Attitudes toward satisfaction factors and the correlation with willingness to repeat purchase airline tickets online (N = 78).

Motivator	Mean	Frequency (points 4 and 5)		Correlation with willingness	
		N	Per cent	r	p-value
Any place	4.27	68	87.2	0.532**	0.000
Any time	4.27	66	84.6	0.579**	0.000
Speed and save time	4.14	62	79.5	0.507**	0.000
Easy to purchase	3.88	55	70.5	0.526**	0.000
Information capability	3.45	44	56.4	0.414**	0.000
Payment method	3.50	39	50.0	0.336**	0.003
Delivery service	3.49	33	42.3	0.348**	0.002
Customer service	3.19	26	33.3	0.311**	0.006

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

online ticketing, leading to satisfaction. These factors were broken down into a number of component factors. The components of convenience are being able to shop any time and in any place, time saving, ease of use, delivery service provision and information capability. Trust is composed of security, privacy, doubts about customer service, delivery service and product quality. The satisfaction factor is composed of being able to shop any time and in any place, time saving, ease of use, payment method, customer service, delivery service provision and information capability.

The findings suggest that although Koreans are satisfied with the convenience factors, these factors do not strongly influence the willingness to purchase airline tickets online. Ease of use has the strongest correlation with willingness to purchase airline tickets online. Therefore, managers in the Korean airline companies should make their sites easy to use for potential online consumers. The sites should be well designed, but neither complicated nor difficult to navigate. The findings also indicate that the Koreans are generally concerned about risks when Internet shopping; however, security and privacy do not influence the willingness to purchase airline tickets online. This research

also found a relationship between satisfaction and willingness to repeat purchase airline tickets on the Internet. This result is consistent with previous work showing that buyers' satisfaction or dissatisfaction after buying a product influences subsequent purchase behaviour and intentions (Kotler, 1997).

Contribution of the research

Internet users demand something new and handy when Internet purchasing. They realize that they can shop at any time and in any place by using the Internet, and now they are attracted by ease of navigation. Therefore, airline company managers should make their sites more practically easy and user friendly. Trust is associated with perceived risk (Jarvenpaa *et al*, 2000). Although the relationship of trust and the willingness to purchase online is weak, most Koreans are concerned about the trust factor. Trust risk may come not only from a lack of security, but also from customers' psychological confidence with Internet shopping. Hence, airlines must have protection policies for security and other services to enhance customers' psychological confidence. Although all of the seven airline companies in Korea have currently provided a 'company policy on consumers' personal information' on their home pages, unfortunately it is introduced at the very bottom of the page in tiny letters that do not attract the attention of the consumer. Moreover, only one company has separated the sections between online and offline customers. The development of convenience and high trust brings better consumer satisfaction. The development of convenience/trust and satisfaction improvements could be an advantage not only for airline companies but also for consumers.

Recommendations arise from the study for managers in the Korean airline industry to improve online flight ticket sales:

- (1) The procedure for purchasing an airline ticket should be easier and simpler; the main page must enable the purchase of a ticket with a maximum of three clicks. The entire online ticketing process must be more rapid to avoid consumers becoming frustrated or distracted.
- (2) The 'company policy on consumers' personal information' should be located very close to the beginning of the online booking section to bring it immediately to the consumer's attention. Security and privacy policies must be prepared to protect individual credit card and personal information strictly, in addition to increasing psychological confidence.
- (3) The management and maintenance of customer services are vital and should be updated continually. Internet users will always make return visits to websites that are well managed, well maintained and have a user-friendly interface.

Limitations and recommendations for future research

The major limitation of this study is the low response rate, with the results coming from only 125 people. The respondents were all Internet users; thus, non-Internet users were not included. The English questionnaire was translated

into Korean; some words could be mistranslated during this process or misunderstood by the respondents. Structured questions and fixed-response alternatives could result in the loss of validity for certain types of data, such as feelings and beliefs. The results of this study are based on the consumers' attitudes rather than their actual behaviour. As Foxall *et al* (1998) find, attitudes, intentions and behaviour often do not correlate well with each other. Thus, measuring attitudes might not be indicative of actual behaviour. Nevertheless, based on the principle that attitudes are viewed generally as a predisposition to specific kinds of behaviour related to certain objects, people or events (Chisnall, 1995), attitudes have been measured in this survey research.

Suggested further research would be to repeat the same or a similar survey on a larger scale. Because of the constant rapid changes in the e-commerce industry and with the changes in consumer behaviour, regular research should be conducted to understand the changes in customers' attitudes, to determine how things have progressed and to upgrade where and when necessary. Future research might seek comparisons between online ticket purchasing and intermediary ticket purchasing; a more developed study could explore other variables, such as the influence on advertising, branding, personalization, seasonality, political factors and so on.

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