

## **E-personalization and online privacy features: the case with travel websites**

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### **ABSTRACT**

E-personalization is the process of tailoring preferences to individual traveler's characteristics or performance on travel websites. E-personalization is used to enhance customer service or e-commerce sales. However, personalization also causes privacy concerns. Today's technology provides multiple opportunities for extensive data gathering and invasion of privacy. Privacy issue has recently received enormous research attention. This is mainly because of the advent of the web, and the trend of personalization. However, very limited research has been conducted to assess consumers' perspectives with regard to e-personalization and privacy from the travelers' perspective. The purpose of this study was to investigate consumers' perceptions and attitudes towards e-personalization and privacy features on travel websites. Previous research has consistently utilized either e-personalization or privacy concern as marketing tools. Our results show a moderate and direct effect of e-personalization and privacy on consumer's attitudes toward a company Website, which in turn has a strong effect on purchase intention, and also the importance of the privacy concern compared to personalization.

Keywords: E-Personalization, Privacy, manipulation. E-commerce

## INTRODUCTION

The travel industry has undergone a process of disintermediation and re-intermediation where the traditional travel distribution channels composed of small travel agencies have been replaced by a new generation of giant virtual travel ventures based on innovative online business models and backed up by advanced information technology (Yeung & Law, 2004). The increasingly sophisticated information technology has afforded these business ventures to bring their tailored and personalized online services to an unprecedented new height.

E-personalization is the process of tailoring pages to individual users' characteristics or performances on a website. Personalization is used to enhance e-commerce sales and consumer relationship management. Personalization is sometimes referred to as one-to-one marketing, because a website can be tailored to specifically target each individual consumer (Schiaffino & Amandi, 2004; Nelson, 2008). Many e-tailing companies have started to provide high degree of personalization to their customers. Personalization is identified as an important mediator of customer satisfaction and patronage behavior (Mittal & Lassar, 1996; Riecken, 2000). While Customer satisfaction is the ultimate goal for the e-personalization and despite the fact that personalization is often cited as an essential component of online success, there have been very little empirical evidences for the effectiveness of this much hyped online marketing strategy.

On the other hand, personalization also causes privacy concern. Today's technology allows multiple opportunities for extensive data gathering and invasion of privacy. Online privacy has been discussed a great deal in the past especially when it relates to provision of e-personalization. Privacy issues have received enormous attention during the past few years. It has become a fact of life for online users to voluntarily and involuntarily subject themselves to the scrutiny and extensive data acquisition by businesses and organizations. Since the demand for personalization continues to grow, the amount of personal data collected in customer marketing databases (Caudill & Murphy, 2000) also grow exponentially. Recent studies have found that as many as eight in ten U.S. citizens are very or somewhat concerned about threats to their personal Privacy (Graeff & Harmon, 2002). For consumers, there is a trade-off between convenience and privacy protection. As a result, there is a need to examine the relationship between privacy concerns and desired degree of e-personalization. Further, it is of great interest to the tourism industry to understand the interplay of these two factors and their influences on consumers' purchase intention. Other factors such as prior online use experience and brand recognition could potentially influence privacy concern and personalization preferences. They need to be examined alongside privacy and e-personalization preferences. Therefore, three research questions are formulated in this study to shed light on consumer perspectives on their privacy concern and the personalization preferences:

- How e-personalization features provided by businesses influences the consumers' behavior in the travel industry?
- How privacy concerns influence the consumers' behavior in the online travel industry?
- Which one (privacy or personalization) is more important for consumers when they are making decision?

These are some of the questions motivating our study. This paper is structured as follows: the second section describes the basic concepts, applications and functionalities of personalization. The third section defines and describes consumer privacy issues in the online environment. All the elements for the methodology in this study and results are described in the fourth section. Finally, conclusions and future research directions are outlined in the fifth section.

## E-COMMERCE IN TOURISM

Tourism is extensively transformed by the all encompassing e-commerce phenomenon. The Internet has been, and is continuously, changing the ways in which the hospitality and tourism industry plans, controls, operates, and integrates a majority of its business activities, including its marketing activities (Kasavana, 1997). With the popularization of computers through the Internet, travel product suppliers such as airlines, car rental companies, and hotels have grasped the opportunity to revolutionize their traditional distribution methods by launching their products directly on the Internet (Kasavana, 1997; Montgomery, 1999; Morrison et al., 1999). With the increasing number of independent travelers, airlines and hotels have also taken advantage of the do-it-yourself culture to reduce their administrative costs by allowing customers to make reservations via the Internet (Law & Leung, 2000). Airline companies have established their own Websites directly selling services online (Law & Leung, 2000). Similarly, many hotels have implemented their own Websites where hotel rooms can be booked over the Internet (Morrison et al., 1999; O'Connor & Frew, 2000). In addition, a large amount of travel information is available on the Internet from regional and national tourism boards (Weeks & Crouch, 1999).

Hensdill (1998) described the Web as, "A perfect medium for selling travel." The Internet is now widely used as a marketing tool and electronic distribution channel that is able to provide multiple pages of text and graphical information with the same amount of detail at a much lower cost than traditional advertising and distribution channels (O'Connor & Frew, 2000). According to Martin (2004), the Internet fits the marketing principles for travel and tourism because it: (a) allows travel suppliers to establish a direct link with customers; (b) gets rid of the unequal barriers for customers and suppliers; (c) facilitates equal competition; and (d) decreases price discrimination opportunities. Consequently, the Internet not only serves to deliver information (Walle, 1996) and act as a public relations tool (Connolly, & Sigala, 2001), it also becomes a promotional and advertising tool (Countryman, 1999).

Several tourism researchers have attempted to clarify the nature of the tourism product. Martin (2004) suggested three characteristics of travel products; those are intangibility, perishability and heterogeneity. The notion that products are intangible means that one cannot grasp a travel product with any of the five senses. That is one can't taste, feel, see, smell, or hear a service, and one can't grasp it conceptually. In other words, travel products are experienced, rather than possessed. The second primary characteristic of the product is perishability. It has often said that there is nothing as perishable as an airline seat or a hotel room. If not sold on a particular flight or for a particular night, that opportunity to sell it is gone forever (Martin, 2004). The third characteristic of the product is the heterogeneity. The product entails the involvement of a mixture of heterogeneous business services such as transport, accommodation, restaurant and retailing. These characteristics of the tourism product have profound implications for customers, and thus for marketers. For the characteristics, tourism marketers need to showcase and convince consumers of the higher quality of their intangible product, strategically optimize profit through yield management as a result of the perishable nature of their products, and coordinate with various business partners across industry sectors to provide a seamless "total tourism product". In addition, tourism marketers need to stay competitive by providing unique and personalized products. The Internet has presented great opportunities for personalized tourism product. However, creating customer personalization online is not an easy task, as the experiences tend to be complex and intangible in e-commerce. For Web-based travel companies, they need to define of what constitutes good travel products and services. Law and Leung (2000) stated that meeting customer needs is the most important factor for hospitality and tourism Websites to

succeed. As customers become more proficient in their use of the Web and are exposed to a wider range of experiences, they will become ever more demanding.

## **E-PERSONALIZATION**

The growth of interest in one-to-one marketing over the past ten years (Peppers & Rogers, 1993; Nelson, 2008) has brought the topic of personalization of products, services, and communications to an increasingly prominent position in marketing theory and practice. E-personalization is the process of tailoring pages and services to individual users' characteristics or performances on a Website. Personalization is used to enhance customer service or e-commerce sales. Personalization is sometimes referred to as one-to-one marketing, because the Webpage is tailored to specifically target each individual consumer. Personalization involves a process of gathering user-information during interaction with the user, which is then used to provide appropriate assistance or services, tailor-made to the user's needs (Bonett, 2001; Germanakos et al., 2008). If we have bought a book from Amazon.com, for example, the next time we visit they will greet us by name and tell us about products in stock that they think we might be interested in like a friendly sales clerk. Bonnett (2001) insists that the aim of the personalization is to improve the user's experience of a service. Personalization is motivated by the recognition that a user has needs, and meeting them successfully is likely to lead to a satisfying relationship with him (Riecken, 2000). According to the Personalization Consortium ([www.personalization.org](http://www.personalization.org)), the purposes of applying information technology to provide personalization in a marketing environment are as follows;

- Better serve the customer by anticipating needs;
- Make the interaction efficient and satisfying for both parties;
- Build a relationship that encourages the customer to return for subsequent purchases.

The essence of personalization is to provide only and exactly what each customer wants at the right time (Pine & Gilmore, 1999). Von Hippel (1998) stresses the importance of the customer's involvement in designing products for mass customization, since the customer has the very best understanding of his/her own needs, and can relay the information to the manufacturer. They also emphasize the understanding and categorization of customers as necessary requirements in order for product/service providers to be able to customize their offerings. To avoid the sacrifice of customer goodwill and maintain high customer satisfaction, one of the key issues lies in how to understand customers better, that is, to explore how the customers interact with the product/service providers. Therefore, it is necessary to investigate customer preferences in order to have a better support for the business model of personalization. While personalization is an often confused marketing term and initiatives and definitions widely vary, the true benefits are often very simple and commonly defined. They include permission-based marketing, targeted messages, and convenience for consumer shopping or information searches, and customizing offers to consumer-driven preferences. The most common approach to personalization is learning about a user's preferences or interests (Schiaffino & Amandi, 2004). Personalization is also described differently from other perspectives. Riecken (2000) states that personalization is to build customer loyalty by building a meaningful one-to-one relationship. Bonett (2001) suggests that personalization involves a process of gathering user-information during interaction with the user, which is then used to provide appropriate assistance or services, tailor-made to the user needs. The aim is to improve the user's experience of a service. In summary, personalization is a means of meeting the customer's needs more effectively and

efficiently, making interactions faster and easier and increasing customer satisfaction and the likelihood of repeat visits.

## **THE ROLE OF PERSONALIZATION IN THE ONLINE TRAVEL INDUSTRY**

The Internet is expected to change the role of travel industry as information providers. As the power of the Internet grows and empowers customers to develop and buy their own itineraries, the very existence of the travel agents will be threatened. On the other hand, the role of personalization is expected to grow in importance, since personalization is motivated by and powered by the recognition of users' needs and wants. When customers engage in computerized transactions with companies that provide highly personalized services and products, gathering information about the online customers becomes almost easy and cost efficient. If the transactions are personalized, the company can gather even more personalized data based on the preferences and online behavioral pattern of an individual. These personal information, when taken advantage of, will further help the company to fine tune their online business strategy, interface design and communication with their targeted customers. Kambil and Nunes (2001) expressed personalization as an approach of using artificial intelligence to observe and analyze users' demographic and behavioral data in order to make recommendations.

The introduction of new technologies of information and communications with the intensive use of e-personalization environments, as a tailored service travel Website, for example, allows travelers to break through the barriers of space and time, and to design their own lifestyle preferences, adapting it to their particular necessities and preferences, according to their possibilities as travelers, changing the usual way of both selling and buying, setting up the foundations of e-personalization environments. In fact, any part of the marketing mix can be personalized. Not only can the product or service be personalized, but so can the form of distribution, the pricing, or the promotion. Expedia.com, for example, like a number of web sites (Ansari & Mela, 2003), more effectively promotes its merchandise through personalized recommendations for products based on collaborative filtering technology. So, personalization is clearly a phenomenon worthy of attention.

Personalization provides unique products to cater to individual customer preferences. A popular way of product personalization is by configuration design, where customers can choose different components and assemble them together to form a product. As a result, it is necessary to enhance the product definition for personalization, that is, how to transfer customer preferences to product specifications precisely and rapidly. Normally there are three types of

E-personalization schemes in the literature. Those are manual decision rule based systems, collaborative filtering systems, and content based filtering systems. Manual decision rule systems let website, let web site administrators specify rules based on user demographics or static profiles (Mobasher *et al.*, 2000). such as Broadvision ([www.broadvision.com](http://www.broadvision.com)) Collaborative filtering systems, such as Expedia.com uses to suggest destination package or airfares, are designed to provide relevant material to a user by combining his or her preferences with those from like-minded individuals (Goldberg *et al.*, 1992). There are many examples in the travel industry for using a content-based filtering system. 'Priceline.com', 'Orbitz.com', 'Travelocity.com' and other Website are all using this system. The system learns its user's travel history and news story preferences through a form and analyzes data along with the new travel product already to their preference. Most of the personalization systems in these three categories are intrusive in nature.

## PERSONAL PRIVACY ISSUES

The tailored products and the tailoring process all aim at targeting and serving customers' needs with greater accuracy and precision. However, some customers are not optimistic about personalization. Today's technology provides multiple opportunities for extensive data gathering and invasion of privacy. Online privacy has been discussed a great deal in the past especially when it relates to Internet, especially personalization. Privacy issue has seen much discussion and scrutiny recently. This is mainly because of the increasingly popular trend of e-personalization provision. Since the demand for personalization continues to grow, large amount of personal data are collected in customer marketing databases (Caudill & Murphy, 2000; FTC., 1998). Recent studies have found that as many as eight in every ten U.S. citizens are very or somewhat concerned about threats to their personal privacy related to online practices of online organizations and businesses (Graeff & Harmon, 2002). As a result, the interplay of privacy concerns and desire for online personalization become a very important and relevant research issue. Privacy concerns seem to be the dominant hindrance to the acceptance of personalization.

One aspect of the privacy issue is the revelation of personal information. The research of both Coner (2003) and Kambil and Nunes (2001) indicated that users are more reluctant to reveal private information on a personalized web site than on a customized web site. On a personalized website, users would be able to control, change and see exactly what they would like to see. However, personalization mechanisms often directly trigger privacy concerns. This is because personalization mechanisms, by definition, work behind the scenes, and have a high possibility of surprising users by the degree of knowledge the web site has about them.

Nonetheless, it does not mean that customers are unwilling to reveal personal information under any circumstances; there are conditions that must be met before customers are willing to forgo some of their privacy. A survey conducted by the Personalization Consortium (2000) showed that most customers are willing to provide personal information to web marketers if that improves their online experience and there is a privacy statement to protect their rights. Though the willingness may be situational, e.g. we may find more privacy fundamentalists in the case of financial services, the trend of increasing willingness is encouraging to marketers. Thus it is important to identify the trade-offs that customers are willing to make. The situational characteristic is acknowledged by Phelps *et al.* (2000). In the past, US federal law permitted banks to sell their customer information. With new regulations, e.g. regulations following the Gramm-Leach-Bliley Act, that are more restrictive than US federal laws being passed recently (Sheshunoff, 2000; Ambrose & Gelb, 2003), perhaps customers would feel more comfortable releasing personal information.

In order to understand consumers' viewpoints regarding privacy on the Internet, it is important to understand what privacy and personal information is. There is little agreement among researchers regarding what privacy really is. Caudill and Murphy (2000) suggested that because technologies are making it easier to move private information to the public domain, public and private information should be included regarding privacy. Wang *et al.* defined customer privacy as 'the unauthorized collection, disclosure, or other use of personal information as a direct result of electronic commerce transaction'. This definition is regarded as narrow since it is limited only to electronic commerce. Goodwin (1991) suggested that 'privacy is a fundamental consumer right', defining it as a two-dimensional construct, involving physical space and information. A continuum approach was proposed by Foxmand and Kilcoyne (1993). They define privacy as context specific and that involves two factors: control and knowledge. In this research, privacy is defined as any issues related to personal information online.

A very important aspect that cannot be ignored is the fact that users are always under control, in the sense that all taken actions are monitored and registered. This might seem a very invasive setup which harms user privacy and, therefore, undesirable. Nevertheless, there are several remarkable facts that need to be clarified:

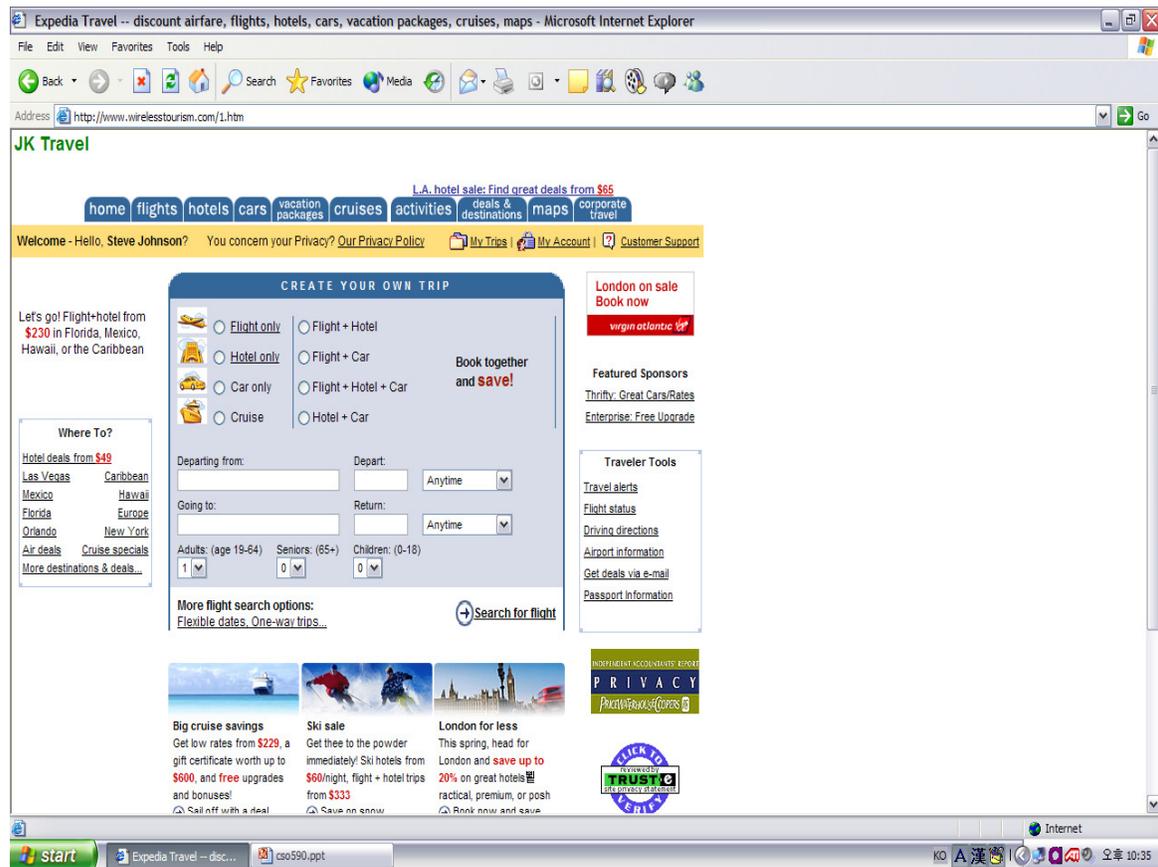
- users know in advance that, in a virtual e-learning environment (or any other web based environment), all actions are logged;
- the recommendation system must be designed in a non-intrusive manner and be user-friendly, including the possibility of disconnecting it or minimizing its participation in the browsing or searching activities; and
- the participation of each individual user in the final recommendation system is completely anonymous.

Finally, it is also important to remark that the collected information is only used with personalization purposes, and it is not meant for commercial reasons, and that the library (a non-profit organization) will use the data rationally and in a transparent way. As usual, a tradeoff between personalization and privacy must be established. The more information the user reveals, the more personalized services he or she obtains.

## **METHODOLOGY**

The study design followed an experimental approach for the following reasons. First, an experiment could provide relatively good control over the influences that could affect the independent and dependent variables. Second, manipulation could provide a high degree of specificity of the variables (personalization and privacy) in the study. A 2 (high/low personalization) x 2 (high/low privacy) between-subjects factorial design was used to investigate research questions in this study. A total of four dummy travel Websites were developed for the purpose of the experiment. In order to investigate the effects of personalization and privacy issues on the attitude towards online purchase, we created a Webpage that were four different versions of a replica of a reputable virtual travel company. Similar to the actual presentation of information at reputable virtual travel company, this experiment's WebPages provided information about travel-related products such as hotels, airline, cruiseship or package that consumers would typically see while shopping for travel-related products. The four website versions represented the four treatment combinations: one with high level of personalization and high level of security and privacy (12 personalization features and 11 privacy features), one with high level of personalization and low level of privacy assurance (12 personalization features without any privacy feature), one with low level of personalization features but high level of privacy assurance (11 privacy features without any privacy feature), and one with low level of personalization features and low level of privacy features (Without any personalization or privacy features).

Figure 1. The example of high personalized and high privacy concern Webpage.



We used 238 undergraduate marketing students at a large University in Korea. Such a homogeneous sample is desirable for theory testing studies (Sterthal, Tybout, & Calder, 1994). Subjects were randomly assigned to one of the four treatment cells. After visiting the Website in the experiment, participants were asked to respond to our questionnaire, which involved filling out the dependent measures and a set of demographic information. Manipulation checks were also performed to ensure the appropriateness of the research design.

## Pretest

Before the actual study, a pretest was conducted of the procedure to ensure that the directions and questions were clear and unambiguous. All level of personalization and privacy & security within the stimulus material were empirically checked. Both measures of personalization and privacy & security were used as manipulation checks in the pretest so that corrections to the stimulus materials could be made before the experiment went into the field. This was administered to 12 graduate students. They were asked to indicate the personalization features and privacy/security issue features on travel-related product Webpage. After the pretest, a few minor changes in wording were incorporated to increase the clarity of the instructions.

### Manipulation checks

Because this experiment relied on the respondent's ability to perceived themselves in the manipulated situation and answer the question as if the perception had actually happened, it is very important that the manipulated simulation (personalized & privacy protected) is perceivable. To examine the effectiveness of both manipulations, two scales for personalization and privacy and security were used as manipulation checks. Both scales were normally distributed and performed quite well. Comparisons were made among four designs and all mean values are reported in Table 1. Sites with high personalized features (cell 1 & 2) were significantly higher than the sites (cell 3 & 4) without personalized features ( $\bar{x}_{\text{cell 1 \& 2}}=.66$  vs.  $\bar{x}_{\text{Cell 3\&4}}=.40$ ,  $p<0.05$ ; ( $\bar{x}_{\text{cell 1 \& 2}}=.84$  vs.  $\bar{x}_{\text{Cell 3\&4}}=.55$ ,  $p<0.05$ ;  $\bar{x}_{\text{cell 1 \& 2}}=.76$  vs.  $\bar{x}_{\text{Cell 3\&4}}=.66$ ,  $p<0.05$ ), suggesting that the personalization features were successfully manipulated. The privacy concern for both designs was also significantly different ( $\bar{x}_{\text{cell 1 \& 3}}=.69$  vs.  $\bar{x}_{\text{Cell 2\&4}}=.52$ ,  $p<0.05$ ; ( $\bar{x}_{\text{cell 1 \& 3}}=.65$  vs.  $\bar{x}_{\text{Cell 2\&4}}=.46$ ,  $p<0.05$ ;  $\bar{x}_{\text{cell 1 \& 3}}=.76$  vs.  $\bar{x}_{\text{Cell 2\&4}}=.54$ ,  $p<0.05$ ), suggesting that the privacy concerning features were also successfully manipulated.

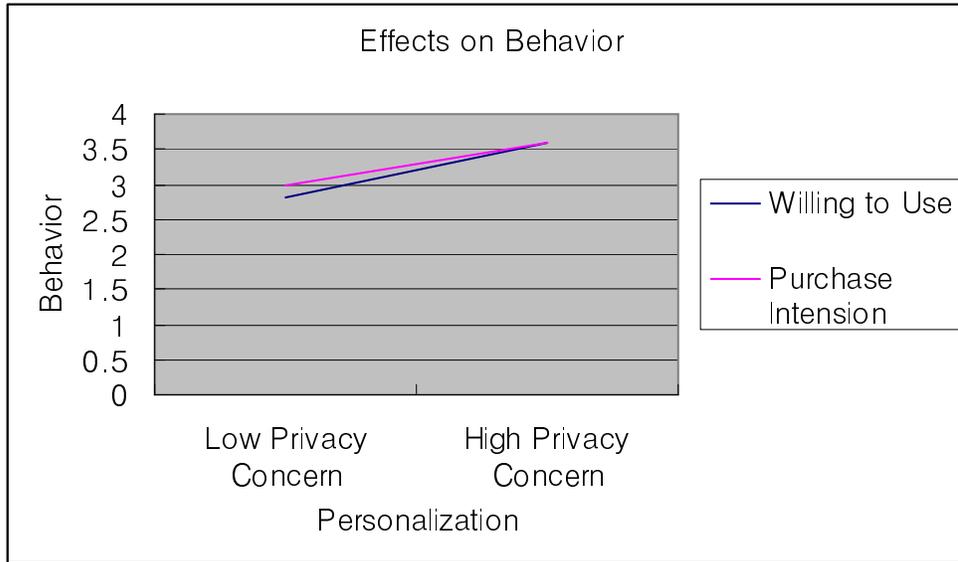
Table 1. Mean (standard deviation) by four different designs for personalization and privacy features

	Design 1	Design 2	Design 3	Design 4
Personalization				
One-to-one marketing	.66 (.40)	.66 (.38)	.43 (.34)	.38 (.40)
Taking care of my preference	.87 (.34)	.80 (.40)	.58 (.49)	.52 (.42)
Highly personalized	.77 (.47)	.75 (.47)	.64 (.48)	.68 (.49)
Privacy concern				
Feel safe for using my credit card	.67 (.47)	.56 (.50)	.70 (.46)	.44 (.45)
Being safeguarded enough	.60 (.40)	.47 (.50)	.70 (.46)	.45 (.48)
secure than mail order	.68 (.46)	.49 (.36)	.83 (.46)	.58 (.49)

### RESULTS

In order to assess respondent attitudes toward personalized and privacy concern for travel Websites, data were analyzed as a 2 x 2 (high/low personalization x high/low privacy), factorial design, with replica of a reputable virtual travel company. Figure 1, 2 and Table 2 summarize the results for this study. It should be remembered that the dependant variables measures are purchase intension, and willingness to use. Those variables were highly correlated ( $r = 0.87$  for the study). The first research question is about the influence of the personalized features toward the behavior. It is assumed that the increase in behavioral intension is due to the increase of personalization features. In other word, we expect a positive interaction between the personalization factor and the behavioral factor. The results show that the interaction is indeed significant ( $F_{1,237} = 7.27$ ,  $p < 0.01$ ). The increase in personalized features results in the increase in the behavioral variables (purchase intension and willingness to use) as Figure 1 indicated.

Figure 2. Effects of privacy concern features on purchase-likelihood and willing to use



Another research question of this study was to investigate the effect of privacy concern features on the consumers' behaviors. This analysis involved the features regarding the privacy concern and the behavior factors. The results show that the increase in privacy concern features would increase in purchase likelihood or intended to use. Due to privacy concern features, consumer's attitude toward a company Website in turn has a strong influence on purchase intention or willing to use. The results show that there is the significant interaction between privacy features and behaviors. As indicated in Figure 2, the mean purchase likelihood rose from 3.00 to 3.50 and willing to use rose from 2.80 to 3.50 respectively. This is reflected in a significant main effect for the privacy concern features on the travel Websites.

Figure 3. Effects of personalization features on purchase-likelihood and willing to use

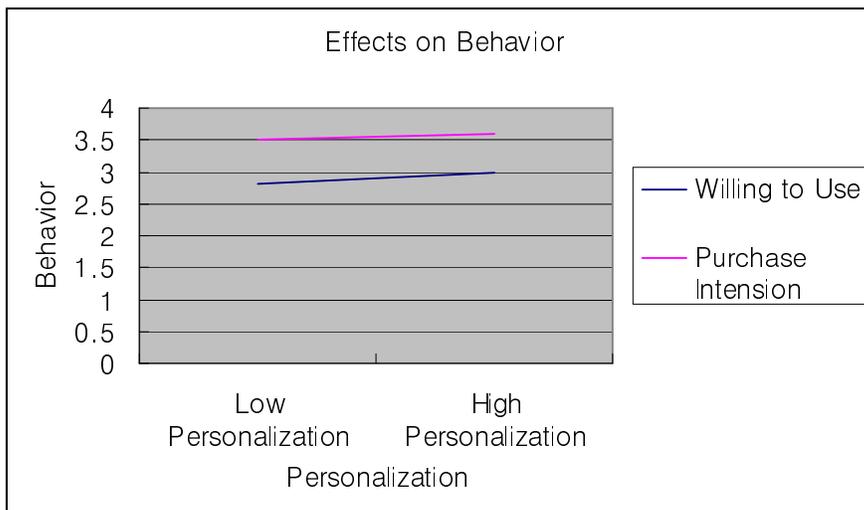


Table 2. ANOVA tables

Source	Degrees of freedom	<i>F-ratio</i>	<i>P</i>
<b>Purchase Intension</b>			
Personalization	1	10.407	0.01
Privacy	1	12.357	0.01
Personalization x privacy	1	7.274	0.00
Error	258		
	261		
<b>Willing to use</b>			
Personalization	1	15.302	0.00
Privacy	1	25.179	0.00
Personalization x privacy	1	14.741	0.00
Error	258		
	261		

One of the interesting findings is related to the comparison of both personalization and privacy concern features for their influences. In this study, the impact of the personalized features on consumer's purchase intension was compared with that of the privacy concern features. The relationship between those variables and the consumer's purchase intension was tested using T-test. The result of this T-test is presented in Table 3. The T-test shows that the privacy concern features has a significantly more positive effect on the purchase intention than the personalization features ( $t_{cell 2}=3.50$ ,  $t_{cell 3}=3.74$ ,  $p<0.02$ )

Table 3. T-test result between cell 2 and cell 3

	Cell number	<i>Mean</i>	<i>P</i>	<i>N</i>
Purchase Intension	2 (high Personalization/ low privacy concern)	3.50	0.02	67
	3 (high privacy concern/ low Personalization)	3.74		70

## CONCLUSION AND DISCUSSIONS

The purpose of this study was to investigate consumers' perceptions and attitudes towards e-personalization and privacy features in travel websites. It was motivated by the fact that there is a growing demand for personalized products and service as well as privacy issues in travel industry, fulfilling this need is becoming a matter of survival and prosperity. Previous research has consistently demonstrated the usefulness of personalization and privacy management as marketing tools.

However, few of these studies had manipulated privacy and personalization in the website context. Our results show a moderate and direct effect of personalization and privacy on consumer's positive attitude toward a company website, which in turn has a strong effect on purchase intention. As can be seen from the results, the features of personalization and privacy are assumed to have an effect on consumers' purchase intention. The finding of the study indicates that the majority of the online users today prefer the website to have personalized features as well as privacy concern features while shopping on the Internet. That means consumer's attitude to shop would be influenced by personalization and privacy concern features. As evident from the study results, high personalized and high privacy features led to a high level of attitude and purchase intention. Simply stated from one point of view, personalization is about building customer loyalty by building a meaningful one-to-one

relationship – by understanding the needs of each customer and helping satisfy a goal that efficiently and knowledgeably addresses each customer's need in a given context. However, when faced with the trade-off choices, consumers appear to value more on the privacy concerns. The majority of the online IT users today have serious concerns about their privacy while shopping on the Internet (Udo, 2001). That is an interesting paradoxical phenomenon. As desired as personalized features are, consumers appear to demand even higher privacy protection. The message here is simple and clear: for a Web-based travel business to survive and thrive, it has to assure its customers that their privacy is protected.

These important findings can effectively guide online travel companies toward better personalization practices. First of all, information personalization with personalized features is the key area for personalization effort. On the other hands, the privacy features should also be carefully considered in the same effort. The result of this study shows that consumers give more value on privacy when compared with personalization. The combination of both highly personalized and highly privacy protecting features are the ideal condition. Therefore, the personalization procedure requires more consideration about its privacy issues. The performance of personalization practices should not have been unsatisfactory if insufficient attention were given to privacy considerations. In order to have a firm grasp on an effective personalization approach, practitioners should emphasize the areas of disciplines when pursuing personalization: the promise of personal privacy.

## **IMPLICATION AND LIMITATION**

It must be noted that this research is limited by a number of factors. The main limitation of this study lies in its exploratory goals; future studies should be more focused on hypothesis testing so as to contribute to consumer theory. They might also focus on specific managerial problems to help managers to better use the personalization in their marketing strategies. While the sample was relatively large and consisted of only student consumers, it was not randomly selected, and cannot be generalized with confidence to a larger population. Further studies using scientifically selected random samples can compensate for this shortcoming. As personalization spreads globally, studies of US consumers will add to the breadth of our knowledge of this topic. Finally, the study used its own measures to assess only a few aspects of personalized feature and privacy issues. Future studies will broaden the scope of this research and increase the variety of measures used to study it. Also current and further research in this subject should include the integration of the online travel personalization services with other personalization mechanisms provided by the other industries, towards a unique and complete user model.

In spite of these limitations, this study makes a number of important contributions to the literature on E-personalization and privacy. As mentioned earlier, previous studies examined the effect of only the personalization or the privacy, did not manipulate both features and compare the effects. Previous studies only deal with the personalization factor or privacy issues separately. However, the present study addresses the question: what are the effects of personalization on consumer's behavior when privacy issue is involved, when it is used together? The findings in the study suggest that, when personalization is integrated with privacy issues, the effect is more positive than just personalization features alone. The present study is the one of the first studies to examine the effect of personalization and privacy on tourism industry. Somewhat contrary subjects to the E-commerce phenomenon, the findings suggest positive outcomes on both subjects to consumer's behavior variables. This further indicates that, if personalization and privacy-protecting features are implemented properly and reinforced by combining both variables, there can be positive outcomes even in a higher intension for consumer to use or purchase.

Website needs to adopt innovative and important personalization features in order to be competitive. Personalization schemes – that provide online support of tailored services to the users. That will also be able to increase the competitiveness. However, the results from this study have some interesting implications. Our finding would suggest that while both high personalization and high privacy features evoke positive attitudes and higher purchase intention, privacy concern features seem to have more main effect on customers' perception toward purchasing than personalization features.

Future research will take into account of the moderating effects of factors that can influence consumers' confidences in privacy management, attitude and purchase intention such as prior use experience and brand recognition. Personalization programs should be tested and then (if successful) implemented, where personalization is feasible and that the privacy issues are fully addressed and effective privacy management is ensured. With this study, we have confirmed the widely reported news and trade journal-based facts that today's online travel IT users are extremely concerned with privacy issues than personalization.

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