A PERCEPTUAL MAPPING OF ONLINE TRAVEL AGENCIES AND PREFERENCE ATTRIBUTES

By

DONG JIN KIM

Bachelor of Science

Sejong University

Seoul, Korea

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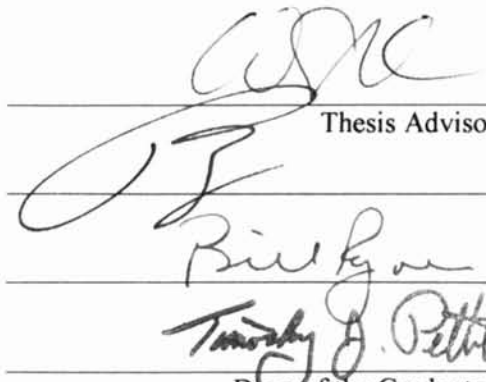

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Dean of the Graduate College

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For the memory of the past, the delight of the present, and the glory of the future

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CHAPTER I

INTRODUCTION

Background

Numerous articles in the media have acknowledged electronic commerce to be a new and promising paradigm for the distribution of retail products and services. Without question, the Internet has created a new competitive business environment in the last decade. As the Internet has rapidly grown in popularity, it has become the preferred platform for many business models. The Internet has changed businesses by offering different types of information flow and providing a convenient and efficient channel for distributing retail products/services that can reach customers anytime and anyplace. Jupiter Media Metrix (2002) predicted that total web-impacted spending, online spending and online-influenced spending, will reach $582 billion by 2006.

Online travel is one of the most popular areas of electronic commerce. Forrester Research (2002) reported that Internet sales to consumers totaled $48.3 billion in 2000, while airline tickets, hotel reservations, and car rentals represented $7.5 billion, $3.7 billion, and $1.9 billion respectively, accounting for more than 27% of all online spending. According to PhoCusWright Research (2001), nearly 27 million people, representing 13% of the US population, had purchased online travel products/services by 2001. In addition, Maselli (2002) stated that about 25% of airline reservations in US are made online.

Even when travelers did not make their reservations online, they did visit online travel websites to find specific travel information. NetRatings (2002), an Internet audience measurement service, reported that approximately 39% and 43% of all web surfers accessed online travel websites in February and March, 2002 respectively. In addition, according to the Etourism Newsletter (2002), 53% of the leisure travelers and 55% of the business travelers in the US have used the Internet to find prices and other information.

The travel industry has been considered as having the biggest potential to adopt electronic commerce. As a matter of fact, online travel has turned out to be the most successful business of electric commerce. Watkins (2000) predicted, "Internet-generated reservations will dominate travel distribution in the coming years." Furthermore, during the sluggish economic situation, the trend toward online travel exhibited significant growth. ComScore Networks (2002) reported online travel sales had increased to 39% during the first quarter of 2002 as compared to the prior quarter. On the other hand, other online sales, excluding travel, had decreased 7% during the same time period. Also, Sweeney (2001) described the following:

> Despite the slowing economy, online travel services are unlikely to face the same fate as Web sales of dog food or Viagra. "Online travel has never lived through a recession, but it will survive because it offers a convenient, efficient, and cost-effective way to buy and sell travel," says Philip Wolf, president of PhoCusWright, adding that travel is the single largest, repeat discretionary expense. (p.104)

This growing market is attracting new players and potential competition. With the explosive increase of the online travel reservation, many companies started to offer online reservations in order to take advantage of the Internet as a new distribution channel. John Burns, president of Hospitality Technology Consulting, said "This is a sign

of maturation" (Adams, 2001). Intensive competition is an undoubted consequence of maturation, and most of the existing online travel agencies may disappear while few companies are going to remain.

With competition flourishing, the marketing managers of online travel agencies need to know his/her unique position in comparison with competitors' positions in order to be a successful organization and to offer better products and services. The consumers' overall perceptions of the existing products and services could be inferred using positioning mapping. The position of each online travel agency involves the context of attributes that the organization gives to customers.

One of the unique characteristics of hospitality and tourism products is intangibility. There is no physical presence in the product but physical distance between the customers and online travel agencies. However, several aspects of the customer's purchase decision regarding online travel products are accounted for by a customer's perception toward specific brand. Therefore, positioning studies in hospitality and tourism should be more emphasized.

Despite the importance of the positioning study for online travel agencies, little research has been reported to examine customer's perception of online travel agencies. The lack of research may be partly attributed to the relatively short history of online travel agencies.

The Purpose of the Study

The purpose of this study is to investigate the important choice attributes of online travel agencies while online customers select their online travel agencies and to identify the current positions of online travel agencies in the customers' perceptions.

Research Question

Based on the aforementioned purposes of the study, two research questions are as follow:

RQ1. What important attributes do customers use in selecting their online travel agencies?

RQ2. How do online customers differentiate online travel agencies from each other in terms of the online travel agency attributes?

The Scope of the Study

Online travel agencies function as traditional agencies in that they deliver travel-related products/services and provide travel-related information. However, they are actually websites that do the same role as traditional agencies do. NetRatings (2002) reported the top 10 online travel websites in March, 2002. They were Expedia, Travelocity, Orbitz.com, Southwest Airlines, CheapTickets.com, American Airlines, Yahoo! Travel, Delta, Priceline, and AOL Travel. Among those online travel destinations,

three airline companies' websites (i.e., Southwest Airlines, American Airlines, and Delta) were eliminated because the proposed study is intentionally focusing on online travel agencies. After the elimination, seven online travel agencies (i.e., Expedia, Travelocity, Orbitz.com, CheapTickets.com, Yahoo! Travel, Priceline, and AOL Travel) are included in the current study.

Organization of the Study

The exposition of the present study is as follows. Chapter 2 presents a literature review on relevant theoretical perspectives on online reservation and positioning studies in hospitality and tourism. Chapter 3 explains the research methodologies of the current study including survey instrument, sampling procedure, and analysis. Chapter 4 addresses the empirical results and major findings of this study. Finally, Chapter 5 is the conclusion section. It discusses the implications and limitations of the study.

CHAPTER II

REVIEW OF LITERATURE

Online Travel Reservation

The significant role of the Internet as a new channel of distribution for hospitality organizations has been mentioned in several studies. Rayman-Bacchus & Molina (2001) suggested the idea that computer reservation system providers consider the Internet as an alternative distribution channel that can be compatible with existing channels. Hanna & Millar (1997) also pointed out the increasing demands for tourism services on the web. Poel & Leunis (1999) investigated the consumer acceptance of different types of channel functions performed by the Internet. The results of their study revealed that hotel reservations, airline tickets, and rental cars ranked second, third, and fourth after concert tickets in terms of the average consumers' propensity to buy specific products or services online. Important attributes for online travel reservation are discussed subsequently.

Security

Security-related issues are the major barrier that makes customers hesitant to buy products or services online. The result of the survey by WorldRes.com (2002) showed that fear of credit card fraud is very low when experienced Internet users book a travel product online (Haussman, 2002). However, security is one of the most challenging and critical issues facing Internet-based merchants today and is the most popular topic in

electronic commerce (Kelly & Rowland, 2000; Jeong & Lambert, 2001; Szymanski & Hise, 2001; Mehta & Shah, 2001; Shim et al, 2001).

According to the survey by Tyler Nelson Software Interactive (2002), security related problems are the major barriers that prevent customers from purchasing online. The results showed that 30% of respondents who have not purchased online indicated problems regarding credit cards and 28% of those indicated general security concerns as reasons for avoiding online purchase. Yang & Jun (2002) disputed that both Internet purchasers and Internet non-purchasers consider security as their most critical concern. Especially, they insisted that security is the most significantly important factor in affecting perceptions of online service quality for the Internet non-purchasers. Shim et al (2001) and Jeong & Lambert (2001) also supported the idea that online retailers need to build secure websites since Internet users hesitate to purchase products or services online due to security concerns.

In addition, Kelly & Rowland (2000) insisted that "Web merchants have the responsibility to ensure the reliability of the data collected, make certain the data are used for the intended purpose, and prevent unauthorized access to them. Prevention of unauthorized access and adequate security are paramount in a society where a few key strokes can reveal the most intimate details of one's life." (p.11)

Easy to use

Needless to say, online reservation websites need to be convenient and easy to use. Szymanski & Hise (2001) argued that customers' perceptions of online convenience significantly affect their satisfaction. Yang & Jun (2002) stated that web-based stores

should minimize technical difficulties because ease of use is a critical component in a customer's decision to accept new technology. In the same way, Jeong & Lambert (2001) claimed that ease of use has a positive impact on a customer's intention to use the information acquired on the website for making purchase decisions. Also, Zickefoose (2001) addressed that ease of use is one of the fundamental elements of a successful website along with the website's content and speed.

Price

Price is another crucial factor that affects customers' purchase decisions. It is also important to note that price is the only marketing mix that brings revenue into the organization while other marketing mix such as promotion, products/services, and place (distribution) increase cost. According to the survey by WorldRes.com (2002), online travelers are much more likely to make a reservation if they are offered the lowest price (Haussman, 2002). Shim et al. (2001) and Poel & Leunis (1999) also support the idea that price is a significantly important attribute when customers consider whether to purchase online.

Useful and relevant content

According to the study by Jeong & Lambert (2001), consumers' perceived quality of information for products and services provided on the website is one of the most crucial factors for predicting their decision-makings. Chu (2001) and Zickefoose (2001) also indicated the importance of informative factor on the travel websites.

Shim et al. (2001) investigated the relationship between the consumer's intention to use the Internet for product information search and the positive intention to use the Internet for purchasing. The results of their study revealed that there is strong relationship between the consumer's intention to use the Internet for product information search and their positive intention to use the Internet for purchasing, because consumers want to reduce costs by using the same channel for both information search and purchasing.

Visual materials

Siu & Fung (1998) emphasized the favorable effects of visual materials such as pictures, illustrations, and headlines. They stated that visual materials are important elements in a consumer's information processing and decision making. Edell & Staelin (1983) suggested that pictures generally attract more attention than verbal text. In addition, Law & Leung (2000) claimed that well-designed websites would provide useful information and extra benefits to customers and enhance sales volume and the reputation. They suggested that appealing graphics could make websites more attractive and draw the visitors' interest. However, they also documented that many graphic images which cause lengthy loading time could have the opposite effect.

Speed of the website

Obviously, there is a trade-off between sufficient visual materials and the speed of websites, however, the websites of online travel agencies have to be loaded quickly. Researchers (Carmon, Shanthikumar, & Carmon, 1995; Pruyn & Smidts, 1998) already highlighted the psychological cost of waiting services in consumer behavior area.

Misic & Johnson (1999) noticed the importance of a website speed and they used it as a criterion to evaluate functional aspect of websites. Also, Kumar, Kalwani, & Dada (1997) pointed out that customers' service evaluations and satisfactions with their service provider rely on the customers' waiting time. Also, Zickefoose (2001) pointed out that the speed of a website is one of the fundamental elements in being a successful website. In this point of view, Law & Leung (2000) advised that website designers must avoid putting heavy content on websites in order to prevent lengthy loading time.

Ability to book all travel arrangements

Traditionally, travel agencies have played a key role in providing travel-related information and highly customized and various services to customers and this key role of travel agencies seems to have the same importance in the electronic market. Whether booking airline tickets, hotels, and cars at once was one attribute when Martin (1999) compared online travel agencies. Also, Ebenkamp (2002) pointed out that the ability to book all travel arrangements is one of the most critical loyalty drivers for online travel agencies' websites.

Booking flexibility

Booking flexibility is one of online travel agencies unique problems. Customers who visit online travel agencies search information and fares without human interaction. When customers use traditional travel agencies, they can easily change their itineraries while communicating with agencies; for example, they can effortlessly change the number of party, the destination, and so on. However, when customers utilize online

travel agencies, alterations in the schedule, whatever they are, are entirely the customers work. Expedia, which realized the importance of booking flexibility, televised a series of TV advertisements, emphasizing that customers can easily change their itineraries while making reservations.

Sorting option

Sorting options are another important online travel agencies' attribute. Shapiro (2001) compared six online travel agencies based on sorting options with ease of use, booking flexibility, and finding lowest fares. Lau et al. (2001) claimed that individuals have their own preferences concerning how much and what type of personal information they are willing to display on websites. Also, individual customers need different types of information and use different types of data processing while he or she makes a purchasing decision. Lau et al. (2001) advised that marketers of travel agencies need to deliver customized information that is provided for potential customers. Lewis & Talalayevsky (1997) also noticed that the Internet is a useful tool for travel agencies to provide customized information. However, when customers are on the online travel agencies' websites, the agencies are unable to customize the type and order of information provided. Rather, online travel agencies allow visitors to customize the type and order of information by adding features that customers decide their preferences.

Comparisons of online travel agencies can be found at the industry magazines. Morgan (1999) investigated the different price ranges of airline tickets. Morgan used different departures and destinations in several online travel agencies. Martin (1999)

compared several online travel agencies by primarily focusing on ease of use and other features: managing frequent flier mileage, providing local information, graphical seat selection, and low-fare notification. Shapiro (2001) also compared online travel agencies with regard to ease of use, booking flexibility, finding lowest fares, and sorting options. Finally, Ebenkamp (2002) addressed four critical loyalty drivers for online travel sites. They were ability to book virtually all travel arrangements, good prices and discounts, useful and relevant content, and easy-to-use site with trip planning capabilities. Selected online travel agencies and important selection attributes, which were used to compare online travel agencies above, are shown in Table I.

Table I. Summary of previous research on important selection attributes of online travel agencies

	Online travel agent	Attributes
Morgan (1999)	• Biztravel.com (www.biztravel.com) • Expedia (www.expedia.com) • Flifo (www.flifo.com) • Preview Travel (www.previewtravel.com) • TheTrip.com (www.thetrip.com) • Travelocity.com (www.travelocity.com)	• Price
Martin (1999)	• Atevo (www.atevo.com) • Biztravel.com (www.biztravel.com) • Expedia (www.expedia.com) • Flifo (www.flifo.com) • Internet Travel Network (www.itn.net) • Preview Travel (www.previewtravel.com) • Reservation Desk at CNN.com (www.cnn.com/travel) • TheTrip.com (www.thetrip.com) • Travelocity.com (www.travelocity.com)	• Navigation • Creating passenger profile • Quickly creating an itinerary • Changing itineraries before ticketing • Finding low fares • Booking air, hotel, and car at once • Managing frequent flier mileage • Providing local information • Graphical seat selection • Low-fare notification by e-mail
Shapiro (2001)	• Expedia (www.expedia.com) • Hotwire (www.hotwire.com) • Priceline (www.priceline.com) • Qixo (www.qixo.com) • Sidestep (www.sidestep.com) • Travelbyus (www.travelbyus.com)	• Easy of use • Booking flexibility • Finding lowest fares • Sorting options
Ebenkamp (2002)	• Expedia (www.expedia.com) • Priceline (www.priceline.com) • Travelocity (www.travelocity.com)	• Ability to book virtually all travel arrangements • Good prices and discounts • Useful and relevant content • Easy-to-use site with trip planning capabilities

Positioning Studies in Hospitality and Tourism

Simply, positioning could be described as how customers define a specific product and service in relation to competitors. Further, positioning is the process of defining and reinforcing a distinctive place for a destination in the minds of potential visitors within target markets (Botha, Crompton, & Kim, 1999). Thus, positioning means

the actual point of the company's image that the target customers understand and appreciate in comparison with the company's competitors.

Dev, Morgan, & Shoemaker (1995) examined hotel brands' positions and created perceptual maps showing the relative positions of the hotel brands against each other using Multidimensional Scaling (MDS) based on travel-manager perceptions. Further, they examined the changes in the positions by investigating the positions during consecutive three years. They demonstrated that the positions of hotel brands had changed from year to year.

Oppermann (1996) studied 30 North American convention destination images using importance-performance analysis based on meeting planners' perceptions. The results of the study illustrated strengths and weaknesses of convention destinations.

Kim (1996) investigated the attributes and customer preferences of eleven Korean deluxe hotel F&Bs in various dining-out situations using factor analysis and MDS. The findings of the study demonstrated the positions of selected hotel F&Bs in comparison to each other. Also, the ideal points for different dining-out situations (i.e., family-related activity, business meeting/activity, and social activity) were suggested.

Baloglu (1997) also used MDS to examine whether Russel and his colleagues' proposed affective space structure is applicable to environments that are not perceived directly (i.e., large-scale environments such as tourism destination countries) and to explore the usefulness of the approach in studying affective images of tourism destinations. Originally, "Russel and his colleagues (Russel 1980; Russel and Pratt 1980; Russel, Ward, and Pratt 1981; Russel and Snodgrass 1987) propose a structure that can

represent a wide variety of affective responses to physical environments (places)." The findings of the study supported that theoretical affective space can be used for touristic affective images of large-scale environments (i.e., city, state, region, or country).

Kim (1998) stated that a destination could be considered a uniquely complex tourism product involving various components such as infrastructure, services, and cultural aspects, and examined the perceptual positions of five Korean tourism destinations using MDS. In addition, the author investigated the relationship between the season and the destinations using correspondence analysis.

Kozak & Rimmington (1999) claimed that tourist destinations are the central elements of the tourism system and explored tourist destination competitiveness to develop benchmarking methods for tourism destination. According to the results of the study, major concerns of travelers when they visit different countries include: friendliness of local people (hospitality), quality of accommodation facilities, over-commercialisation, level of hygiene and sanitation, overcrowding, level of prices, weather, safety, noise, nightlife and entertainment, nothing to do, and, finally, food.

Botha, Crompton, & Kim (1999) tested a proposed positioning model and explored the attributes for repositioning Sun/Lost City to differentiate it from its competitors. Their study revealed that enjoying the company of the people who came with them is the most useful attribute for positioning Sun/Lost City. Also, they suggested that effective positioning strategy requires focusing on a small number of attributes and consistent implementations.

Knutson (2000) investigated the drive force for college students' fast-food restaurant choices and the positions of fast-food brands in the college market. Thirteen

factors (e.g., cleanliness, friendliness, price, speed, etc) were used and the importance of each factor was evaluated while students select fast-food restaurants. Then the students were asked which fast-food restaurant comes to their minds in terms of the 13 influence factors.

Uysal, Chen, & Williams (2000) argued the importance of the study about regional positioning and examined Virginia State's image as a travel destination in comparison with competitive states. The regional competitiveness of Virginia as a tourism destination was evaluated using importance-performance analysis and MDS technique.

Table II presents a summary of positioning studies in the field of hospitality and tourism. The researcher, published year, research title, objective, and methodology are shown in Table II.

Table II. Objectives and methods of positioning studies in hospitality and tourism

Researcher* (year)	Title	Objective	Method
Dev (1995)	A positioning analysis of hotel brands: based on travel-manager perceptions	• Create perceptual maps showing the relative positions of the various brands against each other • Examine movement in a brand's position during the three years	• Multidimensional scaling
Oppermann (1996)	Convention destination images: Analysis of association meeting planners' perceptions	• Examine the importance of convention destination attributes to association meeting planners • Evaluate general destination images of 30 North American convention destinations	• Importance-performance analysis
Kim (1996)	Perceptual mapping of attributes and preferences: an empirical examination of hotel F&B products in Korea	• Determine which attributes in hotel F&Bs are considered important by customers • Isolate the factors underlying hotel F&B attributes • Identify customer preferences among hotel F&Bs according to different dining-out situations • Assess the relative importance of hotel F&B attributes dimensions by using customers' ideal points of different dining-out situations	• Factor analysis • Multidimensional scaling
Kim (1998)	Perceived attractiveness of Korean destinations	• Analyze the perceptual images that tourists have of a destination and their relationships with seasonal preferences by way of spatial configuration. • Examine the perceptual map of destinations and attribute factors influencing traveler's choice.	• Cross tabulation • Correspondence analysis • Factor analysis • Multidimensional scaling
Kozak (1999)	Measuring tourist destination competitiveness: Conceptual considerations and empirical findings	• Develop benchmarking methods which measure more specific elements of destination performance	• Descriptive statistics
Botha (1999)	Developing a revised competitive position for Sun/Lost City, South Africa	• Test the efficacy of the proposed positioning model • Identify attributes that could be used to reposition Sun/Lost City by delineating those that positively differentiated Sun/Lost City from its competitors	• Reliability analysis • Paired *t*-test • Factor analysis

(table continues)

Table II. Objectives and methods of positioning studies in hospitality and tourism (cont.)

Researcher* (year)	Title	Objective	Method
Knutson (2000)	College students and fast food: How students perceive restaurant brands	• Provide answers to following questions: 1) What drives students' choices among fast-food restaurants? 2) How are fast-food brands positioned in the college market?	• Descriptive statistics
Uysal (2000)	Increasing state market share through a regional positioning	• Understand Virginia's image as a travel destination versus competitive states • Determine the following: 1) Virginia's relative strengths and weaknesses 2) Unique and differentiating characteristics of Virginia 3) Ares of opportunity which would enable Virginia to win a share from competitive areas	• Descriptive statistics • Importance-performance analysis

* When there are more than two authors, only the first author is marked

In the field of hospitality and tourism, positioning studies have been used for various tourism destinations; specific tourism destinations such as convention destination (Oppermann, 1996), national park (Kim, 1998), city (Botha, Crompton, & Kim, 1999), state (Uysal, Chen, & Williams, 2000), and country (Kozak & Rimmington, 1999; Baloblu, 1997). Also, it has been used for lodging (Dev, Morgan, & Shoemaker, 1995) and for food service (Kim, 1996; Knutson, 2000).

In terms of the methodologies, multidimensional scaling (Dev, Morgan, & Shoemaker, 1995; Kim, 1996, 1998; Baloblu, 1997), importance-performance analysis (Oppermann, 1996, Uysal, Chen, & Williams, 2000), and factor analysis (Kim, 1996, 1998; Botha, Crompton, & Kim, 1999) were used for the purpose of the performing positioning study. In most studies, the authors investigated the current positions of selected objects and suggested managerial and marketing implications.

CHAPTER III

METHODS

Survey Instrument

The survey instrument that was utilized in the current study was composed of four parts. The first part of the questionnaire asked about the respondents' past online purchase experiences with both general retail and travel-related products. The respondent's aided recall, and actual visitation of online travel agencies were also asked in the first part.

The second part measured the importance of online travel agency attributes (i.e., easy to use, finding low fares, booking flexibility, useful and relevant content, visual materials, ability to book all travel arrangements, sorting options, speed of the website, and security). This part employed nine measurement items of online travel agency attributes, with a 5-point Likert-type questions ranging from 1 (least important) to 5 (most important).

The third part asked the respondent's preference evaluation of the selected online travel agencies (i.e., Expedia, Travelocity, Orbitz.com, CheapTickets.com, Yahoo! Travel, Priceline, and AOL Travel) with regard to online travel agency attributes using a 5-point Likert scale ranging from 1 (very poor) to 5 (excellent).

Finally, the last section was designed to obtain the respondents' demographic and behavioral characteristics: gender, grade/position, age, current marital and working status,

number of years of Internet use, number of days of Internet use per week, number of Internet accesses per day, and average time spent per access.

Sample and Data Collection

For pre-testing the questionnaire contents, thirty five questionnaires were distributed in September, 2002. Based on the comments collected during the pre-testing period, a complete questionnaire was developed. The data for the proposed study was collected through an online survey. The questionnaire was published on a website. Then, recruitment messages asked participants to visit the website and complete an online questionnaire. After clicking on the hyperlink to the study, the participants went to an instruction page informing the participants about the survey. The data was collected during one week in October, 2002.

The sample was randomly selected from e-mail list of seven university websites: One east-coast university, one west-coast university, one southern university, and four central universities. Seven universities whose web sites provide the e-mail addresses search function were chosen to select the sample of the study. However, the seven universities were carefully selected to reduce the bias that may accrue from a specific geographic concentration. Since the researcher was unable to acquire the sampling frame, probability parameter (i.e., alphabet) was used instead. Four letters were randomly selected with replacement and used to find email addresses.

In order to increase response rate, several steps were adopted. First, an invitation message and introduction page were made using an animated figure in order to acquire

the participant's attention. Next, the participants were assured that all responses were processed anonymously and kept completely confidential. Finally, follow-up email was sent to all the individuals. Because the survey was done completely anonymously, the researcher was unable to distinguish participants from non-participants. Thus, a follow-up email was sent to all the individuals after four days from the initial email.

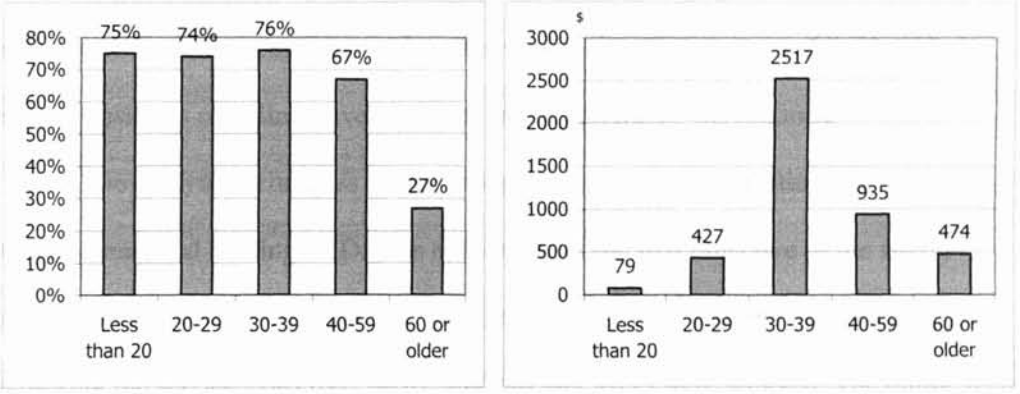
Out of 5,326 email requests for completing a survey, a total of 459 (8.6%) responses were gathered. Of those collected responses, 13 responses were eliminated due to an excessive amount of missing data. After elimination, 446 questionnaires (8.4%) were coded and analyzed for the empirical investigation.

In order to test the existence of a nonresponse bias, differences between the answers of early respondents (386 out of 446) and those of late respondents (60 out of 446) on the importance of online travel agencies attributes were examined but no significant differences were found ($p<.10$). Also, there were no significant differences between demographic profiles of early respondents and those of late respondents ($p<.10$), which might indicate that nonresponse bias was not a major problem.

Since the sample was drawn from the University websites, the respondents consisted of primarily undergraduate and graduate students as well as faculty and staff. According to the survey by Tyler Nelson Software Interactive (2002), 62% of Americans were Internet users at the time of July, 2002. Figure I shows the percentage of Internet users by age groups and average amount of purchases by age groups in the US. In addition, the survey results by Harris Interactive (2002) pointed out that college students are the most wired group in the US. The results of the survey indicated that 93% of American college students regularly use the Internet and that they play a significant role

in technology-related spending. Even though the current purchasing power of college students is not significant, they are expected to become active Internet users who will have strong purchasing power in the near future. The results of the survey by Gupta & Pitkow (1995) revealed that 67 % of website visitors have at least college degrees, and, not surprisingly, that they are affluent.

Figure I. Percentage of Internet users and average purchases in the U.S.



Source: Tyler Nelson Software Interactive

It is important to notice that students have higher proportion of spending on travel-related products/services. According to a study by Paulin (2001), college students' spending on travel and vacation represents 4.7% of their total expenditure while spending in the same category by non college students in the same age bracket represents 2.7% of their total expenditure.

Furthermore, Wang (2001) argued that students are not different from other online customers and the author selected not only college students but also graduate students for the study. Wang (2001) disputed the following:

> Student samples have often been criticized for their lack of generalizability and their being unable to represent the population of interest (Gordon, Slade, & Schmitt, 1987). However, I argue that these criticisms might not hold as far as the current study is

> concerned. For one thing, this study is focused on revealing the psychological processes of potential online consumers..... For the other, as Locke (1986) suggested, in organizational research, the similarities between students and employees are greater than the differences between them and that any critical differences between these two groups cannot be determined deductively. Accordingly, I would argue that the student sample is not systematically different from other potential online consumers in terms of psychological processes (pp.83-84).

Analysis

The purpose of this study is to investigate the important attributes of online travel agencies while online customers select their online travel agencies and to identify the current positions of online travel agencies in the customers' perceptions.

The analytic techniques for the study were descriptive statistics and Multidimensional Scaling (MDS). In order to meet the first objective of the study, descriptive statistics were calculated and presented. In the meantime, for the purpose of achieving the second objective, factor analysis and MDS were adopted. The online travel agency attributes were subjected to a factor analysis of principal component analysis with varimax rotation in order to use in a further analysis of perceptual mapping.

MDS is "a procedure that allows a researcher to determine the perceived relative image of a set of objects" (Hair et al, 1998). It arranges a set of objects in a common space based on the similarities or differences of the objects. The major advantage of MDS is that it provides visual representation of the similarities or differences among the objects. MDS has been used by hospitality and tourism researchers to provide a joint space of attributes and stimuli (Dev, Morgan, & Shoemaker, 1995; Kim, 1996, 1998; Baloglu, 1997).

In this study, a mean score for each of the 63 ratings (9 attributes□7 online travel

agencies) was computed. Then, the resulting rectangular matrix was treated as input data for MDPREF (multidimensional preference) which is one of MDS techniques. MDPREF is a point-to-vector model, which means it utilizes stimuli points (online travel agencies) in relation to vectors (extracted factors derived from original attributes).

In MDPREF the dominance judgments can be either paired comparisons or rankings of stimuli. Let $P = (p_{i,jk})$; $i = 1, 2, \ldots, m$; $jk = 1, 2, \ldots, n(n-1)/2$ represent the matrix of paired comparisons for the ith subject for a set of n stimuli. We assume that there are m subjects making such judgments. The entries $p_{i,jk}$ take the values +1, -1, or 0 according to whether individual i judges stimulus j as more preferred, less preferred, or indifferent compared to stimulus k.

The model assumes that stimulus points are projected onto subject vectors and that preference judgments are in agreement with these projected values. Let $x_j = (x_{j1}, \ldots, x_{jq})$ represent the q-dimensional vector emanating from the origin to the jth stimulus and $y_i = (y_{i1}, \ldots, y_{iq})$ represent the unit-length vector for subject i. Then $\hat{S}_{ij}$, the estimated preference scale value of stimulus j for subject i is defined by the scalar product

$$\hat{S}_{ij} = y_i \cdot x'_j = \sum_{t=1}^{r} y_{it} x_{jt}$$

Let $X = (x_{jt})$ be the $n \times r$ matrix of stimulus coordinate values and $Y = (y_{jt})$ the $m \times r$ matrix of the termini of subject vectors; then

$$\hat{S} = (\hat{S}_{ij}) = YX'$$

The problem is to determine the matrices Y and X' from the set of paired comparison judgments so that the P matrix will agree as nearly as possible with the $\hat{S}$ matrix (Green & Rao, 1972).

CHAPTER IV

RESULTS

The Characteristics of the Sample

Demographic profiles

The respondents for the empirical investigation included a similar distribution of males (45.7%) and females (54.3%), and a broad cross-section of age groups, with 19.5% (86) of respondents aged 18-20, 20.5% (90) aged 21-24, 19.3% (85) aged 25-30, 8.9% (39) aged 31-35, 12.5% (55) aged 36-45, 14.5% (64) aged 46-55, and lastly 4.8% (21) aged 56 or older.

Similarly, the annual income of the respondents ranged broadly: 24.9% (90) of respondents earned less than $5,000, 7.8% (28) earned $5,001-$7,000, 6.6% (24) earned $7,001-$10,000, 9.1% (33) earned $10,001-$15,000, 6.1% (22) earned $15,001-$20,000, 11.1% (40) earned $20,001-$30,000, 15.5% (56) earned $30,001-$50,000, 7.2% (26) earned $50,001-$70,000, and finally 11.6% (42) earned more than $70,000. In terms of marital status of the respondents, 248 (57.9%) respondents were single and 180 (42.1%) respondents were married. In addition, 155 (36.8%) respondents reported that they were working full time, while 155 (36.8%) respondents were working part time and 111 (26.4%) respondents were not working at all.

However, the sample distribution is skewed to college and graduate students since the sample was drawn from university websites with approximately one-third (37.8%) of college students and approximately one-third (30.7%) of graduate students. In contrast,

"the others" consisted of 12.8% staff, 12.6% faculty, 2.7% administrator, and 3.4% other job position. Also, 59.3% of the respondents were 30 years old or younger and 54.6% of the respondents earned $20,000 or less.

The demographic profiles of the respondents are shown in Table III.

Table III. Demographic profiles of the respondents

	Variable	Frequency	Percent		Variable	Frequency	Percent
Gender	Male	202	45.7	**Annual**	Less than $5,000	90	24.9
	Female	240	54.3	**Income**	$5,001-$7,000	28	7.8
					$7,001-$10,000	24	6.6
Age	18-20	86	19.5		$10,001-$15,000	33	9.1
	21-24	90	20.5		$15,001-$20,000	22	6.1
	25-30	85	19.3		$20,001-$30,000	40	11.1
	31-35	39	8.9		$30,001-$50,000	56	15.5
	36-45	55	12.5		$50,001-$70,000	26	7.2
	46-55	64	14.5		More than $70,000	42	11.6
	56 or more	21	4.8				
				Grade	Freshman	42	9.6
Marital	Single	248	57.9	**/Position**	Sophomore	32	7.3
Status	Married	180	42.1		Junior	35	8.0
					Senior	56	12.8
Working	Full time	155	36.8		Graduate	134	30.7
Status	Part time	155	36.8		Staff	56	12.8
	Not working	111	26.4		Faculty	55	12.6
					Administrator	12	2.7
					Other	15	3.4

Past online purchase experiences of the sample

Among the 446 respondents, 387 (86.8%) reported that they had purchased retail products online and 59 (13.2%) indicated that they had not. Out of the 387 respondents who had previous online retail purchase experiences, 367 (94.8%) respondents had purchased retail products online during the last six months. At the same time, it was found that 23 (5.9%) respondents had purchased retail products online more than ten

times during the last six months.

In terms of experience with purchasing online travel-related products, 279 (62.6%) respondents indicated that they had experience with online travel-related products and 167 respondents (37.4%) indicated that they had not. Out of the 279 respondents with previous online travel-related purchase experiences, 124 (44.4%) respondents had purchased lodging, 256 (91.8%) respondents had purchased air tickets, 103 (36.9 %) respondents had paid for car rentals, 6 (2.2 %) respondents had purchased tour packages, and 7 (2.5 %) respondents had purchased cruises (with multiple responses allowed).

Table IV. Past online purchase experience of the respondents

Variable		Frequency	Percent
Retail Products	**Yes**	**387**	**86.8**
Number of Online purchase	Never	20	5.2
During last six months	1-3 time(s)	202	52.2
	4-6 times	101	26.1
	6-10 times	41	10.6
	11 or more	23	5.9
	No	**59**	**13.2**
Travel-related Products	**Yes**	**279**	**62.6**
Purchased product	Lodging	124	44.4
	Air ticket	256	91.8
	Car rental	103	36.9
	Tour package	6	2.2
	Cruise	7	2.5
	No	**167**	**37.4**

The behavioral characteristic of the respondents regarding Internet use

The majority of the respondents (93.0%) have used the Internet four years or more and 95.8% of the respondents access the Internet five days or more per week. In terms of average time spent per access, approximately two-thirds of the respondents reported spending around half an hour per access. On the other hand, 10.3% of the respondents reported that they usually spend more than two hours per access.

Table V. The respondents' behavioral characteristics regarding Internet use

Variable		Frequency	Percent
Internet use (years)	1-3 year(s)	31	7.0
	4-5 years	123	27.6
	6-7 years	150	33.6
	8 or more	142	31.8
Internet use per week	1-4 day(s)	18	4.2
	5-6 days	107	24.7
	7 days	308	71.1
Access per day	1-3 time(s)	199	45.3
	4-6 times	133	30.3
	7 or more	107	24.4
Time spending per access	Half hour	302	68.9
	1-2 hour(s)	91	20.8
	More than 2 hours	45	10.3

The concerns in online travel-related products purchasing

The 167 respondents with no previous travel-related online purchase experiences were asked the reason why they did not purchase travel-related products or services online. According to the responses (with multiple responses allowed), 29.9% of the

respondents pointed out that they prefer human interaction while making a purchase decision, while 29.3% and 20.4% of the respondents showed credit card and general security concerns respectively. In addition, the respondents expressed problems concerning the reliability and the credibility of the travel-related products or services being purchased online. Out of the 167 respondents, 15.0% (25) of respondents indicated that they are not sure what they would get and 11.4% (19) of respondents stated that they do not trust online brands. Table VI shows the respondents' concerns about online travel-related products purchasing.

Table VI. The concerns in online travel-related products purchasing (n=167)

Statement	Frequency	Percent
I just didn't have a chance	55	32.9
I prefer human-interaction while making a purchasing decision	50	29.9
I don't want to give my credit card number	49	29.3
It's more secure buying from traditional agencies.	34	20.4
I'm not sure what I get	25	15.0
I don't trust online brands	19	11.4
I don't travel much	10	6.0
It's too difficult	5	3.0
Others	17	10.2

Awareness and actual visitation of online travel agency

According to the responses on customers awareness and actual visitation of online travel agencies (where multiple responses were possible), Travelocity was found to be the most attentive and visited online travel agency (75.3% of awareness and 57.6% of actual visitation) followed by Expedia and Priceline. Among selected online travel agencies' websites, the respondents were more aware of and visited the websites which are made

for travel-related products transaction (i.e., Travelocity, Expedia, Priceline, Orbitz, and CheapTickets) rather than the portal websites (i.e., Yahoo! Travel, and AOL Travel) which also have travel reservation services. Table VII represents the respondents' awareness and actual visitation in terms of selected online travel agencies.

In order to examine the relationship between the result of NetRatings (2002) and the result of this study, a correlation coefficient was calculated. Because the ranks of the two studies are operated as ordinal variables, Spearman rank order correlation coefficient analysis, one of nonparametric measure, was employed. The result of correlation analysis yields a positive correlation (r_s=.714, p<.10) between the results of the two studies, which may minimize the concern of lack of generalizability and representativeness of the sample.

Table VII. The respondents' awareness and actual visitation

Online Travel Agencies	Awareness			Actual Visitation			Rank Order (NetRatings)
	Frequency	Percent	Rank Order	Frequency	Percent	Rank Order	
Travelocity	336	75.3	1	257	57.6	1	2
Expedia	321	72.0	2	229	51.3	2	1
Priceline	316	70.9	3	222	49.8	3	6
Orbitz	202	45.3	4	138	30.9	5	4
CheapTickets	195	43.7	5	162	36.3	4	3
Yahoo! Travel	173	38.8	6	112	25.1	6	5
AOL Travel	88	19.7	7	40	9.0	7	7

The Importance of Online Travel Agency Attributes

Table VIII represents the importance of online travel agency attributes with mean and standard deviation. As can be observed in Table VIII, the most critical attribute for

online travel agencies resulted in finding low fares (mean=4.63) followed by security (mean=4.46), easy to use (mean=4.29), booking flexibility (mean=4.07), sorting options (mean=3.97), speed of website (mean=3.93), useful and relevant content (mean=3.89), ability for multiple arrangements (mean=3.47), and visual materials (mean=3.15).

In addition, to examine the reliability of the online travel agency attributes, a reliability test (Cronbach's α) was undertaken. The result reveals that the scale embodying nine online travel agency attributes has a .8143 α score and is found to be reliable (Hair et al., 1995).

Table VIII. The importance of online travel agency attributes

Variable	Mean	SD
Finding low fares	4.63	0.86
Security	4.46	1.03
Easy to use	4.29	1.02
Booking flexibility	4.07	0.98
Sorting options	3.97	0.99
Speed of website	3.93	1.04
Useful and relevant content	3.89	0.99
Ability for multiple arrangements	3.47	1.11
Visual materials	3.15	1.19
α = .8143		

The Perceptual Map of Online Travel Agencies

Factor analysis

Prior to MDS, the nine online travel agency attributes were reduced to a lesser number of factors using principal component analysis with orthogonal varimax rotation. As can be seen in Table IX, the extracted structure comprised three factors with eigen

values higher than 1, which accounted for 98.2% of the variation in the original nine items.

The first factor (Factor 1: Web features) explains functional aspects that are provided by online travel agencies. This factor includes booking flexibility, ability for multiple arrangements, sorting options, and useful and relevant content.

The second factor (Factor 2: User friendliness) generally describes how comfortable environments the online travel agencies provide for their customers. This factor indicated speed of website, visual materials, easy to use, and security.

Last, the third factor (Factor 3: Finding low fares) includes only one item, finding low fares. Indeed, price is the most important force that brings customers to online travel agencies. It must be noticed that this attribute, finding low fares, was the most critical online travel agency attribute as shown in Table VIII.

Table IX. Underlying dimensions of online travel agency attributes

Factor[a] (% of variance explained)	**Variables loaded on factor**	**Factor loading**
Factor 1.	Booking flexibility	.892
Web features (43.2%)	Ability for multiple arrangements	.877
	Sorting options	.783
	Useful and relevant content	.642
Factor 2.	Speed of website	.758
User friendliness (32.4%)	Visual materials	.740
	Easy to use	.657
	Security	.650
Factor 3.		
Finding low fares (22.6%)	Finding low fares	.971

a: Principal component factors with iterations: Varimax rotation. The three factors had eigen values in excess of 1.0 and explained 98.2% of the cumulative variance after rotation.

By summarizing the original nine attributes into three factors using the factor analysis, the underlying dimensions of the original data could be more easily understood. Because the result of the factor analysis presents a better and simple understanding of the underlying structure of respondents' perceived benefits during their choice of online travel agencies, the three extracted factors, rather than the nine original variables, were applied for the further analysis (MDS).

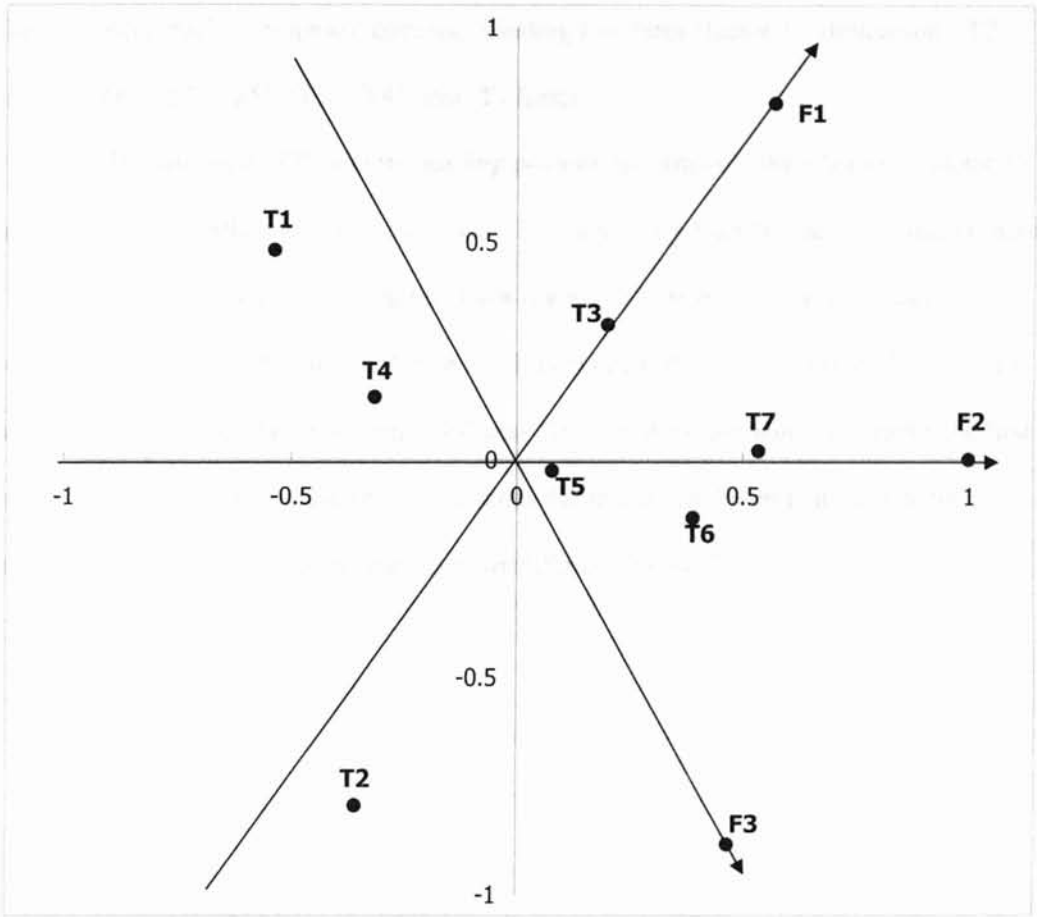
The perceptual map of online travel agencies and attribute factors

Finally, the MDPREF analysis, one of MDS techniques, was conducted in order to analyze the positions of selected online travel agencies along with attribute factors. The MDPREF model utilizes a vector formulation, which means it uses the singular value decomposition to produce a presentation in which stimuli (online travel agencies) are represented as points and subjects as vectors in the same space (Feng, 2001). A rectangular matrix of mean scores of preference evaluation data was entered as input data. In the present study, MDPREF was conducted to produce a two-dimensional solution. Next, lines are drawn from the origin of the plot to attribute points so as to visualize the attribute vectors. It assumes a linear form such that a respondent's preference for a specific online travel agency becomes stronger as it moves along with a vector.

Figure II illustrates the two-dimensional solution for positions of the selected seven online travel agencies and the attribute factors. As seen, the three attribute vectors reflect underlying dimensions on which the seven online travel agencies are projected. The different preference values of the online travel agencies are accounted for by different attribute vector directions. That is, the point locations of online travel agencies

for each attribute vector are read off by projecting each point perpendicularly onto each vector, in turn.

Figure II. A perceptual map of online travel agencies and attribute factors



Configuration Points	Point Definition	Configuration Points	Point Definition
T1	AOL TRAVEL	T6	TRAVELOCITY
T2	PRICELINE	T7	EXPEDIA
T3	YAHOO! TRAVEL	F1	Web features
T4	CHEAPTICKETS	F2	User friendliness
T5	ORBITZ	F3	Finding low fares

Firstly, each of the seven online travel agencies is projected onto the 'Web features (factor 1)' dimension. As a result, scale-value ordering is acquired: 'T7 (first)', 'T3', 'T6', 'T5', 'T1', 'T4', and 'T2 (last).' Next, each is projected onto the 'User friendliness (factor 2)' dimension: 'T7 (first)', 'T6', 'T3', 'T5', 'T4', 'T2', and 'T1 (last).' Lastly, each is projected onto the 'Finding low fares (factor 3)' dimension: 'T2 (first)', 'T6', 'T7', 'T5', 'T3', 'T4', and 'T1 (last).'

It is found that 'T7' is in the leading position in terms of 'Web features (factor 1)' and the 'User friendliness (factor 2).' Also, 'T6' ranks very high on the 'User friendliness (factor 2)' dimension and 'Finding low fares (factor 3) dimension, while it ranks relatively high on 'Web features (factor 1).' It also needs to be noticed that 'T5' and 'T3' are are not positioned far away from 'T7' and 'T6'. On the other hand, T2' ranks the first on the 'Finding low fares (factor 3)', but ranks the last on the 'Web features (factor 1)' and the second from the last on the 'User friendliness (factor 2).'

CHAPTER V

CONCLUSION

Summary of the Study

The primary purpose of this study was to investigate the important choice attributes of online travel agencies while online customers select their online travel agencies and to identify the current positions of online travel agencies in the customers' perceptions.

Based on the above purpose of the study, there were two research questions in this study.

RQ1. What important attributes do customers use in selecting their online travel agencies?

RQ2. How do online customers differentiate online travel agencies from each other in terms of the online travel agency attributes?

In order to collect data for the empirical investigation, an online survey was utilized. The questionnaire was published on a website. Then, recruitment messages asked participants to visit the website and complete an online questionnaire. After clicking on the hyperlink to the study, the participants went to an instruction page informing the participants about the survey.

Out of 5,326 email request for completing the survey, a total of 459 (8.6%) responses were gathered and 446 questionnaires (8.4%) were used for the empirical investigation. The sample was randomly selected from e-mail list of seven university websites: One east-coast university, one west-coast university, one southern university, and four central universities.

In order to test the existence of a nonresponse bias, differences between the answers of early respondents (386 out of 446) and those of late respondents (60 out of 446) on the importance of online travel agencies attributes and their demographic profiles were examined but no significant differences were found.

In terms of the analytic techniques for the present study, descriptive statistics and MDPREF, one of MDS techniques, were employed. Also, factor analysis was undertaken prior to MDPREF in order to determine the underlying structure of online travel agency attributes.

Summary of the findings

Firstly, the importance of online travel agency attributes (i.e., easy to use, finding low fares, booking flexibility, useful and relevant content, visual materials, ability to book all travel arrangements, sorting options, speed of the website, and security) were analyzed based on the descriptive. As a result, the most critical attribute for online travel agencies was found to be finding low fares (mean=4.63) followed by security (mean=4.46), easy to use (mean=4.29), booking flexibility (mean=4.07), sorting options (mean=3.97), speed of website (mean=3.93), useful and relevant content (mean=3.89), ability for multiple arrangements (mean=3.47), and visual materials (mean=3.15).

Secondly, the result of the factor analysis revealed three underlying dimensions (i.e., Web features, User friendliness, and Finding low fares) of online travel agency attributes (i.e., easy to use, finding low fares, booking flexibility, useful and relevant content, visual materials, ability to book all travel arrangements, sorting options, speed of the website, and security). The first factor (web features) included booking flexibility, ability for multiple arrangements, sorting options, and useful and relevant content. The second factor (user friendliness) indicated speed of website, visual materials, easy to use, and security. In addition, the third factor (finding low fares) included only one item, finding low fares. The extracted three dimensions explained 98.2% of the variation in the original attributes.

Lastly, a perceptual map of online travel agencies and attribute factors was drawn using MDPREF based on customers' perceptions and the result of MDPREF produced two-dimensional solution. In addition, the positions of seven online travel agencies (Expedia, Travelocity, Orbitz.com, CheapTickets.com, Yahoo! Travel, Priceline, and AOL Travel) were interpreted by projecting each point onto three attribute vectors which were derived from the factor analysis. It was found that 'T7' was in the leading position in terms of 'Web features (factor 1)' and the 'User friendliness (factor 2).' Indeed, 'T7' is the online travel agency that made an operating profit for the first time in the first quarter of 2001. In addition, 'T6' ranked very high on the 'User friendliness (factor 2)' dimension and 'Finding low fares (factor 3) dimension, while it ranked relatively high on 'Web features (factor 1).' Therefore, we can notice that 'T7' and 'T6' are the first tier online travel agencies. However, it also needs to be noticed that 'T5' and 'T3' are the second-tier online travel agencies that are not positioned far away from 'T7' and 'T6',

therefore, it could be inferred that there is intense competition among them. On the other hand, 'T2' seems to have unique position when compared to the other online travel agencies. It ranked the first on the 'Finding low fares (factor 3)', but ranked the last on the 'Web features (factor 1)' and the second from the last on the 'User friendliness (factor 2).' The reason why 'T2' has a unique position in the comparison might be its method of doing business, that is, the transactions in the 'T2' are made through auction.

Implications

In terms of the importance of online travel agency attributes, 'finding low fares' was the most critical one. However, customers also consider various attributes at the same time. Specifically, it is difficult for an online travel agency to deliver satisfactory customer service due to its nature in which the organization and customer communicate with each other via computer, a non-human interaction. Consequently, online travel agencies need to find an optimal combination of attributes or factors that suits their image. When it comes to security issues, security is not a motivator but a hygiene factor. Thus, online travel agencies have to develop strategies to assure customers of the security of their websites and online transactions.

As mentioned earlier, positioning means the actual point of the company's image that customers understand what the company stands for in comparison to its competitors. Thus, the positions of the companies or brands appearing on the perceptual map could be used by the companies to clarify the strengths and weaknesses identified by the customers' perceptions. On the other hand, companies which are located in similar

positions on the perceptual map might actually not be competitors. However, the operators of online travel agencies should pay attention to the attributes or factors that customers are applying to differentiate one online travel agency from others since that is how customers understand companies' images as a whole. Further, it is worth while to mention that the positions of companies or brands are fluid rather than fixed. As Dev, Morgan, & Shoemaker (1995) already noticed, the positions of brands could be changed over time. Therefore, operators of online travel agencies need to monitor their positions continuously.

One additional point that needs to be mentioned is related to re-positioning strategy. In the study about positioning strategy of Sun/Lost City, Botha, Crompton, & Kim (1999) insisted that effective positioning strategy requires focusing on a small number of attributes and consistent implementations. It is common sense that customers are unable to consider too many attributes at the same time. The finding of this study supported their argument by indicating that 'T2' attained its exclusive position mainly by focusing on 'finding low fares.' Thus, the operators of online travel agencies should concentrate on a small number of attributes or factors when they build brand images and change their positions. Additionally, the changes in the online travel agencies' positions must be desirable and done intentionally rather than accidentally.

Limitations and Future Research

With regards to the findings from this study, the following limitations should be taken into consideration.

Firstly, the sample for this study was selected from seven university websites. Although the sample included a similar distribution of males and females, and a broad cross-section of age groups, it was skewed to college/graduate students and, consequently, to lower income groups. Therefore, future research should be conducted with a wider range of customer groups to discover online travel agencies' positions.

Secondly, the factors that affect customers' actual purchasing were not investigated in this study. Future research needs to discover critical factors that directly affect customers' purchase decision makings. The findings from research that investigates the driving forces in customer's actual purchasing might offer useful insights for online travel agencies' positioning strategies.

Lastly, this study investigated online travel agencies' overall images in comparison with competitors. However, the customer's perceptions or preferences could differ according to the products purchased (e.g., lodging, air ticket, etc) and the purposes for purchasing (e.g., business, pleasure, etc). This study only included online travel agencies which deal with various travel-related products. The finding of this study indicated that airline ticket is the most popular item among online travel-related products (91.8% of the respondents who had previous online travel-related products purchase experience), which means that online travel agencies could be threatened by direct online sales from airline companies. Thus, future research could be developed to investigate the competitive structure between online travel agencies and airline companies' websites.

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APPENDIXES

APPENDIX A

INTRODUCTION, SURVEY AND CONFIRMATION WEBPAGES

Welcome

This survey is about '*Online Travel Agencies*' by D.J. Kim in the School of Hotel and Restaurant Administration at Oklahoma State University. Online travel agencies are companies that deal with various travel products and services such as lodging, car rentals, travel packages, and air tickets.

This survey is voluntary; therefore, you do not need to participate if you do not feel comfortable with this survey. Also, you must be at least 18 years old to participate in this survey. There is no inducement for completing this survey. The OSU Institutional Review Board (IRB) has approved the study (HE03-19), and Dr. Woody Kim is also aware and supportive of the study.

Your responses will be processed anonymously and kept completely confidential. Please, answer the questions as completely and honestly as possible. Your participation will be greatly appreciated.

Start

1. Have you ever purchased something online? ☐ Yes (please, go to 1-1)
☐ No (please, go to 2)

1-1. If yes, how many times during last 6 months? ------- time(s)

2. Have you ever purchased travel-related products/services online? ☐ Yes (please, go to 2-1)
☐ No (please, go to 2-2)

2-1. If yes, what was that? Please, check all that apply.

☐ Lodging ☐ Air ticket ☐ Car rental
☐ Tour package ☐ Cruise ☐ Others (Please, specify)

2-2. If no, why? Please, check all that apply.

☐ It's too difficult.
☐ I don't trust online brands.
☐ I just didn't have a chance.
☐ I'm not sure what I would get.
☐ I don't want to give my credit card number.
☐ It's more secure buying from traditional agencies.
☐ I prefer human-interaction while making a purchasing decision.
☐ Others (Please, specify)

3. How many of the following online travel agencies do you know? Please, check all that apply.

☐ AOL Travel ☐ Priceline ☐ Yahoo! Travel ☐ CheapTickets ☐ Orbitz
☐ Travelocity ☐ Expedia ☐ Others (Please, specify)

4. How many of the following online travel agencies have you actually visited?
Please, check all that apply.

☐ AOL Travel ☐ Priceline ☐ Yahoo! Travel ☐ CheapTickets ☐ Orbitz
☐ Travelocity ☐ Expedia ☐ Others (Please, specify)

5. Please, rate the importance of the following items while selecting an online travel agency.

1 = least important ---------- 5 = most important

Items	1	2	3	4	5
Easy to use	O	O	O	O	O
Finding low fares	O	O	O	O	O
Booking flexibility	O	O	O	O	O
Useful and relevant content	O	O	O	O	O
Visual materials	O	O	O	O	O
Ability for multiple arrangements	O	O	O	O	O
Sorting options (ability to arrange search results by price, location, etc.)	O	O	O	O	O
Speed of the websites	O	O	O	O	O
Security	O	O	O	O	O
Others (Please, specify)	O	O	O	O	O

6. Please, evaluate **each** online travel agency according to your opinion. You don't need to have actual experience in every online travel agency; however, if you don't know any of the following, please leave it blank.

1 = very poor ---------- 5 = excellent

	AOL Travel					Priceline					Yahoo! Travel					CheapTickets				
Items	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
Easy to use	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Finding low fares	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Booking flexibility	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Useful and relevant content	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Visual materials	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Multiple arrangements	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Sorting options	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Speed of the websites	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Security	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O

	Orbitz					Travelocity					Expedia					Other				
Items	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
Easy to use	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Finding low fares	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Booking flexibility	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Useful and relevant content	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Visual materials	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Multiple arrangements	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Sorting options	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Speed of the websites	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Security	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

- **Please, tell me about yourself.**

1. Gender. ------- 2. Grade/Position. -------

3. Age. ------- 4. Current marital status. -------

5. Annual Income. ------- 6. Working status -------

7. How long have you used the Internet? ------- year(s)

8. How often do you access the Internet per week? ------- day(s) a week

9. How often do you access the Internet per day? ------- time(s) a day

10. What is the average time you spend online per access? ------- hour(s) per access

Sumbit

Survey submitted

Thank you for completing this survey.
I really appreciate your participation.

The summary of the results of this study could be obtained by emailing your request to dongjk@okstate.edu or mailing to

D.J. Kim
210 HESW
School of Hotel and Restaurant Administration
Oklahoma State University
Stillwater, OK 74078

APPENDIX B

APPROVAL FORM FOR RESEARCH INVOLVING HUMAN SUBJECTS

Oklahoma State University
Institutional Review Board

Protocol Expires: 10/6/2003

Date: Monday, October 07, 2002 IRB Application No HE0319

Proposal Title: A POSITIONING ANALYSIS OF ONLINE TRAVEL AGENCIES

Principal Investigator(s):

Dong Jin Kim
210 HESW
Stillwater, OK 74078

Woo Gon Kim
210 HES
Stillwater, OK 74078

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the IRB procedures or need any assistance from the Board, please contact Sharon Bacher, the Executive Secretary to the IRB, in 415 Whitehurst (phone: 405-744-5700, sbacher@okstate.edu).

Sincerely,

Carol Olson by Dixie S. Thomas

Carol Olson, Chair
Institutional Review Board

VITA 2

Dong Jin Kim

Candidate for the Degree of

Master of Science

Thesis: A PERCEPTUAL MAPPING OF ONLINE TRAVEL AGENCIES AND PREFERENCE ATTRIBUTES

Major Field: Hospitality Administration

Biographical:

Personal Data: Born in Seoul, Korea, On October 29, 1974 the son of Hak-Rae Kim and Jae-Ok Kim. Married to Hyun Jung Kim, December 27, 2001.

Education: Graduated from Yongmoon High School, Seoul, Korea, in February 1993; received Bachelor of Science degree in Hospitality Management from Sejong University, Seoul, Korea, in February, 2000; completed the requirements for the Master of Science degree at Oklahoma State University, Stillwater, Oklahoma, in December 2002.

Professional Experience: Employed by Handol Franchise in Seoul, 1995; Military Service, Korea, 1995-1998; Internship, Grand Hyatt in Seoul, 1999; Part timer, Grand Hyatt in Seoul, Korea, 1999; Research and Teaching Assistant at Sejong University in Seoul, Korea, 2000; Teaching Assistant for Hospitality Summer Program, Oklahoma State University, 2002; Research Assistant, Oklahoma State University, 2001-Present.

Certificate: Certified Employee for Hotel Industry, Seoul, Korea, in February 2000; Survey Analyst, Seoul, Korea, in May 2001.