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ABSTRACT

The Internet has become the primary channel for the purchase of travel-related products such as airline tickets and hotel reservations. This study examines the range and pattern of travel-related products purchased online by American travelers. The results indicate that American travelers can be classified into three travel product groups, ranging from the "Core Traveler" to "Complete Traveler." Importantly, travelers in these three groups are significantly different in terms of demographic characteristics, information search behavior, and travel planning activities. These findings offer a number of important theoretical and practical implications for destination marketing.

Keywords: *online purchase patterns, travel products.*

INTRODUCTION

The Internet has reshaped many facets of travel including information search and planning (Mills and Law, 2004; Xiang, Wöber, and Fesenmaier, 2009) as well as the online purchase of travel products. Indeed, studies conducted by the Pew Foundation Internet Project (2009) indicate that travel reservations are one of the most popular online activities for American travelers and that the percent of U.S. adults who booked or purchased travel products increased by about 250% between 2000 and 2009. Also, a 2008 report by USTA (formally TIA) indicates that 96.8% of online American travelers use the Internet for travel planning, and 95.3% of online American travelers purchase travel products for pleasure trip purposes. Several tourism researchers have sought to identify the factors that affect traveler's Internet purchasing behaviors (for example, see Jun, Vogt, and MacKay 2007; Wen 2009), and to uncover the differences between those that purchased tourism products online and those that do not (Chu 2001; Kim and Kim 2004; Law and Leung 2000; Susskind, Bonn, and Dev 2003); however, most of this research focuses on the purchase of one travel related product (i.e., either airline ticket or hotel reservation). However, there is a limited understanding in how online travelers purchase behavior across a range of online travel products. As such this study examines American travelers with the goal of identifying their online purchasing patterns across 8 different product categories and assessing the differences between travelers with different purchasing behaviors.

LITERATURE REVIEW

The Internet has empowered travelers to purchase an array of travel products by bypassing traditional intermediaries in the distribution channel (Werthner and Kline 1999). Several studies have investigated online travel product purchasing behavior wherein they have examined the nature and extent of purchase for individual travel products (e.g., airline tickets, hotel bookings, cruise purchasing and so on) (Chu 2001; Kim and Kim 2004; Law and Leung 2000). The results of these studies indicate that airline tickets are the most popular travel product followed by accommodations, with travel packages the least popular (Mast, Shim, and Morgan 1991). Another study by Morrison et al. (2001) showed similar results with airline tickets as the first online product purchased followed by hotel rooms. Card et al. (2003) and others (Anckar and Walden 2002; Morrison et al. 2001; Susskind, Bonn, and Dev 2003) argue that online travelers tend to purchase low-risk products such airline tickets and hotel reservations, but as they become more skilled and trusting of Internet purchases, they "add" high-risk products such as travel packages. These studies found that consumers generally prefer traditional (more personal) travel channels when buying high-risk products as these products require a higher level of interactivity between buyer and seller (Beldona, Morrison, and O'Leary 2005). A number of tourism researchers have also found that one's level of involvement in the travel planning process can be used to explain the range of travel activities (Dimanche *et al.*, 1994; Fesenmaier and Johnson 1989) and information search activities (Cai. *et al.* 2004) and thus, travel product purchases (Celsi and Olson, 1988; Reid and Crompton, 1993). Indeed, these and other studies (Lee et al., 1999; Wu, 2001) have shown that involvement can be used quite effectively to segment travel markets as the characteristics of online consumers differ significantly' depending on the stages of the product purchase (i.e., the number and types of products). Thus, this study argues that three variables (the number of trips in last 12 months as well as the degree to which the Internet is used for travel planning and for online purchases of travel products) can be understood as indirect measures of "involvement" in online travel planning (Fesenmaier and Johnson 1989; Lehto et al. 2004). Building on the above research, this study argues that online travelers can be distinguished by the degree to which they "bundle" low risk travel products with other riskier travel-related products. Hence, while some travelers purchase only what might be referred to as "low risk travel products" such as airline tickets or hotel reservations, other travelers may use the Internet to purchase a range of travel products, effectively bundling both low-risk and high-risk products. Furthermore, it is hypothesized that these travelers differ significantly in terms of their travel and information search behavior as well as their demographics, Internet skills, innovativeness, and usage of the Internet.

RESEARCH GOAL

Based on the literature, there are two goals for this study:

1. To identify American online travel purchasing patterns; and,
2. To assessing the psychological, attitudinal, behavioral and demographic differences between groups with different purchasing patterns.

METHODOLOGY

From January 5th – 15th 2009 a national survey was conducted of Americans who had travelled and used the Internet during calendar year 2008. A quota sampling procedure was used whereby 10,000 members of the online panel of Americans maintained by Survey Sampling International (SSI) were invited to participate in the survey. A total of 3,982 adults responded to the initial Internet use and travel-related questions. Of these persons, 73.5 percent (2,926) indicated they had taken a trip 50 miles or more, one-way from home or included an overnight stay during the previous 12 months; of these, 2,089 responses were retained as complete. The sample of online adults was weighted based upon three aspects that have been shown to significantly affect Internet use – age, race and gender – in order to represent the U.S. online population of adults ages 18 or over.

The questionnaire was organized into three sections and included a number of questions related to online travel purchases. The first section asked a series of general questions regarding Internet usage including frequency of use, Internet knowledge, technology equipment people own, perceived technology innovativeness, and perceived information overload. The next set of questions was related travel behaviors including the number of travel experiences, online purchasing behaviors such as types of products purchased and online information sources used to obtain information. The third part of the survey asked questions about demographics including age, gender, income and family status.

Data analysis followed three steps in order to address the two goals for this study. First, frequency analysis was conducted to identify the popularity of purchase of each of the eight types of travel products included in the survey. Multiple response analysis was then used to assess the online purchase patterns and to classify the online traveler groups according to similar purchase patterns. Then, Chi-square analysis and ANOVA were used to evaluate statistically differences in the Internet, travel and information search behavior between the respective groups.

FINDINGS

Table 1 presents the frequency of the travel products purchased online by American travelers. The results indicate that most of online American travelers purchase airline tickets (73.0 %) and make reservations for lodging accommodations (67.3%), while event/attraction tickets (45.5%) and car rental (41.6%) are also relatively popular online travel products. This contrasts to the few travelers who use the Internet to rent recreational vehicles (2.2%), to reserve sporting activities (6.2%) or to purchase cruises (10.9%). These findings are consistent with previous research indicating that airline tickets and booking lodging are the most frequent behaviors in the online purchasing, whereas very few people purchase travel packages and/or cruises via the Internet (Morrison et al. 2001).

The next phase of the study examined the online purchasing patterns of travel products based on the number of products travelers purchased. On average, American online travelers purchased 2.6 products via the Internet during 2009; of these travelers, 25% purchased only one product and an additional 49% purchased 2 - 3 products, while only 3% purchased 6 – 8 different items. As can be seen in Figure 1, 46% of those online travelers that purchased one item online, bought airline tickets while another 40% purchased a lodging reservation; thus, only 14% of the respondents purchased a travel product *other* than airline tickets or overnight accommodations. Among travelers that purchased two items (the most common level of purchasing), the percentages of airfare and/or lodging purchases increased to about 85%. Furthermore, the percentage of travelers making rental car reservations and purchasing event/attraction tickets increased substantially to 29% and 36%, respectively. For travelers purchasing three items, rental car reservations and event/attraction tickets appear to become "focal" products in that they are purchased by 56% and 50% of online travelers, respectively. Interestingly, travelers purchasing five products add travel packages (65%) while fewer travelers used the Internet to reserve personal sporting activities or to rent RVs.

Table 1 Purchase of Online Travel Products by Online American Travelers

Online Travel Products	Percent
Airline tickets	73.0%
Lodging accommodations	67.3%
Tickets	45.5%
Rental Car	41.6%
Travel package	16.5%
Cruise	10.9%
Sporting activities	6.2%
RV	2.2%

The pattern of online purchases seems to suggest differences in the nature of the travel products and the travelers, themselves. Visual analysis (and follow-up statistical analyses using Chi-Square and ANOVA) indicates that the purchase patterns can be categorized into three groups. The first group includes those travelers that purchased one or two basic travel products - airline tickets and/or lodging reservations; this group of American travelers represents 51 % of the respondents and may be characterized as a “Core Traveler”. The second group of travelers buy three or four items, mostly airline tickets and lodging along with car rentals and event/attraction tickets is labeled ”Transitional Travelers”; this group accounts for an additional 40 percent of the online American travelers. Last, a third group characterized as ‘Comprehensive Travelers’ purchased five or more travel products online and accounts for almost 10 percent of all online American travelers (see Figure 1).

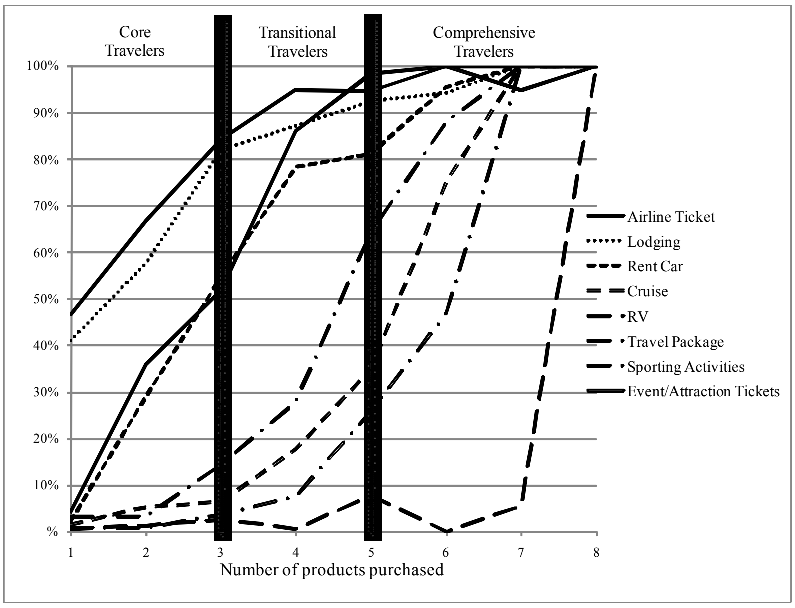

Figure 1 Online Travel Product Purchase Curve

Based upon this categorization, the final analysis examined the differences between the three travel product groups in terms of travel planning involvement, demographics, Internet use and skill variables as well as travel and information search behaviors. Table 2 presents differences in travel planning involvement, including the number of trips in last 12 months and degree of Internet usage for trip planning and travel purchasing, between travel product groups. Specifically, Comprehensive travelers (‘5 or more trips’ = 40.0% and ‘3 – 4 trips’ = 28.4%) have traveled significantly more than Transitional (‘5 or more trips’ = 30.6% and ‘3 – 4 trips’ = 34.1%) and Core travelers (‘5 or more trips’ = 17.1% and ‘3 – 4 trips’ = 28.8%) in last 12 months. In terms of Internet usage for travel planning and purchasing products, Comprehensive travelers use the Internet significantly more often for travel planning (‘All or 100%’ = 35.0% and ’75 – 99%’ = 45.2% for travel planning) and purchasing products (‘All or 100%’ = 39.6% and ’75 – 99%’ = 36.5%) than Transitional (‘All or 100%’ = 33.0% and ’75 – 99%’ = 37.6% for travel planning, and ‘All or 100%’ = 37.1.0% and ’75 – 99%’ = 35.4% for product purchasing) and Core travelers (‘All or 100%’ = 30.7% and ’75 – 99%’ = 27.6% for travel planning, and ‘All or 100%’ = 37.0% and ’75 – 99%’ = 22.8% for product purchasing).

The results furthermore indicate that Comprehensive Travelers are generally those travelers that are highly educated, have a higher annual income and are younger than those included in the Core and Transitional Travelers (see Table 3). Members of the Transitional Traveler group, on the other hand, are more likely to be employed full-time and more educated with a higher annual income than the Core Travelers.

Table 2 Travel Planning Differences between Travel Product Groups

Variables	Core Travelers (n=853)	Transitional Travelers (n=662)	Comprehensive Travelers (n=159)
Number of pleasure trips in the past 12 months			
One trip	25.6%[ab]	10.8%[a]	9.0%[b]
2 trips	25.8%	24.5%	22.6%
3-4 trips	28.8%	34.1%	28.4%
5 or more trips	17.1%	30.6%	40.0%
The proportion of using the Internet for travel planning			
All or 100%	30.7%[ab]	33.0%[a]	35.0%[b]
75 – 99%	27.6%	37.6%	45.2%
50 – 74%	21.7%	19.8%	15.3%
25 – 49%	13.1%	7.2%	4.5%
1 – 24%	7.0%	2.4%	0.0%
The proportion of using the Internet for travel product purchasing			
All or 100%	37.0%[ab]	37.1%[ac]	39.6%[bc]
75 – 99%	22.8%	35.4%	36.5%
50 – 74%	20.1%	18.4%	16.4%
25 – 49%	11.6%	7.2%	5.0%
1 – 24%	7.2%	1.8%	.6%
None	.2%	.0%	.0%
I do not know	1.1%	.0%	1.9%

Note: statistically significant difference (α =.05) using Chi-square analysis; a = a comparison between Core travelers and Transitional travelers; b = a comparison between Core travelers and Comprehensive travelers; c = a comparison between Transitional travelers and Comprehensive travelers.

Analyses were also conducted to compare the travel product groups regarding information search activities (specifically, their use of various websites). The results of these analyses indicate that the Comprehensive Travelers are significantly more likely to use all information sources possible (i.e., number and usage of online travel information sources) than the Core and Transitional Travelers when planning their trips (see Table 4). Also as one might expect, Core Travelers appear to limit their use of the Internet to those sites supporting the purchasing of airline tickets or hotel reservations such as online travel

Table 3 Demographic Differences between Travel Product Groups

Age	Annual income	Core Travelers		Transitional Travelers		Comprehensive Travelers	
		Age	Income	Age	Income	Age	Income
18-21	Less than $20,000	8.3%	7.3%	9.7%	5.7%	5.0%	1.9%
22-29	$20,000-$29,999	14.3%	9.2%	15.9%	4.9%	21.4%	4.4%
30-39	$30,000-$39,999	18.5%	11.4%	18.2%	9.6%	27.0%	7.0%
40-49	$40,000-$49,999	18.1%	15.1%	21.3%	11.4%	20.1%	10.1%
50-59	$50,000-$74,999	15.6%	23.5%	15.0%	23.3%	11.3%	22.2%
60-69	$75,000-$99,999	11.8%	12.5%	11.0%	16.7%	5.7%	20.3%
70 and above	$100,000-$149,999	13.3%	9.5%	8.9%	15.0%	9.4%	17.1%
	$150,000-$199,999		1.8%		3.2%		5.1%
	$200,000 or more		1.7%		3.4%		7.0%
	Do not wish to comment		8.0%		6.8%		5.1%

Note: statistically significant difference (α =.05) using Chi-square analysis, except for the age between 'Core' and 'Transitional Travelers'.

agencies and company websites. This contrasts sharply with the Comprehensive Travelers, where they are much more likely to use a wide array of online tools including online travel agencies, company sites, search engines, destination sites as well as general travel sites and travel guide book sites. Transitional Travelers lie somewhere in between whereby they appear to use online travel agencies, company websites, search engines and destination sites.

Table 4 Information Search Activities between Travel Product Groups

Types of online sources	Core Travelers	Transitional Travelers	Comprehensive Travelers
Online travel agency	57.3%[ab]	79.8%[ac]	94.3%[bc]
Company sites	55.2%[ab]	74.8%[ac]	82.5%[bc]
Search engines	49.0%[ab]	63.1%[ac]	79.9%[bc]
Destination sites	33.3%[ab]	43.9%[ac]	59.7%[bc]
General travel sites	9.8%[ab]	20.8%[ac]	37.1%[bc]
Travel guide book sites	4.6%[ab]	14.9%[ac]	33.3%[bc]
Newspaper or magazine	3.2%[ab]	9.4%[ac]	25.8%[bc]
Consumer generated content sites	2.3%[ab]	5.9%[ac]	20.8%[bc]
Special interest	6.2%[ab]	8.5%[ac]	19.5%[bc]
Social networking sites	2.8%[ab]	5.4%[ac]	19.5%[bc]
Community sites	2.6%[ab]	6.2%[ac]	15.1%[bc]

Note: statistically significant difference (α =.05) using Chi-square analysis. a = a comparison between Core travelers and Transitional travelers; b = a comparison between Core travelers and Comprehensive travelers; c = a comparison between Transitional travelers and Comprehensive travelers.

Last, analyses were conducted to evaluate the differences in the travel product groups in terms of their online skills and the degree to which they use the Internet for travel planning. The results indicate that Comprehensive Travelers have significantly (α = 0.05) higher perceived Internet skill/knowledge (Mean = 4.16) and innovativeness (Mean = 3.51, 3.42, and 3.65) (see Table 5). The Transitional Traveler Group also has relatively higher mean values in Internet-related variables as compared to Core Travelers.

Table 5 Comparison of Internet Related Variables between Travel Product Groups

Variables	Core Travelers	Transitional Travelers	Comprehensive Travelers	*F* value
Internet skill/knowledge[1]				
I am very skilled at using the Internet	3.86	4.03	4.16	6.80**
I know how to find what I want on the Internet	4.20	4.32	4.32	2.58
Perceived technology innovativeness[1]				
I know about new technologies before most other people in my social circle do	2.90	3.18	3.51	22.58***
I am among the first in my circle of friends to buy a new technology	2.59	2.91	3.42	34.16***
Compared to my friends, I use new technologies a lot	2.98	3.30	3.65	26.98***

Note: ANOVA was used to compare the mean differences; ** *p* value <.01; *** *p* value <.001

DISCUSSION

Although most U.S. travelers use the Internet to purchase travel products, there has been little research examining differences between travelers with different online purchase patterns. This study found a strong hierarchical purchasing pattern in terms of the number (and types) of items purchased. That is, in case of online travelers who have bought one item, airline tickets and lodging reservations are the most often purchased travel related products within the eight different products considered in this study. In the case of two items purchased, almost all online travelers, again, bought these two products. For travelers purchasing 3 – 5 travel products, on the other hand, car rental, event tickets and travel packages are quite popular. Importantly, this finding indicates that the purchasing of these online travel products faces some kind of "threshold" wherein travelers appear to become more comfortable (and more involved) with online travel planning (including purchasing travel products). That is, many travelers accomplish their buying decisions for "core" and less complex products first and then, successively, increase their use of the Internet for more complex products.

The results of these analyses also seem to suggest that the three travel product groups are fundamentally different in terms of their travel planning involvement, demographics, and Internet related variables. For example, Comprehensive Travelers who purchased over five items tend to be not only much younger with higher income, but also they have significantly more Internet experience, Internet skill/knowledge, technology innovativeness, and as one might expect, are much more involved in travel planning than the Core and Transitional travelers.

Several practical implications can be drawn for destination marketing organizations (DMOs) and online travel industries. First, it is suggested that businesses promoting tourism and hospitality product online need to consider the "cluster" of buying behaviors when developing travel related products. Since online travelers would be likely to purchase similar types of travel products in terms of the complexity degree and the function of the product, business marketers need to identify the "cluster" of purchasing behaviors of the traveler and then provide a customized set of online travel products. In addition, destination marketers need to provide different types of tools to support the different purchasing groups as they differ substantially in terms of Internet knowledge/skill and the information sources they use.

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