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SPANISH INTERNET USERS AND TOURISM: ANALYSIS OF ONLINE TOURIST BEHAVIOUR AMONG EXPERIENCED USERS

Pablo Garrido-Pintado

Francisco de Vitoria University (Spain)

p.garrido.prof@ufv.es

ABSTRACT

Internet and E-commerce continue to expand in today's information and communication society. This research focuses on the most relevant characteristics of experienced Spanish Internet users. More specifically, this document concentrates on Internet users and travellers who buy or may buy in the future services offered by travel agents or other operators in the tourism industry. The findings from this study were collected through questionnaires. Once collected, all the data was subjected to statistical analysis in order to determine the demographic characteristics, values, uses and attitudes of the individuals included in the sampling, as well as the interaction between the above mentioned items. This process allowed us to reach sound conclusions.

KEYWORDS

E- commerce, electronic tourism, online travel agencies

ECONLIT KEYS

L830; J110; O300

1. INTRODUCTION

The social, economic and technological changes which took place during the last third of the 20th century have brought a new meaning and scope to the travel and tourism industry (Buhalis, 2003; Poon, 1993; Sheldon, 1997). These processes have

lead to an emerging society where access to information is easier and better, thanks to the advances in Information and Communication Technologies (ICT).

These technologies are changing the rules in the tourism industry (Poon, 1993), allowing new services to be produced and driving changes in the field of tourism. The market has evolved; where previously the majority of the offers were based on massive, inflexible and standardized products, the current approach is more flexible and globally oriented (Buhalis and Law, 2008; O'Connor and Murphy, 2004).

The roles of the different agents in the value chain have likewise changed (Werthner and Klein, 2001). Before the advent of the Internet, tourism companies were organized in different strata based on a model which was made up of suppliers (accommodation, restaurants, airlines, etc.), brokers (hotel chains, travel agents, computerized booking systems, destination marketing organizations), and finally, tourists, i.e. the end user of tourism services. Nowadays, traditional agents have to share the stage with new actors, such as infomediaries (Buhalis and Law, 2008; Middleton, Fyall, Morgan and Ranchod, 2009; UNCTAD, 2000) as well as with providers who can now directly address the end customer's needs by using new technologies.

This context is most advantageous for tourists, who can now use hypertext, interactive and multimedia tools. Travellers have direct access to a volume of information (Mills and Law, 2004) which is much larger than any information that any public or private tourism organization may offer separately. Internet has altered the behaviour patterns, more than any other technology, when it comes to picking, booking or writing a review about a trip. It's a one-stop shop, where users can find information and book online without a travel agent (Morrison, Jing, O'Leary and Lipping, 2001). Also, as new social media tools are developed, Internet has become the perfect place to share travel experiences (Gretzel, 2006) and relive them (Pudliner, 2007; Tussyadiah and Fesenmaier, 2009).

The 21st Century tourist has more assessment tools, and demands higher quality. Figueroa (2008) claims "this impacts companies' management, the relationships of such companies with every destination and cooperation with other institutions, in order to create completely new experiences in travel destinations to meet the customers' requirements".

Both public and private sectors have to work together in order to bring the largest possible number of tourists to their destinations. According to Rivera (2001:472), such tourists follow trends imposed by changes in the labour world, new global values (Reisinger, 2006), consumer trends and buying patterns. Regarding labour, post-employed population has significantly increased - retired people with enough purchasing power and time for leisure activities - while young people are entering the labour market at an older age. We also see changes in values; a large group of consumers are focusing on improving their quality of life and self-fulfilment, and thus value other social and environmental aspects when they travel. Also, more people are now concerned about health and beauty, and this impacts patterns among tourism consumers.

We are, therefore, talking about tourists whose behavioural patterns are quite different from those of mass tourists in previous decades. As Reisinger (2009) claims, during the 80s and 90s, the trend was for standardized products in the travel package market, while the target market was barely segmented. Currently, social and economic changes, plus the introduction of new technologies in daily life, have brought along new patterns for tourism consumers. New consumers are more selfish; they demand more customized, developed products, with the right quality and at a reasonable price.

They have more information, and they use it better thanks to new computerized systems. Despite being virtually unknown in Spain 10 years ago, E-Commerce has also contributed to this evolution, and generated a significant volume of 7.7 billion Euros in trade in 2009 (Red.es, 2010).

Due to their inherent characteristics, tourism services have adopted this channel and have been in leading positions in Spanish sales rankings. More than 40% of all Internet users in Spain shop online (Red.es, 2010); travel tickets, accommodation booking and tickets for events are the most sought after products.

The main purpose of this research is to analyze the travel industry in Spain, particularly the main characteristics of experienced Spanish Internet users who search for, pick and buy tourist services online. We want to find out their demographic characteristics, how they use Internet, their behaviour as tourists and the existing patterns among tourism consumers who use this interactive channel. This drill-down analysis will focus on Internet advanced users in order to define future

behaviour patterns among current users who may expand their "digital literacy" in the coming years.

2. ANALYSIS OF SPANISH EXPERIENCED INTERNET USERS' BEHAVIOUR IN THE FIELD OF TOURISM

The tourism industry has adopted Internet as its main information resource; indeed, tourism related information is one of the main driving forces in the Internet (Furr, Bonn and Haussmann, 2002). Internet is the ideal place when it comes to planning travel: transactions are very fast, the opportunity exists to compare offers and it is possible to go online anytime, anywhere (Gretzel, Yuan and Fesenmaier, 2000; O'Connor, 1999). However, some authors find this wealth of information actually to be a handicap. Pan and Fesenmaier (2006) refer to previous research, e.g. by Radosevich (1997) and Stolz (1999), which shows how planning travel via Internet can turn out to be a frustrating experience.

In this regard, Fleischer and Felsenstein (2004) pointed out how research on travelling in the Internet uses two different approaches. One of them focuses on changes regarding suppliers – traditional brokers, new services and new brokerage platforms –, while the other is more closely related to the purpose of this research and focuses on Internet users' social and economic profiles, and their attitude towards purchasing tourism services online.

The socio-demographic characteristics show us the behaviour related to purchasing tourism services online. The actual purchase of a product is determined by age, education, income and occupation (Morrison et al, 2001).

A study by Webber and Roehl (1999) gives us a profile of people who use Internet to find information or purchase travel. This survey concludes that the users most likely to purchase travel through the World Wide Web are as follows: aged between 26-55, with a high financial status, working in administration or computer related industries, and with several years of online experience. According to this study, the main obstacles to purchasing are security concerns about payment methods and user privacy.

Other studies (Bonn, Furr and Susskind, 1998) focus on the leisure travel industry, whilst Lang (2000) studied the impact of Internet on tourism services consumers and

its repercussion on travel agents. We also find studies focused on specific age groups – travel for children (Tufte and Rasmussen, 2003) and for senior population (Graeupl, 2006).

In general terms, research by Beldona, Morrison and O’Leary (2005) is the first study to capture all the components of a trip and relate them to purchasing behaviour. The study identifies the different types of tourism products in E-Commerce, and states that flight tickets and car rentals are the top selling products. On the other hand, consumers seek more and more information in products such as leisure activities, accommodation and events.

Internet usage and the ability to search and handle tourism related information have also been studied. Authors like Luo, Feng and Cai (2004) studied the association between information search patterns online and other sources of information, and how they were related to the socio-demographic characteristics of tourists. They show how sex and level of income determine which source of information is used.

The technology adoption theory has also been used to explain why people tend to buy online (Beldona et.al. 2005). García and Gertrudix (2010) provide a generic definition of the different types of people that exist in the digital world, including: philosophers, politicians, explorers, agitators, savage, native, colonists, nomads and migrant-immigrants or migrant-emigrant, dissidents and apocalyptic. Other authors define the technology adoption cycle in five segments: explorers, pioneers, sceptic, paranoid and laggard (Parasuraman and Colby, 2001). Expert Internet users, also known as *superusers*, would belong to the first and second segments. They use Internet intensively for business, learning or leisure. They have years of Internet experience and the number of hours they are online every week is higher than that of the average person. Some authors (Chau, Cole, Massey, Montoya-Weiss and O’Keefe, 2002) claim that the “online life style” is essential when it comes to forecasting purchasing behaviours in the net. Other factors, such as the type of Internet connection (Beldona, Kline and Morrison, 2004) or the experience in Internet (Bellman, Lohse and Johnson, 1999; Weber and Roehl, 1999) also determine the buying behaviour online.

Expert users are able to process information much easier than other users. They can do searches, pick information and book tourism services easily. Because expert

users are familiar with the system, they are more likely to buy repeatedly; however, their behaviour may change if they do not receive stimuli that encourage them to buy, and they may choose a different Web site in such case (Park, Iyer and Smith, 1989).

2.1) METHODS OF THE STUDY

A 35 question questionnaire was designed for the purpose of this study. We were trying to determine the socio-demographic characteristics of the sample population, tourism related habits, usage of Internet and habits related to purchasing tourism services online. The questionnaire was based on other studies of tourism, E-Commerce and digital media usage, such as the Survey on Domestic and Outbound Tourism by Spanish Residents (Familitur) (IET, 2008), the yearly study in B2C E-Commerce by Red.es (2009, 2010) and the Web Surfers Study 2008, by Spanish Mass Media Research Association, AIMC (2009).

The sample included 204 people over 18 years of age who were intensive Internet users. Public and private organizations working on information and communication technologies, freelancer professionals and academicians were contacted for this survey.

The previous sample was carried out in 2008, and the survey was validated with a smaller selection of subjects. In 2009, subjects were sent an e-mail inviting them to answer the questionnaire online via a professional tool for collecting input, analyzing results and managing statistics,- namely Survey Monkey.

Next, all data was coded and processed with SPAD, a statistics tool for exploratory analysis of multidimensional data. SPAD is designed for statistic descriptive analysis of large data tables generated by surveys. This software helped perform hierarchical cluster analysis. This process consists of distributing and grouping all items in the sample based on similar characteristics, so that internal homogeneous groups are formed. This type of analysis is commonly used in fields such as biological science, engineering and social sciences. It is very useful when large volumes of data are collected through a questionnaire and it is necessary to apply some reduction technique in order to work with more manageable groups.

In this particular case, cluster analysis helped define a number of profiles based on three different groups of questions which were included in the questionnaire:

tourism habits, usage of Internet and purchasing habits related to online tourism products.

Once the cluster analysis had concluded and study groups had been defined, the chi-square test was applied on contingency tables in order to confirm or rule out statistically significant relations between study variables. This test used demographic data (sex, age and education) as independent variables in order to match data tables and reach relevant conclusions.

2.2) MAIN OUTCOME

After applying the questionnaire, the main outcome is described below.

2.2.1 Descriptive Statistics

This is a summary of the elementary statistic data produced by the questionnaires regarding socio-demographic profiles, tourism behaviour, Internet usage and purchasing habits related to online tourism products.

2.2.1.1 Socio-demographic Profile

The sample includes 199 subjects, out of which 113 are female (56.8%) and 87 are male (43.2%).

When asked about their education, 79.9% of those interviewed claim they have finished some type of University studies. Out of that percentage, 35.2% have finished a University degree. Only 20% of subjects did not have access to University.

In terms of place of residence, more than half of the subjects (54.4%) live in large cities (over 1 million of inhabitants), whereas 16.4% live in cities with 100,000-1,000,000 inhabitants. The remaining 19.4 of the sample live in towns with populations below 10,000 inhabitants.

2.2.1.2 Habits Related To Tourism Behaviour

Asked whether they had travelled for tourism during the previous 12 months, 96.9% of them said they had. Most travels were for leisure, recreation and holidays (80.7%), while 27.1% were related to paying visits to friends and relations, and 22.4% were for work reasons.

Regarding the favourite time of the year for travelling, respondents say they travel in the summer time (72.4%), although there exists also a demand for weekends, bank holidays, Easter and Christmas.

In terms of most common destinations, a broad majority (72.1%) chooses domestic travel - however, they travel to destinations outside their autonomous community regions. During the previous 12 months, 56% of respondents said they had travelled abroad. Regarding the length of stay per destination, 66.1% said they stayed between 3 and 7 days, versus 25.5% who confirmed they travelled for periods between 7 and 15 days.

Airplane was the chosen means of transport for 79.9%, followed by private vehicle (58.3%), train (30.2%) and bus (28.1%).

Regarding accommodation, 71.6% picked hotels and 58.4% stayed with friends and relations. Rural accommodation and second private residences came third and fourth in this question.

As to how travel was organized, every second respondent opts for the web site of a tourism provider or travel agent, versus 32.3% who prefer closing purchases in physical shops.

2.2.1.3 Internet Usage

Since most respondents work in public or private sectors with high usage of new technologies, results show a high rate of time spent online and usage of Internet services.

Most of the respondents (80.5%) have over 4 years of experience in using Internet. They say they go online everyday (84.2%) both from work and from home.

The most frequently used services are e-mail (95.8%), World Wide Web (86.4%) and instant messaging (55%).

When asked about whether they use Internet as a tool for finding information, 89.4% said they always, or nearly always, go online.

When looking for trips and destinations in Internet, 80.4% said they search for offers and basic information about tourism services (how to get there, leisure options, monuments), and 72% for destinations.

2.2.1.4 Purchasing habits related to tourism services Online

Among the respondents, 74.4% said they had bought some tourism related product via Internet.

Flights	Train	Bus	Car rental	Cruises	Hotel bookings	Hotel vouchers	Rural houses	Packages	Don't know or refuse to answer	Other
86.4%	37.9%	32.9%	18.6%	0.7%	62.9%	7.1%	19.3%	8.6%	0%	4.3%

Table 1: Tourism services purchased via Internet.

Among the services purchased, the vast majority buy flights (86.4%) and book hotel rooms (62.9%). The next positions are for train tickets (32.9%), rural accommodation (19.3%) and car rental. Travel packages and hotel vouchers are less popular products.

Regarding the amount users claim to spend in tourism services, the largest amounts usually correspond to travel packages, while flight tickets are a remarkably common product.

Direct debit	Wire transfer	Credit card	Supplier's card	Cash/Cheque	Don't know or refuse to answer	Other
3.5%	7%	93%	2.1%	12.6%	0.7%	1.4%

Table 2: Method of payment.

As for payment methods, the majority of customers used their credit card (93%). Payment by cash or cheque (12.6%) and bank transfers were not common.

Asked about why they buy through Internet, respondents say they do so for convenience reasons (40.7%), because they may be able to find better value or

offers, because they can access the shop outside working hours, and because it is easy to compare different offers.

Search engines	Supplier's Web site	References by friends or relations	Newsletters	Internet advertising
68.3%	57.9%	42.8%	42.2%	15.9%

Table 3: Buying tourism services – Main information resources

Respondents choose search engines to access information (68.3%) when they want to buy tourism products online. They also choose to go directly to the supplier's web site (57.9%), use friends' references as guidance or find offers through price comparison tools (40%). Other information resources are word of mouth, e-newsletters and web advertising.

When asked about where they purchase tourism services online, most respondents choose online shops, including online travel agents (e. g. Edreams.es) or tourism service providers (such as Iberia.com or the Spanish national railway site Renfe.com), versus "brick and click" agents (that is, travel agents with physical shops). A smaller percentage use price comparison tools and the shopping sections in the most relevant portals.

Regarding customer satisfaction after purchasing tourism products, 92.5% claim they are always, or nearly always, satisfied with the purchase.

Question number 33 in the survey was addressed to respondents who had purchased products. It asked respondents what improvements they thought tourism suppliers should implement so that customers would buy more frequently. Respondents feel that money-back and replacement warranties should improve (61.8%); higher safety should be implemented in payments (50.7%); prices should be lower than in other channels (50.7%); and customer service should be improved (36.2%).

Users who pointed out that they had never purchased tourism services online were asked about the reasons why they had not. The main reasons they gave were: not feeling at ease with providing personal information via Internet; not trusting

payment systems; lack of knowledge and/or information, and not trusting information provided by suppliers.

Some Internet users who do not purchase online have chosen to purchase a service in a physical shop after querying and finding information in Internet; 20.4% say they have done so often, and 17.4% that they have done so a few times. Only 16.2% point out they have never sought information in Internet before buying a flight or another service. These figures reinforce the concept that Internet has become recently an essential information channel for marketing this type of services, even if the purchase itself is closed in a different channel.

2.2.2 Hierarchy Cluster Analysis

Hierarchy cluster analysis was applied in order to distribute and group all items in the sample based on similar characteristics, so that internal homogeneous groups would be formed.

In order to obtain a manageable data pool, the questionnaire was divided in three groups: tourism habits, usage of Internet and purchasing habits of online tourism products.

This process generated different groups with 2, 3, 4, 5 and 6 classes for every set of questions.

After analyzing all options, it was determined that the group including 5 classes would be the most relevant one in terms of tourism habits.

Group	No. of subjects	Main characteristics
1/5	57	Travel outside Spain, stay in hotels in unusual dates
2/5	14	Do not travel
3/5	4	Use rental cars and own the house where they stay
4/5	82	Travel inside Spain - summer, bank holidays, Easter. Hotels.
5/5	45	Travel inside Spain by bus, without bookings.

Table 4: Question set regarding tourism habits

After applying cluster analysis, this selection offers the best profile definition of tourism habits. This analysis sorts respondents by travel destination, type of accommodation and transportation. However, when applying the chi-square test,

group 3/5 -which was made up by 4 subjects- was removed because it was not considered to be relevant enough to draw conclusions.

In questions regarding Internet usage, the most significant group included 4 classes:

Group	No. of subjects	Main characteristics
1/4	162	Intensive Internet usage, quite experienced
2/4	13	Moderate Internet usage
3/4	15	Occasional Internet usage
4/4		Not online/NA

Table 5: Question set regarding Internet usage

This selection includes 3 groups, which are defined by intensive (1/4), moderate (2/4) and occasional (3/4) usage of Internet. Users in group 4/4 do not use Internet regularly. When applying the test, the group of users who do not go online was removed, and groups 2 and 3 (moderate and occasional usage) were merged.

Finally, after cluster analysis, the 6 class group was the choice for the question set regarding tourism service online purchasing habits.

Group	Nº of subjects	Main characteristics
1/6	28	Does not buy online. Afraid to provide personal information
2/6	18	Does not buy online. Does not trust payment method
3/6	12	Does not use Internet
4/6	27	Not applicable
5/6	40	Buys online- offline (brick & click)
6/6	77	Only buys online (e-pure)

Table 6: Question set regarding tourism service online purchasing habits

In this case, the choice was the 6-class group because, after further reduction, the differentiation between *e-pure* Internet users-buyers (shops operating only online) and those who choose *brick and mortar* (online businesses with a physical shop) disappears. For the chi-square test, groups 1 and 2 (non-buyers) were merged, and so were groups 3 and 4.

2.2.3 Chi-square test

The chi-square test (χ^2) is a non-parameter test. It allows us to examine the relationship or association between two qualitative variables which are presented only in pairs.

Data was first collected, then tabbed in contingency tables and finally results were obtained and interpreted. The final purpose is to measure the relationship between user profiles which took part in the survey on tourism habits, Internet usage and purchasing online tourism services, and their relationships with generic variables such as age, sex, place of living and level of studies. As we mentioned above, categories were merged in some specific cases - when a large number of cells had expected frequencies below 5, which would make the test void.

2.2.3.1 Profile relation with general variables

Next, the profiles which were generated in the cluster analysis (tourism habits, Internet usage and purchasing habits related to online tourism services) are associated with the variables we defined as general (sex, level of studies, population in the place of living).

Frequency tables		Tourism habits			DF	χ^2	p-value
DEMOGRAPHICS	1. Travel abroad / Unusual dates	2. Do not travel	4. Travel in Spain / Usual dates / Hotels	5. Travel in Spain / Travel by bus / No bookings			
SEX					3	6.82	0.0777
MALE	37.21%	8.14%	37.21%	17.44%			
FEMALE	22.52%	5.41%	45.05%	27.03%			
LEVEL OF STUDIES					3	14.38	0.0024
BELOW UNIVERSITY	23.91%	19.57%	34.78%	21.74%			
UNIVERSITY	39.26%	3.29%	43.42%	23.03%			
POPULATION					3	20.76	0.0001
<100,000	43.55%	14.52%	24.19%	17.76%			
>100,000	22.39%	3.73%	49.25%	24.63%			

Table 7: Chi-square test: General variables – Tourism habits

As Table 7 shows, the sex variable is not statistically significant with regards to the respondents' tourism habits (p -value=0.0777). However, we do find interesting relationships when we compare tourism behaviour and level of studies/size of the town or city where they live. The table shows that people with higher level of studies

are more willing to travel both inside Spain and abroad ($p\text{-value}=0.024$). The respondents living in large towns or cities usually travel inside Spain during summer, on bank holidays and at Easter. It can be stated with a 99% probability that a statistically significant relationship exists between tourism behaviour patterns and the number of inhabitants in their locality.

Frequency table		Internet usage			
	1. Intensive usage	2. Moderate, occasional usage	DF	χ^2	p-value
DEMOGRAPHICS					
SEX			1	6.29	0.0121
MALE	77.78%	8.14%			
FEMALE	90.83%	5.41%			
LEVEL OF STUDIES			1	1.3	0.2537
BELOW UNIVERSITY	79.49%	20.51%			
UNIVERSITY	86.75%	13.25%			
POPULATION			1	3.51	0.0608
<100,000	78.18%	21.82%			
>100,000	21.82%	11.28%			

Table 8: Chi-square test: General variables – Internet usage

The previous sample shows that both men (77.78%) and women (90.3%) intensely use Internet, either for studying or for working. After applying the chi-square test ($p\text{-value}=0.0121$), results allow us to say, with 95-99% probability, that there is a statistically significant relationship between the sex variable and Internet usage. Regarding the level of studies ($p\text{-value}=0.2537$) and the size of the place of living ($p\text{-value}=0.0608$), we accept the null hypothesis and determine there is no statistical relationship with Internet usage.

Frequency table							
DEMOGRAPHICS	1 & 2 Do not buy in Internet	3 & 4 Do not use Internet, N/A	5. Buy / Brick&click shops	6. Buy / E-pure	DF	χ^2	p-value
SEX					3	2.47	0.48
MALE	27.27%	20.45%	18.18%	34.09%			
FEMALE	19.47%	17.7%	21.24%	41.59%			
LEVEL OF STUDIES					3	11.65	0.0087
BELOW UNIVERSITY	30.43%	32.61%	10.87%	26.09%			
UNIVERSITY	20.51%	15.38%	22.44%	41.67%			
POPULATION					3	7.26	0.064
<100,000	27.42%	27.42%	12.9%	32.26%			
>100,000	19.57%	15.94%	23.19%	41.3%			

Table 9: Chi-square test: General variables – Internet purchasing habits

Table 9 shows no significant difference between men and women regarding purchasing habits related to tourism services. We accept the null hypothesis because $p\text{-value}=0.48$, and that shows there is no statistically significant relationship between the sex variable and profiles for online purchasing habits. Respondents who have attended university are the most common users in the purchasing profiles, both for online companies with physical shops (*brick and click*) and *e-pure* businesses. We accept the hypothesis as valid, since $p\text{-value}=0.0087$. Regarding the relationship between populations and online purchasing habits, we do find a larger number of buyers who live in cities with a population over 100,000 inhabitants. In this latter case, we can discard the hypothesis, since $p\text{-value}=0.0640$.

2.2.3.2 Relationship between profiles

Frequency table			
% rows % columns	1. Intensive Internet usage	2. Moderate, occasional usage	Total in row
1. Travel abroad / Unusual dates	50 87,72% 31,45%	7 12,28% 25,93%	57
2. Do not travel	2 40,00% 1,26%	3 60,00% 11,11%	5
4. Travel in Spain / Usual dates / Hotels	72 88,89% 45,28%	9 11,11% 33,33%	81
5. Travel in Spain / Travel by bus / No bookings	35 81,40% 22,01%	8 18,60% 29,63%	43
Total in column	159	27	186

Table statistics

Chi-square = 0,0194

Table 10: Chi-square test: Tourism habits – Internet usage. Note: 25% of cells contain frequencies below 5. Because this impacts the test validity, such data will be ignored when making assessments

As the contingency table shows, there is a strong relationship between intensive Internet usage and tourism habits. Respondents who travel both abroad and in Spain (either using public transportation or with any degree of organization) are intensive Internet users. Only 12.6% of heavy users claim they do not travel. However, amongst those who access Internet moderately or occasionally, this percentage is 11.11%.

The chi-square test produces a p-value=0.0194, so we can state there is a statistically significant relationship between tourism habit profiles and Internet usage profiles.

% rows % columns	Frequency table		Total in row
	1. Intensive Internet usage	2. Moderate, occasional usage	
1 & 2 Do not buy in Internet	33 71,74% 20,37%	13 28,26% 46,43%	46
3 & 4 Do not use Internet or N/A	24 88,89% 14,81%	3 11,11% 10,71%	27
5. Buy online / Brick&click	33 82,50% 20,37%	7 17,50% 25,00%	40
6. Buy online / E-pure	72 93,51% 44,44%	5 6,49% 17,86%	77
Total in column	162	28	190

Table statistics

Chi-square= 0,0098

Table 11: Chi-square test: Online purchasing habits – Internet usage

The group which was made up of 12 subjects who do not use Internet was removed for this test. Among Internet users, we see how the intensive user profile prevails when matched with purchasing habits, particularly among intensive users who only buy online. Some 82.5% of people who buy from online companies with physical shops are intensive Internet users; however, the proportion rises to 93.51% when it comes to users who only buy online.

What stands out among occasional Internet users is that 46.43% refuse to buy online because they are afraid to provide their personal information. Intensive Internet users are characterised by shopping mostly in Internet only portals (44.44%).

The chi-square test produced a p-value=0.0098, which confirms the statistically significant relationship between profiles for Internet usage and profiles for online purchasing habits.

%Filas % Columnas	Frequency table				Total in row
	1. Travel abroad / Unusual dates	2. Do not travel	4. Travel in Spain / Usual dates / Hotels	5. Travel in Spain / Travel by bus / No	
1 & 2 Do not buy in Internet	16 38,64% 28,07%	4 8,70% 28,57%	12 26,09% 14,63%	14 30,43% 31,11%	46
3 & 4 Do not use Internet or N/A	9 23,68% 15,79%	9 23,68% 64,29%	14 36,84% 17,07%	6 15,79% 13,33%	38
5. Buy online / Brick&click	10 26,32% 17,54%	1 2,63% 7,14%	16 42,11% 19,51%	11 28,95% 24,44%	38
6. Buy online / E-pure	22 25,97% 32,26%	0 0,00% 0,00%	40 52,63% 48,78%	14 18,42% 31,11%	76
Total in column	57	14	82	45	198

Table statistics

Chi-square = 0,0003

Table 12: Chi-square test: Online purchasing habits – Tourism habits

52.63% of respondents who purchase from online-only (*e-pure*) stores travel in summer, Easter and bank holidays, and usually stay in hotels.

Most users who choose not to travel belong to groups which barely, if at all, visit Internet in order to find or book travels.

The chi-square test produced a p-value=0.0003 which confirms the statistically significant relationship (99%) between profiles for tourism habits and profiles for online purchasing habits.

3. CONCLUSIONS

- This study has been based on a highly segmented sample made up of young subjects, the majority of whom live in cities with a population of over 1 million inhabitants and have a high academic level. They are intensive Internet users with more than 4 years of experience, and spend between 4 and 10 hours a week online.
- Virtually all subjects have travelled during the last 12 months; the favourite destination was Spain (71.2%) and they travel mostly for leisure, pleasure or

holidays (80.7%). While they usually travel in summer, we also find high percentages of activity on bank holidays, Easter, weekends or Christmas. We find a trend to shorten summer holidays in order to be able to travel more times -shorter trips- during the rest of the year. The most used means of transport is by air (71.9%), followed by their own cars, train and bus.

- Respondents are heavy users of search engines when looking for information about their travels; however, as expert users, they also go directly to the sellers' web sites. They use price comparison tools - systems that let them visually compare offers - and listen to the advice of friends and relations.
- A high percentage of users (74.7%) claim they have purchased products at least once, mostly flights and hotel rooms, but also train or bus tickets. They usually close their purchases in companies that operate online-only (*e-pure*), although they also purchase at mixed businesses (*brick and click*).
- The average spending is remarkably higher in tourism packages and car rentals. When it comes to purchasing flights and bus tickets, customers tend to repeat purchases. The favourite method for payment is the credit card (93%). In fact, this method has replaced other traditional systems such as wire transfer, direct debit or payment in cash/cheque.
- Expert Internet users point out that convenience is the main reason why they close their purchases online. Internet allows them to search for information, see reviews, pick a destination, compare offers and close purchases in a one-stop shop.
- When it comes to making decisions, price is a relevant factor. Nearly 30% of respondents feel that Internet offers better prices than traditional channels.
- Most respondents say they are pleased with their online purchases. Nevertheless, in order to increase repeated purchases, it would be necessary to provide more warranties for returns and changes, particularly in reduced price products. They also demand more security in payments, and lower prices than in traditional market channels.
- Among Internet users who do not purchase anything, half of respondents do not intend to purchase tourism services online in the future. However, 66.5% claim they have made a purchase decision after checking the Internet. These

figures reinforce the fact that Internet has become an essential resource for tourism information.

- Hierarchy cluster analysis allowed us to process the large volume of data that was obtained through the questionnaire. This analysis also enabled us to reduce data by profiles through three sets of questions, in order to be able to work with more manageable groups. This procedure allowed us to apply the chi-square test in order to measure independence between two variables and thus establish relationships that would facilitate interpreting data and drawing valid conclusions for the survey.
- After analyzing results, we see that the user's sex does not condition tourism habits or online purchasing habits related to tourism services. We do find differences in Internet usage; most of moderate users are male, versus 61.1% of female users who go online every day. This shows that women have not only reached men with regards to Internet usage; they are indeed more intensive Internet users.
- We can claim that the level of studies does impact tourism habits. People who have attended university travel more often, both inside Spain and abroad. This variable is also closely related to purchasing tourism services online and the level of studies; subjects with a higher level of studies buy more often online, both in *e-pure* and in *brick & click* companies. Cultural background is not a determining factor regarding Internet usage. It is, however, very important when it comes to picking a destination, the length of the travel and the means of transportation, and using Internet as a tool for purchasing tourism services.
- The size of the town where respondents live is not statistically relevant to Internet skills or the purchasing of tourism services. We do find different tourism habits though, and thus come to the conclusion that there is a higher proportion of respondents who do not travel and live in towns with a population below 100,000 inhabitants.
- There is a strong relationship between Internet usage and tourism habits. The respondents who travel both in Spain and abroad are also intensive Internet users. Only 1.26% of Internet users who go online very frequently say they have not travelled at all during the last twelve months.

- Experience in Internet usage is related to the purchasing of tourism services. Eight out of ten respondents who buy in *brick & click* stores (i.e. online shops with physical presence) are intensive Internet users and this percentage goes up to 93.5% for *e-pure* business (i.e. shops which only have online presence).
- Tourism habits and online purchasing patterns are closely related. Nearly 50% of respondents who travel inside Spain in the summer buy their trips through online travel agents. This figure drops to 25.97 for respondents who choose to travel abroad. Most users, who do not travel, belong to groups which barely, if at all, visit Internet in order to find or book trips.

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