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## **“SUCCESSFUL HOTEL WEBSITE DIMENSIONS AND ATTRIBUTES – AN EXPLORATORY RESEARCH IN MEXICO”**

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### **Abstract:**

*This article presents an exploratory study in which questionnaires applied to web browsers and purchasers of travel services online were used to gain insight on best practices for usability of hotel Web sites. The research reports on a study that examined 58 surveys applied to online browsers and purchasers of travel services, on their perceived importance level of specific dimensions and attributes on hotel Websites. To achieve this goal, this work builds on research by Law and Hsu, who developed a model to assess the effect of the design factors on five dimensions and 40 attributes in destination Web sites. Empirical evidence showed that, for Mexican consumers, the most important dimension in Hotel Website design is contact information. They considered the reservation information dimension as the least important. The top important attribute is online payment security and the least important is information on the number of rooms in the hotel. The study goes in depth in the findings evaluating them by online buyers and online browsers.*

**Key Words:** *Tourism research, Web site evaluation; e-satisfaction; e-quality.*

### **Resumen**

*Este estudio presenta los resultados de una investigación exploratoria aplicada a través de cuestionarios en usuarios de páginas Web de hoteles y de compradores de servicios de hotelería a través de sitios de hoteles en Internet. El objetivo de la investigación fue identificar las mejores prácticas en el diseño de sitios Web para hotelería desde el punto de vista de la usabilidad del sitio Web. En total se aplicaron 58 encuestas, tanto a consumidores que ya han hecho reservaciones a través de sitios Web de hoteles, como a aquellos que solo han usado los sitios Web para obtener información, pero que no han hecho reservaciones con anterioridad, utilizando este medio. El estudio utilizó para este fin, un modelo desarrollado Law and Hsu, adaptado al entorno Mexicano. El modelo desarrollado por Law and Hsu evalúa el efecto de los factores de diseño de sitios Web de hotelería a través de cinco dimensiones compuestas por 40 atributos. La evidencia empírica mostró que la dimensión más importante para los*

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*consumidores mexicanos de servicios de hotelería por Internet, es la de información de contacto, mientras que estos mismos consumidores consideraron como la menos importante, a la dimensión información sobre reservaciones El atributo percibido como más importante es la seguridad de pago en línea y el menos importante, el número de habitaciones en el hotel.*

**Palabras Clave:** *Investigación turística; Evaluación de sitios Web; satisfacción en línea; calidad en línea.*

## **Introduction**

Since the 1980s, the Internet in general, and the World Wide Web in particular, have had an unprecedented effect on the hospitality industry. Hospitality firms use the Internet to provide information and to promote and distribute their products and services. To remain competitive in the industry, most hotels have established their own Web sites for promotion, marketing, and online transactions. Hotels the world over, clearly have embraced the idea that information technology is shaping a brave, new world of marketing.

The travel and tourism industry is indeed one of the largest application areas on the Internet. Cox (2002) stated that travel spending is the number one growth driver for e-commerce as a whole. There are numerous advantages for Internet applications in the tourism and hospitality industries. Researchers have argued that the Internet can benefit customers from direct communications with suppliers, and from searching and purchasing their preferred products and services without any geographical or time constraints. More important, customers can easily arrange for their own tailor-made products or services (O'Connor & Frew, 2002; Toms & Taves, 2004). Similarly, tourism and hospitality suppliers can establish a direct connection with their customers everywhere in the world and at any time

Travel and tourism are illustrating how e-commerce can change the structure of an industry—and in the process create new business opportunities. This industry is the leading application in the B2C (business-to-consumer). The Web is used not only for information gathering, but also for ordering services (Hannes & Ricci, 2004).

Hospitality firms use the Internet to provide information and to promote and distribute their products and services (Buhalis & Main, 1998; Olsen & Connolly, 2000; Raymond, 2001). Hotels all over the world have clearly embraced the idea that information technology will drive a brave, new world of marketing—providing marketers figure out how IT can help them (Dev & Olsen, 2000). At this point, few hoteliers are questioning whether to support a web site, but they seem to be

struggling over how best to use the worldwide web (Porter, 2001). Issues to address include on-line strategies, such as distribution models and dynamic pricing, as well as which attractive web-site features to incorporate. Given that web-site bells and whistles can be expensive to purchase, implement, and maintain, the problem is that the benefits of web-site enhancements are hard to measure (Connolly, 2000).

From the perspective of consumers, the Internet allows them to communicate directly with hotels to request information and to purchase services and products without any geographical and time constraints. For hotel managers, in particular sales and marketing managers, the successful factors for hotel Web sites are lower distribution costs, higher revenues, and a larger market share (O'Connor, 2003). In addition, hoteliers can remotely control their servers to display information of services and products at an electronic speed to global customers and without the need of the traditional intermediaries such as travel agents in the pre-Internet era (Buhalis & Licata, 2002); Nevertheless, in spite of the increasing popularity of Internet applications to the hotel industry, and the large number of published Internet-related articles in the hospitality and tourism literature, the topic of the usability and functionality of Web sites has been largely overlooked by hospitality and tourism researchers. In other words, the ease of use and the performance of hotel Websites remain largely unknown to hotel customers, practitioners, researchers, and policy makers. The number of published articles that scrutinize the view of on-line travel purchasers regarding the factors for a successful travel Web site appears to be very limited.

### **Literature review**

The introduction of Internet technology to general business has led to its wide-scale application in the hotel industry. Consumers have been increasingly using the Internet to search for accommodation-related information on hotel Websites. To facilitate a better understanding of e-commerce, hospitality and tourism researchers have shown the importance of establishing content-rich and user-friendly Websites.

Existing articles in the travel and tourism literature have emphasized the importance of e-commerce and the Internet in travel and tourism. For travel suppliers, the Internet provides a method whereby they can sell their services and products globally to potential travelers at any time (Connolly, Olsen, & Moore, 1998; Bernstein & Awe, 1999; Lubetkin, 1999). These suppliers can remotely control their servers to display service and product information at the electronic speed of computer networks. The benefits for suppliers to successfully launch a travel Web site include lower

distribution costs, better revenues, and a larger market share (Kasavana, Knutson, & Polonowski, 1997; Cano & Prentice, 1998; Mader, 1999).

Hotel Web sites are not only a place to display information about products and services, but they also have commercial value in terms of profitability. As such, trust largely influences the customers' intention to make a purchase on the Web site. Building trust and confidence is the first and most important phase of an online purchase activity (Lee, 2002). Prior studies have shown that there is a direct relationship between the design of a Web site and the perceptions of customers toward the company. Kim and Moon (1998), for instance, conducted a study that indicated that the manipulation of different Web interface design factors could win the confidence of customers (Kim & Moon, 1998). Similarly, Rhodes (1998) suggested that good contents, a simple design, and few errors in the use of language are needed to establish trust (Rhodes, 1998).

Hospitality and tourism researchers have also conducted various studies examining the performance of hotel Web sites. For instance, Murphy, Forrest, Wotring, and Brymer (1996), Procaccino and Miller (1999), as well as Weeks and Crouch (1999) examined the overall content and features of hotel Web sites. O'Connor and Horan (1999), conducted in-depth studies of the Web reservation facilities of international hotel chains. Other researchers applied a set of criteria to evaluate the effectiveness of hotel Web sites (Morrison, Taylor, Morrison, & Morrison, 1999). Chung and Law (2003), Law and Chung (2003), and Liang and Law (2003) presented different models to measure the functionality—the richness of content information of hotel Web sites in Hong Kong and Mainland China.

In spite of the presence of numerous hotel Websites and hotel managers' eagerness to know the effectiveness of the contents of their Websites, the existing hospitality literature has rarely analyzed users' perceived importance of specific hotel Website features in a holistic fashion. This absence of published studies is particularly true in the context of Latin-American hotel Websites in general and Mexican hotel Websites in particular.

Most of the prior studies on Website effectiveness evaluation largely concentrated on assessing the general characteristics of Website features such as content and design (Huizingh, 2000), log file data (Murphy, 1996), and usefulness and social acceptability (Lu & Yeung, 1998). Other studies have profiled Internet users (Bonn, Furr, & Susskind, 1998; Weber & Roehl, 1999); examined users' perception on general shopping features on the Internet (Shankar, Smith, & Rangaswamy, 2003), and evaluated specific Websites with the involvement of general as well as student users (Roy, Dewit, & Aubert, 2001; Jeong, 2002; Selvidge, Chaparro, & Bender, 2002).

## **Method**

This research was carried out using a structured questionnaire, consisting of three sections, that was developed based on prior studies (Kasavana, Knutson, & Polonowski, 1997; Morrison, Taylor, Morrison, & Morrison, 1999; Weeks & Crouch, 1999; Chung & Law, 2003; Law & Chung, 2003) and adapted by Law and Hsu (2006). The first section was related to the perceived importance of specific dimensions and attributes on hotel Websites. Respondents were requested to provide their perception on a 7-point Likert scale ranging from 1 (very unimportant) to 7 (very important) on five dimensions and 37 attributes. To ensure stable participant responses, Preston and Colman (2000) recommended that a 7-point scale should be used to allow respondents to make more detailed differentiation on the importance level of the attributes and dimensions. First, the five dimensions were assessed directly. After that, attributes that were related to each of the dimensions were rated individually. Following prior studies on initial investigation of hotel Website features (Chung & Law, 2003), there were the five dimensions of Facilities Information, Reservations Information, Contact Information, Website Management, and Surrounding Area Information in this study. Each of these dimensions contained 11, 8, 10, 5, and 6 attributes, respectively, to evaluate the specific components of the general dimensions.

The second section asked for respondents' level of agreement on the importance of the overall performance and/or quality of the dimensions and attributes when they make online purchases of hotel rooms in different hotel categories. A 7-point Likert scale was used for the questions in this section, with ratings ranging from 1 (strongly disagree) to 7 (strongly agree). Respondents could also choose NA (Not Applicable) in this section if they had no prior experience of booking hotel rooms online for any of the hotel categories. The third section was used to collect demographic data, including country of residence, gender, age group, education level, and annual personal income. These are the standard demographic variables used in most tourism research questionnaires (Kozak & Rimmington, 1999; Chen & Gursoy, 2000; Dossa & Williams, 2001; Rittichainuwat, Qu, & Leong, 2003). At the beginning of the questionnaire, there was a qualifying question that asked whether a respondent had ever visited any hotel Website(s) in the past 12 months. In addition, all qualified respondents had to answer the question of whether they had made reservations on any hotel Website(s) in the past 12 months. This question was used to distinguish between online browsers and online purchasers. Because this survey was conducted for Mexican travelers (all of them having Spanish as their native language), the English questionnaire was translated into Spanish by the authors. Both versions of the questionnaire were double-checked by the project

investigators, who are bilingual, to ensure that questions in the two languages had the same meaning. Details of questionnaire applied can be found in Annex 1.

A non probabilistic quota sampling method was used in this survey. At the end, 58 usable questionnaires were collected; Descriptive statistics were performed for all variables to provide a demographic profile of respondents and means of all ratings. Chi-square tests were used to identify differences between e-browsers and e-bookers among various demographic groups because both sets of variables were categorical. Independent sample t tests were used to examine differences between the two groups of Internet users in their ratings of attributes and dimensions as well as of the importance of performance for various star-rated hotel categories. According to Muijs (2004), independent samples t tests are used to compare the means of two sets of scores for two different groups of participants. Similarly, Motulsky (1995) states that unpaired t tests are the appropriate methods to compare the means of two unpaired groups.

## **Findings, analysis and discussion**

### **a) Demographic Characteristics of Respondents**

Table 1 presents the main characteristics of the 58 respondents. Among these respondents, 20 had made reservations on hotel Website(s) in the past 12 months. These were identified for this research purpose as “online buyers”. The remaining 38 respondents who had not made any reservations on any hotel Website(s) in the past 12 months were called “online browsers”. Overall, the largest group of respondents was 18 to 25 years old, college/university graduates.

The propensity to purchase online increased with age, and browsers tended to be younger respondents. Travel products and services are generally considered luxury goods (Gee, Makens, & Choy, 1989). The younger generations, who usually earn lower incomes compared to their senior counterparts, are therefore less likely to reserve hotel rooms. This finding was consistent with the age and income characteristics of e-travelers in the tourism literature (Bonn et al., 1998; Weber & Roehl, 1999).

**Table 1**  
**Demographic Profile of the Respondents**

Variable	Have You Made Reservations on Any Hotel Website(s) in the Past 12 Months?					
	Overall number	Overall %	Yes (n = 20)	%	No (n = 38)	%
<b>Gender (n = 58)</b>						
Male	30	51.70	12	60.00	18	47.37
Female	28	48.30	8	40.00	20	52.63
<b>Age (n = 58)</b>						
18 to 25	46	79.31	13	65.00	33	86.84
26 to 35	9	15.52	6	30.00	3	7.89
36 to 45	1	1.72	0	-	1	2.63
46 to 55	0	-	0	-	0	-
56 to 65	2	3.45	1	5.00	1	2.63
<b>Education (n = 58)</b>						
Secondary	2	3.45	0	-	2	7.14
High school	12	20.69	2	10.00	10	35.71
College/University Degree	42	72.41	17	85.00	25	89.29
Postgraduate degree	2	3.45	1	5.00	1	3.57

### b) Importance of Dimensions

A Cronbach's alpha for the attributes within each of the a priori dimensions was calculated to assess scale's internal consistency. According to Roy et al., (2001), the Cronbach's alpha value indicates the consistency of the evaluation and the homogeneity of the items in the scale (Roy, Dewit, & Aubert, 2001). The five dimensions of reservations information, facilities information, contact information, surrounding area information, and Website management had alpha values of 0.752, 0.700, 0.695, 0.708, and 0.711, respectively. These values were considered satisfactory as this research is exploratory by nature and Cronbach's alpha can be improved in a further research using a wider sample. Internal reliability can be ascertained if the alpha values are at least 0.70 (Hatcher, 1994; Nunnally & Bernstein, 1994 ).

Table 2 lists the five dimensions and their perceived importance by online browsers and online purchasers. These dimensions included reservations information, facilities information, contact information, surrounding area information, and Website management. All dimensions received mean values of above 5.0, indicating that respondents viewed these dimensions as important. Online purchasers and online browsers, however, viewed the importance of the dimensions differently. For instance, online browsers seem to evaluate every dimension more important than online purchasers. Independent sample t tests were used to compare the overall importance mean ratings for online purchasers with the corresponding values for online browsers for the 5 dimensions. The results showed a significant difference for reservations information and contact information. In other words, online browsers viewed reservations information as significantly more important than online purchasers.

**Table 2****Perceptions of Online Browsers and Online Purchasers on the Importance of Different Dimensions**

Variable	Have You Made Reservations on Any Hotel Website(s) in the Past 12 Months?												
	Yes (n = 20)					No (n = 38)							
	Mean	Std. Dev.	Mean	Std. Dev.	F	Sig.	t	df	Sig. (2-tailed)	95% Confidence Interval of the Difference			
Contact information	6.34	0.576	6.41	0.502	0.6843	0.4116	-0.5078	56	0.6136	-0.0741	0.1459	-0.3662	0.2181
Website management	6.17	0.630	6.22	0.835	2.2120	0.1425	-0.2148	56	0.8307	-0.0458	0.2131	-0.4727	0.3812
Surrounding area information	5.99	0.647	6.06	0.888	0.8697	0.3550	-0.3017	56	0.7640	-0.0679	0.2250	-0.5186	0.3828
Facilities information	5.79	0.417	5.84	0.727	3.8746	0.0540	-0.3037	56	0.7625	-0.0536	0.1764	-0.4070	0.2999
Reservations information	5.56	0.799	5.72	0.922	-0.6489	0.8304	-0.6489	56	0.5191	-0.1582	0.2438	-0.6465	0.3302

Note: Importance scale: 7 = very important, 6 = important, 5 = somewhat important, 4 = neither important nor unimportant, 3 = somewhat unimportant, 2 = unimportant, 1 = very unimportant.

### c) Importance of Attributes

The dimension of reservations information was related to facilities and services that were available on the Website for online reservations. The mean perceived importance scores of the 11 attributes in reservations information are presented in Table 3. Basically, all but one attribute received mean scores of above 5; it shows that the respondents perceived these attributes as important. Both online purchasers and online browsers viewed security payment systems as the most important attribute. Room rates were second important attribute to security payment systems for both as well. Special request forms, the last attribute in this dimension, however, had average mean scores of less than 5.0 for online buyers while it went above 5 for online browsers. This indicated that this attribute was considered neither important nor unimportant for online buyers and important to online browsers.

**Table 3****Perceptions of Online Browsers and Online Purchasers on the Importance of Attributes in Reservation Information**

Variable	Have You Made Reservations on Any Hotel Website(s) in the Past 12 Months?												
	Yes (n = 20)					No (n = 38)							
	Mean	Std. Dev.	Mean	Std. Dev.	F	Sig.	t	df	Sig. (2-tailed)	95% Confidence Interval			
Security payment systems	6.65	0.813	6.42	1.030	2.555	0.116	0.862	56	0.393	0.229	0.266	-0.303	0.761
Room rates	6.34	0.576	6.41	0.502	0.6843	0.4116	-0.508	56	0.614	-0.074	0.146	-0.366	0.218
Online/real time reservations	6.30	0.979	6.13	1.359	2.605	0.112	0.490	56	0.626	0.168	0.343	-0.520	0.856
Check rates and availability	6.10	1.373	6.24	1.747	0.301	0.301	0.301	56	0.301	0.301	0.301	0.301	0.301
View or cancel reservations	6.00	1.257	6.18	1.291	0.06	0.808	-0.521	56	0.604	-0.184	0.354	-0.892	0.524
Check in and check out time	5.90	1.119	5.71	1.754	4.542	0.037	0.438	56	0.663	0.189	0.433	-0.678	1.057
Worldwide reservations phone num	5.85	1.424	5.89	1.689	0.768	0.385	-0.101	56	0.920	-0.045	0.443	-0.933	0.843
Reservation policies	5.25	1.552	5.53	1.520	0.237	0.628	-0.653	56	0.516	-0.276	0.423	-1.123	0.571
Special request forms	4.40	1.569	5.24	1.700	0.593	0.445	-1.829	56	0.073	-0.837	0.458	-1.754	0.080

Note: Importance scale: 7 = very important, 6 = important, 5 = somewhat important, 4 = neither important nor unimportant, 3 = somewhat unimportant, 2 = unimportant, 1 = very unimportant.

Results of independent sample t tests showed online purchasers viewed three attributes significantly more important than online browsers. These attributes were security payment systems, room rates and special request forms. Because online purchasers had reservations and Internet experience, they would unsurprisingly consider security payment systems more important than the online browsers. On the other hand online browsers being younger and less probably less affluent, considered room

rates more important than the online buyers, they also considered special request forms as a more important attribute.

Table 4 shows results for the dimension of facilities information. This dimension accounts for general description of the hotel property, and information of facilities and services that are available to customers. Results of independent sample t tests showed online purchasers viewed three attributes significantly less important than online browsers and one attribute more important than online browsers.

Table 4 Perceptions of Online Browsers and Online Purchasers on the Importance of Attributes in Facilities Information													
Variable	Have You Made Reservations on Any Hotel Website(s) in the Past 12 Months?										t-test for Equality of Means		
	Yes (n = 20)		No (n = 38)		Levene's Test for				t-test for Equality of Means				
	Mean	Std. Dev.	Mean	Std. Dev.	F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	Lower	Upper
Hotel location maps	6.65	0.745	6.39	1.028	2.700	0.106	0.982	56	0.331	0.255	0.260	-0.266	0.776
Hotel promotions	6.45	0.686	6.63	0.714	0.305	0.583	-0.933	56	0.355	-0.182	0.195	-0.571	0.208
Hotel description	6.45	0.945	6.32	0.989	0.623	0.433	0.499	56	0.620	0.134	0.269	-0.405	0.673
Photos of hotel features	6.25	1.164	5.92	1.531	0.702	0.406	0.840	56	0.404	0.329	0.392	-0.455	1.113
Virtual tours	6.00	1.026	5.71	1.450	4.170	0.046	0.793	56	0.431	0.289	0.365	-0.442	1.021
Restaurants	5.90	1.165	6.42	0.793	2.942	0.092	-2.015	56	0.049	-0.521	0.259	-1.039	-0.003
Hotel Facilities	5.70	1.559	5.79	1.298	0.223	0.639	-0.233	56	0.817	-0.089	0.385	-0.86	0.681
Frequent guest programs	5.55	1.638	5.13	1.663	0.001	0.976	0.915	56	0.364	0.418	0.457	-0.497	1.334
Guest room facilities	5.35	1.424	5.95	1.374	1.009	0.32	-1.554	56	0.126	-0.597	0.384	-1.367	0.173
Meeting facilities	5.00	1.414	5.03	1.325	0.142	0.708	-0.070	56	0.944	-0.026	0.375	-0.777	0.724
Employment opportunities	4.40	1.635	5.00	1.889	0.354	0.554	-1.202	56	0.234	-0.600	0.499	-1.600	0.400

Note: Importance scale: 7 = very important, 6 = important, 5 = somewhat important, 4 = neither important nor unimportant, 3 = somewhat unimportant, 2 = unimportant, 1 = very unimportant.

Online buyers care for information on hotel location maps while online browsers care for hotel promotions, restaurant information and guest room facilities. Employment opportunities received mean scores of less than 5 for online buyers and exactly five for online browsers. It can be explained as online browsers, being younger and less probably less affluent are more prone to be unemployed and looking for a job position.

Table 5 show results for the seven attributes in the contact information dimension. This dimension measures direct communications web capacity between a hotel and its customers and Table presents the perceptions of respondents on these attributes. Both online purchasers and online browsers viewed the first six attributes as important (with means over 5.0).

Table 5 Perceptions of Online Browsers and Online Purchasers on the Importance of Attributes in Contact Information													
Variable	Have You Made Reservations on Any Hotel Website(s) in the Past 12 Months?										t-test for Equality of Means		
	Yes (n = 20)		No (n = 38)		Levene's Test for				t-test for Equality of Means				
	Mean	Std. Dev.	Mean	Std. Dev.	F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	Lower	Upper
Telephone number	6.70	0.733	6.64	1.032	0.002	0.968	-0.142	56	0.888	-0.037	0.260	-0.557	0.484
Email address	6.70	0.571	6.66	0.966	0.345	0.559	0.179	56	0.859	0.042	0.236	-0.430	0.514
Address	6.55	0.999	6.79	0.622	3.682	0.06	-1.125	56	0.266	-0.239	0.213	-0.666	0.187
Frequent asked questions	6.50	1.147	6.74	0.554	2.968	0.09	-1.064	56	0.292	-0.237	0.223	-0.683	0.209
Feedback forum	6.45	0.887	6.24	0.913	0.126	0.724	0.853	56	0.397	0.213	0.250	-0.287	0.714
Fax Number	5.20	1.963	5.42	1.638	0.610	0.438	-0.456	56	0.650	-0.221	0.485	-1.192	0.750
Contact person	3.60	2.113	4.13	1.891	0.647	0.425	-0.977	56	0.333	-0.532	0.544	-1.621	0.558

Note: Importance scale: 7 = very important, 6 = important, 5 = somewhat important, 4 = neither important nor unimportant, 3 = somewhat unimportant, 2 = unimportant, 1 = very unimportant.

Two attributes in this dimension show significant difference in perception between online purchasers and online browsers: Address information and Frequent asked questions capability. Both attributes were considered less important by online buyers. It can be explained by the possible online browsers' lack of experience that leads them to be more interested in getting as much communication as possible.

The dimension of surrounding area information was for information related to the nearby environment. This dimension consisted of five attributes, and Table 6 presents the perceptions of respondents on these attributes.

**Table 6**

**Perceptions of Online Browsers and Online Purchasers on the Importance of Attributes in Surrounding Area Information**

Variable	Have You Made Reservations on Any Hotel Website(s) in the Past 12 Months?												
	Yes (n = 20)		No (n = 38)		Levene's Test for		t-test for Equality of Means						
	Mean	Std. Dev.	Mean	Std. Dev.	F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Confidence Interval	
Transportation	6.35	0.813	6.24	1.025	0.343	0.56	0.427	56	0.671	0.113	0.265	-0.417	0.643
Main attractions of the city	6.30	0.801	6.55	1.005	0.025	0.875	-0.972	56	0.335	-0.253	0.260	-0.773	0.268
Airport information	6.00	1.556	6.87	1.398	0.091	0.764	0.328	56	0.744	0.132	0.402	-0.673	0.936
General information about the city	5.90	1.252	6.05	1.064	0.497	0.484	-0.488	56	0.627	-0.153	0.313	-0.779	0.474
Information on local public holidays	5.40	1.353	5.58	1.426	0.034	0.855	-0.462	56	0.646	-0.179	0.387	-0.955	0.597

In general, respondents considered all attributes as important (with mean scores over 5.0). The attributes of main attractions of the city and transportation had attained significant differences in mean scores between online purchasers and online browsers. Information on main attractions of the city seems to be more important for online browsers. Such significant difference could be due to the online browsers' desire for all types of information of a destination. On the other hand, transportation appears to be more important for online buyers indicating their interest in evaluating different transportation alternatives to chose from.

The seventh dimension, Website management, included five attributes that were related to whether a Website could be maintained in an efficient and effective way for customers to access the relevant and up-to-date information.

**Table 7**

**Perceptions of Online Browsers and Online Purchasers on the Importance of Attributes in Website Management**

Variable	Have You Made Reservations on Any Hotel Website(s) in the Past 12 Months?												
	Yes (n = 20)		No (n = 38)		Levene's Test for		t-test for Equality of Means						
	Mean	Std. Dev.	Mean	Std. Dev.	F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Confidence Interval	
Up-to-date information on the site	6.85	0.366	6.71	0.694	3.272	0.076	0.837	56	0.406	0.139	0.167	-0.194	0.473
Website download time	6.75	0.444	6.66	0.708	2.382	0.128	0.528	56	0.599	0.092	0.174	-0.257	0.441
Multilingual site	6.20	1.056	6.16	1.151	0.511	0.478	0.136	56	0.892	0.042	0.309	-0.578	0.662
Site map	5.80	1.281	6.03	1.385	0.249	0.62	-0.607	56	0.547	-0.226	0.373	-0.974	0.521
Links to other related businesses	5.25	1.517	5.53	1.517	0.105	0.747	-0.605	56	0.548	-0.276	0.457	-1.192	0.639

Both online purchasers and online browsers considered all attribute as important with mean scores over 5.0, as can be seen in Table 7. Two attributes in this dimension show significant difference in perception between online purchasers and online browsers: Up-to-date information of the site and Website download time, showing a more exigent customer in those who buy online.

In a study-wide discussion of the results, it can be stated that findings in this research indicated that there was no significant difference between online purchasers and online browsers in the importance ratings for most of the included hotel Website dimensions and attributes. Because more than sixty percent of hotel Website users were online browsers and the two groups had similar views on the hotel Website attributes, hotel practitioners could focus on the most important dimensions and attributes in Website design and maintenance, and they probably do not need to treat these two groups of Website users differently.

### **Conclusions and further research**

This study's findings contribute to the present body of knowledge; and also highlight Web site quality dimensions that customers utilize in their assessment of overall online satisfaction. Research findings indicated that most hotel Website viewed most of the included Website features as important. As most international hotel chains have been trying to regain control of their own distribution systems on Websites by offering competitive rates and attractive Web pages; Dube, Le Bel, and Sears (2003) agreed that hotels needed to appeal to the senses of their guests on web pages that invoke pleasant experiences. This study, therefore, contributed to the hotel industry by providing useful information about the preferences of hotel Website dimensions and attributes from the perspective of Mexican hotel online purchasers and online browsers. Hotel managers can then take these preferences into consideration when developing their Websites, and attempt to maintain the useful and attractive contents of the vital attributes. Although the study findings are useful for hotel practitioners and academic researchers to better understand e-consumers' purchasing and information searching preferences, this research was limited in scope of time span and sample size. Considering the exploratory nature of this study, it is difficult for this article to make any claim about the generalization issue to the hotel industry at large. It is, therefore, inappropriate to make any generalized conclusions based on the research findings. In addition to repeating the study with a larger sample, future research projects should be carried out to enhance the results of this exploratory study and to scrutinize the many unanswered questions, for example, evaluating hotel

Websites attributes appealed by online buyers and browsers based on star rating, finding more attributes valuable to online buyers and browsers, and so on.

## REFERENCES

- Bernstein, J., & Awe, S. C. (1999). Wired travellers: Travel and tourism Web sites. *Reference Services Review*, 27 (4), 364-375.
- Bonn, M. A., Furr, H. L., & Susskind, A. M. (1998). Using the Internet as a pleasure travel-planning tool: An examination of the socio-demographic and behavioural characteristics among Internet users and nonusers. *Journal of Hospitality & Tourism Research*, 22 (3), 303-317.
- Buhalis, D., & Licata, M. C. (2002). The future of eTourism intermediaries. *Tourism Management*, 23 (3), 207-220.
- Buhalis, D., & Main, H. (1998). Information Technology in Peripheral Small and Medium Hospitality Enterprises: Strategic Analysis and Critical Factors. *International Journal of Contemporary Hospitality Management*, 10 (5), 198–202.
- Cano, V., & Prentice, R. (1998). Opportunities for endearment to place through electronic “visiting”: WWW home pages and the tourism promotion of Scotland. *Tourism Management*, 19 (1), 67-74.
- Chen, J. S., & Gursoy, D. (2000). Cross-cultural comparison of the information sources used by first-time and repeat travelers and its marketing implications. *International Journal of Hospitality Management*, 19 (2), 191-203.
- Chung, T., & Law, R. (2003). Developing a performance indicator for hotel Websites. *International Journal of Hospitality Management*, 22 (1), 119-125.
- Connolly, D. J., Olsen, M. D., & Moore, R. G. (1998). The Internet as a distribution channel. *Cornell Hotel and Restaurant Administration Quarterly*, 34 (9), 42-54.
- Connolly, D. (2000). Strategic Investment in Hotel Global Distribution Systems. *Trends 2000, the 5th Outdoor Recreation & Tourism Trend Symposium, “Shaping the Future,”* 25-37. Recuperado de [www.prr.msu.edu/trends2000/pdf/connolly.pdf](http://www.prr.msu.edu/trends2000/pdf/connolly.pdf).
- Cox, B. (1 de Agosto de 2002). *Online travel: Still an E-commerce star?* Recuperado de <http://www.internetnews.com/ec-news/article.php/1437521>
- Dev, C. S., & Olsen, M. (2000). Marketing Challenges for the Next Decade. *Cornell Hotel and Restaurant Administration Quarterly*, 42 (1), 41-49.

- Dossa, K. B., & Williams, P. (2001). Assessing the use of Internet surveys in the context of advertisement tracking studies: A case study of tourism Yukon's winter promotion campaign. *Journal of Travel & Tourism Marketing*, 2 (3), 39-62.
- Dube, L., Le Bel, J., & Sears, D. (2003). From customer value to engineering pleasurable experiences in real life and online. *The Cornell Hotel and Restaurant Administration*, 44 (5/6), 124-130.
- Gee, C. Y., Makens, J. C., & Choy, D. J. (2nd.). (1989). *The travel industry*. New York, New York, USA: Van Nostrand Reinhold.
- Hannes, W., & Ricci, F. (2004). E-Commerce and tourism. *Communications of the ACM*, 47 (12), 25-34.
- Hatcher, L. (1994). *A step-by-step approach to using the SAS system for factor analysis*. Gary, NC: SAS Institute.
- Huizingh, E. K. (2000). The content and design of Web sites: An empirical study. *Information & Management*, 37 (3), 123-134.
- Jeong, M. (2002). Evaluating value-added lodging Web sites from customers' perspectives. *International Journal of Hospitality & Tourism Administration*, 3 (1), 49-60.
- Kasavana, M. L., Knutson, B. J., & Polonowski, S. J. (1997). Netlurking: The future of hospitality Internet marketing. *Journal of Hospitality & Leisure Marketing*, 5 (1), 31-44.
- Kim, J., & Moon, J. Y. (1998). Designing towards emotional usability in customer interfaces. *Interacting with Computers*, 10 (1), 1-29.
- Kozak, M., & Rimmington, M. (1999). Measuring tourist destination competitiveness: Conceptual considerations and empirical findings. *International Journal of Hospitality Management*, 18 (3), 273-283.
- Law, R., & Chung, T. (2003). Website performance: Hong Kong hotels. *FIU Hospitality Review*, 21 (1), 33-46.
- Law, R., & Hsu, C. C. (2006). Importance of Hotel Website dimensions and attributes: perceptions of online browsers and online purchasers. *Journal of Hospitality & Tourism Research*, 30 (3), 295-312.
- Lee, P. M. (2002). Behavioral model of online purchasers in e-commerce environment. *Electronic Commerce Research*, 1 (2), 75-85.
- Liang, K., & Law, R. (2003). A modified functionality performance evaluation model for evaluating the performance of China based hotel Websites. *Journal of Academy of Business and Economics*, 2 (2), 193-208.
- Lu, M. T., & Yeung, W. L. (1998). A framework for effective commercial web application development. *Internet Research*, 8 (2), 166-173.

- Lubetkin, M. (1999). Bed-and-breakfasts: Advertising and promotion. *Cornell Hotel and Restaurant Administration Quarterly*, 40 (4), 84-90.
- Mader, R. (1999). Ecotourism research and promotion on the Web: Experiences and insights. *Journal of Vacation Marketing*, 2 (3), 78-79.
- Morrison, A. M., Taylor, S., Morrison, A. J., et. all. (1999). Marketing small hotels on the World Wide Web. *Information Technology & Tourism*, 2 (2), 97-113.
- Motulsky, H. (1995). *Intuitive biostatistics*. New York: Oxford University Press.
- Muijs, D. (2004). *Doing quantitative research in education with SPSS*. London: Sage.
- Murphy, J., Forrest, E. J., Wotring, C. E., et. all . (1996). Hotel management and marketing on the Internet. *Cornell Hotel and Restaurant Administration Quarterly*, 37 (5), 70-82.
- Murphy, J., Hofacker, C. F., & Bennett, M. Website-generated market-research data: Tracing the tracks left behind by visitors. *The Cornell Hotel and Restaurant Administration Quarterly*, 42 (1), 82-91.
- Nunnally, J. C., & Bernstein, I. (3rd.). (1994 ). *Psychometric Theory*. New York, New York, USA: McGraw-Hill.
- O'Connor, O. (2003). On-line pricing: An analysis of hotel-company practices. *Cornell Hotel and Restaurant Administration Quarterly*, 44 (1), 88-96.
- O'Connor, P., & Frew, A. J. (2002). The future of hotel electronic distribution: Expert and industry perspectives. *The Cornell Hotel and Restaurant Administration Quarterly*, 43 (3), 33-45.
- O'Connor, P., & Horan, P. (1999). An analysis of Web reservation facilities in the top 50 international hotel chains. *International Journal of Hospitality Information Technology*, 1 (1), 77-85.
- Olsen, M. D., & Connolly, D. J. (2000). Experience-based Travel. *Cornell Hotel and Restaurant Administration Quarterly*, 41 (1), 30-40.
- Porter, M. (2001). Strategy and the Internet. *Harvard Business Review*, 79 (3), 63–77.
- Preston, C. C., & Colman, A. M. (2000). Optimal number of response categories in rating scales: Reliability, validity, discriminating power, and respondent preferences. *Acta Psychologica*, 104 (1), 1-15.
- Procaccino, J. D., & Miller, F. R. (1999). Tourism on the World Wide Web: A comparison of Web sites of United States and French-based business. *Information Technology & Tourism*, 3 (4), 173-183.
- Raymond, L. (2001). Determinants of Web-site Implementation in Small Businesses. *Internet Research: Electronic Networking Applications and Policy*, 11 (5), 411–422.

- Rhodes, J. S. (1 de Octubre de 1998). *How to gain the trust of your users*. Recuperado de <http://webword.com/moving/trust.html>
- Rittichainuwat, B. N., Qu, H., & Leong, J. K. (2003). The collective impacts of a bundle of travel determinants on repeat visitation. *Journal of Hospitality & Tourism Research*, 27 (2), 217-236.
- Roy, M. C., Dewit, O., & Aubert, B. A. (2001). The impact of interface usability on trust in Web retailers. *Internet Research*, 11 (1), 388-398.
- Selvidge, P. R., Chaparro, B. S., & Bender, G. T. (2002). The world wide wait: Effects of delays on user performance. *International Journal of Industrial Ergonomics*, 29 (1), 15-20.
- Shankar, V., Smith, A. K., & Rangaswamy, A. (2003). Customer satisfaction and loyaltyin online and offline environments. *International Journal of Research in Marketing*, 20 (2), 153-175.
- Toms, E. G., & Taves, A. R. (2004). Measuring user perceptions of Web site reputation. *Information Processing & Management*, 40 (2), 291-317.
- Weber, K., & Roehl, W. S. (1999). Profiling people searching for and purchasing travel products on the World Wide Web. *Journal of Travel Research*, 37 (3), 291-298.
- Weeks, P., & Crouch, I. (1999). Sites for sore eyes: An analysis of Australian tourism and hospitality Web sites. *Information Technology & Tourism*, 3 (4), 153-172.

#### Annex 1. - Questionnaire

**Universidad de Guadalajara**  
*Universidad de Occidente – Instituto Tecnológico de Tepic*  
 Verano de la investigación científica Delfín 2010  
**“Use of e-commerce in the hospitality sector in Mexico”**

#### A) PSICODEMOGRAPHIC INFORMATION

Gender	Male	Female	Age:
--------	------	--------	------

##### Education

1.     Junior High [ ] B) High School [ ]     C) College/University Degree [ ]     D)  
 Graduate studies [ ]

##### Income (Mexican Pesos/Month)

- a) Less than 5,000     [ ]
- b) 5,0001 a 10,000     [ ]
- c) 10,001 a 15,000     [ ]
- d) 15,001 a 20,000     [ ]
- e) 20,001 or more     [ ]

2. Have you made online hotel reservations in the last 12 months?

Yes [ ]

No [ ]

#### A) RESERVATIONS INFORMATION

How important is for you each of the following in a hotel's Website?

Attribute	1	2	3	4	5	6	7
1. Security payment systems							
2. Room rates							
3. Online/real time reservations							
4. Check rates and availability							
5. View or cancel reservations							
6. Check in and checkout time							
7. Worldwide reservations phone number							
8. Reservations policies							
9. Special request forms							

#### B) FACILITIES INFORMATION

How important is for you each of the following in a hotel's Website?

Attribute	1	2	3	4	5	6	7
1. Hotel location maps							
2. Hotel promotions							
3. Hotel description							
4. Photos of hotel features							
5. Virtual tours							
6. Restaurants							
7. Hotel facilities							
8. Frequent guest programs							
9. Guest room facilities							
10. Meeting facilities							
11. Employment opportunities							

#### C) SURROUNDING AREA INFORMATION

How important is for you each of the following in a hotel's Website?

Attribute	1	2	3	4	5	6	7
1. Transportation							
2. Main attractions of the city							
3. Airport information							
4. General information around the city							
5. Information on local public holydays							

#### D) CONTACT INFORMATION

How important is for you each of the following in a hotel's Website?

Attribute	1	2	3	4	5	6	7
1. Telephone number							
2. Email address							
3. Address							
4. Fax number							
5. Frequent asked questions							
6. Feedback forum							
7. Contact person							

#### **E) WEBSITE MANAGEMENT**

How important is for you each of the following in a hotel's Website?

Attribute	1	2	3	4	5	6	7
1. Up-to-date information of the site							
2. Website download time							
3. Multilingual site							
4. Site map							
5. Links to other related businesses							