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Common Practices in Destination Website Design

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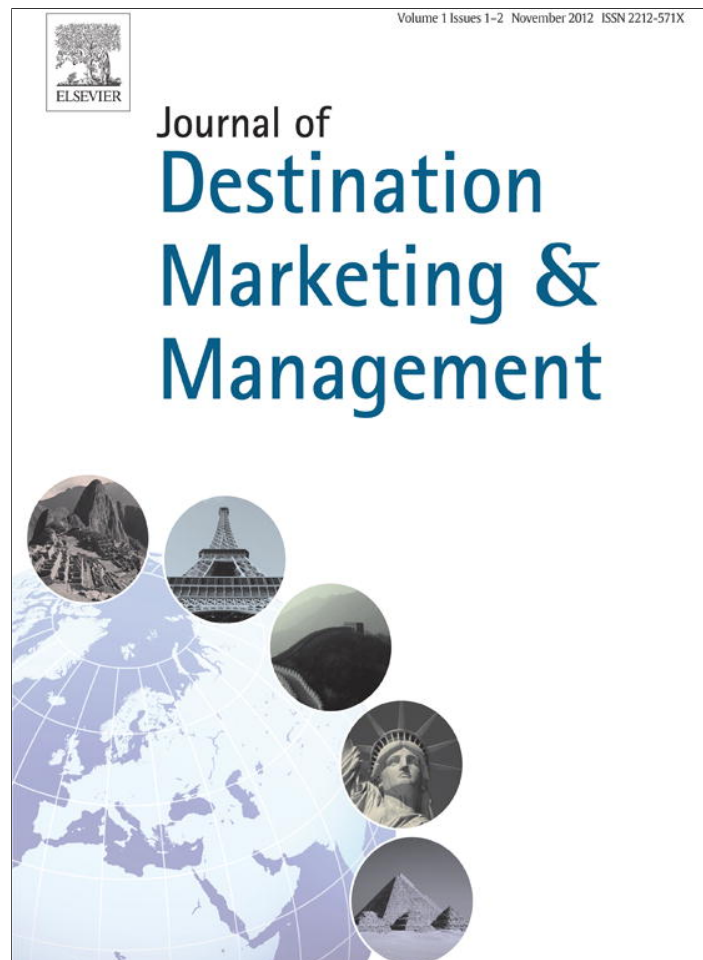
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Research Paper

Common practices in destination website design

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ABSTRACT

The Internet has become a key marketing channel for tourist destinations. To identify typical features of destination websites, a content analysis of websites for top global destinations—by number of international arrivals—was conducted. Six factors were evaluated: primary focus, navigation and interactivity, visual and presentation style, textual information, use of advertising, and use of social media and travel aids. In addition, a cluster analysis was conducted to identify homogeneous groups of websites in the sample. The findings revealed three naturally occurring groups. Inter-cluster differences suggest that DMOs use different approaches to target potential visitors, as evidenced by websites ranging from purely informative and simply designed to highly commerce-oriented and visually alluring. Based on the exploratory analyses, a conventional wisdom for destination website design is proposed.

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1. Introduction

Tourism and travel services represent one of the largest and fastest growing economic sectors. In 2009, the tourism and travel industry employed more than 235 million people (8.2% of total worldwide employment) and generated 9.4% of world GDP, with forecasted growth of 0.2 percent from 2010 to 2020 (i.e. more than 300 million jobs, 9.2% of total worldwide employment) (World Travel and Tourism Council, 2010). International tourist arrivals have grown steadily from 25 million in 1950 to 684 million in 2000 (World Tourism Organization, 2009). Despite a global economic crisis that depressed tourism in the last years, international tourist arrivals grew to 980 million in 2011, which represented a 4.4% increase relative to 2010, and are expected to reach one billion in 2012 (World Tourism Organization, 2012).

The Internet has radically transformed the tourism and travel industry. Among Internet users, 95% have searched the World Wide Web (WWW) to gather travel-related information and 93% have visited a destination website; of the latter group, roughly half have used e-mail to gather information about a destination (Lehto, Kim, & Morrison, 2006). The increasing popularity of online commercial transactions has spurred destination marketing organizations (DMOs) to adopt the WWW as their primary marketing channel (Law, Qi, & Buhalis, 2010).

DMOs promote and market a specific destination—a city, state, region, or country—to potential travelers (Choi, Lehto, & O'Leary, 2007). DMOs may be classified as *national*, *regional*, or *local*: *national* DMOs are tourism authorities or organizations that market a country; *regional* DMOs focus on promoting a region, province, or state; and *local* DMOs market a small geographic area like a city or town (Li & Wang, 2010). Regardless of scope, most DMOs develop their own website (Kim & Fesenmaier, 2008). Effective destination websites allow visitors to obtain relevant information, navigate through different textual and graphic elements, and form a virtual first impression (Palmer & McCole, 2000).

The WWW poses both opportunities and challenges for DMOs (Gretzel, Fesenmaier, Formica, & O'Leary, 2006). Although destination websites can reach potential tourists quickly and directly, their efficacy depends on capturing visitors' attention long enough to tell the destination's story. Hence, DMOs must design websites that meet potential tourists' information needs via an enjoyable virtual experience. Successful websites will appeal to visitors' emotions, needs, and interests, capture visitors' attention, and differentiate the featured destination from other destinations (Park & Gretzel, 2007).

DMOs should refine their websites for two reasons: (1) as the main interface between a destination and potential tourists, WWW users believe such websites represent destinations, and (2) such websites allow visitors to evaluate the products, services, and experiences (e.g. events, attractions, places to visit, culture) offered by a destination (Kim, Shaw, & Schneider, 2003). A highly functional, enlightening, and appealing website would encourage and facilitate destination visits. Ideally, a benchmarking study

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would identify *best practices* that would inform destination website refinement. However, such studies require meaningful performance data, which in this case are precluded by numerous confounds (e.g. weather, natural disasters, political turmoil, economic conditions).

Instead, a content analysis meant to identify the most common features of websites of top global destinations—by number of international arrivals—is a plausible alternative, as it would reveal the current conventional wisdom about the best design for such sites. Hence, the goals of this research are (1) to identify and evaluate the most common practices in destination website design worldwide, and (2) to identify and describe latent segments (clusters) of destination websites based on design and feature differences. The exposition proceeds as follows. After an overview of online search processes and *website first impression*, aesthetics and benchmarking, as they pertain to destination websites, are discussed. Then, a content analysis and a cluster analysis of destination websites are described and the results are presented. Finally, managerial implications and study limitations are discussed.

2. Literature review

2.1. Online search and website first impression

Travel planners seeking online information about a destination may choose one of the following strategies: (1) to formulate a query by entering destination-related keywords in a search engine (e.g. Google), or (2) to access directly the destination website by typing a previously determined web address (URL). In the absence of previous knowledge about the destination, most travel planners opt for the former alternative and perform an online information search. As Fig. 1 shows, online information search proceeds in three stages: *search*, *primacy*, and *elaboration* (Kim & Fesenmaier, 2008). During the *search stage*, people use their knowledge and expertise to identify keywords for retrieving information with a search engine. After receiving the first page of search engine hits, people enter the *primacy stage*, during which they select and visit promising websites. Based on first impressions created by a homepage, visitors either explore or depart websites during the *elaboration stage*. Visitors who encounter an unhelpful or suspect website are likely to exit it, return to their search engine results, and follow subsequently listed hyperlinks until they obtain desired information.

People often develop an initial impression of an object or person within two to seven seconds (Kim, Hwang, & Fesenmaier, 2005) and can assess a website's visual appeal within 50 ms (Lindgaard, Fernandes, Dudek, & Brown, 2006). Because visitors form website impressions within several seconds, destination websites should 'evoke a favorable initial impression at the moment when information searchers access it, because they can easily leave the site through one-time click to find another potentially more persuasive website' (Kim & Fesenmaier, 2008, p. 8). A positive first impression can desensitize visitors to deficient secondary elements (e.g. links to internal or external items), thus boosting total assessments (Lindgaard et al., 2006).

In contrast, recapturing the attention of visitors who formed a negative first impression is problematic.

First impression and halo effect (i.e. the tendency to transfer the positive/negative evaluations of one or more characteristics of the website to other, possibly unrelated, attributes of the same website) are related, as first impressions influence overall judgments of objects and people (Tetlock, 1983). Clearly, the multimedia elements (i.e. image, audio, animation, and video) of homepages influence first impressions of websites, as they provide rich cues that facilitate information retention, can attract attention, and encourage website exploration (Lim, Benbasat, & Ward, 2000). Such elements encourage visitors to believe that they can make more informed travel decisions because they received information that is original, unambiguous, and consistent with the destination's attributes.

Trust also influences first impression formation. Visitors who believe a website is of high quality and usability 'will more likely have high trusting beliefs about the vendor's competence, integrity and benevolence, and will develop a willingness to depend on the vendor' (McKnight, Choudhury, & Kacmar, 2002, p. 307). If visitors view a destination website as non-credible, then it may damage the image and subsequently the economic performance of the destination (Baggio, 2003).

2.2. Aesthetics and website design

Users' perceptions of website aesthetics can be divided into two categories: *classical* and *expressive* (Lavie & Tractinsky, 2004). *Classical aesthetics* refers to notions and theories developed in antiquity; when applied to website design, it pertains to visual clarity (e.g. clean, clear, symmetrical). *Expressive aesthetics* refers to originality, creativity and breaking with convention (e.g. special effects, sophistication).

Aesthetic features of websites are 'visual items that can raise the interests of online travelers such as pictures, colors and graphical layout' (Han & Mills, 2006, p. 414). Such items may enhance (1) visual appeal and information transfer (e.g. attraction photographs, logos, and slogans; colors that match logos; destination-related backgrounds; online video clips; newsletters and brochures), and (2) visitors' experiences and website reliability (e.g. site map, home buttons, search tools, memorable URL, non-graphical version, accurate links, correct spelling, clear and readable text, and organized layout). One instrument for assessing user-perceived website quality includes the following aesthetic-related attributes: attractiveness, distinctive hot buttons, changing look, organization, proper use of fonts, proper use of colors, proper use of graphics, graphic-text balance, proper use of multimedia, style consistency, proper choice of page length, good labeling, text-only position, proper use of language/style, and color consistency (Aladwani & Palvia, 2002).

2.3. Benchmarking and website design

Benchmarking is the process of discovering the *best practices* for products, services, and processes in an industry, with the goal of

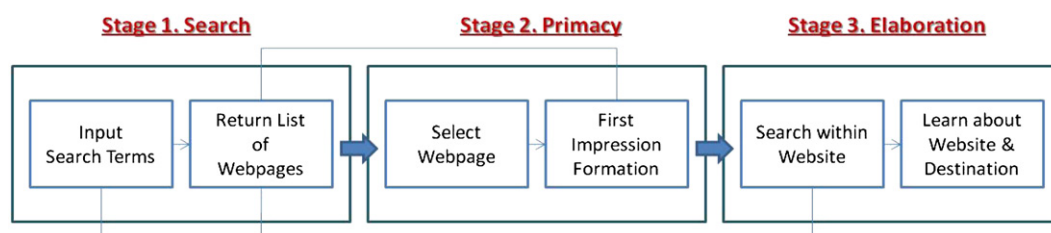


Fig. 1. Online search for travel planning information (Kim & Fesenmaier, 2008).

integrating such practices into a firm's operations (Bhutta & Huq, 1999). Organizations commonly use benchmarking to improve their marketing, human resources, quality management, operations management, and information systems. The main advantage of benchmarking is that managers can easily identify potential improvements and implement them (Misić & Johnson, 1999).

Benchmarking can help identify web design standards for improved online promotional strategies. Companies that use the Internet to communicate with consumers must consider their website as critical to capturing attention and molding favorable company- and product-related attitudes (Kim et al., 2003). A poorly constructed website can foster negative beliefs that encourage website departure and alternative seeking; 50% of potential sales from a website are lost when consumers cannot find desired product information, and 40% of consumers never return to a website after a negative experience (Manning, McCarthy, & Souza, 1998).

Yet, there are no formal metrics for assessing destination website efficacy, in part because prior studies evaluated different attributes for websites of different scope (i.e. national, regional, and local). For example, US and Canadian tourists believed the most engaging and relevant content for city destination websites relayed information about accommodations, deals, events, tourist attractions/sightseeing, activities, nightlife, tourism bureaus, weather, and culture; maps and location identifiers also were important (Choi et al., 2007). Western tourists that queried about Taiwanese destination websites reported the key attributes were download speed, graphics/images, relevant destination information (about monuments, cultural sites, cultural events, and the like), maps and itineraries, hotel booking services, and travel agent contacts (Davidson & Yu, 2005). However, researchers have investigated some aspects of tourism-related websites more extensively; a meta-analysis of 153 studies indicates that the most commonly evaluated aspects of such websites have been ease of use, responsiveness, fulfillment, security/privacy, personalization, visual appearance, information quality, trust, and interactivity (Park & Gretzel, 2007).

Prerequisite to designing a successful destination website, DMOs must define critical elements, including operational factors (e.g. functionality, usability) and visual elements (e.g. graphics, multimedia, layout). To that end, a content analysis of destination websites can suggest current *best design* practices.

3. Content analysis methodology

3.1. Destination website sample

Websites for the 235 top global destinations—by number of international arrivals in 2008—were identified via a search of official tourism websites (Tourism-Review.com, 2010). The list of destinations was obtained from the 2009 edition of Euromonitor International's Top City Destination Ranking. This report collates international arrivals data from official tourism sources, such as the World Tourism Organization (UNWTO), the European Travel Commission (ETC), national tourist offices, statistics offices, and travel operators. International arrivals are 'visitors from abroad that arrive at the city under review as their first point of entry, or visitors that arrive in the country via a different point of entry, but then go on to visit the city in question during their trip' (Tourism-Review.com, 2010, p. 5). Under this definition, domestic visitors, same-day visitors, transit and cruise passengers, people in paid employment abroad, students who remain in a country for more than 12 months, military personnel, transportation crews, and displaced people (due to war or natural disaster) are excluded.

In addition, 27 city destination websites—from a list of the top 100 world destinations in 2008 (Tripadvisor.com, 2008)—were included. (The remaining 73 destinations were either non-city

destinations [e.g. beach and ski resorts] or already included.) The final pool included 262 websites—listed in Table 1—and is comparable in size to previous content analyses of websites (McMillan, 2000).

3.2. Variables measurement

Destination website homepage (i.e. first page presented when entering a website) is the unit of analysis. Because destination websites vary by amount of information, navigation structure, and depth (i.e. the number and amount of information on secondary pages), the homepage is the most consistent inter-website unit. Thus, destination website homepages were coded for content analysis.

After reviewing the relevant literature and conducting an exploratory analysis of 50 destination websites excluded from subsequent analysis, the authors developed a codebook with 26 variables that fall into six broad categories. Again, the lack of established metrics means that many of the intra-variable classifications are atheoretical; in essence, they reflect *high* versus *low* or *high* versus *medium* versus *low*.

- 1) *Primary focus*. A destination website is predominantly informative, predominantly commercial, or informative-commercial. *Predominantly informative* websites offer details about a destination, such as cultural aspects, places to visit, local news, weather, or travel planning. However, such sites permit no more than two commercial transactions (e.g. booking a hotel room, renting a car, buying tickets for a local event). In contrast, *predominantly commercial* websites permit five or more commercial transactions presented in a way that stress their availability. Informative-commercial websites provide a mix of destination information and commercial transactions.
- 2) *Visual and presentation style*. This category includes the following variables:
 - a) Page size, which is divided into *small* (i.e. page length less than or equal to two screens using a 1024 × 768 pixel resolution) or *large* (i.e. page length more than two screens).
 - b) Page layout, which is divided into *balanced* (i.e. elements on left- and right-hand sides seem equally weighted) or *unbalanced* (Chang, Dooley, & Tuovinen, 2001).
 - c) Number of images, operationally defined as *few* (i.e. fewer than or equal to five) or *many*.
 - d) Presence or absence of destination brand (i.e. logo), animated images, animated buttons (i.e. menu items), pop-up images, audio, and video.
- 3) *Navigation and interactivity*. Navigation entails the presence or absence of a site map, a search tool, and alternative languages. Website interactivity may be classified as *low* (i.e. main menu with 0 to 5 links), *medium* (i.e. main menu with 6 to 10 links), or *high* (i.e. main menu with more than 10 links).
- 4) *Textual information*. This category includes three variables: homepage title, number of keywords on page title, and text length. Homepage title refers to words and characters that appear at the top of a webpage (e.g. title bar); it is the link shown in search engine results (e.g. Google). Text length is operationalized as either *few words* (i.e. text covering ≤ 25% of screen) or *many words* (i.e. text covering > 25% of screen).
- 5) *Advertising*. This category assesses banner ads only. For websites with at least one ad, the main ad (i.e. the largest ad or the uppermost ad if all ads are equal sized) may be coded for (a) presence of animation, (b) type of advertised product (tourism or non-tourism related), and (c) size (*small* if size is ≤ 1/8th of screen, or *large* if size is > 1/8th of screen).
- 6) *Social media and travel aids*. Websites may be coded for presence of social media tools and other travel aids (e.g. city map, weather information, calendar of events, hotel booking service).

Table 1
List of city destination websites.

Rank	City destination	Country
1	London	United Kingdom
2	New York City	United States
3	Bangkok	Thailand
4	Singapore	Singapore
5	Kuala Lumpur	Malaysia
6	Paris	France
7	Antalya	Turkey
8	Dubai	United Arab Emirates
9	Honk Kong	China
10	Istanbul	Turkey
11	Mecca	Saudi Arabia
12	Miami	United States
13	Toronto	Canada
14	Rome	Italia
15	Shanghai	China
16	Los Angeles	United States
17	Las Vegas	United States
18	Barcelona	Spain
19	Dublin	Ireland
20	Amsterdam	Netherlands
21	Macau	China
22	Moscow	Russian Federation
23	Pattaya	Thailand
24	Cairo	Egypt
25	Prague	Czech Republic
26	Guangzhou	China
27	Kiev	Ukraine
28	Vienna	Austria
29	Madrid	Spain
30	Beijing	China
31	Phuket	Thailand
32	San Francisco	United States
33	Shenzen	China
34	Bucharest	Romania
35	Vancouver	Canada
36	Taipei	China
37	Orlando	United States
38	Budapest	Hungary
39	Mugla	Turkey
40	Rio de Janeiro	Brazil
41	Berlin	Germany
42	Tokyo	Japan
43	Mexico City	Mexico
44	Montreal	Canada
45	Edirne	Turkey
46	Brussels	Belgium
47	Buenos Aires	Argentina
48	St Petersburg	Russian Federation
49	Seoul	Korea
50	Athens	Greece
51	Jerusalem	Israel
52	Seattle	United States
53	Delhi	India
54	Sydney	Australia
55	Mumbai	India
56	Munich	Germany
57	Cancun	Mexico
58	Denpasar	Indonesia
59	Warsaw	Poland
60	Sharm el Sheikh	Egypt
61	Ho Chi Minh	Vietnam
62	Milan	Italy
63	Oslo	Norway
64	Chennai	India
65	Lisbon	Portugal
66	Punta Cana	Dominican Republic
67	Johannesburg	South Africa
68	Venice	Italy
69	Florence	Italy
70	Tel Aviv	Israel
71	Burgas	Bulgaria
72	Sao Paulo	Brazil
73	Marrakech	Morocco
74	Agra	India
75	Varna	Bulgaria

Table 1 (continued)

Rank	City destination	Country
76	Riyadh	Saudi Arabia
77	Jakarta	Indonesia
78	Chiang Mai	Thailand
79	Auckland	New Zealand
80	Jaipur	India
81	Calgary	Canada
82	Cape Town	South Africa
83	Hurghada	Egypt
84	Frankfurt/Main	Germany
85	Washington DC	United States
86	Chicago	United States
87	Hangzhou	China
88	Honolulu	United States
89	Edinburgh	United Kingdom
90	Abu Dhabi	United Arab Emirates
91	Kolkata	India
92	Wellington	New Zealand
93	Christchurch	New Zealand
94	Halong Bay	Vietnam
95	Nice	France
96	Minsk	Belarus
97	Manchester	United Kingdom
98	Zurich	Switzerland
99	Suzhou	China
100	Varadero	Cuba
101	Hanoi	Vietnam
102	Copenhagen	Denmark
103	Palma de Mallorca	Spain
104	Guilin	China
105	Boston	United States
106	Lima	Peru
107	Stockholm	Sweden
108	Alexandria	Egypt
109	Krakow	Poland
110	Rotterdam	Netherlands
111	Luxor	Egypt
112	Birmingham	United Kingdom
113	Sharjah	United Arab Emirates
114	Tallinn	Estonia
115	Cuzco	Peru
116	Melbourne	Australia
117	Havana	Cuba
118	Osaka	Japan
119	Helsinki	Finland
120	Santiago	Chile
121	Lyon	France
122	Sevilla	Spain
123	Tianjin	China
124	Nanjing	China
125	Salzburg	Austria
126	Manila	Philippines
127	Xi'an	China
128	Kyoto	Japan
129	Cebu	Philippines
130	Cologne	Germany
131	Hamburg	Germany
132	Glasgow	United Kingdom
133	Granada	Spain
134	Geneva	Switzerland
135	Poznan	Poland
136	Dalian	China
137	Mombasa	Kenya
138	Valencia	Spain
139	Salvador de Bahia	Brazil
140	San Diego	United States
141	Bruges	Belgium
142	Antwerp	Belgium
143	Dusseldorf	Germany
144	Liverpool	United Kingdom
145	Bogota	Colombia
146	Casablanca	Morocco
147	Wuxi	China
148	Porto	Portugal
149	Gdansk	Poland
150	Foz do Iguacu	Brazil
151	Innsbruck	Austria

Table 1 (continued)

Rank	City destination	Country
152	Leeds	United Kingdom
153	Goteborg	Sweden
154	Houston	United States
155	Atlanta	United States
156	Bristol	United Kingdom
157	Bratislava	Slovakia
158	Oxford	United Kingdom
159	Dubrovnik	Croatia
160	Yokohama	Japan
161	Lucerne	Switzerland
162	Zagreb	Croatia
163	San Jose	Costa Rica
164	Quito	Ecuador
165	Goa	India
166	Luxembourg City	Luxembourg
167	Aix-en-Provence	France
168	Reykjavik	Iceland
169	Tangier	Morocco
170	Caracas	Venezuela
171	Lille	France
172	Naples	Italy
173	York	United Kingdom
174	Stuttgart	Germany
175	Belgrade	Serbia
176	Dallas	United States
177	Fortaleza	Brazil
178	Cardiff	United Kingdom
179	Ljubljana	Slovenia
180	Nuremberg	Germany
181	Cambridge	United Kingdom
182	Montevideo	Uruguay
183	Monaco	Monaco
184	Fes	Morocco
185	Kamakura	Japan
186	Basel	Switzerland
187	Newcastle-Tyne	United Kingdom
188	Palermo	Italy
189	Sapporo	Japan
190	Rabat	Morocco
191	Rhodes	Greece
192	Cordoba	Spain
193	Verona	Italy
194	Rimini	Italy
195	Malaga	Spain
196	Bologna	Italy
197	Ghent	Belgium
198	Fukuoka	Japan
199	Brighton	United Kingdom
200	Dijon	France
201	La Paz	Bolivia
202	Inverness	United Kingdom
203	Reims	France
204	Bath	United Kingdom
205	Genova	Italy
206	Heidelberg	Germany
207	Alicante	Spain
208	Turin	Italy
209	Blackpool	United Kingdom
210	Bilbao	Spain
211	Dresden	Germany
212	Udaipur	India
213	Nottingham	United Kingdom
214	Lausanne	Switzerland
215	Santiago de Compostela	Spain
216	Strasbourg	France
217	Stavanger	Norway
218	Thessaloniki	Greece
219	Graz	Austria
220	Bergen	Norway
221	Bern	Switzerland
222	Reading	United Kingdom
223	Sheffield	United Kingdom
224	Linz	Austria
225	Aberdeen	United Kingdom
226	Bordeaux	France
227	Avignon	France

Table 1 (continued)

Rank	City destination	Country
228	Marseille	France
229	Rethymnon	Greece
230	Lugano	Switzerland
231	Zaragoza	Spain
232	San Sebastian	Spain
233	Siena	Italy
234	Tarragona	Spain
235	Trondheim	Norway
236	Queenstown	New Zealand
237	Philipsburg	Sint Marteen
238	St. Thomas	Virgin Islands
239	Bridgetown	Barbados
240	Banff	Canada
241	Dingle	Ireland
242	Amalfi	Italy
243	Victoria	Canada
244	Hamilton	Bermuda
245	Marigot	Saint Martin
246	Cairns	Australia
247	Big Sur	United States
248	Byron Bay	Australia
249	Malé	Maldives
250	Cayman Islands	Caribbean
251	Carmel	United States
252	Wanaka	New Zealand
253	Oranjestad	Aruba
254	Sedona	United States
255	New Orleans	United States
256	Niagara Falls	Canada
257	Port Douglas	Australia
258	Quebec City	Canada
259	Interlaken	Switzerland
260	Bar Harbor	United States
261	Charleston	United States
262	Monterey	United States

The coding sheet is summarized in Table 2 and an illustration of its application is shown in Fig. 2.

3.3. Coding

Three graduate students with a background in computer systems and website design coded the destination websites. Coders spent two hours in a training session, during which they coded several sample websites as practice. The coding process was completed over a three-week period in 2010.

Coders, who received a codebook and a list of URLs for their assigned websites, worked independently and evaluated 90, 90, and 82 websites, respectively. Most websites (260 out of 262) were evaluated using an English version of the website. The remaining websites were evaluated by a native Spanish speaker. Intercoder reliability was assessed by having two coders evaluate 30 websites (Krippendorff, 2003). Because most coded variables required a simple judgment about the presence or absence of some content (i.e. dummy coding), intercoder reliability was based on only primary focus, level of interactivity, page size, page layout, number of images, text length, and main ad size. Cohen's Kappa (Cohen, 1960) for the two coders was .88, which is consistent with scores reported in previous content analyses of websites (i.e. from .62 to 1.00 (McMillan, 2000)).

4. Results

Table 3 summarizes the characteristics of the 262 destination websites. The results for the six content categories may be summarized as follows.

Table 2
Codebook.

Measured variable	Category	Value	
Primary focus			
Primary focus (Foc)	Predominantly informative/cultural	1	
	Predominantly commercial/transactional	2	
	Informative-commercial	3	
Visual and presentation style			
Page size (Siz) (based on 1024 × 768 screen resolution)	Small (1–2 screens)	1	
	Large (3 or more screens)	2	
Page layout (Lay)	Unbalanced (left/right)	0	
	Balanced	1	
Number of images (Img)	Few images (≤ 5 images)	1	
	Many images (> 5 images)	2	
Destination brand shown (Log)	No logo	0	
	Logo	1	
Animated images (Ani)	No image slide show	0	
	Image slide show	1	
Animated buttons/links (But)	No animation	0	
	Animation	1	
Pop-up window (Pop)	No pop-up window(s)	0	
	Pop-up window(s)	1	
Stream audio/music (Aud)	No audio	0	
	Audio	1	
Stream video (Vid)	No video	0	
	Video	1	
Navigation and interactivity			
Site map (Map)	No site map	0	
	Site map	1	
Search tool (Set)	No search tool	0	
	Search tool	1	
Languages other than local (Lan)	Multiple languages offered	Same	
Level of interactivity (Int)	Low (main menu with 0–5 links)	1	
	Medium (main menu with 6–10 links)	2	
	High (main menu with more than 10 links)	3	
Textual information			
Homepage title (Tit)		Same	
Number of keywords in title (Key)		Same	
Text length (Tex)	Few words (≤ 25% of screen)	1	
	Many words (> 25% of screen)	2	
Advertising			
Number of banner ads (Adn)	Number of ads	Same	
	Animated ad (Aad)	No animated ad Animated ad	0 1
Ad product type (Adp)	Non-tourism related	0	
	Tourism related (hotel, car rental, etc.)	1	
Main ad size (Ads)	Small (≤ 1/8 of screen)	1	
	Large (> 1/8 of screen)	2	
Social media and travel aids			
Social media (Som)	No social media/social media	0–1	
	Facebook (FB)	0–1	
	Twitter (TW)	0–1	
	Youtube (YT)	0–1	
	Flickr (FC)	0–1	
	Blog (BL)	0–1	
	RSS feeds (RF)	0–1	
	Other	Same	
	City map (Cmp)	No city/destination map	0
		City/destination map	1
Weather information (Wea)	No weather information	0	
	Weather information	1	
Calendar of events (Cal)	No calendar	0	
	Calendar	1	
Hotel booking service (Bok)	No booking services	0	
	Booking services	1	

4.1. Primary focus

Regarding primary focus, 64.1% of websites are informative-commercial, 34.7% of websites are predominantly informative, and 1.1% of websites are predominantly commercial. Discrepancies in website focus seem related to technological or cultural differences among destinations; most predominantly informative

websites are from Eastern countries, but most commercial or informative-commercial websites are from Western countries. One prior research effort revealed Asian DMOs' websites rely on inferior marketing strategies and information; for example, Chinese websites target browsers (i.e. users seeking information) while ignoring shoppers (i.e. users seeking information and e-purchases) (Feng, Morrison, & Ismail, 2003).

Homepage Title → Visit London - Official City Guide & London Hotels - Mozilla Firefox

Destination Logo → LONDON

Level of Interactivity: Medium (10 links) → Home Accommodation Places To Go What's On Sport London Areas Travel Maps & Guides Special Offers Blog

Animated Images → Spring Dance, Easter in London, Top 10 Art Exhibitions, Family-friendly Restaurants

Hotel Booking Tool → Search for London Hotels and City Breaks

Calendar of Events → London Events Guide

City Map → London Map

Video → London TV

Weather → London Weather

No. of Keywords: 5 →

Search Tool → Search

Animated Links →

Main Banner Ad
 ■ Animation: NO
 ■ Type: Non-tourism related
 ■ Size: Small

OTHER VARIABLES:
 ■ Focus: Informative-Commercial website
 ■ Page Size: Large (more than 2 screens)
 ■ Page Layout: Balanced (symmetry in design)
 ■ Number of Images: Many (more than 5 images)
 ■ Length of Text: Few Words (less than 25% screen)
 ■ NO Audio
 ■ NO Pop-up Images

Social Media Tools →

Secondary Banner Ad →

Language Translation →

Site Map →

Fig. 2. Coded website example.

Table 3
Website characteristics (n=262).

Measured variable	N	%
Primary focus		
Predominantly informative/cultural	91	34.7
Predominantly commercial/transactional	3	1.1
Informative-commercial	168	64.1
Visual and presentation style		
Page size		
Small (1–2 screens)	180	68.7
Large (3 or more screens)	82	31.3
Page layout		
Unbalanced	28	10.7
Balanced	234	89.3
Number of images		
Few images	62	23.7
Many images	200	76.3
Presence of		
Destination brand	199	76.0
Animated images (slide show)	169	64.5
Animated buttons (links)	202	77.1
Pop-up images	7	2.7
Audio	13	5.0
Video	127	48.5
Navigation and interactivity		
Presence of		
Site map	165	63.0
Search tool	203	77.5
Languages other than local	232	88.5
Level of interactivity		
Small (main menu with 0–5 links)	67	25.6
Medium (main menu with 6–10 links)	169	64.5
High (main menu with more than 10 links)	26	9.9
Textual information		
Presence of		
Homepage title	251	95.8
Text length		
Few words	177	67.6
Many words	85	32.4
Banner ads (n=149)		
Animation		
Absence of animated ads	90	60.4
Presence of animated ads	59	39.6
Product type		
Non-tourism related	13	8.7
Tourism related	136	91.3
Size		
Small ($\leq 1/8$ th screen)	134	89.9
Large ($> 1/8$ th screen)	15	10.1
Social media and travel aids		
Presence of		
Social media	128	48.9
City map	167	63.7
Weather information	127	48.5
Calendar of events	223	85.1
Hotel booking service	147	56.1

4.2. Visual and presentation style

Most homepages (68.7%) are one or two screens in length; 31.3% of homepages are three to seven screens in length. Only 10.7% of homepages use a layout with an unbalanced design. Most homepages include many pictures and graphics; 76.3% of pages included more than five images. Common visual elements are destination logos (76.0%), image animations (64.5%), and animated buttons (77.1%). Pop-up images and audio files appear rarely, with only 2.7% and 5.0% of homepages including such aids, respectively. Fewer than 50% of websites show online video or offer downloadable video files about the destination. This lack of video may be attributable to site hosting limitations or the unavailability of Internet video technologies in some countries.

4.3. Navigation and interactivity

Only 9.9% of websites show a high level of interactivity (main menus with more than 10 links), which indicates that most destination websites (90.1%) tend to simplify visitors' navigation through the website. Other features commonly used to facilitate navigation include site map (63.0%), search tools (77.5%), and language translation (88.5%). As the 262 evaluated websites are for destinations receiving the most international arrivals, the availability of text in multiple languages is non-trivial. The most popular languages for destination websites are English (99.2%), German (48.9%), Spanish (46.9%), French (46.9%), Italian (34.7%), Chinese (29.0%), and Japanese (28.6%). On average, websites provide translations into four languages.

4.4. Textual information

Most homepages (67.6%) contain little text, mostly in the form of links, brief descriptions, and image labels. These results contrast the extensive use of images and other visual elements, which have become the primary means for depicting destinations. Almost all (95.8%) destination websites included a title. Although title length varied markedly, ranging from 1 to 50 words, the mean is six words. The most commonly used words—listed in Table 4—suggest that a good title would contain the name of the destination and the words tourism or tourist, official, travel, website, guide, and information. Because search engines rely on more than website titles, destination websites also should imbed relevant and meaningful words throughout (e.g. main and document text, link and image labels, site map titles).

4.5. Advertising

More than half (56.9%) of destination websites include at least one banner ad. Furthermore, the presence of banner ads and the primary focus of the destination website are related ($\chi^2=6.53$, $df=1$, p -value=.011); specifically, a far greater percentage of informative-commercial sites than informative sites include at least one banner ad (62.6% versus 46.2%). For websites with at least one banner ad, 39.6% of ads are animated, 91.3% of the advertised products relate to tourism (e.g. hotels, travel packages, car rentals), and almost 90% of ads are small (see Table 3). On average, destination websites include four ads.

4.6. Social media and travel aids

Almost 50% of destination websites use social media. The following travel aids also are popular: destination map (63.7%), local weather information (48.5%), event calendar (85.1%), and hotel booking services (56.1%). The most commonly used social media tools are Facebook (31.7%), Twitter (26.0%), RSS Feed (17.6%), YouTube (15.6%), Flickr (12.6%), and blogs (11.5%).

4.7. Destination website groupings

Can destination websites be grouped meaningfully by design and features? A method commonly used in data-driven tourism research (Dolnicar, 2006), *K*-means clustering—a non-hierarchical procedure that offers more robustness than hierarchical methods with respect to the presence of irrelevant attributes or noise in the data (Punj & Stewart, 1983)—can determine the best number of clusters based on website characteristics. Under the *K*-means algorithm, cases are continually reassigned to the cluster with the most proximate centroid; the process ends when all cases are assigned to the cluster with the most proximate centroid.

The initial cluster centroids were selected using the Statistical Package for the Social Sciences (SPSS) v. 20.0 and iterated using Euclidean distance. The input variables were 23 of the website feature and design characteristics defined in the previous content analysis. (The variables presence of animated ad, type of advertised product, and ad size were excluded, as their measurement depends on the presence of banner ads.) Although plausible cluster solutions ranged from two to six clusters, a three-cluster solution seemed the most appropriate relative to cluster homogeneity and interpretation. The distances between cluster centroids are shown in Table 5. An ANOVA test revealed that the three clusters differ significantly ($p < .01$) on the following characteristics: primary focus, page size, presence of animated images, number of alternative languages, number of keywords in homepage title, number of banner ads, presence of social media, and presence of hotel booking services (see Table 6).

The three website clusters, which Table 7 characterizes in more detail, are as follows:

Cluster 1: Highly attractive, avant-garde, aesthetics-oriented websites. This second-largest cluster contains 94 websites (35.9% of total sample) that typically offer a modern and highly attractive design. Most websites in Cluster 1 are informative-commercial and present a homepage with little verbal information, a medium level of interactivity, and a small page size. The aesthetics orientation is evidenced by the high number of images, the presence of animation in buttons and images, and the moderate use of banner ads. Another important characteristic is the

Table 4
Most frequent words in destination website titles ($n=251$).

Keyword	N	%
Destination name	251	100.0
Tourism, turismo, turisme, tourisme	116	46.2
Official	64	25.5
Travel	47	18.7
Tourist	37	14.7
Website	36	14.3
Guide	34	13.5
Info, information	32	12.7
City	28	11.2
Hotel(s)	28	11.2
Tourism office	21	8.4
Visit	21	8.4
Welcome	18	7.2
Visitor(s)	17	6.8
Holiday(s)	17	6.8
Vacation(s)	14	5.6
Event(s)	13	5.2
Bureau	12	4.8
Convention	11	4.4
Accommodation(s)	11	4.4
Board	8	3.2
Destination	6	2.4
Tour(s)	6	2.4
Portal	5	2.0
Dining	4	1.6
Attraction(s)	3	1.2
Reservation(s)	3	1.2
'Things to do'	2	.8

Table 5
Distance between final cluster centroids.

	Cluster 1	Cluster 2	Cluster 3
Cluster 1	–	5.064	7.759
Cluster 2	5.064	–	8.338
Cluster 3	7.759	8.338	–

Table 6
ANOVA test on characteristics of website clusters ($n=262$).

	Cluster		Error		F	Sig.
	Mean square	df	Mean square	df		
Primary focus	6.180	2	.865	259	7.146	.001
Page size	1.033	2	.210	259	4.931	.008
Page layout	.008	2	.096	259	.079	.924
Number of images	.213	2	.181	259	1.178	.310
Presence or destination brand	.034	2	.184	259	.185	.832
Presence of animated images	1.593	2	.219	259	7.261	.001
Presence of animated buttons	.145	2	.177	259	.815	.444
Presence of pop-up images	.014	2	.026	259	.537	.585
Presence of audio	.029	2	.047	259	.616	.541
Presence of video	.216	2	.251	259	.862	.423
Presence of site map	.249	2	.234	259	1.063	.347
Presence of search tool	.231	2	.175	259	1.320	.269
Presence of alternative languages	.015	2	.102	259	.147	.864
Number of alternative languages	91.312	2	8.712	259	10.481	.000
Level of interactivity	.425	2	.331	259	1.285	.278
Number of keywords in title	632.077	2	4.640	259	136.233	.000
Text length	.023	2	.222	259	.105	.900
Number of banner ads	851.159	2	3.115	259	273.255	.000
Presence of social media	1.413	2	.242	259	5.843	.003
Presence of city map	.046	2	.233	259	.199	.820
Presence of weather information	.248	2	.251	259	.988	.374
Presence of calendar of events	.084	2	.128	259	.658	.519
Presence of hotel booking service	1.446	2	.238	259	6.079	.003

inclusion of social media tools, especially Facebook, Twitter, and Youtube. Cluster 1 destinations include cities such as London, New York City, Dubai, Cairo, Berlin, Venice, Luxembourg City, Malaga, Marrakech, Mexico City, Orlando, and Brussels. Examples of Cluster 1 websites are <http://www.visitorlando.com/> and <http://www.visitlondon.com/>.

Cluster 2: Moderately commercial, simplistic, information-oriented websites. This largest cluster contains 134 websites (51% of total sample). In contrast to the more aesthetically oriented websites in Cluster 1, websites in Cluster 2 are more information oriented. Also relative to Cluster 1, Cluster 2 websites tend to display a high number of images but fewer animated images, buttons, and videos. A relatively small percent of homepages for Cluster 2 websites (47%) include banner ads. The social media usage rate is lowest in Cluster 2, with only a 38.8% of websites offering these services. Cluster 2 destinations include cities such as Singapore, Rome, Rio de Janeiro, Kyoto, Buenos Aires, Chicago, Monaco, San Sebastian, Queenstown, Cambridge, Victoria, and Quebec City. Examples of Cluster 2 websites are <http://www.visitcambridge.org> and <http://www.kyoto.travel/>.

Cluster 3: Highly detailed, mostly commercial, transaction-oriented websites. This smallest cluster contains only 34 websites (13.0% of total sample). The most defining characteristic of Cluster 3 websites is a greater emphasis on advertising and transactional features. Nearly all Cluster 3 websites (91.2%) are informative-commercial, and their homepage always includes at least one banner ad. Relatively to websites in other clusters, Cluster 3 websites often rely on a large homepage, which facilitates the use of many images, animated buttons and links, a destination logo, and video; hence, they tend to have a highly detailed structure. The social media

Table 7
Characteristics of destination website clusters (n=262).

Measured variable Cluster definition	Cluster 1 (n=94) Highly attractive, avant-garde, aesthetics-oriented (%)	Cluster 2 (n=134) Moderately commercial, simplistic, information-oriented (%)	Cluster 3 (n=34) Highly detailed, mostly commercial, transaction-oriented (%)
Primary focus			
Predominantly informative	34.0	41.8	8.8
Predominantly commercial	1.1	1.5	0.0
Informative-commercial	64.9	56.7	91.2
Visual and presentation style			
Page size			
Small (1–2 screens)	68.1	74.6	47.1
Large (3 or more screens)	31.9	25.4	52.9
Page layout			
Unbalanced	10.6	11.2	8.8
Balanced	89.4	88.8	91.2
Number of images			
Few Images	22.3	26.9	14.7
Many Images	77.7	73.1	85.3
Presence of			
Destination brand	76.6	74.6	79.4
Animated images (slide show)	75.5	53.7	76.5
Animated buttons (links)	80.9	73.9	79.4
Pop-up images	3.2	3.0	0.0
Audio	4.3	4.5	8.8
Video	51.1	44.8	55.9
Navigation and interactivity			
Presence of			
Site map	67.0	62.7	52.9
Search tool	83.0	73.9	76.5
Languages other than local	87.2	89.6	88.2
Level of interactivity			
Small (menu with 0–5 links)	19.1	29.9	26.5
Medium (menu with 6–10 links)	70.2	69.2	61.8
High (menu with more than 10 links)	10.6	9.0	11.8
Textual information			
Presence of			
Homepage title	100	93.3	94.1
Text length			
Few words	67.0	68.7	64.7
Many words	33.0	31.3	35.3
Banner ads			
	(n=52; 55.3%)	(n=63; 47.0%)	(n=34; 100%)
Animation			
Absence of animated ads	59.6	60.3	61.8
Presence of animated ads	40.4	39.7	38.2
Product type			
Non-tourism related	15.4	6.3	2.9
Tourism related	84.6	93.7	97.1
Size			
Small ($\leq 1/8$ th screen)	92.3	84.1	97.1
Large ($> 1/8$ th screen)	7.7	15.9	2.9
Social media and travel aids			
Presence of			
Social media	60.6	38.8	55.9
City map	66.0	61.9	64.7
Weather information	54.3	45.5	44.1
Calendar of events	83.0	47.8	91.2
Hotel booking service	59.6	89.6	79.4

usage rate is relatively high, with 55.9% of websites offering these services. Cluster 3 destinations include cities such as Toronto, Seattle, Sydney, Oslo, Johannesburg, Manila, Bergen, Bologna, La Paz, Sedona, Zurich, and Port Douglas. Examples of Cluster 3 websites include <http://www.joburgtourism.com/> and <http://www.visitbergen.com/en/>.

5. Discussion

A successful DMO website must rely on design elements that foster positive perceptions. For example, a DMO website should satisfy the information preferences of likely viewers while assisting with the basic commercial transactions required by destination

visitors, such as hotel booking, event booking, or travel package purchasing. The 'lower the level of a DMO (i.e. city versus country level), the more concrete and specific the information should be and the higher the possibility for DMO websites to engage in commercial-oriented activities such as facilitation of direct online reservations' (Choi et al., 2007, p. 69). As the popularity of online transactions grows, balancing the informative and promotional aspects of a destination website seems the best approach for generating awareness and maintaining viewers' interest.

New web-based technologies have simplified and lowered the cost of multimedia production. Destination websites now focus more on graphic-based than text-based content. Animated images (e.g. image slideshows) showing the most salient attractions have become *de rigueur*. Moreover, such websites often contain additional images that illustrate current events, places to go, and local cultural aspects. Distinctive and colorful destination logos, as well as animated and innovative buttons, are common. Although only half of destination websites use video, this percent will increase as DMOs recognize the advantages of video-hosting websites (e.g. YouTube) and other social media applications. Pop-up images and streaming audio may be both invasive and offensive, as they distract attention from the main content of a website (Gehrke & Turban, 1999); thus, they should be avoided. In summary, the homepages of most destination websites show a balanced design, fill no more than two screens, and include multiple high-quality pictures that foster an appealing locale.

The main menus of homepages contain no more than ten links, which is consistent with simple yet meaningful and appealing designs characterized by small pages and limited text. Grouping links into fewer categories enhances critical visual aspects. Aids—such as site maps, search tools, and language translation—facilitate information-seeking efforts by reducing search time, a critical factor for most website visitors. Websites typically offer at least one additional language version; English (the most popular, with almost 100% availability), German, Spanish, French, Italian, Chinese, and Japanese are the most common languages. Although language choices should depend on the nationalities of predominant visitors, marketing a destination globally requires text be available in most, if not all, of these languages. As search engines list results in local languages, multi-language text is critical for penetrating international markets (Scharl, Wober, & Bauer, 2004).

By offering more graphics and less text on their homepage, DMO websites can capture visitors' attention and create a good first impression. To ease intra-site search, such websites should group textual information within a few categories with descriptive names. Choosing a website title that best represents the website's focus and content is a challenging task. Because Internet users prefer to minimize their search time, they commonly limit website visits to sites listed initially by their search engine, which compares users' search terms to words included in website titles. As a result, a strong title boosts the likelihood that a destination website appears as one of the first listed search outcomes (Kim & Fesenmaier, 2008).

Although little is known about the use and efficacy of advertising on destination websites, the efficacy of banner ads on commercial websites is declining; for example, 'standard-size banner ads have click-through rates of between .3 percent and .5 percent, which means, that only three to five people per thousand viewers click through the ad' (McCabe, 2001, p. 1). Destination websites with predominantly commercial or commercial-informative orientations—the majority of websites evaluated here—contain at least one banner ad. Typically, such ads are small (e.g. half banners or micro buttons), static, and advertise tourism- and travel-related products (e.g. hotels, travel packages, car rentals, event tickets). A few websites include ads for non-tourism-related products (e.g. banking and financial

services). Regardless, the ever-declining click-through rates for banner ads should caution DMOs about including ads on their websites.

The second most important source of destination information for potential visitors is the solicited and unsolicited experiences of previous visitors (Govers, Go, & Kumar, 2007): hence, the growing importance of social media to destination marketing. Facebook and Twitter are now the most common applications on destination websites, with YouTube gaining popularity as an inexpensive promotional tool. Contrary to expectations, blogs are seldom used. Many destination websites now include either DMO-produced videos or links to tourist-produced videos posted on sites like YouTube.

Destination websites include other important travel aids, such as interactive destination maps, local weather information, calendar of events, and hotel booking services. Although these aids have been common for several years, such applications now are highlighted more on homepages than on secondary pages. For city destination websites, the most important content to visitors is hotel booking services, maps, event calendar, attractions description, deals, activities, culture, shopping, and weather forecasts (Pearce & Schott, 2005). Thus, DMOs should place such content on their website's homepage.

The cluster analysis findings indicate that *primary focus* and *amount of visual/verbal information* are the main cluster-defining variables. Inter-cluster differences suggest that DMOs use different approaches to target potential destination visitors. Cluster 1 websites seemingly target visitors looking for a more vivid, visually powerful, highly interactive, and very enjoyable *first virtual experience* with the destination. Customers without a clear purpose for visiting the website or performing a first exploratory search for future travel may prefer Cluster 1 websites. In contrast, a Cluster 2-type website will appeal to information-hungry visitors, as it offers a simple visual design but more detailed verbal content. Such visitors tend to care about efficiency (i.e. ease and timeliness) in information acquisition, as their main goal is to complement information gathered from other sources. The low social media usage rate for Cluster 2 websites suggests a more conservative approach that limits user interaction and the generation of users' content. Cluster 3 websites seemingly target more experienced visitors seeking information on transactional features, such as hotel and event booking services; thus, Cluster 3 websites will most benefit visitors with travel expertise, knowledge about the destination, and/or pre-established travel plans to the destination.

6. Conclusions

Research on the characteristics of destination websites has been scarce. Furthermore, most studies have focused on US websites, thus overlooking websites for European and Asian destinations (Li & Wang, 2010). With the growing popularity of non-US destinations, it behooves all DMOs to appreciate the web strategies and common practices of top DMOs.

The Internet is an inexpensive tool for promoting destinations. In a world where tourism and travel represent a primary economic activity, DMOs should develop maximally effective online promotional strategies that can convert virtual visitors into actual visitors.

The implications of this research are diverse. First, there are more similarities than differences in design among global destination websites. In general, websites are moving to simpler but more visually attractive designs, with the focus shifting from text-based content to visually appealing multimedia elements. Moreover, a balance between information content and commercial transactions, with a moderate use of banner ads, is an emerging

standard. With rapid progress in web-based technologies, newer features continue to be added, as evidenced by the increased use of social media and multimedia applications.

Second, the findings suggest several *best practices*. DMO websites should be functional, simple, and aesthetically pleasing. As website visitors' main goal is to gather destination-related information, site design should minimize the time and effort (i.e. number of clicks) required for transactions. Sites should provide a snapshot of the destination and access to the most useful site-based features in the minimum number of screens. Innovative elements, such as real-time videos, newsfeeds, daily updates, mobile messages, social media integration, and e-newsletters, should boost site efficacy. Furthermore, user-generated content provided by social networking services should enhance website responsiveness, facilitate content personalization, and maximize the lifetime value of visitors.

Third, this study suggests that destination websites may be categorized into one of three naturally occurring groups. By exploring the characteristics of similar (within group) websites, DMO managers may identify the website design and features that evoke more positive reactions toward the depicted destination. Their exploration should focus on the amount of informative and commercial content, the variety and aesthetics of visual elements, and the efficiency of transactional features on the website. Aligning their website's design and features with information preferred by visitors may require further research into visitors' needs and motives.

6.1. Limitations and future research

The content analysis summarized here is subject to several limitations that can be addressed in future studies. First, a convenience rather than a scientific sample of websites was evaluated. Second, the homepage was the unit of analysis. A more comprehensive analysis of other website components—such as total number of links, number of sub-pages, and global navigation structure—may have provided additional insights. Third, only 26 variables, mostly related to visual appearance and interactivity, were coded. Other variables, such as page loading time, number of visitors per day, navigation efficiency, information usability, security, and quality of content, may influence website efficacy. Fourth, the definitions and groupings of variables were derived from exploratory data analysis. Further research might identify variable groupings based on customers' responses to survey items about their needs and motives to visit destination websites. Fifth, a longitudinal study, rather than this cross-sectional study, could reveal the evolution of destination website functionality, content, and aesthetics. Tracking the evolution of a destination website can be useful to identify web features and design strategies that have proven successful over the years (Chu, Leung, Van Hui, & Cheung, 2007). Sixth, cross-cultural differences among destination websites were ignored; for example, the visual design of a website is of special relevance in collectivist countries such as China or India (Cyr, 2008). Future research could investigate how cultural values are depicted through visual design elements (e.g. colors, images, shapes, icon types).

With the rapid growth of social networking services (e.g. Facebook, Twitter, Google+) and mobile applications, e-marketing is moving towards the personalization of content delivered to customers. Researchers could evaluate the value of demographic and psychographic information provided by social networks to target visitors and improve their website experience. Other interesting domains for researchers to explore include semantic networks (e.g. to identify relationships between core topics and key concepts in visitor-generated content), keyword usage and frequency, online search patterns, click patterns, sharing and liking behaviors, and visitors' sentiment toward the website.

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