

Website maturity of Indian and Malaysian Regional Tourism Organization (RTO) websites: a benchmark study

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Abstract

The purpose of this study is to assess and compare the relative maturity of Indian and Malaysian Regional Tourism Organisations' (RTO) websites by using the extended Model of Internet Commerce Adoption (eMICA) developed by Burgess and Cooper (2000). This is a cross-sectional study using passive primary data collected through structured observation of the website features. The results indicate that the entire Malaysian websites are reached in certain level of maturity but though some of the Indian RTOs are highly developed and some are in the beginning stage of the eMICA. This study provides a way to assess the development of destination-wide eTourism in India and Malaysia by measuring the relative maturity of RTO websites. The finding can help individual organizations to evaluate and monitor over time their 'Net-readiness'.

Keywords: Regional Tourism Organizations (RTOs), website maturity, website interactivity, eMICA

Introduction

Tourism and travel exist only as information at the point of sale, and cannot be sampled before the purchase decisions are made (WTO Business council, 1999). This information-intensive nature of the tourism and travel industry suggests an important role for web technology in the promotion and marketing of tourist destinations (Burgess *et al.*, 2005). Tourism and technology have become inextricably linked and are changing the way tourists gather travel and tourism information, and purchase tourism products. The tourism industry is among the pioneers to use the Information and Communication Technologies (ICTs). These technologies enhance tourism distribution to an electronic marketplace where easy access to information and ubiquity is achieved and thus the interactivity of principals and consumers is enhanced (Buhalis, 1994). In order to satisfy tourism demand and survive in the long term there is no choice but to incorporate technology and enhance the interactivity with the marketplace (Rach, 1997; WTO, 1998). A primary result of interactivity is that firms have to move from addressing mass markets to addressing segments of one (Wind & Mahajan, 2001). Interactivity also allows for availability of information on demand, reciprocity in the exchange of information, customisation of content and real-time feedback (Häubl & Trifts, 2000). The indications are that, over the years, tourism websites are constantly being made more interactive (WTO Business Council, 1999; Gretzel, Yuan & Fesenmaier, 2000; Doolin, Burgess & Cooper, 2002; Burgess *et al.*, 2004. Anandkumar, 2007; Park & Gretzel, 2007; Derong *et al.*, 2009).

The purpose of this study is to assess and compare the relative maturity of Indian and Malaysian RTOs websites by using the eMICA developed by Burgess and Cooper (2000). The findings of the study contribute to a better understanding of the evolving maturity of the RTO websites in terms of interactivity, functionality and features used in RTO Websites.

Conceptual background

In general, tourism products engage a higher level of involvement, intangibility and higher level of differentiation than other tangible consumer goods and therefore, are more easily sold through the Web (Bonn *et al.*, 1998). The push towards networked technologies has put extraordinary pressure on the tourism industry to embrace the Internet for marketing and transaction purposes. As consumers become more knowledgeable about the Internet, they have increasing expectations in terms of viewing and purchasing tourism and travel products online (Braun, 2012). The Internet environment has an interactive nature facilitating many-way communications between businesses and consumers. This is commonly mentioned as a major opportunity that enhances the value and quality of the relationships between these parties. While one-way messages that characterize broadcast communication usually produce very little timely and meaningful feedback, the interactive environment hosted by the Internet creates a continuous circle of communication and immediate response opportunity (Alba *et al.*, 1997; Deighton, 1996).

Building an effective web presence is vital for any business today. Among the various design characteristics, interactivity stands out as a key and distinguished factor that impacts web users' response to a website. More specifically, web consumers employ interactivity as a criterion to assess the success and quality of websites (Jiang *et al.*, 2010). Interactivity has been defined in various fields from different perspective. Over the years, different definitions seem to have touched on a rich array of related concepts and it appears that studies have covered almost every possible aspect of new media characteristics. Among the more popular conceptualizations of interactivity Joinson found (2007) synchronicity, control, rapidity and speed, participation, choice variety, directionality, hypertextuality, connectedness, experience, and finally responsiveness. Ha and James (1998) consider interactivity as consisting of playfulness, choice, connectedness, information collection and reciprocal communication. (Joinson, 2007).

The Tourism industry is an important driver for regional development with the development of new opportunities contingent on the type and quality of a regions' natural assets, the management capabilities of regional tourism organisations and operators, and the degree of appropriate support from governments at all levels (Tourism White Paper 2003). Tourism also provides an opportunity for sustainable development of regions, with the tourism industry providing a wide variety of products and services, including adventure tourism, culture and heritage, transport, accommodation, retail and hospitality. (Burgess *et al.*, 2005, Vasanthy and Jeganathan 2007, Vasanthy *et.al.*, 2008, Raajasubramanian *et.al.*, 2011, Jeganathan *et.al.*, 2012, 2014, Sridhar *et.al.*, 2012, Gunaselvi *et.al.*, 2014 Premalatha *et.al.*, 2015, Seshadri *et.al.*, 2015, Shakila *et.al.*, 2015, Ashok *et.al.*, 2016, Satheesh Kumar *et.al.*, 2016).

Regional Tourism Organisations are typically public funded organisations with the primary function of promoting tourism throughout a region. In the Indian and Malaysian tourism scenario, RTOs play a leading role. India has 35 RTOs including 29 states and 6 union territories and Malaysia has 16 RTOs comprising of 13 states and 3 Federal territories. They act as a bridge between tourism operators, national tourism corporation and the local and central governments.

RTOs are also responsible for destination marketing - the promotion of their regions to potential domestic and international visitors. They vary widely in size, structure, and the scope of activities they undertake. RTOs are largely funded by the state governments. RTO websites are frequented by tourists for official, objective and credible information about the destination. The content of RTO websites is particularly important because it directly influences the perceived image of the destination and creates a virtual experience for the consumer. Among the many characteristics discussed earlier, interactivity in RTO websites can enhance the customer on-site experience. This research attempts to assess and compare the relative maturity of the RTO websites by using the eMICA.

Extended Model of Internet Commerce Adoption (eMICA)

eMICA was originally developed for a study in the Australian metal fabrication industry (Burgess & Cooper. 1998). The model proposes that in developing commercial web sites, SME organisations typically start simply by establishing a presence on the Web and build on functionality over time, as their experience with and expertise in the use of Internet technologies increases. In addition, as Web sites build on complexity, so will the number of functional components incorporated into the site increase. eMICA consists of three stages, incorporating three levels of business process – Web-based promotion, provision of information and services, and transaction processing. The stages of development provide a roadmap that indicates where a business or industry sector is in its development of Internet commerce applications. (Burgess *et al.*, 2005, Manikandan *et.al.*, 2016, Sethuraman *et.al.*, 2016, Senthil Thambi *et.al.*, 2016).

In order to accommodate the wide range of Internet commerce development evidenced in industries such as tourism, eMICA incorporates a number of additional layers of complexity, ranging from very simple to highly sophisticated, within the identified main stages of the model. The eMICA model is summarised in Table 1. In order to accommodate the widespread use of Web 2.0 features (such as sharing, bookmarking and social network support), the eMICA model has been adapted to include them in high interactivity layer in Stage 2.

Table 1. The extended model of Internet commerce adoption (eMICA)

eMICA stages	Examples of functionality
Stage 1 – Promotion Layer 1 – Basic information Layer 2 – Rich information	Company details such as name and address Online contact details, company activities
Stage 2 – Provision Layer 1 – Low interactivity Layer 2 – Medium interactivity Layer 3 – High	Basic product catalogue, online enquiry form Customer support, value-added features Discussion forum, newsletters, updates,

interactivity	Web 2.0 features such as sharing and bookmarking.
Stage 3 – Processing	Facilitate secure online transactions

Source: Adapted from Burgess and Cooper, 2000

Research Problem

This is a cross-sectional study using passive primary data collected through structured observation of the website features. The interactivity and functionality of features used in RTO Websites were studied. The sampling frame consists of the websites of the 35 Indian RTOs and 16 Malaysian RTOs. Each site was examined in detail and the various functions performed by the site were noted. To record the data collected through observation method, a structured data entry table was designed based on the eMICA model. This study seeks to assess the relative maturity of Indian and Malaysian RTO websites, providing a cross-sectional assessment of website maturity through adoption. The main research question is: How do the Indian and Malaysian RTO websites differ in their website maturity levels in terms of interactivity?

This research has certain limitations. The consistency of the RTO websites in different languages and across different browsers was not studied. All the observations were made using Microsoft Explorer (version 10) browser. The consistency of the websites across browsers (for example, Firefox or Chrome) was not studied. Also, the site content in English language alone was taken up for observation. Hence the generalizations may not be relevant to non-English sites. This study used interactivity as the chief criterion to measure the relative maturity of a website. Criteria that contribute to e-commerce website effectiveness such as quality of content might have been ignored in the process. Finally, the researcher's subjectivity in data observation and interpretation might have introduced data error. However, precautions were taken to address these limitations. For example, the observation for data collection was done independently by the authors and then compared to ensure commonality.

Research Methodology

This is a descriptive, cross-sectional study using passive primary data collected through structured observation method. It evaluates and compares the level of website development of RTO websites of India and Malaysia using the eMICA model to identify the interactive features on the RTO websites and assess their degree of interactivity. The objects of observation were the websites of RTOs identified through a census. The inclusion criteria implied that only the official websites of the State Tourism Departments of India and Malaysia were considered for this study. Sub-regional or City-specific or Event-specific or Special interest sites were excluded from the study.

A list of the RTOs was obtained from the Ministry of Tourism website of India (<http://tourism.gov.in>) and Malaysia (<http://www.tourismmalaysia.gov.my>) and the specific RTO official homepages were identified through a Google search. Each RTO's URL link was verified and the 51 websites were evaluated. For five RTOs, their plug-in sites at the Malaysian tourism's e-portal (www.tourism.gov.my) were considered since they did not have an independent domain name or website. Each site was examined in detail and the various functions performed by the site were noted. To record the data collected through observation method, a structured data entry

table was designed based on the eMICA model. Each cell in the table represents a dichotomous scale measurement describing the presence or the absence of a particular indicator. The indicators across all the sites were then grouped according to their level of interactivity and sophistication. This resulted in 14 levels of functionality, from basic to full e-commerce support, as listed below:

- Level-1: Email (online) contact details
- Level-2: Images
- Level-3: Description of regional tourism features (things to do/ places to see)
- Level-4: Systematic links to further info (for example, links to accommodation, travel, activities and so on)
- Level-5: Multiple value-added features (such as facts, maps, itineraries, photo gallery)
- Level-6: List of accommodation, attractions, activities, events with contact info
- Level-7: Web-based enquiry or order form
- Level-8: Interactive value-added features (such as downloadable materials, interactive maps, special offers, guest books)
- Level-9: Online customer support (for example, FAQs, site map, site search engine)
- Level-10: Searchable databases for accommodation, attractions, activities and events
- Level-11: Online bookings for accommodation, tours and travel
- Level-12: Advanced value-added features (such as multi-language support, multimedia, email updates and so on)
- Level-13: Web 2.0 features (such as information sharing, book marking, social network support and so on)
- Level-14: Facilitate secure online transactions

Research on the efficacy of websites is extensive. However, specifics of website effectiveness such as technical design and performance are outside the purview of this study. Observation method was chosen to gather passive primary data for this research. Observational studies can provide rich data and insights into the nature of the phenomena observed. The data obtained through observation of events as they normally occur are generally more reliable and free from respondent bias (Sekaran, 2003). The RTO websites were observed using the browser Internet Explorer 10. Some of the observed websites had multiple language translations of the websites. Only the English language content on a website was observed for the research purpose. The RTO websites were observed over 2015 Q3 for the purpose of comparison and to assess the evolving maturity of RTO websites.

Findings

Each RTO website was assigned an appropriate stage and layer in the eMICA model based on the level of development of the website. A website needed to display functionality up to at least level 4 to be classified as Stage 2 of eMICA. Websites reaching level 8 were classified as Stage 2, Layer 2, and those reaching level 11 functionality were classified as Stage 2, Layer 3. To be classified as Stage 3 of eMICA, a website required functionality at level 14. The results of this study are shown in Table 2.

Table 2. Assessment of Indian and Malaysian RTO websites

Stages of eMICA	2015 Indian		2015 Malaysian	
	Number of sites	% of total sites	Number of sites	% of total sites
Stage I				
Layer 1	1	2.9	0	0
Layer 2	1	2.9	0	0
Stage II				
Layer 1	2	5.9	0	0
Layer 2	1	2.9	5	31
Layer 3	20	58.7	11	69
Stage III	10	29.4	0	0
Total	35	100	16	100

The data indicated that 94.2 percent of the Indian RTO websites have matured to Stage 2 and above of the stage of eMICA, and these are incorporated the standard functional attributes of the first stage of development, such as email contact details, the use of photographic images, and a description of regional tourism features. Among these 26.5 percent of the RTO websites had matured to stage 3, with the capability of offering secure online transaction.

The data indicated that all Malaysian RTO websites have matured to Stage 2 of eMICA, and incorporated the standard functional attributes of the first stage of development, such as email contact details, the use of photographic images, and a description of regional tourism features. However, the level of functionality and sophistication varied greatly across Layers 2 and 3 comprising this second stage of development, as discussed below. At the same time, none of the Malaysian RTO websites had matured to Stage 3, with the capability of offering secure online transactions.

Discussion and suggestion

The data indicated that all the Malaysian websites have matured to stage 2 of the eMICA. That means 100 percent of the websites are in provision stage. Among that 69 percent of the websites are in layer 2 of stage 2 by incorporating the functionalities of Web 2.0. Indian RTO website are spread over the all the level of eMICA model. 58.7 percent of the websites in layer 2 of stage 2. It is found that both regions give significant important to incorporate the Web 2.0 features. One of the important point noticed that 29.4 percent of Indian RTOs being enabled payment gateway system, though none of the Malaysian RTO websites do not.

Among 51 RTO websites, 60.78 percent of the websites are incorporated at least one of the Web 2.0 features such as blogs, RSS (Rich Site Summary), information sharing, posting of user-generated content, book marking and social media connectivity (through outgoing links). The popular social media platforms were found to be Facebook, Google+, Instagram, Pinterest, Youtube, Twitter and Weibo. Websites have rapidly been developed with the development of web 2.0 technologies and applications.

Conclusion

This cross sectional study contributes to a better understanding of the functionalities used by RTO websites and facilitating a benchmarking study of the relative maturity for Indian and Malaysian RTO websites which may be useful for RTOs to evaluate and compare their websites' level of maturity. It confirms the usefulness of the eMICA model for a benchmarking study of relative maturity of websites and it helps individual organizations to evaluate and monitor over time their 'Net-readiness'. As regions compete for the tourist dollar, RTO websites provide an information gateway to the searching and discerning tourist and it is the mature RTO websites that hold an edge.

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