

Innovative Communication in Global Tourism E-Commerce Sites- A Cultural Aspect

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Abstract - This paper presents an investigation of innovative communication through examining design characteristics in global e-commerce sites. This investigation is necessary to establish an understanding of the barriers in communicating and implementing of e-commerce on a global level. The paper begins with an overview of current business-to-customer (B2C) e-commerce implementation on the web, and then describes cultural issues in the global e-business. Also the paper discusses innovative design features are currently being used extensively to attract customers and increase e-business organization's presence in the international market.

Keywords—E-commerce, Web design, Culture

I. INTRODUCTION

Communication between computer and people is an important issue in e-commerce. Particularly, international tourism industry is at its pinnacle. Being a culture-sensitive industry it was found to be apt for investigating the correlation between culture impact and tourism e-commerce. Global tourism activity has made it a fast growing industry and plays a vital role in many countries' economy. According to Tourism Highlights' report [17], there are substantially large amount of inflow of money into the economy and as such is one of the biggest motivations for tourism to be encouraged to grow at a rapid rate. For example in Australia, tourism contributes to around 3.9% of Australia's Gross Domestic Product (GDP) and around 4.6% of employment, and international travellers are mainly from Japan, Western Europe and the US. China is showing a strong growth in number of visitors coming to Australia too [17]. In China, e-commerce development, especially in the tourism industry is still at very early stages of development, and only 2 percent of the total e-tickets issued were booked online [13].

International customers look for travel all around the world. In this case, culture oriented strategy is essential for

increasing the numbers of international customers from a particular part of the world. However the tourism business also needs to deal with the trust issue in e-commerce development, because of various types of customers originating from different countries perceiving information in different contexts. According to Hofstede's [7] cultural dimensions, there are individualist and collectivist countries. Potential customers in different countries will have different preferences if they are from individualist cultures or collectivist cultures [11]. China is categorised as a collectivist country and scores high in uncertainty avoidance according to Hofstede's study [7] People in collectivist countries prefer to have regulations, instructions and well established rules either by the business community or government bodies before they adopt a new form of doing business [18]. In China, E-commerce web sites are usually created to provide basic information rather than as a mode of business transactions. Also a lack of professionals specialised in both e-commerce and tourism industry has lead to ad-hoc application development in the tourist e-commerce and as such is perceived by customers not to be genuine [18].

Globally customers are communicate through the e-commerce site rather than phone for booking airline tickets, accommodations, and other types of products and even performing business transactions. Recently, Web 2.0 tools have evolved for the Internet, and some of sites allow collaborative tools for communication between customers and providers in global environment. Hence e-commerce sites can be used for customized plans and product information for customers. The internet has become a convenient platform for comparing products and prices [8]. Therefore tourism e-commerce sites introduce great advantages to both consumers and providers. Providing effective and efficient services to global customers is beneficial to the business itself.

Considering the evolution of Web 2.0 tools and rapid development of the tourism industry globally, it is necessary to discover how culture influences tourism e-commerce, especially with attractive and trustable web design features. This study investigated cultural and web design issues in

e-commerce by examining 6 each tourism sites in Australia and China for comparing cultural dimensions-individualistic vs. collectivist.

II. CULTURE AND E-COMMERCE

Culture is an important aspect that need to be take into consideration when it comes to web site design, especially for international customers (Angeli and Kyriakoullis 2006; Cyr, et. al 2004; Hu et al, 2004; Kang and Corbitt 2001; Noiwan and Norcio 2005). This section describes culture, web design and trust related to tourism industries in e-commerce.

A. Web Design Characteristic

According to Werthner and Ricci [8], culture is one of the determining factors in e-commerce website design and usage. In e-commerce, customers' trust of an e-commerce site is important, and needs to be dealt with maximising the performance of web site's functions with respect to reliability and confidentiality. Hence tourism sites need to provide a good sense of useful information to international consumers and a secure platform for electronic money transactions. For example, reminding a traveller to appropriateness of dress and local etiquettes, places for buying public transport tickets, etc.

According to Hofstede [7], China is categorized as one of typical collectivist countries, and Australia is an individualistic. There are similarities in uncertainty avoidance and masculinity, and dissimilarities in regards to power distances, individualism and long vs. short term orientation among both countries. Scores for Hofstede's cultural dimensions for Australia and China listed in Table 1.

Table 1. Country scores of Australia and China [7]

Country	Power Distance	Individualism	Uncertainty Avoidance	Masculinity	Long term orientation
Australia	36	90	51	61	31
China	80	20	30	66	118

For this study we selected Australia and China as the researchers favorably located in this geographical position as well as contrast in individualism.

B. Image and Color

Images are one of the most important elements in website interface design nowadays. Presenting information with only texts in tourism sites will not only be unattractive but also be un-functional. An image usually carries more information than a word. Graphical images help in improving the visual appeal, and draw user's attention to a certain extent. In addition, animated graphics and advertisement banners are also claimed to be more effective in attracting higher clicking rates than static one [14]. In Noiwan and Norcio's study,

both American and Thai users claim that well designed graphical banners themselves are interesting and attractive [14]. Images also assist users with their understanding of the site's content and determination of function in B2C activities [11]. However, differences do exist, in a global context, in terms of the degree of assistance. Americans were also found to weigh alphanumeric tags more while Chinese are interested in graphical icons [1][3]. This supports the assertion that consumers' decision making from collectivist backgrounds, such as Chinese, weight the shopping site's signs and symbols more than those from individualistic background, such as Americans [12]. Dissimilarities in user preferences result in dissimilar design approaches that designers take. In other words, if the target customers are collectivist, graphics and symbols used would increase the level of satisfaction and arousal of interest. Lastly, Colour preference is another important issue that has emerged as an important factor presented in most interface design guidelines.

Although images are important, there are also studies which have found that images can also pose negative affects to usability of the websites as a whole. In different countries, images are in-significant or significant in helping users with their decision making process. This could be particularly critical to informatics-oriented websites such as tourist sites. American and Thai users who claimed graphics are attractive simply paid no attention to banners when they are performing search task on a website, and regardless of nations, there was found to be no culture differences in banner word retention [14]. Due to the natural limitations of human attention span, people tend to ignore surrounding and distractive elements when they need to concentrate on one stimulus. Graphical banner advertising could potentially make a website difficult for the user to concentrate on the information and hence reduce the task performance. E-commerce participates from individualist background, such as the US and Germany, claim that pictorial elements (both static and animated) are distracting and potentially impede them in retaining them at the website [4].

Colour preferences, metaphors, languages, symbols, images and formats of date and time are considered as culture sensitive [11][14]. Among all these elements, colour preferences and images preferences are the most well studied issues. Culture dissimilarity also leads to different focus of a website design and hence portrays a dissimilar design strategy for online shopping websites [1].

C. Context

In terms of communication through the internet, we found that the issue of the strategies of high vs. low context cultures plays a significant role. Wurtz [6] provides an in-depth analysis context. High context cultures are more likely to be more efficient in using the visual effects for conveying messages through internet in comparison to low context cultures [6]. Cultures can be identified in terms of their communication style, for example it was found that Scandinavians, Germans, and the Swiss communicate predominantly through explicit statements in text and speech, thus making them low context culture. In contrast in a high context culture the messages are

conveyed through statements and other communicative cues such as body language, and sometimes a lack of statements, such as the use of silence in Chinese's culture [5].

In other words, high context cultures are highly dependent on body languages and cues and less on verbal messages, while low context cultures involve high verbal messages and less body language and cues [6]. Communication through the tourism site in international context is similarly critical. Therefore presenting suitable information and context for target users is important.

Table 2 illustrates characteristics of high and low context cultures as presented by Wurtz [6]. Using these characteristics of context, Australian and Chinese tourism sites will be examined.

Table 2. Summary of low and high context by Wurtz [6]

parameter:	Tendency in high context cultures	Tendency in low context cultures
Animation	High use of animation, especially in connection with images of moving people	Lower use of animation, mainly reserved for highlighting effects e.g., of text
Promotion of values	Images promote values characteristic of collectivist societies	Images promote values characteristic of individualistic societies
Individuals separate or together with the product	Featured images depict products and merchandise in use by individuals	Images portray lifestyles of individuals, with or without a direct emphasis on the use of products or merchandise
Level of transparency	Links promote an exploratory approach to navigation on the website; process-oriented	Clear and redundant cues in connection with navigation on a website; goal-oriented
Linear vs. parallel navigation on the website	Many sidebars and menus, opening of new browser windows for each new page	Few sidebars and menus, constant opening in same browser window

III. TRUST

Culture results in different attitude towards trust over online shopping. Individualism puts self values in front of group, while, collectivism believes in community's power. Hence it is difficult for people from collective culture background to trust those that are not in the same group as them. Uncertainty avoidance refers to "how confinable people feel towards uncertain or unknown situation" [3]. Cultures with high scores in uncertainty avoidance usually prefer to do things in a familiar way and are less open to modification and new things. Chong, Yang and Wong suggest that collectivism or culture with high uncertainty avoidance result in low trust over online shopping (Chong et. al, 2003). Cyer et.al., [4] argue that there are differences between countries when it comes to website trust, satisfaction and website site loyalty. In their findings,

individualism delivers a higher trust rate than collectivism [2]. In their study, they present that, in Chinese culture, trust is heavily relayed through face-to-face contact. Virtual stores posts a big resistance to building of trust between sellers and buyers. People are worried that the ordered goods will not arrive, or payment will made in an unduly fashion, hence hesitate to shop online. In addition, products quality is another factor that consumers considered when shopping online. Consumers in China are used to shop in physical stores where they can see and touch the goods they want to buy. They also can judge if the seller is trust-worthy through face-to-face contact. Online shopping lacks these advantages. All these factors result in a general lack of trust of the e-seller, the website, and the information presented on the Web. According to Suraya [16], Chinese are however are quite optimistic towards e-commerce. Travel agents participating in online B2C market are relatively low in number and their adoptions is still at an early stage. Chinese also attribute more importance to recommendation from their friends, and other customers' feedback, probably due to the collectivist nature of their society and this aspect will lead to overall more trust in B2C e-commerce as more reliable businesses with long term objectives adopt this market.

Therefore, in terms of trust, this research will attempt at confirming that, when it comes to travel, individualism tends to trust the website more than collectivism do; and when it comes to travel, culture with lower uncertainty avoidance tends to trust the website more than those with higher scores in uncertainty avoidance. Hence an investigation of web design for tourism sites in individualism and collectivism country sites will be conducted to explore cultural and web design issues.

IV. STUDY AIM AND APPROACH

The study aims were to investigate innovative communication approaches through examining web design characteristics of tourism websites in Australia and China, and explore cultural issues. Based on one of Hofstede's cultural dimensions [7], we selected Australian as for an individualist country and Chinese as for a collectivist tourism sites. In the study, we examined 6 different types of each Australian and Chinese tourism websites; leading government bodies, biggest tourism B2C retailer/ wholesaler, travel group or airlines, comprehensive travel channels, independent travel companies and other group or individuals. The observation was made based on web design factors (image&color and context) and cultural concern (individualism vs. collectivism) that were biggest concern for dealing with increasing the trust amongst international and national users. The interpretive qualitative research method was used for analysing qualitative data.

Evidence of case studies may come from six sources such as documents, archival records, interviews, direct observation, participant observation and physical artifacts [15]. In this study, observations and documents were used in process of conducting the case study. Firstly, the researchers focused on design features and information presentation differences in various types of tourism sites in Australia and Chnia.

Understanding how color, image presentations and facilities for data entry in different sites. The researchers also considered complexity of a page features including text density, site structure and frame. This approach sought to confirm the generalizations and to test the impact of cultural differences on web design. This exploratory investigation attempted to formulate more precise objectives for further research.

The study attempted to find out the characteristics of design features. Firstly, we selected 6 different types of tourism sites in Australia and China, and identified web features including images, color and context. Secondary, this research was conducted on pre-selected global sites, which are based in Australia and China. The research questions were “what are web design characteristics in Australian and Chinese tourism web sites?” and “how design features are different?”. Secondly, observations were conducted to determine the different design categories in each. Also we investigated design features, where some design effects were taking into consideration, such as images, color, and other characteristics. Both, culture differences and design features. The data collection and research methods are similar to many studies, were exploratory research method was used to examine about the web design sites [9][10]. This approach was found to be beneficial to confirm generalizations made in relation to test the impact of cultural differences on web design. This research then attempted to formulate more precisely objectives for further research.

V. FINDINGS

Table 3 shows web design characteristics and comparisons between Australian and Chinese tourism sites in 6 different types of organizations. The leading government bodies in Australia and China had similar design features. However commercial tourist sites had more numbers of images and colorful presentation. Australian’s independent travel company site had characteristic images on the page. In contrast, Chinese site used a single color on text and image, and had high context with many external links.

Table 3. Web design characteristics and comparison

Organisation	Characteristic		Comparison
	Australia	China	
1. leading government bodies (www.visitnsw.com vs. www.cnta.com)	image and link based & high context	text based & high context	Both have reasonably high and similar context. Australian web page has more number of images and is larger. More textual information on Chinese web page.
2. biggest tourism B2C retailer/wholesaler (www.flightcentre.com.au vs. www.ctrip.com)	Red color oriented (image) & medium context	Blue color oriented (image and text) & medium context	Both pages use symbolic logo and colour for promoting company’s image on the web. The company logo is the main image, and advertisements are used heavily. Multiple categories of

			information on Chinese web page.
3. travel group or airlines (www.qantas.com vs. www.travelsky.com)	Red color oriented (image) & low context	Blue color oriented (image and text) & low context	Similar context and images but different colours
4.comprehensive travel channels (au.travel.yahoo.com vs. hk.travel.yahoo.com)	Multiple colors & medium context	Blue color oriented (image and text) & low context	Chinese page provided more detailed and more descriptive information on travelling. Australian page focused on activities and cost of travelling
5. independent travel companies (www.equitytravel.com.au vs. www.fengguang.cn)	Uniformed and characteristic images & low context	Various type of images & high context	Australian web page promoted company’s own images, and Chinese web page promoted more descriptive information and links for external companies.
6. other group or individuals blogs (www.travelblog.org vs. www.yoyv.com)	Blue images & low context	Multi-color images & medium context	Both web pages are similar but Chinese page had more links and information. Australian web page has a theme colour (mainly blue) on the page and a main menu bar and images were well organised.

As Suraya [16] opinion in section 2.2, Chinese travellers hesitate to participate in online booking is personal contact. Malaysian weight personal contact as much as Chinese people do. Customers would prefer to purchase from directly contacted consultants. Despite the advantages the merging e-commerce with travel could bring, the very reason – relationship also resistant travel agents to adopt the concept of doing business online.

As Angeli & Kyriakoullis [1] mentioned that in section II, users in collectivist country such as China prefer graphical trust attributes of the interface as the collective counties, such as sensitive with brand and aesthetics, and also strong security aspects of the transaction. Chinese sites also provided many options to getting recommendation from friends, and other customers’ feedback as the collectivist nature of their society. Chinese sites displayed top to bottom or vertical, and used pictorial icons. Australian sites provided alphanumeric labels on the menu and minimized text information. Also Australian sites presented clear information about the cost for different products. In contrast, Chinese site provide information for making contact with the organization.

VI. DISCUSSION AND CONCLUSION

Australian and Chinese tourism sites presented similar type of web design features but different characteristics. Australian sites had bigger and characteristic images with a theme color

on all the pages. Chinese sites provided high context based information and more links for descriptive information, external contacts, and images were used mainly for advertisements or company's logo. Both sites were designed for local as well as international tourists. However, information was mainly focussed on local customers.

Culture is a key concern for communication in global tourism sites. Particularly, the tourism sites need to target specifically to local and/or international customers. It influences not only the web interface design which could potentially affect customers' online transaction behaviour such as satisfaction and trust, but also affects intention directly. To a certain extent, tourism industry is selling experiences rather than material goods as in other consumer goods industries. Travel experiences are hard to describe in accurate words, hence require graphical aids such as images and videos. However it might not be possible to satisfy each and every individual traveller's online transaction preferences. Therefore, it is vital to conform to e-commerce developing principles for usable web sites in the context of tourism. Questions such as will culture have the same impact or same degrees of impact over online transaction behaviour of customers need to be answered. There is extensive research in culture studies and general online transaction, but rarely any with travel industry in particular. Hence this study compared culture impact across Australia and China with regards to travel information on web sites. For innovative communication approaches, the global tourism sites need to address issues of web design for users. Customers from different cultural backgrounds have different preferences and experiences of web. The innovative communication strategies have to be based on customers' needs. This study is a step towards future research in dealing with the use of culture studies in maximising the performance in e-commerce and tourism industry.

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