Website design, trust, satisfaction and e-loyalty:
The Indian experience

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Abstract

Purpose: With rapid expansion of global online markets including India, researchers and practitioners are challenged to understand drivers of customer website satisfaction, trust, and loyalty. In this research, website design is expected to influence if customers revisit an online vendor.

Design/Method: Based on surveys and interview data collected in India, participants evaluated a local and foreign website of the same online vendor.

Findings: Results indicate significant preferences for the local website for almost all design categories. Further, the local site instilled greater trust, satisfaction, and loyalty. Data collected for this study are compared with parallel work conducted in four other countries using the same procedures.

Research Limitations/Implications: The current investigation is relevant for researchers who aim to expand knowledge concerning the impact of website design related to user trust, satisfaction, and loyalty. The work also has implications for Web designer or managers who seek to enhance market attraction and retention to online websites. Limitation of the investigation is that both the local and foreign websites used are Samsung websites, and that only a single task (searching for a cell phone) was used.

Originality: Few studies have examined web design related to user outcomes such as trust, satisfaction, and loyalty in international markets.

Keywords: website trust; website satisfaction; e-loyalty; website design; India; e-commerce; website localization

Introduction

India has a huge population, and growth prospects for vendors are strong. In a study of retail investment attractiveness among 30 emerging markets, India moved from second place to first to displace Russia, which had held the top spot since 2003 (Global Research Reports, 2005). India's retail market, which totals $330 billion, is vastly underserved and has grown by ten percent on average over the past five years, as outlined in the report (Ibid).

While the foregoing indicates there are opportunities for growth in both traditional and online retail environments, the focus of this paper is on Internet markets. Related to this, India's population totalling 1.08 billion is highly involved in Internet use as indicated in Table 1. It is interesting that Internet users in India number almost twice those in Canada, and are not far behind Germans. These statistics bode well for future Internet sales in India if Internet users become Internet buyers. But despite large numbers to potential consumers from diverse cultures, little research investigates the underlying characteristics that propel these different groups to buy online (Jarvenpaa et al., 1999).

[Insert Table 1 about here]

Prior studies on satisfaction and loyalty have mostly been undertaken in the offline consumer environment. However, researchers have recently discovered that the online environment offers great opportunities for interactive and personalized marketing (Burke, 2002), advertising (Li and Lee, 2006) or the development of online trust, satisfaction and loyalty (Anderson and Srinivasan, 2003; Yoon, 2002). As Shankar et al. (2003, p. 154) note: "Firms need to gain a better understanding of the relationship between satisfaction and loyalty in the online environment to allocate their online marketing efforts between satisfaction initiatives and loyalty programs. If for example, the firm finds that loyalty is associated with increased satisfaction, it

could directly focus on enhancing its loyalty programs." Related to the foregoing, a critical consideration is how can trust, satisfaction, and e-loyalty be instilled in online consumers?

As posed in this investigation, it is expected that effective and country appropriate website design is important to persuade Internet consumers to buy online. This may include knowledge by local merchants regarding how to best present product and cost information including product discounts. Some researchers have done work in the area of culture and design (Barber and Badre, 2001; Marcus and Gould, 2000), but results have generally been either inconclusive or unrelated to developing loyal online customers. However, it is expected that cultural values such as individualism or collectivism (elaborated in a later section) have a bearing on presentation of information to potential buyers on the website. Finally, buyers need to feel secure when browsing product or service websites, and this may either enhance or inhibit loyalty toward the site.

In research conducted by Cyr et al. (2005) design elements are considered antecedents of trust, satisfaction and loyalty, and are tested across cultures. These studies examined website user reactions in Canada, the United States, Germany and Japan and found numerous differing design preferences among the groups. A key element underlying the investigation is whether culturally related values result in different website design preferences related to trust, satisfaction, and loyalty. Results from this earlier study were exploratory and in some respects counter-intuitive regarding user trust, satisfaction, and loyalty for a local site over a foreign site. Further investigation is thus required. Other studies illustrate the merits of cultural sensitivity in Internet marketing and advertising (An, 2006; Dilts et al., 2006; Guo et al., 2006; La Ferle and Kim, 2006).

The current investigation expands earlier research to spotlight website design elements with respect to trust, satisfaction, and loyalty in India. This country was chosen due to the burgeoning

use of the Internet and large number of potential users. In addition, India represents a developing economy which provides a contrast to the already developed economies investigated in the earlier work by Cyr et al. (2005). In alignment with research by these authors, comparisons are made between a local and foreign website of the same online vendor. Unique data is presented for India in which various design elements are considered. The following questions are addressed: (1) How are website design elements perceived by online users in India, and how might these differ for a local versus a foreign website of the same vendor? (2) How satisfied, trusting or loyal are users in India depending on whether they are viewing and navigating a local versus a foreign website of the same vendor? In addition, the Indian data is considered in the context of the four countries in the study by Cyr et al. as noted above.

The paper is organized to present a review of the literature on culture, website design and culture, and trust, satisfaction and e-loyalty in an online vendor setting. This is followed by the methodology of the study, and an elaboration of results and discussion. The paper concludes with the implications of this work for practitioners, limitations of the study, and directions for future research.

The Impact of Culture

Doney et al. (1998) note that culture is "a system of values and norms that are shared among a group of people and that when taken together constitute a design for living" (p. 67). Matsumoto (1994) characterizes culture as the degree to which people share similar attributes, values, beliefs and behaviours. Hofstede defines culture as "the collective programming of the mind which distinguishes the members of one group from another" (1984, p. 21).

Various researchers have used Hofstede's (1984) cultural dimensions of individualism-collectivism, power distance, femininity-masculinity, and uncertainty avoidance to understand

how national culture is related to social psychological phenomena such as trust (Jarvenpaa et al., 1999; Simon, 2001). Individualism-collectivism focuses on an individual's relationships with others. In an individualist society such as the U.S., Canada or Germany individuals consider personal interests over interests of the group, and individual decision-making is valued. Alternately, in a collectivist culture such as in India, the good of the group is important. Power distance refers to the extent to which a society accepts unequal distributions of power in organizations and institutions. In low power distance cultures such as Canada, the U.S. or Germany there is a tendency to maintain a philosophy of equal rights for all, without acquiescence to those in power. Alternately, in Japan or India deference is given to those in authority. Japan scores moderately (54), while India has the highest power distance ranking of all five countries (77). In feminine societies there is emphasis on quality of life and relationships. Cultures that focus on material success and assertiveness are considered more masculine in orientation (Hofstede, 1984). Finally, uncertainty avoidance characterizes how societies accommodate high levels of uncertainty and ambiguity. Members of very high uncertainty avoidance societies such as Japan (scoring 92 out of 100 on Hofstede's scale) seek to reduce personal risk and to augment security. In contrast, India is low on the uncertainty avoidance scale (40). Relevant to India as studied in this investigation, and contrasting countries as considered in this paper (Canada, the U.S., Germany and Japan), in Table 2 value differences on each of Hofstede's dimensions are noted.

[Insert Table 2 about here]

Website Design and Culture

"A website has to be designed for a targeted customer segment…Local adaptation should be based on a complete understanding of a customer group's culture" (Gommans et al., 2001, p.

51). It is expected online consumers will be more satisfied with websites that are "localized" to their particular cultural preferences. Localization is the process of adapting a product or service to a particular language, culture, and desired local "look-and-feel." In localizing a product, in addition to idiomatic language translation, such details as currency, colour sensitivities, product or service names, gender roles, and geographic examples must all be considered. A successfully localized service or product is one that appears to have been developed within the local culture.

Various elements of design contribute to the user's experience of a site, and most vary with respect to culture (Sun, 2001). Cyr and Trevor-Smith (2004) examined design elements (i.e. symbols, colour, layout, language, content) using 30 municipal websites in each of Germany, Japan, and the U.S. and found significantly different preferences for design across cultures. Marcus and Gould (2000) found that navigation was impacted by culture. Colour preferences also vary by culture; red means happiness in China but danger in the United States (Barber and Badre, 2001).

In the current investigation website design receives a more prominent role compared to much of the earlier work in e-business, and is expanded to encompass design elements as defined by the design community (Garrett, 2003; Marcus and Gould, 2000; Nielsen, 2001). With respect to accepted design categorizations by Garrett, in this study design includes information architecture (i.e. layout and location of information), information design (i.e. clear and comprehensive explanations of product information), visual design (i.e. professional and aesthetic appeal of the website), and navigation design (i.e. ease of navigation of the website). These characteristics are represented individually in Hypothesis 1, although collectively they are referred to as "website design elements", both in this work and in the work of others.

Hypothesis 1. The local website will be preferred over the foreign website of the same online vendor for the following specific design elements: (a) menu layout (b) access to

product information (c) professional design of the website (d) logical presentation of product information (e) screen design (f) navigation (g) sequencing (h) presentation of product attributes, and (i) product availability.

This investigation also builds on the work of Simon (2001) who empirically investigated websites across cultures. In alignment with our goals, Simon examined what he termed "perception" of various website characteristics, and refers to perception as "the degree to which he/she felt the site would be appropriate for their home country". (p. 26) More specifically, to test website perception, Simon examined a series of emotive characteristics of the website similar to those in Hypothesis 2. While discrete characteristics of the website were noted, collectively they contributed to the overall "perception" of the website.

Hypothesis 2. The local website will be preferred over the foreign website of the same online vendor regarding the perception of the website: (a) successful-unsuccessful (b) professional-amateur (c) fast-slow (d) pretty-ugly (e) emotional-unemotional (f) logical-illogical (g) friendly-unfriendly (h) sensitive-insensitive (i) meaningful-meaningless (j) warm-cold (k) accurate-inaccurate (l) interesting-boring (m) reliable-unreliable (n) stimulating-boring, and (o) comfortable-uncomfortable.

Website Trust

Trust has received considerable attention in the marketing literature, since the presence of trust has a notable influence on the cementing of sustainable relationships with customers (Morgan and Hunt, 1994). More recently, research has examined trust in the context of the Internet (McKnight and Chervany, 2002). According to Gefen (2000), a trusting disposition should influence trust in a vendor. While it is recognized that trust is a multi-dimensional construct, in studies such as this one trust a single construct has been used (Gefen and Straub,

2003). Grabner-Krautner and Kaluscha (2003) herald a call for future research on "cross-cultural effects on consumers' trust…" and suggest "there may be a relationship between trust and culture which needs to be further investigated" (p. 807).

Few studies focus on online trust with reference to culture. Those that do, often have inconclusive results. Badre (2000) conducted research on consumer trust on the Internet in individualist versus collectivist cultures with mixed outcomes. Simon (2001) found differences in trust toward different websites with Asians most trusting of information provided on American and European websites (83% positive), while North Americans exhibited substantially lower levels of trust (42% positive). In a study that examined trust toward a local versus a foreign website of the same online vendor there was no evidence of greater trust for the local site than for the foreign site in a four country sample (Cyr et al., 2005). The authors concluded localization of the local website may not have been adequate and contributed to this finding. To retest this counter-intuitive finding, in the current study website trust is again considered and is expected to be higher for a local Indian website than for a foreign Hong Kong website of the same online vendor as outlined in the hypothesis below.

Hypothesis 3. Website trust will be higher for the local website than for the foreign website of the same online vendor.

Website Satisfaction

Website satisfaction relates to "stickiness" and "the sum of all the website qualities that induce visitors to remain at the website rather than move to another site" (Holland and Menzel-Baker, 2001, p. 37). Online satisfaction may also be defined as the contentment of the customer with respect to his or her prior purchasing experience with a given electronic firm (Anderson and Srinivasan 2003). Specific to the current research, website design may impact levels of online

consumer satisfaction (Spiller and Loshe, 1998). In this investigation, website satisfaction refers to fulfilment of the user's needs and expectations, and that the website is perceived as satisfactory overall.

As with trust, there are few studies in which website satisfaction is examined in different cultures examine. However, Evers and Day (1997) considered satisfaction between a group of Asian (collectivist) students and a group of Australian (individualist) students. They found that 87 percent of Australians would be satisfied using technology adapted to their culture compared to 70 percent of Asians. In a study in which website satisfaction was examined in Canada, the U.S., Germany and Japan, participants did not trust a local website more than the foreign website of the same online vendor. In fact, the Japanese participants in the group were more satisfied with the foreign site than with their local site (Cyr et al., 2005), most likely due to poor cultural adaptation of the Japanese site. Further, Simon (2001) investigated website satisfaction across cultures and concluded, "The creation of a single universally appealing global site does not appear feasible given the differences between some cultures/consumers, and that a preferable strategy might be to instead create culturally and consumer specific sites." (p. 32). Most recently, Cyr (2008) found that in a three country sample, website design elements such as visual design, navigation design, and information design varied by country related to user satisfaction. Extrapolating from the work by Simon and Cyr as noted here, it is expected that Web users would be more satisfied with a localized version of a website that matches their cultural needs and preferences than a foreign website. As such, the following hypothesis is outlined.

Hypothesis 4. Website satisfaction will be higher for the local website than for the foreign website of the same online vendor.

E-loyalty

Online loyalty, or e-loyalty, has been conceived as a "consumer's intention to buy" from a website, and that consumers will not change to another website (Flavian et al., 2006). In a study in which website design was investigated as a precursor to e-loyalty across cultures, Cyr et al. (2005) define e-loyalty as intention to revisit a website, or to consider purchasing from it in the future. In a business-to-business service context, Lam et al. (2004) test customer satisfaction to loyalty where loyalty is both the patronage of an online vendor, as well as confidence in recommending the vendor. Consistent with the preceding, in the current investigation e-loyalty is defined as perceived intention to visit or use a website in the future and to consider purchasing from it in the future.

Relating e-satisfaction to e-loyalty, Devaraj et al. (2003) claim "repeated satisfaction with purchases eventually leads to customer loyalty" (p. 185). With respect to the design of a website, website loyalty may be dependent on consumer skills in managing and controlling a website, cognitive "lock-in", as well as the consumer's familiarity with the site (Johnson et al. 2000). Ability to trust a website will also influence whether or not a user will return to visit or to purchase (Jarvenpaa et al., 2000).

To our knowledge Cyr et al. (2005) conducted the only study in which e-loyalty is considered with respect to culture. In this instance, e-loyalty was tested for users in four countries related to website design. It was expected that users would be more loyal to the local than to the foreign website. However, results were inconclusive and only Americans demonstrated a clear preference for the local site. There was no significant difference in loyalty for Canadians and Germans, and counter to expectations, the Japanese were more loyal to the foreign site. In order

to further investigate loyalty toward a local versus a foreign website of the same vendor, but this time in India, the following hypothesis is posed.

Hypothesis 5. Website loyalty will be higher for the local website than for the foreign website of the same online vendor.

Methodology

Sample

The research sample was composed of 198 post-graduate students from the Indian Institute of Management at Lucknow in India. The medium for teaching at the institute is English. Students seeking admission are required to score highly on English language skills, and as a result these students are highly skilled in reading, writing, and speaking English. Participants were 85% males and 15% females, with a mean age of 24 years.

Task and Website Design

The Samsung website was chosen as the test site for this investigation. Approximately 75 websites were considered before choosing this site that was felt to be well localized to different cultures. Participants were asked to respond to a local version of the Samsung website, and a foreign version (which was the Hong Kong site)[i]. The Hong Kong site was not necessarily chosen for cultural difference from India, but rather as a foreign site against which to compare the local website. In particular, the Hong Kong site of the same Samsung vendor offered an English option which was very important so that participants were able to browse both their local and foreign websites with ease. However, it should be noted that when these websites were initially chosen they were determined to be different in terms of website characteristics by a focus group of experts who examined the two sites. The test of the two websites was not blind, and participants would know whether or not they were viewing the Hong Kong or the Indian website. Other than as a comparison website, no data was collected for Hong Kong.

Further, compared to the Indian site there are several design differences. For example, the Indian website uses different colours and more images of people than the Hong Kong site. Further, a more personal approach to the presentation of product information, including human-like representations to highlight certain information, was used on the Indian website. Pricing appears on the Indian site only and is represented in the local currency. Both sites tend to feature pop-up ads. The use of a local and foreign version of the same vendor website allowed examination of cultural preferences when product choices remain constant. Initially participants viewed the home page, and then were requested to navigate the site to choose a cell phone that they would hypothetically purchase. Once participants completed survey questions within category, 40 participants were randomly chosen and were asked a series of interview questions to obtain further information about the website experience. Interview questions appear in Appendix 1.

Measures

The survey instrument is the same used by Cyr et al. (2005). Original items for the survey were based on previously validated research to test several user reactions including website design, trust, satisfaction and e-loyalty. Design items relate to work by Badre (2000), Egger (2001), and Marcus and Gould (2000). Garrett's (2003) categorizations of design are represented. Information architecture is represented by items 1, 2, 3; information design by items 4, 8, 9; visual design by items 3 and 5, and navigation by item 6. Items on trust and satisfaction are adapted from Gefen (2000) and Yoon (2002). All items are constructed as agree-disagree statements on a 5 point Likert scale. A copy of the final survey items appears in Appendix 1. Respondents also completed an inventory for website perception as identified in hypothesis 2. This inventory was adapted from work by Simon (2001), who likewise examined website

attitudes from a cultural perspective. Items related to ugly-pretty, meaningless-meaningful, unreliable-reliable, boring-stimulating are reversed to limit response biasing.

To further reduce non-random errors, the survey was pre-tested with 62 undergraduate students. Categories were evaluated for item validity and reliability and several items were revised for better fit and comprehension. Final versions of the survey were created in two versions (one with the foreign website experience first; the other with the local website experience first). One-half the respondents received each version.

Reliability and Validity

Prior to testing using inferential statistics, the reliability and validity of the multiple item measurement scales were accessed. In Table 3 the results of a confirmatory factor analysis for website satisfaction, trust and e-loyalty are reported using AMOS 4.

[Insert Table 3 about here]

Factor loadings and composite reliabilities are reported for each construct for the local and foreign websites. All factor loadings are much greater than .5 as recommended by Hair et al. (1995) indicating convergent validity. Discriminant validity of the measurement scales was checked by a series of χ^2 difference tests (Anderson and Gerbing, 1988). Reliability scores are well beyond the thresholds recommended by Nunnally (1967).

Table 4 reports χ^2 values for both the local and foreign websites are significant (local website χ^2 = 36.63, df = 17, p<.01 and foreign website, χ^2 = 38.55, df = 17, p<.01). However, other fit indices show a good fit for both local (GFI = .95, CFI = .97, TLI = .96 and RMSEA = .04) and foreign website data (GFI = .96, CFI = .98, TLI = .96 and RMSEA = .05). The goodness of fit index (GFI), comparative fit index (CFI) and Tucker-Lewis Index (TLI) are above the

acceptable guideline of .90. Additionally, the root mean square error of approximation (RMSEA) is below the .08 guideline of acceptability (Hair et al. 1995). Therefore, both models were determined to be sufficiently robust to proceed with further analysis.

[Insert Table 4 about here]

Mean scores and independent sample t-tests were calculated to determine if statistically significant differences occurred for the various constructs under investigation.

Results

Website Design Elements

In Table 5 mean values are reported for each item on the survey related to participant preferences for design elements on the local website versus the foreign website. In support of Hypothesis 1 (a to i), in all cases users had a clear preference for the Indian Samsung website over the foreign Samsung Hong Kong website related to menu layout, accessibility to product information, logical presentation of product information, screen design, navigation, sequencing, presentation of product attributes, and product availability.

[Insert Table 5 about here]

Qualitative data supports these findings. Concerning navigation, the majority of respondents perceived the Indian site to have more features and "user-friendly" utility tools which made navigation easier and faster. Alternately, others found the foreign site more complicated and time consuming to navigate due to lengthy information presented on various product models. One individual commented: "Four, five pages on a model is really boring, and who has the time!" Most individuals agreed price is the most important factor in deciding

whether or not to purchase from the website. One participant elaborates, "Even if we want the funkiest one (website) having really exciting features and look, we have to see the price tag first".

As reported in Table 6, mean values are indicated for each survey item related to participant preferences for affective website characteristics for the local and foreign sites. In support of Hypothesis 2 (a), (b), (e), (f), (g), (h), (i), (j), (k), (l), (m), (n), and (o) participants perceived the local website to be more successful, professional, emotional, logical, friendly, sensitive, meaningful, warm, accurate, interesting, reliable, stimulating and comfortable than the foreign website. Level of perceived difference is evident for 12 of the 15 categories (p<.01). Hypothesis 2 (c) and (d) were not supported in that there were no perceived differences for the local website over the foreign website for whether the website was fast or pretty.

[Insert Table 6 about here]

Some of the affective appeal, or lack of it, is captured by the following comments. Most of the respondents found the Indian screen design more attractive due to the add-on features such as 3D effects or Flash. However, a few people found the Hong Kong site more attractive and described it as colourful, glossy and crisp. One respondent observes, "Continuous pop-ups are really disturbing in the Indian site". Another suggests that colour on either site adds to their appeal: "Dull sites are like obituary columns. Bright colours always attract me". In some cases, participants found neither website particularly attractive or useful: "I am not satisfied with either of the sites. They lack proper information and are not appealing." Another individual adds, "It's boring and monotonous like many other such sites".

Website Trust, Satisfaction, and E-loyalty

Table 7 reports significant mean differences for website satisfaction, trust and loyalty toward the local website over the foreign website. As such Hypotheses 3, 4, and 5 receive

statistical support (p<.001). Concerning trust, and based on interview data, the Indian site appeared more trustworthy as it is a local site providing information about local vendors and dealers. Despite this, some respondents thought the information presented was incomplete and lacked consistency with respect to model features.

[Insert Table 7 about here]

Although respondents seemed to trust the local site, that did not necessarily mean they would purchase from it. Some individuals noted they prefer to access detailed information from the website but then will purchase the item from a local dealer rather than through the Internet. The main reason is security. As one person explains, "Whatever they claim, I just can't disclose my credit card number on the Net". Further, respondents generally outlined they are not comfortable disclosing credit card numbers on Internet sites, and this feeling is even stronger when the website is foreign. If one is purchasing a costly and useful product, it is perceived important to see, touch, feel and experience the product. One participant elaborates, "Even if I read about it (a product), I would like to experiment on the features, weight, and feel the difference before buying. I don't want to take a chance. After all, you just can't dispose a costly product just because you made a mistake in choosing." Some participants think the local dealers will charge somewhat less due to competition which would not be possible for the Hong Kong site. To explain, "Here we know a number of shops who will give a discount on the retail price. Why go for Net buying?"

Discussion

Summary of Results

In this investigation, we aimed to test how the local website is perceived by online users in India compared to a foreign website. Emotive reactions of users to the websites were also examined. In addition, we tested user perceived trust, satisfaction, and loyalty to the local and foreign websites. As expected, Indian users preferred website design for the local website (for all 9 design elements). Concerning user perceptions of which website is most appropriate for their country based on a variety of emotive characteristics, in 13 of 15 instances the local website is statistically seen as more favourable. Qualitative data collected from interviews indicates that colourful websites add to user's appeal as do more personal and "user-friendly" presentations of product information. Availability of price information (absent on the Hong Kong site) was an important determinant as to whether a user would purchase from the website. Higher website trust, satisfaction, and e-loyalty were reported for the local over the foreign website.

Theoretical Implications

This research builds on earlier work in the design community (especially Garrett 2003), to systematically consider key design areas such as information architecture, information design, visual design, and navigation. This is a contribution to the design literature, as well as extends concepts of design to the e-business community. The topic of the investigation is novel, and to our knowledge is the only work along with Cyr et al. (2005) in which website design has been investigated in this manner across countries. This study also builds on the work by Simon (2001) to test user emotive responses to the websites. Further, it is the only research that examines website design, trust, satisfaction, and e-loyalty for a local website and a foreign website of the same online vendor.

The current investigation serves to reinforce the need for localization of website content for diverse users, and supports other research in this area (Cyr and Trevor-Smith, 2004). This is evidenced in user preferences for the local site over the foreign site in this study. Contrary to the overall finding by Cyr et al. (2005), in the current research significant preferences for the local site occurred for almost all the design elements tested. Considering these anomalous findings, and given the same methodological procedure used in both studies, one possible explanation is the relative appropriateness of localization of design for the Samsung sites. For instance, it appears the Indian site is better localized to its constituents, while the websites for the US, Canada, Germany, and especially Japan may require some improvement. However, it should be noted that in the earlier investigation, on a scale of 1 to 5, mean values for Americans, Germans, and Canadians were mostly between 3 and 4 suggesting they somewhat liked the design of both local and foreign websites. The expectation was, as in the current research, that users would indicate a clear preference for the local website. This study therefore adds valuable information to a field that at this point is exploratory in nature.

The current work reinforces the call by Grabner-Krautner and Kaluscha (2003) for research that probes trust in diverse cultural contexts. Given that users in this investigation had higher levels of trust, satisfaction and e-loyalty for a local website, it seems important to further research underlying antecedents of constructs related to website design. Parallel research by Cyr et al. (2005) did not reveal clear results indicating user preferences for the local over the foreign website. As with design, this may be an artefact related to effectiveness of localization of the websites. In India, localization of the Samsung site appeared appropriate to the culture. It is noteworthy that in both investigations security of the website is important.

Considering the work by Hofstede (1984) as outlined in the introduction of this paper, Indian participants had the lowest score for uncertainly avoidance (compared to Canada, the U.S.,

Germany and Japan in the earlier study). This generally suggests that Indian participants are perhaps most willing to trust a localized website. This propensity may help to ameliorate some of the risk associated with purchasing online as outlined by other researchers (i.e. Jarvenpaa et al., 1999). Further, according to Hofstede, Indian participants are highest in power distance compared to the other four countries. As such, they are willing to accept expert opinions or representations (as on a website). Based on this value characteristic, it may be that Indians will accept information presented on a website for a large and established company as both credible and therefore trustworthy. The Hong Kong website was used solely as a website for comparison, and no data was collected for that country. However it is interesting to note that India has a more feminine culture than Hong Kong based on Hoftede's classifications. This may be one reason the Indian website included more social elements such as photographs or human characters that aided to provide key information to users. The caveat to this sort of cultural work is that while these are cultural generalizations, there will always be individual differences within the group.

The impact of this work on consumer behaviour is clear. Creating effective and culturally sensitive websites has emotional impact on the user, and is more likely to result in trusting, satisfied and loyal customers. This finding supports work by others concerning trust (Jarvenpaa et al., 1999), satisfaction (Spiller and Loshe, 1998), and loyalty (Flavian et al., 2006; Johnson et al., 2000) although this earlier work did not consider culture. Finally, to take advantage of the greater opportunities for personalized marketing present in the online environment opposed to the offline environment (Burke, 2002), one would expect websites to be designed that are culturally appropriate.

Applied Implications

The numbers of online consumers is rapidly growing in diverse county locations. Based on the findings from this study, it appears that users have a distinct preference for a local website over a foreign website. At a strategic level, this suggests the importance of managerial support for website localization practices. Although there are financial costs associated with website localization, if online customers are more trusting, satisfied, and loyal to an online vendor as a result of country specific website design, then benefits are expected to outweigh costs. Further, as more companies pay attention to website localization, those companies that fail to adapt in this area are likely to experience a gradual attrition of online customers.

The place of the transaction has shifted to a medium where the website is the primary interface with the customer, and is therefore pivotal to creating vendor presence. Promotion, product information, and pricing must be presented in a way perceived as appropriate to the user. In the domain of Web designers and localization experts, and based on the results of this research as well as the work of others, creating effective websites goes beyond simple translation of the website.[ii] Visual design of the site includes colours, symbols, or use of animation and is ideally suitable to each country group. Regarding information design, providing easy access to information and in the expected amounts may have the ability to turn browsers into buyers. As evidenced in the Indian sample, users felt too much product information was boring. Although having readily accessible pricing information was seen as desirable, and superseded the design elements of the site for some users. Brightness of colours has typically been considered to vary across cultures, and in the current investigation this element was mentioned as well.

Study Limitations

A limitation of the investigation is that both the local and foreign websites used are Samsung sites. While this allows a reasonable basis for comparison in the present study, future research should conduct similar investigations with a wider range of websites representing different online vendors. This would serve to eliminate any reputation biasing that may occur related to participant impressions of Samsung. In addition, in this research one task was the focus: to search for a desirable cell phone for hypothetical purchase. In other investigations, it would be interesting to use a service-based site, rather than a product-based site, for additional comparisons.

All participants in the study are post graduate students in management at an elite management institute in India. While this ensured fluency in English and computer literacy skills, it is not a completely representative sample of the Indian population. Hence, generalizability to the Indian population at large is limited.

It is possible that participants in the study are more likely to have previously visited the Samsung India website over the Samsung Hong Kong site and therefore may have different familiarity with the websites. In addition, it is important to consider the technical equivalency of the two websites tested. In this case, since both websites were created by the same parent company one would expect equivalence. In fact, participants did not report technical difficulties during the visits to either website.

Directions for Future Research

The present research is situated in India. Previous investigations using the same format have been conducted with smaller samples in Canada, the United States, Germany and Japan. A natural extension of this exploratory work would be to test larger populations, in an expanded

number of countries. Of interest, are comparisons of website perceptions related to trust, satisfaction, and e-loyalty in both developed as well as in developing economies. Statistical modelling of these various relationships can be undertaken. Further, to gain a deeper appreciation of how design elements operate, testing can be conducted in a controlled laboratory setting using eye tracking equipment or bio-potential devices (such as galvanic skin response) in order to systematically examine the human-computer interface. Various characteristics of the website such as colour or level of detail can be experimentally manipulated and tested in order to see how these design characteristics are perceived in different cultures.

As indicated in the introduction of this paper, the number of Internet users, and therefore potential Internet shoppers, is rising at an exponential rate. This presents mammoth opportunities for companies to expand their sales, marketing, and revenue channels to countries such as India. However, to successfully operate in different countries, and with diverse groups of users, a prescient understanding of user preferences is required. This paper provides evidence that website design is important, and appears to have an impact on users' trust, satisfaction, and e-loyalty toward a website. The scope for continued systematic research in the area of website design is huge. Further, as already noted, an enhanced appreciation of localization requirements of diverse users will be especially important to companies that wish to compete successfully in the increasingly competitive e-global economy.

Acknowledgement

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Appendix: Participant Survey and Interview Questions

Note: Items answered by each participant for both the local and foreign Samsung site.

Website Design
Design1: The user menus are clearly categorized and are well laid out on the screen.
Design2: I can easily recognize and find where product information is located.
Design3: The website looks professionally designed and well presented.
Design4: The product information provided on the website is presented consistently and logically.
Design5: The screen design on the website (i.e. colours, boxes, menus, navigation tools etc.) is harmonious and well presented.
Design6: The website can be easily navigated.
Design7: The organization, sequencing and overall arrangements of the site are understandable and easy to use.
Design8: All product options, product attributes and product information are well designed and presented.
Design9: Site product availability and product variety are well explained.
Trust
Trust1: I can trust the online vendor.
Trust2: The website is credible to me.
Trust3: I can trust the information presented on the website.
Satisfaction
Sat1: The website completely fulfils my needs and expectations.
Sat2: This website satisfies my particular needs well.
Sat3: Using this site/service is satisfactory overall.
Loyalty
Loy1: I would visit this website again.
Loy2: I would consider purchasing from this website in the future.

Interview Questions

What do you like about the India versus the Hong Kong websites?
What could be improved for each website?
What do you think of the visual design of the website, such as the colours used?
Which of the two websites that you have viewed provides the most information, and why?
Which website do you find easiest to navigate and why?
What matters to you when making an online purchase decision?

Table 1

Country Statistics for Population and Internet Use

Nation	Population	Internet Users	Active Users
Canada	32.81 million	20.45 million	8.8 million
Germany	82.43 million	41.88 million	29.89 million
India	1.08 billion	36.97 million	NA
Japan	127.4 million	78.05 million	37.46 million
United States	295.73 million	185.55 million	137.54 million

Source: ClickZStats, July 7 2005

Table 2

Country Cultural Dimensions

Country Dimensions	India	United States	Canada	Germany	Japan
Power Distance	High (77)	Low (40)	Low (39)	Low (35)	Med (54)
Uncertainty Avoidance	Low (40)	Low (46)	Low (48)	Med (65)	Very high (92)
Masculine	Med (56)	Med (62)	Med (52)	Med (66)	Very high (95)
Individualism	Low (48)	Very high (91)	High (80)	Med (67)	Low (46)

(from Hofstede 1984)

Table 3

Confirmatory Factor Analysis (CFA) Results for Satisfaction, Trust
and E-loyalty for Local and Foreign Websites

Measurement Item	Local Website		Foreign Website	
	Factor Loading (λ)	Composite reliability	Factor Loading (λ)	Composite reliability
Trust				
Trust the vendor	.77		.85	
Website is credible	.90	.87	.92	.87
Trust information	.80		.75	
Satisfaction				
Website fulfils needs and expectations	.82		.78	
Website satisfies needs well	.86	.82	.82	.85
Using the site/service is satisfactory	.68		.81	
E-Loyalty				
Would visit this website again	.68	.75	.84	.78
Would consider purchasing from website in the future	.89		.77	

Table 4

Fit Statistics for Confirmatory Factor Analysis
for Satisfaction, Trust and E-loyalty

	Local Website	**Foreign Website**
χ^2	36.63	38.55
df	17	17
RMSEA	.04	.05
GFI	.95	.96
CFI	.97	.98
TLI	.96	.96

Table 5

Mean Values for Design Elements (foreign and local)

Design Element	**Foreign Mean**	**Local Mean**	**Sig**
Menu layout (H1-a)	3.33	3.64	*
Access to product information (H1-b)	3.43	3.70	*
Professional design (H1-c)	3.64	4.01	**
Logical presentation of product information (H1-d)	3.56	3.91	**
Screen design (H1-e)	3.67	3.88	*
Navigation (H1-f)	3.64	3.91	*
Sequencing (H1-g)	3.46	3.72	*
Presentation of product attributes (H1-h)	3.25	3.84	**
Product availability (H1-i)	3.22	3.74	*

* p<.05   ** p<.01

Table 6

Mean Values of Affective Website Characteristics for Foreign and Local Websites

Website Characteristics	**Foreign Mean**	**Local Mean**	**Sig**
Successful-Unsuccessful (H2-a)	2.20	2.61	**
Professional-Amateur (H2-b)	1.86	2.08	**
Fast-Slow (H2-c)	2.10	1.98	ns
# Ugly-Pretty (H2-d)	3.81	3.73	ns
Emotional-Unemotional (H2-e)	2.99	3.35	**
Logical-Illogical (H2-f)	2.09	2.36	**
Friendly-Unfriendly (H2-g)	2.24	2.55	**
Sensitive-Insensitive (H2-h)	2.73	2.99	**
# Meaningless-Meaningful (H2-i)	3.91	3.68	**
Warm-Cold (H2-j)	2.56	2.72	**
Accurate-Inaccurate (H2-k)	2.02	2.17	*
Interesting-Boring (H2-l)	2.27	2.71	**
# Unreliable-Reliable (H2-m)	3.95	3.67	**
# Boring-Stimulating (H2-n)	3.44	3.07	**
Comfortable-Uncomfortable (H2-o)	2.13	2.46	**

*p<.10   ** p<.01   ns=not significant

 # indicates items that are reversed to eliminate response biasing. As such, the value of the
  mean is reversed from the rest. For example, for the first reverse scored item (for
  ugly-pretty) the higher score means the site is viewed by the user as less attractive.

Table 7
Mean values for website satisfaction, trust,
and e-loyalty (foreign and local)

Construct	Foreign Mean	Local Mean	Sig
Trust (H3)	3.43	3.85	***
Satisfaction (H4)	2.94	3.52	***
E-loyalty (H5)	2.72	3.50	***

*** p<.001

Notes

[i] The local site for the study is: http://www.samsung.com/in/ and the foreign Hong Kong site is: http://www.samsung.com/he/index.htm Also of interest, the websites used in the comparison investigation are: Canada http://www.samsung.com/ca/   USA http://www.samsung.com/us/
Germany http://www.samsung.de/ and Japan http://www.samsung.com/jp/
[ii] Although a thorough discussion of localization techniques is beyond the scope of this paper, refer to Cyr and Trevor Smith (2004), Garrett (2002), Marcus and Gould (2000), and Nielson (2001) for more detailed information.