

## **Beyond Trust: Website Design Preferences Across Cultures**

Dianne Cyr, Carole Bonanni, John Bowes and Joe Ilsever

Simon Fraser University  
2400 Central City  
10153 King George Highway  
Surrey, B.C. Canada V3T 2W1  
Telephone: 604.268.7500

Contact: [cyr@sfu.ca](mailto:cyr@sfu.ca)

Citation: *Journal of Global Information Management*  
2005, 13(4), pages 24-52

# Beyond Trust: Website Design Preferences Across Cultures<sup>i</sup>

Dianne Cyr, Carole Bonanni, John Bowes and Joe Ilsever  
Simon Fraser University, Canada

## ABSTRACT

*The growth of Internet shopping motivates a better understanding of how e-loyalty is built online between businesses and consumers. In this study website design and culture are advanced as important to website trust, website satisfaction, and e-loyalty in online business relationships. Based on data collected in Canada, the U.S., Germany and Japan, the research considers (1) examining within culture preferences for design elements of a local versus a foreign website and subsequent participant perceptions of trust, satisfaction and e-loyalty, and (2) comparisons between cultures for design preferences of local and foreign websites and subsequent participant perceptions of trust, satisfaction and e-loyalty. As predicted, similarities were greatest among Americans, Canadians, and Germans, with the Japanese representing a different and unique case. The results are discussed against hypothesized expectations. Implications for future research are outlined.*

*Keywords:* website design, trust, satisfaction, e-loyalty, culture

## INTRODUCTION

The origin of online shoppers is progressively more global and represents a multicultural community. In 2004, there are 736.6 million people with Internet access (Global Reach, 2004) and hence access to online consumer products. Of those Internet users the primary language is English (35.6%), followed by Chinese (12.2%), Japanese (9.5%), Spanish (8%), and German (7%). Understanding how to build trust, satisfaction and ultimately loyalty for diverse consumers in electronic markets is a central imperative (Gommans et al, 2001; Grewal et al, 2003; Jarvenpaa et al, 1999; Jones et al, 2000; McKnight et al, 2002; Urban et al, 2000; Yoon, 2002).

Despite an anticipated large number of consumers from multiple cultures, few studies have systematically examined Web preferences of users related to design characteristics across cultures. This appears an omission in the literature, considering Chen and Dhillon (2003, pp. 310-311) who note:

In the case of an Internet vendor, the website is perhaps the only way a firm communicates with its customers. Therefore its appearance and structure encourage or discourage a consumer's purchase intentions. In the marketing literature website features such as layout, appeal, graphics, readability, and ease-of-use have been considered to affect consumers' clicking frequency.

Some researchers have done work in the area of culture and design (Barber and Badre, 2001; Del Galdo and Nielsen, 1996; Marcus and Gould, 2000), but results have been either inconclusive or unrelated to developing loyal online customers. Issues of interest extend beyond consideration of language to also include color, product information and use of images.

With increased prevalence of the Internet for shopping, research has been focused on how to develop trust online. As with the literature on trust prior to the Internet, the elements contributing to online trust are diverse and include quality, customer support, on-time delivery, compelling product presentations, convenient and reasonably priced shipping and handling, clear and trustworthy privacy policies (Reichheld and Schefter, 2000), company reputation (Egger, 2000; Jarvenpaa et al., 1999; Lohse and Spiller, 1998; Quelch and Klein, 1996; Resnick and Zeckhauser, 2002; Yoon, 2002), online transaction security (Palmer et al, 2000), or information privacy (Hoffman and Novak, 1996) among other considerations. Overall shopping satisfaction has been used to predict subsequent purchases and loyalty to Internet shopping sites, (Anderson and Srinivasan, 2003; Devaraj et al, 2002; Szymanski and Hise, 2000; Yoon, 2002). In particular, Yoon tested both trust and satisfaction related to website design and security, and found trust related to security, while ease of navigation (generally accepted as a design characteristic of websites) tied to satisfaction. This is an interesting distinction, and suggests satisfaction merits further investigation related to various design features of websites.

Although trust and satisfaction are expected to be predictive of e-loyalty, few studies have systematically examined these elements linked to design preferences. More specifically, design preferences contributing to the development of trust, satisfaction and e-loyalty have not been examined across cultures. This investigation addresses this gap by examining *within* culture preferences for design features of a local versus a foreign website and participants' consequent perceptions of trust, satisfaction and e-loyalty. The research also examines comparisons *between* cultures for design preferences of the local website and subsequent participant perceptions of trust, satisfaction and e-loyalty. In other words, the investigation addresses whether some cultures are more sensitive than others to culturally biased Web design. The implications of this research are important as Internet commerce increasingly bridges national frontiers.

This paper presents a literature review with emphasis on cultural implications of design, trust, satisfaction, and e-loyalty. Results of a four-nation study conducted onsite in Canada, the U.S., Germany and Japan are reported. Data were collected using questionnaires, online user tasks and follow-up interviews. The paper concludes with a discussion of Web design and culture with implications for future research.

## **CONSIDERATIONS OF CULTURE**

A definition of culture is complex. According to Matsumoto (1994), culture is characterized as the degree to which people share attributes, values, beliefs and behaviors. Hofstede defines culture as "the collective programming of the mind which distinguishes the members of one group from another" (1984, p. 21). Doney et al (1998) note 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" (1998, p. 67). Although one definition of culture is

not possible, various researchers have used nation state as a loose categorization for culture (Doney et al, 1998). In fact, for more than twenty years researchers have relied on the work by Hofstede (1984) in order to make meaningful comparisons between national groups. While it is recognized these categorizations are not perfect, they do provide a readily identifiable basis for contrast.

To understand how national culture is related to social psychological phenomena such as trust, several researchers (Dawar et al, 1996; Jarvenpaa et al, 1999; Simon, 2001; Yamagishi and Yamagishi, 1994) refer to Hofstede's (1984) cultural dimensions of individualism-collectivism, uncertainty avoidance, power distance, and femininity-masculinity.<sup>ii</sup> Individualism-collectivism focuses on an individual's relationships with others. In an individualist society such as the U.S., Canada or Germany individuals are expected to consider personal interests over interests of the group and individual decision-making is valued. Uncertainty avoidance characterizes how societies accommodate high levels of uncertainty and ambiguity in the environment. Members of high uncertainty avoidance societies such as Japan seek to reduce personal risk and to augment security. Power distance addresses 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. Finally, 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). Relevant to the cultures studied in this investigation: Canada, the U.S., Germany and Japan, differences on each of Hofstede's dimensions are noted in Table 1.

*Table 1: Country Cultural Dimensions*

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

Culture or ethnicity has been related to a wide range of consumer preferences in non-Internet settings including attitudes toward advertising (de Mooij 1998; Alden et al. 1993; Durvasula et al. 1993), brand loyalty (Deshpande et al. 1986), consumer values (Valencia 1989), consumption patterns (Wallendorf and Reilly 1983), and perceived risk (Hoover, Green, and Saegert 1978). The results of the studies suggest culture does have a large potential influence on consumption behavior, although most of the work has been descriptive in nature.

Culture has implications in Internet settings as well, and is proposed to affect marketing (Tian and Emery, 2002), consumer trust (Jarvenpaa et al, 1999), Internet diffusion (Ferle et al, 2002), Internet marketing (Tian and Emery, 2002), and website development (Kang and Corbitt, 2001; Sun, 2001). Differences in online communication strategies for target markets were detected between Japan, Spain and the U.S. (Okayazaki and Rivas, 2002). In other work, Evers and Day (1997) demonstrate differences between cultures exist concerning Web interface acceptance and preferences for design features. However, how consumer preferences relate to culture and e-loyalty is not well understood. Further, research does not examine systematic preferences for a local website over a foreign website.

## **WEBSITE TRUST, WEBSITE SATISFACTION AND E-LOYALTY**

“Since transactions [on the Internet] occur without personal contact, consumers are generally concerned with legitimacy of the vendor and authenticity of products or services” (Chen and Dhillon, 2003, p. 1). Trust focuses on consumer confidence in the website as part of a buyer-seller transactional exchange, and consumer’s “willingness to rely on the seller and take actions in circumstances where such action makes the consumer vulnerable to the seller” (Jarvenpaa et al, 1999, p. 4). In contrast, website satisfaction refers to a positive navigation experience and perception of a well designed website (Balasubramanian et al, 2003). A generally accepted definition of e-loyalty (and adopted in this research), is that loyalty in online environments refers to repeat purchase intention or intended return visits to a website (Corstjens and Lal, 2000; Gommans et al, 2001).

### **Website Trust and Culture**

Prior to the advent of the Internet, trust was examined in multiple disciplines in multiple ways. Traditionally trust has been difficult to define and measure (Rousseau et al, 1998). Other researchers have called the state of trust definitions confusing (Lewis and Weigert, 1985; McKnight et al 2002), a “conceptual morass” (Barber, 1983, p. 1; Carnevale and Wechsler, 1992, p. 473) and multidimensional (Chen and Dhillon, 2003; Mayer et al, 1995; Rousseau et al, 1998). Others believe trust is a single dimension (Selnes, 1998). Bhattacherjee (2002) conducted an extensive review of trust based on previous research and concludes ability, benevolence and integrity are conceptually distinct and reflect “different elements of cognitive and affective abstractions of trust”. (p. 219)<sup>iii</sup>

Disposition to trust is an enduring and personal characteristic that may also be embodied in culture. According to McKnight et al (1998, p. 473-490), “Disposition to trust is a

general, i.e. not situation specific, inclination to display faith in humanity or to adopt a trusting stance toward others". Further, "[T]rust is determined by a general trusting disposition that is the product of a lifelong socialization process. This disposition is especially influential when the trusting party has not had extensive personal interaction with the specific organization or person in question. Therefore, also a trusting disposition should influence people's trust in a vendor" (Gefen, 2000, p. 729).

"Lack of trust is one of the most frequently cited reasons for consumers not purchasing from Internet vendors" (Grabner-Krauter and Kaluscha, 2003<sup>iv</sup>). Despite the importance of the concept, a definition of trust in online environments remains as elusive as does a definition of trust when conducting traditional shopping. In general, online trust is a multifaceted concept, and supports earlier research on trust in traditional settings. Further, 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" (2003, p. 807).

Cultural norms dictate a higher propensity to trust in collectivist than individualist cultures (Doney et al 1998; Parks and Vu, 1994; Triandis, 1990). Collectivists rarely move in and out of groups, and levels of trust and cooperation are high among collectivist group members. Weber and Hsee (1998) found that Chinese collectivists are least risk averse when selecting risky financial options than participants from the U.S., Germany or Poland. The authors suggest that in collectivist countries like China, collectivism acts like "a cushion" when other members in the family or society assist in bearing possible negative consequences of a decision.

Individualistic societies have commonly less trust and cooperation in relationships that are transitory. Between cultures, the tendency to trust is reversed. Individualists are more optimistic than collectivists concerning benevolence from strangers (Inglehart et al, 1998; Yamagishi and Yamagishi, 1994). Kim and Son (1998) measured levels of distrust between Americans (highly individualist) and Koreans (highly collectivist) and found for Americans 59 percent trust members of a different ethnic group in their society, and 57 percent trust people from a different country. For Koreans, the average responses were 23 percent and 18 percent respectively. According to Yamagishi and Yamagishi (1994), exchange relationships outside a cultural group only occur when there are strong institutional safeguards (such as strong cultural norms or legal sanctions). In the evolving Internet environment no strong legal structures prevail, thus collectivists may see the risks of buying online as more pervasive than do members of individualist cultures (Jarvenpaa et al. 1999). This would be especially true when purchasing from a foreign website.

With reference to culture and the Internet, few studies focus on trust, and those that do often have inconclusive results. Lui et al (2004) examined privacy and trust on electronic commerce between American and Taiwanese participants. The authors found systematic differences in website perceptions concerning privacy, but no differences were evident related to culture. Jarvenpaa et al (1999) used Hofstede's dimensions to compare Internet trust in collectivist and individualist cultures. The researchers expected consumers from individualist cultures would exhibit higher trust in an Internet store than consumers from collectivist cultures (similar to Yamagishi and Yamagishi 1994, noted above). Contrary to this hypothesis, no strong cultural effects were found regarding antecedents to trust. Similarly, Badre (2000) conducted research on consumer trust in an Internet environment in individualist versus collectivist cultures with mixed outcomes. Simon (2001) found differences in trusting stance toward websites.<sup>v</sup> Asians were most trusting of information

provided across American and European websites (83% positive), counter to the earlier findings of Yamagishi and Yamagishi (1994) and Inglehart et al (1998). In Simon's study, Europeans (46% positive) and North Americans (42% positive) exhibited substantially lower levels of trust toward the websites. This finding supports research by Doney et al, (1998) and others who found that within a group Americans will be unlikely to trust (i.e. American websites).

Of interest in this investigation is whether local websites will engender higher levels of trust for Web users than will a foreign site of the same vendor. Related to earlier work by Yamagishi and Yamagishi (1994) and others, the investigation will test whether Web users from individualistic cultures such as Canada or the U.S., are least likely to trust the local website, and most likely to trust the foreign website than are moderately individualistic users as in Germany, and collectivist Japanese users.

*Hypothesis 1:* Within a cultural group, local website trust will be higher than foreign website trust.

*Hypothesis 2a:* Between cultural groups, American and Canadian participants are least likely to trust the *local* website, followed by Germans, and then the Japanese.

*Hypothesis 2b:* Between cultural groups, American and Canadian participants are more likely to trust the *foreign* website, followed by Germans, and then the Japanese.

## **Website Satisfaction and Culture**

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). According to Anderson and Srivanan (2003), e-satisfaction is defined as the contentment of the customer with respect to his or her prior purchasing experience with a given electronic firm. Relating e-satisfaction to e-loyalty, Devaraj et al (2003) claim “repeated satisfaction with purchases eventually leads to customer loyalty” (p. 185). Further, Szymanski and Hise (2000, p. 318) found “positive perceptions of site design are important to e-satisfaction assessments”.

In concert with the usability literature, it is expected online consumers will be more satisfied with websites that are localized<sup>vi</sup> to their particular cultural preferences. The goal of localizing user interfaces is to provide a “technologically, linguistically and culturally neutral platform from which to launch global e-commerce initiatives while allowing a framework that incorporates local content and functionality” (Shannon, 2000). More simply put, this involves “enhancing the site to fit the target users at different locales” (Alvarez, Kasday, and Todd, 1998; Lagon, 2000).

Few studies examine website satisfaction across cultures. Notable exceptions are Evers and Day (1997) who considered website satisfaction between a group of Asian students (from collectivist cultures including Indonesia, China, Hong Kong, Taiwan, Singapore and Japan) and a group of Australian students (who represent an individualistic culture orientation). They found 87 percent of the Australian sample would be satisfied using technology adapted to their culture, compared to 70 percent of the Asian group. This finding appears to indicate Australians were most interested in localization of the website contents, and would be more satisfied with the outcome.

In other work relevant to the current investigation, Simon (2001) likewise examined website satisfaction across cultures. His findings are counter to those of Evers and Day (1997). Asians were slightly more satisfied with sites presented in the study than the Europeans and North Americans; although it should be noted different sites may contribute to this discrepancy. Simon concludes, “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) In short, websites merit localization to appeal to diverse cultural constituents.

Based on the premise that website users will be more satisfied to a localized site that matches their cultural needs and preferences, the following hypothesis is outlined.

*Hypothesis 3:* Within a cultural group, local website satisfaction will be higher than foreign website satisfaction.

To date there appears little if any sound theory to support website preferences between cultures related to satisfaction. Further, existing work (Evers and Day, 1997; Simon, 2001) provides no consistent outcomes to inform future research. However, following Simon who found Asians were more satisfied with a sample of sites than Europeans and North Americans, the following exploratory hypotheses are suggested.

*Hypothesis 4a:* Between cultural groups, American and Canadian participants are least likely to be satisfied with the *local* website, followed by Germans, and then the Japanese.

*Hypothesis 4b:* Between cultural groups, American and Canadian participants are least likely to be satisfied with the *foreign* website, followed by Germans, and then the Japanese.

### **E-Loyalty and Culture**

To date no work has been conducted to study Web users' loyalty to a local and foreign website and to compare Web users loyalty across culture.

*Hypothesis 5:* Within a cultural group, loyalty to the local website will be higher than loyalty to the foreign website.

*Hypothesis 6a:* Between cultural groups, American and Canadian participants are most likely to express e-loyalty for the *local* website, followed by Germans, and then Japanese.

*Hypothesis 6b:* Between cultural groups, American and Canadian participants are most likely to express e-loyalty for the *foreign* website, followed by Germans, and then Japanese.

### **WEBSITE DESIGN AND CULTURE**

Effective website design engages and attracts online consumers (Agarwal and Venkatesh, 2002; Fogg et al 1999; 2002, Hoffman and Novak, 1996; Nielsen, 2001). Design elements often considered include architecture of the information, familiarity of metaphors,

transparency of terminology, ease of access, and level to which the site is customer-centric (Egger, 2001).

According to Gommans et al (2001, p. 51), “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”. Barber and Badre (2001) refer to the merging of culture and usability as ‘culturability’, when cultural elements are considered in website design and are expected to directly affect the way a user interacts with the site. In this regard Singh et al (2003) employed content analysis of 40 American-based companies to compare their domestic and Chinese websites. Significant differences in cultural characteristics were found for all major categories tested. The authors conclude, “the web is not a culturally neutral medium” (p. 63).

Some research in which design characteristics such as color or screen images were considered across cultures did find different user preferences (Del Galdo and Nielsen, 1996; Marcus and Gould, 2000). In other research, results have been mixed with no systematic design preferences determined across cultures (Barber and Badre, 2001). Badre (2000) tested Italian participants using Italian designs and found preferences for navigation, but not for color. In the same study, there were no significant differences uncovered as a result of varying cultural characteristics for Americans. Cyr and Trevor-Smith (2004) examined design elements using 30 municipal websites in each of Germany, Japan, and the U.S. Design elements considered were use of symbols and graphics, color preferences, site features (links, maps, search functions, page layout), language and content. Significant modal differences were found in each of the listed categories, and suggest distinctive design preferences across cultures.

Relevant to the current research, and in alignment with work outlined above, it is expected Web users will perceive design elements of a local website as more culturally appropriate and therefore preferred over design elements of a foreign website. This gives rise to the following hypotheses concerning website design.

*Hypothesis 7:* Within a cultural group the design elements of the local site will be preferred rather than the design elements of the foreign site of the same online vendor.

Further, building on the work by Hofstede (1984) outlined previously, it is expected there is general cultural similarity between Americans and Canadians. In turn, this may result in similar preferences concerning website design of either a local or foreign website. Germans represent a mid-range position in Hofstede's work, and the Japanese are most dissimilar from Americans and Canadians. These reported cultural differences among these groups suggest the following hypotheses.

*Hypothesis 8a:* Between cultural groups, website design preferences for the *local* site will be most similar between Americans and Canadians.

*Hypothesis 8b:* Between cultural groups, website design preferences for the *foreign* site will be most similar between Americans and Canadians.

*Hypothesis 9a:* Between cultural groups, website design preferences for the *local* site will be moderately similar between Americans or Canadians and Germans.

*Hypothesis 9b:* Between cultural groups, website design preferences for the *foreign* site will be moderately similar between Americans or Canadians and Germans.

*Hypothesis 10a:* Between cultural groups, website design preferences for the *local* site will be most dissimilar between Americans, Canadians, or Germans with the Japanese.

*Hypothesis 10b:* Between cultural groups, website design preferences for the *foreign* site will be most dissimilar between Americans, Canadians, or Germans with the Japanese.

## METHODOLOGY FOR THE STUDY

### **Survey Development**

A survey instrument was constructed to test several user reactions including design, trust, satisfaction and e-loyalty. Design items relate to work by Marcus and Gould (1999), Egger (2001), Badre (2000), and Cheskin (2000; 1999). Items on trust and satisfaction are drawn from Yoon (2002) and Gefen (2000). All items are constructed as agree-disagree statements on five-point Likert scales. Once the e-loyalty survey was finalized, it 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. A copy of the final survey items appears in Appendix 1. 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). In each country, one-half the respondents received each version. The survey was translated and back translated for each language required.

## **Research Task**

After extensive search for a website that appeared well localized, the Samsung site was chosen. For the research treatments, participants responded to a local version of the Samsung website (represented in their native language), and a foreign version (which was the English version of the Hong Kong site in each case).<sup>vii</sup> The Hong Kong site was specifically chosen since it was foreign and yet offered a language with which most respondents have either total proficiency, or at least some familiarity. In fact, this was the case. Initially participants viewed the home page, and then were requested to navigate the site to choose a cell phone they would hypothetically purchase. Once participants completed the survey questions within a category, each was asked parallel interview questions to obtain further information about the website experience. Interviews were digitally recorded. An interpreter was used when necessary.

## **Participant Selection**

Participants were selected and interviewed on site in the U.S., Canada, Germany, and Japan. These countries were chosen to represent diverse cultural characteristics as determined by Hofstede (1984) (cf. Table 1). Those interviewed comprised a stratified sample of employees from different levels in a multinational high technology company. The original sample of 30 participants in each country ( $4 \times 30 = 120$ ) was reduced to 114 respondents in the final analysis, and was equally distributed. Respondents included 41.5% females and 58.5% males, with an average age of 35 years.

## **Analysis**

Mean scores and t-tests were calculated to test significant between country differences. Established theory was used for the categorization of data. Key participant responses

were recorded by category and relevant quotes were produced verbatim. Once all individual responses had been extracted, a within-group analysis was carried out for each country. At the country level of analysis, responses were likewise coded and categorized. As the analysis proceeded, further segmentation of the data was required for emerging codes, themes, and categories. The final stage of the analysis consisted of a between-group analysis for all countries. This part of the process used the codes, themes, and categories developed in the previous stage. Once content analysis was completed, an independent reviewer considered the data from a different perspective in order to validate the findings. The second reviewer's examination of the data revealed virtually identical results.

## RESULTS

In this exploratory study, the objective was to examine differences within and between countries regarding preferred website design elements, website trust, website satisfaction and website loyalty. To determine differences, t-tests were performed on the individual observed variables for the design elements and on the factor scored variables for the trust, satisfaction and e-loyalty variables.

Reliability measures for local trust, local satisfaction, local loyalty, foreign trust, foreign satisfaction and foreign loyalty were assessed by using Cronbach's alpha. In Table 2 acceptable alpha scores are shown for these factors.

*Table 2: Cronbach Alpha Values*

Factors	Mean	Std Dev	Alphas
Local Trust	3.90	0.87	.93
Local Satisfaction	2.97	1.10	.92
Local Loyalty	2.75	1.20	.85
Foreign Trust	3.77	0.80	.88
Foreign Satisfaction	3.03	0.93	.89
Foreign Loyalty	2.60	1.10	.78

For each of the above factors, principal component analysis using varimax rotation was used to compute the factor score. Each factor is represented by only one variable that is the weighted sum of each of the observed variables included in the factor.

### **Website Trust, Satisfaction and Loyalty Within Cultures**

One objective was to test whether local websites will engender higher levels of trust, satisfaction and loyalty for Web users than a foreign site of the same vendor. In addition, the investigation will test whether Web users from individualist cultures such as Canada or the U.S., are less likely to trust, be satisfied and be loyal to the local website, and most likely to trust, be satisfied and be loyal to the foreign website than are moderately individualist users as in Germany, and collectivist Japanese users.

No statistically significant differences were found to indicate respondents in any of the countries trusted the local Samsung website more than the foreign site, rejecting hypothesis 1. Respondents trusted the foreign Hong Kong site as much as their local Samsung site. On average, the level of trust was higher than 3 on a scale from 1 to 5 for the respondents in each of the four countries for both conditions. Germans were overall most trusting (4.3 local site; 4.09 foreign site), and the Japanese were least trusting (3.3 local site; 3.45 foreign site).

Based on the interview data, all four cultural groups identify *vendor familiarity*, and *security signs* as important factors influencing their trust in online purchasing. Vendor familiarity refers to previous experience purchasing from a vendor, the popularity of the vendor's name, and the vendor's reputation. Such issues of security are particularly important to the Japanese and less so for Canadians, Americans, and Germans. On average, the

Japanese indicate less trust for Internet stores, more concern about security when buying online, and more concern about the legitimacy of online sales contact.

The name of the company and its popularity are identified as important elements of trust. One Japanese participant observed, *"What is important is...if the supplier is very famous, very popular. Well, I can trust them."* Another Japanese participant noted, *"I don't buy anything from a company that I never heard about."*

German participants emphasized personal experience with online purchasing, or friend's opinions as an element that affect their trust in online purchasing. As noted in the following: *"I really trust if I had good experience. Even if I hear from friends...good things [about the company], normally I trust more than, let's say, if it's the first time I'm on the site."*

Within each country, as shown in table 3, no statistically significant differences were found for level of satisfaction between foreign and local websites for the Canadians, Americans and Germans. For Japanese respondents the differences are statistically significant, although opposite to expected. The Japanese are more satisfied with and more loyal to the foreign website than the local website. In particular, the Japanese reported they liked the brighter colors of the foreign site, and found the colors on the local site "cold", and that images are badly designed.

American respondents are the only group to express loyalty to the local website over the foreign website. This is the case even though the local and foreign websites provide them with equal satisfaction. Consequently, hypothesis 3 is rejected and hypothesis 5 is valid only for U.S. respondents.

*Table 3: Local Vs Foreign Website Trust, Satisfaction, and E-loyalty*

	US	CAN	GER	JAPN
Local / Foreign Trust	-	-	-	-
Local / Foreign satisfaction	-	-	-	-3.12***
Local / Foreign E-loyalty	1.71*	-	-	-2.73**

\*significant at 0.1, \*\* significant at 0.05, \*\*\*significant at 0.01 (2-tailed)

*Hypothesis 1:* Within a cultural group, local website trust will be higher than foreign website trust.

*Hypothesis 3:* Within a cultural group, local website satisfaction will be higher than foreign website satisfaction.

*Hypothesis 5:* Within a cultural group, loyalty to the local website will be higher than the loyalty to the foreign website.

In conclusion, Canadian and German participants report similar levels of satisfaction, trust and loyalty for the foreign and local websites. American respondents are more loyal to the local website even though they report equivalent levels of trust and satisfaction for the local and foreign websites. Japanese respondents equally trust the foreign and local version of the Samsung website. However they are more satisfied with the foreign website and would be more likely to revisit or purchase from it.

### **Website Trust, Satisfaction and Loyalty Across Cultures**

The preceding section examined website trust, satisfaction and e-loyalty *within* each country comparing the foreign and local websites. In this section, trust, satisfaction and loyalty are investigated *across* countries to determine if there are systematic differences related to culture for (1) the local website, and (2) the foreign website. In keeping with the arguments of Yamagishi and Yamagishi (1994), Web users from individualistic cultures such as Canada or the U.S., are expected to express less trust, satisfaction and loyalty with the local website, and more trust, satisfaction and loyalty with the foreign website than moderately individualistic German users, and collectivist Japanese users.

When comparing the level of trust, satisfaction and loyalty between countries, for the *local* website, almost no differences are reported between the Canadians, Americans and Germans. However, Table 4 records large differences between the Japanese and the Americans, Canadians or Germans. Similar to the within culture results, Japanese respondents (rather than Americans or Canadians) trust least, are least satisfied, and least loyal to their local website. Germans trust their local site most. As such, hypotheses 2a, 4a and 6a are rejected.

*Table 4: Website Trust, Satisfaction and E-loyalty Across Countries for the Local Website*

	CDN/US	CDN/G	CDN/J	US/G	US/J	G/J
Local Trust	-	-	2.8***	-1.9*	2.8***	5.2***
Local Satisfaction	-	-	2.8***	-	3.4***	4.8***
<u>Local Loyalty</u>	-	-	3.6***	-	3.6***	3.8***

\* significant at 0.1, \*\* significant at 0.05, \*\*\*significant at 0.01 (2-tailed)

*Hypothesis 2a:* Between cultural groups, American and Canadian participants are *least* likely to trust the *local* website, followed by Germans, and then the Japanese.

*Hypothesis 4a:* Between cultural groups, American and Canadian participants are least likely to be satisfied with the *local* website, followed by Germans, and then the Japanese.

*Hypothesis 6a:* Between cultural groups, American and Canadian participants are most likely to express e-loyalty for the *local* website, followed by Germans, and then the Japanese.

Hypotheses 2b, 4b and 6b are likewise rejected. When comparing trust, satisfaction and loyalty between countries for the same *foreign* (Hong Kong) Samsung site, no statistically significant differences are reported in Table 5 between the American, Canadians and Japanese. However, on average Germans are more satisfied with the *foreign* website than Canadians and Americans. Germans are also more trusting and intend to be more loyal to the foreign website than Americans. Contrary to expectations, American and Canadian participants are neither least likely to be satisfied nor most likely to express e-loyalty for the foreign website. Neither are Americans or Canadians more likely to trust the foreign website.

*Table 5: Website Trust, Satisfaction and E-loyalty Across Countries for the Foreign Website*

	CDN/US	CDN/G	CDN/J	US/G	US/J	G/J
Foreign Trust	-	-	-	-1.8*	-	3.3***
Foreign Satisfaction	-	-2.4**	-	-1.8*	-	-
Foreign Loyalty	-	-	-	-3.0**	-	-

\*significant at 0.1, \*\* significant at 0.05, \*\*\*significant at 0.01 (2-tailed)

*Hypothesis 2b:* Between cultural groups, American and Canadian participants are more likely to trust the *foreign* website, followed by Germans, and then the Japanese.

*Hypothesis 4b:* Between cultural groups, American and Canadian participants are least likely to be satisfied with the *foreign* website, followed by Germans, and then the Japanese.

*Hypothesis 6b:* Between cultural groups, American and Canadian participants are most likely to express e-loyalty for the *foreign* website, followed by Germans, and then the Japanese.

### **Website Design Preferences Within Cultures**

The purpose of looking at Web users' preferences for design elements is twofold. One objective is to measure if differences in preferences for design elements exist between local and foreign websites. The expectation is that design elements of a local website should be preferred to those of a foreign website, thus supporting localization of websites. The second objective is to report differences across cultures regarding specific design elements. The survey included 9 questions pertaining to preferences for design elements (in Appendix 1).

Table 6 reports mean scores by country for each of these items for the local and foreign Samsung sites. On a scale of 1 to 5, mean values for the Americans, Germans and Canadians are mostly between 3 and 4 suggesting they somewhat like the design of the foreign and local websites. Japanese participants report values less than 3 for 8 out of the 9 design elements of the local website indicating moderate dislike of the local website.

Table 6: Mean Values for Design Elements (Local and Foreign)

	<b>US</b>	<b>CAN</b>	<b>GER</b>	<b>JPN</b>
Menu layout	3.48 3.48	3.30 3.67	3.93 4.03	2.28 3.82
Access to product information	3.79 3.41	3.70 3.89	4.07 4.10	2.39 4.03
Professional design	4.03 4.03	3.85 3.78	3.80 3.83	2.82 3.50
Logical presentation of product info	3.45 3.55	3.48 3.33	3.87 4.10	2.75 3.42
Screen design	3.51 3.86	3.67 3.48	3.63 3.57	3.10 3.57
Navigation	3.55 3.45	3.33 3.59	3.90 3.93	2.32 3.61
Sequencing	3.21 3.48	3.63 3.59	3.87 3.90	2.29 3.64
Presentation of product attributes	3.24 3.21	3.37 3.07	3.77 3.83	2.54 3.71
Product availability	3.00 3.03	2.89 2.78	3.13 2.67	2.61 3.11

Unshaded values represent local website data

Shaded values represent foreign website data

To test for statistical differences in design preferences for the local versus foreign website, t-tests were used. Counter to Hypothesis 7, Table 7 indicates there are no statistically significant, clear preferences for the local site over the foreign website for Americans, Canadians or Germans. Further, Japanese have a strong preference for the (Hong Kong) foreign website. Sentiments about the Japanese site are captured by this Japanese respondent, “*I say...use more pictures, more drawings to appeal to Japanese people...Japanese people like the emotional approach*”. Japanese seemed to prefer the brighter colors and animation present on the Hong Kong site.

*Table 7: Design preference within countries – statistically significant t-tests*

	Canada Local vs foreign	USA Local vs foreign	Germany Local vs foreign	Japan Local vs foreign
Menu layout	-	-	-	-5.1***
Access to product information	-	-	-	-6.0***
Professional design	-	-	-	-2.4**
Logical presentation of product info	-	-	-	-2.8***
Screen design	-	-	-	-1.8***
Navigation	-	-	-	-4.8***
Sequencing	-	-	-	-5.3***
Presentation of product attributes	-	-	-	-5.0***
Description of product availability	-	-	-	-2.0*

\* significant at 0.1, \*\* significant at 0.05, \*\*\*significant at 0.01 (2-tailed)

*Hypothesis 7:* Within a cultural group design elements of the local site preferred rather than design elements of the foreign site of the same online vendor.

### **Website Design Preferences Across Cultures**

The preceding analysis compared respondents' preference *within* each country for the local and foreign website designs. The following analysis compares the preferences *between* countries for the local and then the foreign websites.

In Table 8, t-test results are reported when comparing *local* website design preferences between countries. No differences are found between the U.S. and Canada, who each view their native websites similarly. Few differences exist between the U.S. or Canada and Germany. The majority of significant differences are between Japan and the other three countries in the study. Largest differences are between Germany and Japan concerning menu layout, access to product information, navigation and sequencing of the websites. The item not significant in any of the cases addresses description of product availability and variety. For almost every item related to design, Japanese mean scores are

significantly lower than for other groups. The Japanese least liked the design of their local Samsung website. Therefore, hypotheses 8a, 9a and 10a are confirmed.

*Table 8: T-tests comparing mean preference between countries for local website design elements*

	CDN/ US	CDN/G	CDN/J	US/G	US/J	G/J
Menu layout	-	-2.48**	3.8***	-	4.3***	6.8***
Access to product information	-	-	4.3***	-	4.8***	6.1***
Professional design	-	-	4.0***	-	4.6***	3.7***
Logical presentation of product info	-	-	2.90***	-	2.4**	4.8***
Screen design	-	-	2.20**	-	-	1.9*
Navigation	-	-2.6**	3.8***	-	4.1***	7.0***
Sequencing	-	-	5.0***	-2.47**	3.4***	6.2***
Presentation of product attributes	-	-	3.2***	-1.68*	2.5**	4.5***
Description of product availability	-	-	-	-	-	-

\* significant at 0.1, \*\* significant at 0.05, \*\*\*significant at 0.01 (2-tailed)

*Hypothesis 8a:* Between cultural groups, website design preferences for the *local* site will be most similar between Americans and Canadians.

*Hypothesis 9a:* Between cultural groups, website design preferences for the *local* site will be moderately similar between Americans or Canadians and Germans.

*Hypothesis 10a:* Between cultural groups, website design preferences for the *local* site will be most dissimilar between Americans, Canadians, or Germans with the Japanese.

Refer to Table 9 where respondents' preferences for design elements are compared by country for the same foreign (Hong Kong) website. Fewer differences between countries are reported for the foreign than for the local website. However, preferences for the presentation of the product attributes and preferences for the presentation of the product information are still statistically different across countries. Based on these results, hypothesis 8b is partially confirmed. Hypothesis 9b is partially confirmed with respect to comparisons of Canadians and Germans and rejected with respect to comparisons of

Americans and Germans. Hypothesis 10b is not confirmed in that in most instances comparisons between the Japanese and other countries were not significant.

*Table 9: T-tests comparing mean preference between countries for foreign website design elements*

	CDN/ US	CDN/G	CDN/ J	US/G	US/J	G/J
Menu layout	-	-	-	-2.0**	-	-
Access to product information	1.7*	-	-	-2.4**	-2.1**	-
Professional design	-	-	-	-	2.25**	-
Logical presentation of product info	-	-3.6***	-	-2.3**	-	3.0** *
Screen design	-	-	-	-	-	-
Navigation	-	-	-	-1.9*	-	-
Sequencing	-	-	-	-	-	-
Presentation of product attributes	-	-3.0***	-2.3**	-2.3**	-1.7*	-
Description of product availability	-	-	-	-	-	-

\* significant at 0.1, \*\* significant at 0.05, \*\*\*significant at 0.01 (2-tailed)

*Hypothesis 8b:* Between cultural groups, website design preferences for the *foreign* site will be most similar between Americans and Canadians.

*Hypothesis 9b:* Between cultural groups, website design preferences for the *foreign* site will be moderately similar between Americans or Canadians and Germans.

*Hypothesis 10b:* Between cultural groups, website design preferences for the *foreign* site will be most dissimilar between Americans, Canadians, or Germans with the Japanese.

In conclusion, Table 8 and Table 9 illustrate that many design elements are statistically different between Germany or Japan and the other countries when comparing two countries at a time. Some of the broad perceptions of the websites are captured in the following quotes representing each country:

*"I would say, it (the website) doesn't have to be exciting. I just want to buy a handy item, I don't want to go on an exciting shopping tour...I just search the site where I can buy it, so I don't have to look at impressive animations, sounds, and multimedia."* (German respondent)

*"...Banners drive me crazy, they are very distracting actually, when I got deeper into the site, there was a flashy thing over here, it is very distracting."* (U.S. respondent)

*There are two different kinds of home pages. There is the one with every possible link like the Yahoo home page...it turns me off. So this one I find a little simpler in the sense that it is broken into a few sections, there are pictures to break things off...It does a fairly good job.* (Canadian respondent)

In particular, results in Table 9 indicate when looking at the same website different cultural groups have different preferences regarding the presentation of product attributes, the presentation of product information and access to product information. Also of interest are differences between Canada and the U.S. regarding access to product information. Based on the interview data, generally, participants across all groups noted they prefer to have few product details upon first entering a site, and like more details if they chose to investigate the product further. All national groups believe it is important online product information is complete and detailed. A Canadian states:

*"For a first glance I like the first ten bullet points, the ten most important things. But if I'm looking for detail information I want it to be there. For example, the sizes and dimensions or something like that."*

## **RESULTS SUMMARY AND DISCUSSION**

Although it was expected that participants would be more trusting, more satisfied, and more loyal to the local website than to the foreign website, this was not the case. Table 10 summarizes outcomes from testing the research hypotheses for *within* culture comparisons. No statistical differences are reported. Americans, Canadians, Germans and Japanese all report the same level of satisfaction, trust, loyalty and preference for website design for the foreign (Hong Kong) site as for their respective local websites. The only exception is for Americans who seem to display more loyalty for their local website than for the foreign Samsung website.

*Table 10: Summary of hypotheses: Within cultural group comparisons*

<b>Within a Cultural Group:</b>	
<i>H1: Local website trust &gt; foreign website trust</i>	Rejected
<i>H3: Local website satisfaction &gt; foreign website satisfaction</i>	Rejected
<i>H5: Loyalty to the local website &gt; than loyalty to the foreign website</i>	Valid for Americans
<i>H7: Design elements of the local site preferred rather than design elements of the foreign site of the same online vendor</i>	Rejected

Further, Japanese participants reported higher satisfaction and loyalty to the foreign site over the local site. This may have been related to a strong preference on the part of Japanese participants for the design elements of the foreign Hong Kong site. However, from interview data there are some common elements across the cultures investigated related to trust. All groups identify security signs and vendor familiarity as important. Overall, Japanese participants are less trusting of Internet stores, and are concerned about security when making purchases on the Internet.

For comparisons *between* cultural groups, Table 11 reports that contrary to expectations, no differences were recorded for trust, satisfaction and loyalty. The only accepted hypotheses relate to design preferences. Specific design differences were already illustrated in Tables 8 and 9.

*Table 11: Summary of hypotheses: Between cultural group comparisons*

<b>Between Cultural Groups:</b>	
<i>H2a: American and Canadian participants are least likely to trust the <i>local</i> website, followed by Germans, and then Japanese.</i>	Rejected
<i>H2b: American and Canadian participants are more likely to trust the <i>foreign</i> website, followed by Germans, and then Japanese.</i>	Rejected
<i>H4a: American and Canadian participants are least likely to be satisfied with the <i>local</i> website, followed by Germans, and then Japanese.</i>	Rejected

<i>H4b:</i> American and Canadian participants are least likely to be satisfied with the <i>foreign</i> website, followed by Germans, and then Japanese.	Rejected
<i>H6a:</i> American and Canadian participants are most likely to express e-loyalty for the <i>local</i> website, followed by Germans, and then Japanese.	Rejected
<i>H6b:</i> American and Canadian participants are most likely to express e-loyalty for the <i>foreign</i> website, followed by Germans, and then Japanese.	Rejected
<i>H8a:</i> Website design preferences for the <i>local</i> site will be most similar between Americans and Canadians.	Accepted
<i>H8b:</i> Website design preferences for the <i>foreign</i> site will be most similar between Americans and Canadians.	Partially Accepted
<i>H9a:</i> Website design preferences for the <i>local</i> site will be moderately similar between Americans or Canadians and Germans.	Accepted
<i>H9b:</i> Website design preferences for the <i>foreign</i> site will be moderately similar between Americans or Canadians and Germans.	Partially Accepted
<i>H10a:</i> Website design preferences for the <i>local</i> site will be most dissimilar between Americans, Canadians, or Germans with Japanese.	Accepted
<i>H10b:</i> Website design preferences for the <i>foreign</i> site will be most dissimilar between Americans, Canadians, or Germans with Japanese.	Rejected

More specifically, Americans and Canadians were predicted to be least likely to trust and be satisfied with the local and foreign websites, followed by Germans, and then the Japanese (Hypotheses 2a, 2b, 4a, 4b). Alternately, Americans and Canadians were predicted to be most loyal to either the local or foreign website, followed by the Germans, and then the Japanese (Hypotheses 6a, 6b). These directional comparisons were all rejected, failing to support the work by Yamagishi and Yamagishi (1994).

For between country comparisons for the local and foreign websites, Hypotheses 8a, 9a, and 10a are confirmed. That is, design preferences were most similar for Americans and Canadians, moderately similar for Canadians and Americans with Germans, and most dissimilar between these three countries with the Japanese. For the foreign site, results are less well defined with only partial confirmation of Hypothesis 8b and 9b. While there was only one design element that was viewed differently between Canadians and

Americans, the same case occurred between Canadians and the Japanese. Further, there were many design elements where significant differences were found between Americans and Germans who were considered to be only moderately dissimilar. Hypothesis 10b was rejected in that greatest differences were not found with the Japanese where preferences for only a few design elements were significantly different between Japan and the other countries. Exactly why this occurred remains unknown, and bears further investigation.

## **CONCLUSIONS AND IMPLICATIONS**

Despite increasing numbers of online shoppers around the globe, very little research has examined the important concepts of trust, satisfaction and e-loyalty and their relation to design preferences of differing national cultures.

Various researchers (Jarvenpaa et al, 1999; Kim and Son, 1998; Yamagishi and Yamagishi, 1994) have suggested members in individualist cultures such as Canada or the U.S. are less likely to trust a local website than Germans or Japanese, and more likely to trust a foreign website than Germans or Japanese. This suggestion was not supported in the current investigation. Thus these results join the ranks of other inconclusive studies such as those by Lui et al (2004) or Jarvenpaa et al (1999) in which other elements such as privacy or reputation may be better related to systematic differences across cultures than trust.

Within cultural groups, satisfaction and loyalty was not greater for the local rather than the foreign site. Americans were the only group to express greater loyalty for the local site. Counter to expectations, Japanese were more satisfied and loyal to the foreign site. Why would a cultural group not prefer their local website over a foreign site? Are these results a function of inadequate localization and cultural adaptation of websites? Indeed, Japanese

respondents were quite specific in noting why they preferred the Hong Kong site. Or is the challenge to researchers deeper, with a requirement to more fully examine the underpinnings of what constitutes trust, satisfaction or loyalty in an Internet based environment? Given the mixed results and inconsistencies in the literature to date, there appears much scope for additional investigations in this area. Could it be the "foreignness" of the Internet is dissipating for international users and becoming itself an internationalized common culture? Do e-loyalty intentions only occur when trust is implicit, and enhanced by other characteristics such as design? These prospects perhaps suggest a multifaceted and multidisciplinary model to uncover a better picture of preferences across diverse cultures. Further, is the identification of culture by country a valid differentiator of preferences? Might ethnicity, income, age or even level of Internet literacy of respondents be equally or more relevant to determine design preferences resulting in trust, satisfaction or e-loyalty?

In prior design research, Barber and Badre (2001) have had mixed results in identifying stable design preferences across cultures. In this investigation, design elements elicit several statistically significant preferences between countries. This suggests that localization of web content is important for diverse users, although it may not result in greater trust, satisfaction or e-loyalty. Further, when examining the local website there are many differences in design preferences mostly focused on Japanese respondents and the other groups. When comparing cultural preferences on the same foreign website, different cultural groups have different preferences regarding presentation of product attributes, presentation of product information, and access to product information. These findings are consonant with prior work (Cyr and Trevor Smith, 2004; Del Galdo and Nielsen, 1996; Marcus and Gould, 2000) who found significant differences in website design elements across Japanese, German and American cultures.

The uniqueness of this research and its multidisciplinary roots is both a contribution and a challenge. As previously noted, there exists no study to our knowledge that examines the e-loyalty related to design across cultures. As a first step in the investigation, the current work is focused on both within country and between country comparisons of a local and foreign website. However, there is no predictive power as to which elements of design result in greater trust, satisfaction or e-loyalty. To this end, development and testing of a model for e-loyalty across cultures is underway to validate these relationships. Future work in this area will build on previous research by Yoon (2002) and Koufaris (2002) who model website characteristics with e-loyalty or engagement on the Internet, but *not* across cultures.

Methodologically, on-site data collection in each nation is a strength of this investigation. A limitation of the research is in the relatively small sample of participants who are drawn from constrained populations (e.g. a single technology company in developed nation states). Also noteworthy, websites used in the present study are Samsung sites. While one would expect this choice to provide greater consistency in website design and localization features, response biasing may occur due to overriding participant knowledge of the company and its reputation. Replication with more diverse groups and websites within nations is the answer to these present constraints on generalizability of our findings. Additional research may alternately focus on how e-loyalty is built through website design for developing or newly industrialized nations.

The present research may be usefully extended through more controlled laboratory-based research in assessing the human-computer interface. Cultural or national preferences could be systematically examined using specialized eye tracking or other usability

equipment. This future work could both widen the selection of websites presented, and to use eye tracking and subject's self reports to identify profiles or patterns of preference for design characteristics by national groups. Further, it is of interest to determine how design elements resulting in e-loyalty may be applied beyond PC-based electronic commerce. With the evolution of M-commerce and ubiquitous computing, applications of this work may find a new home in emerging markets.

## REFERENCES

- Alden, D., Hoyer, W., Lee, C. (1993) Identifying global and culture specific dimensions of humor. *Journal of Marketing*, 57(2); 64-76.
- Anderson, R.E. & Srivanan, S.S. (2003). E-Satisfaction and e-loyalty: A contingency framework. *Psychology and Marketing*, 20, 123-138.
- Alvarez, M. G., Kasday, L. & Todd, S. (1998). How we made the Web site international and accessible: A case study. In *Proceedings 4<sup>th</sup> Conference on Human Factors and the Web*. Basking Ridge, New Jersey, USA. Retrieved April 15, 2004 <http://www.research.att.com/conf/hfweb/proceedings/alvarez/>
- Agarwal, R., and Venkatesh, V. (2002). Assessing a firm's Web presence: A heuristic evaluation procedure for measurement of usability. *Information Management Research*, 13(2), 168-121.
- Barber, W., & Badre, A.N. (2001). Culturability: The merging of culture and usability. In *Proceedings of the 4<sup>th</sup> Conference on Human Factors and the Web*. Basking Ridge, New Jersey, USA.
- Badre, A.N. (2000). The effects of cross cultural interface design orientation on World Wide Web user performance. *GVE Research Technical Reports*. Retrieved April 20, 2004 <http://www.cc.gatech.edu/gvu/reports/2001/abstracts/01-03.html>.
- Balasubramanian, S., Konana, P., & Menon, N.M. (2003). Customer satisfaction in virtual environments: A study of online investing. *Management Science*. 49(7), 871-889.
- Bhattacherjee, A. (2002), Individual Trust in Online Firms: Scale Development and Initial Test. *Journal of Management Information Systems*, 19(1), 211-241.
- Carnevale, D.G., & Wechler, B. (1992). Trust in the public sector: Individual and organizational determinants. *Administrative Sociology*, 23, 471-494.
- Chen, S. C., & Dhillon, G. S. (2003). Interpreting dimensions of consumer trust in e-commerce. *Information Management and Technology*, 4.
- Cheskin Research Group. (2000). Trust in the wired Americas. Retrieved April 24, 2004. <http://www.cheskin.com/think/studies/trust2.html>.
- Cheskin Research Group. (1999). e-Commerce trust study. Retrieved April 24, 2004 <http://www.cheskin.com/think/studies/ecomtrust.html>.
- Corritore, CL., Kracher, B., & Wiedenbeck, S. (2001). Trust in online environment. In: Smith, M.J., Salvenyj,G., Harris, D., Koubek, R.J. (Eds.), *Usability Evaluation and Interface Design: Cognitive Engineering, Intelligent Agents and Virtual Reality*. Erlbaum Mahway, NJ, 1548-1552.
- Corstjens, M., & Lal, R. (2000). Building store loyalty through store brands. *Journal of Marketing Research*, 37(3), 281-292.

- Cyr, D. & Trevor-Smith, H. (2004). Localization of Web design: An empirical comparison of German, Japanese, and U.S. website characteristics. *Journal of the American Society for Information Science and Technology*, 55(13), 1-10.
- Dawar, N. Parker, P. & Price, L. (1996). A cross-cultural study of interpersonal information exchange. *Journal of International Business Studies*, Third quarter, 497-516.
- Del Galdo, E., & Neilson, J.(1996). *International user interfaces*. New York: John Wiley & Sons.
- de Mooij, M. (1998). Global marketing and advertising: Understanding cultural paradoxes. *Journal of Macro marketing* , 18(1), 70-71.
- Deshpande, R., Hoyer, W.D., & Donthu, N. (1986). The intensity of ethnic affiliations: A study of the sociology of Hispanic consumption. *Journal of Consumer Research*, 13, 214-220.
- Devaraj, S., Fan, M., & Kohli, R. (2002). Antecedents of B2C channel satisfaction and preference: Validating e-commerce metrics. *Information Systems Research*, September, 1-32.
- Doney, P.M., Cannon, J.P., & Mullen, M.R. (1998). Understanding the influence of national culture on the development of trust. *Academy of Management Review*, 23(3): 601-20.
- Durvasula, S., Andrews, C.J., Lysonski, S., & Netemeyer, R.G. (1993). Assessing cross-national applicability of consumer behavior models: A model of attitude toward advertising in general. *Journal of Consumer Research*, 19, 626-36.
- Egger, F.N. (2001). Affective design of e-commerce user interfaces: How to maximize perceived trustworthiness. *Proceedings of the International Conference on Affective Human Factors Design*. London: Academic Press.
- Evers, V. & Day, D. (1997). The role of culture in interface acceptance. In Howard, Hammond, and Lindegaard (Eds.). *Human Computer Interaction, INTERACT '97*, London: Chapman and Hall.
- Ferle, C., Edwards, S. & Mizuno, Y. (2002). Internet diffusion in Japan: Cultural consideration. *Journal of Advertising Research*, March-April, 65-79.
- Fogg, B.J., Soohoo, C., & Danielson, D. (2002). How people evaluate a web site's credibility? Results from a larger study. Persuasive Technology Lab, Stanford University.
- Fogg, B.J., & Tseng, S. 1999. Credibility and computing technology. *Communications of the ACM*, 14(5), 39-87.
- Gefen, D. (2000). E-commerce: the role of familiarity and trust. *The International Journal of Management Science*, 28, 725-737.

- Gommans, M., Krishan, K.S., & Scheddold, K.B. (2001). From brand loyalty to e-loyalty: A conceptual framework. *Journal of Economic and Social Research*, 3 (1), 43-58.
- Global Reach Online Statistics (2004). Retrieved February 27, 2004 <http://www.global-reach.biz/globstats/index.php3>
- Grabner-Krauter, S., & Kaluscha, E. (2003). Empirical research in online trust: a review and critical assessment, *International Journal of Human-Computer Studies*, 58, 783-812.
- Grewal, G., Munger, J.L., Iyer, G.R., & Levy, J. (2003). The influence of Internet retailing factors on price expectations. *Psychology and Marketing*, 20(6), 477-493.
- Hoffman, D.L., & Novak, T.P. (1996). Marketing in hypermedia computer-mediated environments: conceptual foundations, *Journal of Marketing*, 60, 50-68.
- Hofstede, G. H. (1984). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage Publications.
- Holland, J., & Baker, S.M. (2001). Customer participation in creating site brand loyalty. *Journal of Interactive Marketing*, 15(4), 34-45.
- Hoover, R. J., Green, R.T., & Saegert, J. (1978) A cross-national study of perceived risk. *Journal of Marketing*, 42, 102-8.
- Inglehart, R., Basanez, M., & Moreno, A. (1998). *Human Values and Beliefs: A Cross-cultural Sourcebook*. Ann Arbor, MI: University of Michigan Press.
- Jarvenpaa, S. L., Tractinsky, N., Saarinen, L., & Vitale, M. (1999). Consumer trust in an Internet store: A cross-cultural validation. *Journal of Computer Mediated Communication*. 5 (2): Retrieved April 20, 2004. <http://www.ascusc.org/jcmc/vol5/issue2/jarvenpaa.html>
- Jones, A.I.J. (2002). On the concept of trust. *Decision Support Systems*. 33, 225-232.
- Kang, K.S., & Corbitt, B. (2001). Effectiveness of graphical components in web site e-commerce application: A cultural perspective. *The Electronic Journal Systems in Developing Countries*. Retrieved April 20, 2004. <http://www.ejisdc.org>.
- Kim, Y.H., & Son, J. (1998). Trust, cooperation and social risk: A cross-cultural comparison. *Korean Journal*, 38, (spring), 131-153.
- Koufaris, M. (2002). Applying the technology acceptance model and flow theory to online consumer behavior. *Information Systems Research*, 13(2), 205-223.
- Lagon, O. (2000). Culturally correct site design. *Web Techniques*, 5 (9), 49-51.
- Lewicki, R., & Bunker, B. (1995). Trust in relationships: A model of development and decline. In *Conflict, Cooperation, and Justice*, Barbara B. Bunker and Jeffery Z. Rubin (eds.), San Francisco: Jossey Bass, 133-73.

- Lewis, D. J., & Weigert, A. (1985). Trust as a social reality. *Social Forces*, 63, 967-85.
- Lohse, G., & Spiller, P. (1999). Internet retail store design: How the user interface influences traffic and sales. *Journal of Computational Mediated Communication*, 5.
- Lui, C., Marchewka, J., & Ku, C. (2004). American and Taiwanese perceptions concerning privacy, trust, and behavioral intentions in electronic commerce. *Journal of Global Information Management*, 12 (1), 18-40.
- McKnight, D.H., Cummings, L.L., & Chervany, N.M. (1998). Initial trust formation in new organizational relationships. *Academy of Management Review*, 23(3), 473-490.
- McKnight, D. H., Choudhury, V. C. & Kacmar, C. (2002). Developing and validating trust measures for e-Commerce: An integrative typology. *Information Management Research*, 13(3), 334-359.
- Marcus, A., & Gould, E.W. (2000). Cultural dimensions and global web user interface design. *Interactions*. July/August: 33-46.
- Matsumoto, D. (1994). *Psychology from a Cultural Perspective*. CA: Brookes/Cole.
- Mayer, R. C., Davis, J.H., & Schoorman, F.D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20 (3), 709-34.
- Moorman, C., Deshpandé, R., & Zaltman, G. (1993). Factors affecting trust in market research relationships. *Journal of Marketing*, 57, 81-101.
- Morgan, R. M., & Hunt, S.D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58, 20-38.
- Nielsen, J. (2001). *Designing for Web Usability*. Indianapolis: New Riders Publications.
- Okayazaki , S. and Rivas, J.A. (2002). A content analysis of multinationals' Web communication strategies: Cross-cultural research framework and pre-testing. *Internet Research: Electronic Networking Applications and Policy*, 12(5), 380-390.
- Palmer, J. W., Bailey, J.P., Faraj, S., & Smith, R.H. 2000. The role of intermediaries in the development of trust on the WWW: The use and prominence of trusted third parties and privacy statements. *Journal of Computer Mediated Communication* 5 (3). On-line journal. At <http://www.ascusc.org/jcmc/vol5/issue3/palmer.html>
- Parks, C.D.& Vu, A.D. (1994). Social dilemma behaviour of individuals from highly individualist and collectivist cultures, *Journal of Conflict Resolution*, 38(4), 708-718.
- Quelch, J.A., & Klein, L.R. (1996). The Internet and international marketing. *Sloan Management Review*, Spring: 60-74.
- Reichheld, F. F., & Schefter, P. (2000). E-loyalty: Your secret weapon on the web. *Harvard Business Review*, 78 (4), 105-14.

- Resnick, P., Zechauser, R. (2002). Trust among strangers in Internet Transactions: empirical analysis of eBay reputation system. In: Baye (Ed), *The Economics of the Internet and E-commerce: Advances in Applied Economics*, 11, London: Elsevier Science, 127-158.
- Rousseau, D.M., Sitkin, S.M., Burt, R.S., & Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of Management Review*, 23(3), 393-404.
- Selnes, F. (1998). Antecedents and consequences of trust and satisfaction in buyer-seller relationships, *European Journal of Marketing*, 32, 305-322.
- Shannon, P. (2000). Including language in your global strategy for B2B e-commerce. *World Trade*, 13 (9), 66-68.
- Simon, S.J. (2001). The impact of culture and gender on web sites: An empirical study. *The Data Base for Advances in Information Systems*, 32 (1), 18-37.
- Singh, N., Xhao, H. & Hu, X. (2003). Cultural adaptation on the Web: A study of American companies' domestic and Chinese websites. *Journal of Global Information Management*, 11(3), 63-80.
- Srinivasan, S.S., Anderson, R., & Ponnavolu, K. (2002). Customer loyalty in e-commerce: An exploration of its antecedents. *Journal of Retailing*, 78, 41-50.
- Sun, H. (2001). Building a culturally-competent corporate web site: An explanatory study of cultural markers in multilingual web design. SIGDOC '01, October 21-24: 95-102.
- Szymanski, D. A.,& Hise, R. T. (2000). E-satisfaction : An initial examination. *Journal of Retailing*, 76(3), 309-322.
- Tian, R.G. & Emery, C. (2002). Cross-cultural issues in Internet marketing. *The Journal of American Academy of Business*, March, 217-224.
- Triandis, H.C (1990). Cross-cultural studies of individualism and collectivism, In *Nebraska Symposium on Motivation*, John J. Berman, (Ed), 37, 41-133.
- Urban, G.L., Sultan, F. & Qualls, W.J. (2000). Placing trust at the center of your Internet strategy. *Sloan Management Review*, Fall, 39-48.
- Valencia, H. (1989). Hispanic values and subcultural research. *Journal of the Academy of Marketing Science*, 17(1), 23-28.
- Wallendorf, M., & Reilly, M.D. (1983). Ethnic migration, assimilation, and consumption. *Journal of Consumer Research*, 10, 292-302.
- Weber, E.U. & Hsee, C. (1998). Cross-cultural differences in risk perception, but cross-cultural similarities in attitudes towards perceived risk. *Management Science*, 44, 1205-1217.
- Yamagishi, T. & Yamagishi, J. (1994). Trust and commitment in the United States and Japan. *Motivation and Emotion*, 18, 129-165.

Yoon, Sung-Joon. (2002). The antecedents and consequences of trust in online-purchase decisions. *Journal of Interactive Marketing*, 16(2): 47-63.

## **APPENDIX 1**

Survey (answered by each participant for both the local and the foreign Samsung site separately)

<b>Experience Design</b>
1. The user menus are clearly categorized and are well laid out on the screen.
2. I can easily recognize and find where product information is located.
3. The website looks professionally designed and well presented.
4. The product information provided on the website is presented consistently and logically.
5. The screen design on the website (i.e. colors, boxes, menus, navigation tools etc.) is harmonious and well presented.
6. The website can be easily navigated.
7. The organization, sequencing and overall arrangements of the site are understandable and easy to use.
8. All product options, product attributes and product information are well designed and presented.
9. Site product availability and product variety are well explained.
<b>Trust, Satisfaction and E-loyalty</b>
10. I can trust the online vendor.
11. The website is credible to me.
12. I can trust information presented on the website.
13. The website completely fulfills my needs and expectations.
14. This website satisfies my particular needs well.
15. Using this site/service is satisfactory overall.
16. I would visit this website again.
17. I would consider purchasing from this website in the future.

## ENDNOTES

---

- <sup>i</sup> This research is part of a three year project titled "Managing E-Loyalty through Experience Design" generously funded by a Social Sciences and Humanities Research Council of Canada grant under the special category Initiative on the New Economy.
- <sup>ii</sup> It is expected most readers are familiar with Hofstede's cultural categorizations and therefore details of this work will not be elaborated here. However, for more information on this topic refer to Hofstede (1980), Dawar et al (1996), or to Simon (2001) who provide an excellent overview of Hofstede's dimensions in a compressed format.
- <sup>iii</sup> A thorough review of trust in non-online settings is not feasible within the scope of the present paper. However the reader may wish to refer to the authors cited in this paragraph, as well as to Doney and Cannon (1997), Lewicki and Bunker (1995), Moorman et al (1993), or Morgan and Hunt (1994). In particular, Rousseau et al. (1998) presents a comprehensive and cross-disciplinary critique of trust.
- <sup>iv</sup> These authors provide a recent and comprehensive review of empirical research conducted in online trust, although no singular definition of trust can be ascribed from this work.
- <sup>v</sup> The four websites viewed by participants included Reebok Shoes (American), CapEx Investments (American), British Airways (British), and Godiva Chocolates (Belgium).
- <sup>vi</sup> 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 time zones, currency, local color 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.
- <sup>vii</sup> The local sites are: Canada ([http://www.samsung.ca/cgi-in/nasecbc/init\\_seca.jsp](http://www.samsung.ca/cgi-in/nasecbc/init_seca.jsp)), USA ([http://www.samsungusa.com/cgi-in/nabc/home/b2c\\_home\\_samsungusa.jsp](http://www.samsungusa.com/cgi-in/nabc/home/b2c_home_samsungusa.jsp)), Germany (<http://www.samsung.de/>), and Japan (<http://www.samsung.co.jp/>). The Hong Kong site can be found at <http://www.samsungelectronics.com.hk/>.