

WEBSITE DESIGN AND TRUST ACROSS CULTURES

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Abstract. The paper provides an overview of culture related to website design and website trust. This is followed by the documentation of previously unpublished results from cross-cultural comparisons of user reactions to websites related to risk and vendor legitimacy, information privacy and quality, and transaction security. In addition, results are reported for how various design elements statistically impact online trust in Canada, Germany, and China. The paper concludes with suggestions for practice and how to design websites that are more trustworthy.

1. Introduction

As shoppers converge in online stores, vendors are increasingly concerned with how to best attract and retain satisfied, trusting and loyal customers. It is important that websites are private and secure if they are to be revisited. According to Reichheld and Scheffer (2000) an increase in customer retention rates by only 5% can increase profits by 25% to 95%. Therefore, the development of loyal customer behaviour is a valued goal for managers, marketers, and strategists.

In June 2009 Internet users were over 1.6 billion strong, and hail from virtually every corner of the globe. Of those Internet users the majority reside in Asia (42.2%), followed by Europe (24.2%), North America (15.1%), Latin America/Caribbean (10.5%), Africa (3.9%), the Middle East (2.9%), and Oceania/Australia (1.2%) (Internet Usage Statistics, 2009). These users are also potentially Internet shoppers seeking positive and secure consumer experiences. Culture affects Internet usage, e-commerce trust, information and communication technology adoption, Internet marketing, and website development – therefore it is important to gauge user reactions to the Internet based on country and cultural diversity. Yet despite the importance of culture in an Internet context, relatively few studies have examined topics such as trust and risk *across cultures*.

To better understand user perceptions of online trust and risk, an investigation was conducted in Canada, the United States, Germany and Japan. Canada and the U.S. were chosen due to cultural similarity, while these two countries are considered culturally distinct from Germany and Japan. Participants in the study completed an online task of searching the local Samsung website for a cellular phone they would like to hypothetically purchase. Each participant was asked questions about trust and

willingness to risk online, legitimacy of the vendor, information privacy and quality concerns, and payment security. Results of this investigation are presented along with additional research by the author (Cyr et al., 2005; Cyr, 2008a; Cyr, 2008b; Cyr et al., 2009a; Cyr et al., 2009b).

Contributions of this paper are: (1) to provide background on topics related to culture, trust, and website design; and (2) to report the results of studies primarily conducted by the author on the topic of website design and how this translates into cultural difference and similarity in user perceptions related to online trust and security. These findings have implications for managers, strategists, marketers, Web designers and researchers who seek to provide a more trustworthy and secure online shopping experience in diverse cultural settings using information technologies. The paper begins with an overview of culture and website design, and then outlines previous research on website trust and culture. This is followed by the documentation of previously unpublished results from cross-cultural comparisons of user reactions to websites related to risk and vendor legitimacy, information privacy and quality, and transaction security. In addition, results are reported for how various design elements statistically impact online trust in Canada, Germany, and China.

2. Culture and Website Design

Culture has implications for Internet use and affects marketing (Tian and Emery, 2002), consumer trust (Jarvenpaa et al., 1999), Internet diffusion (Ferle et al., 2002), and website development (Kang and Corbitt, 2001; Sun, 2001). Differences in online communication strategies for target markets exist between Japan, Spain and the U.S. (Okayazaki and Rivas, 2002). In other work, Evers and Day (1997) suggest there are differences between cultures concerning Web interface acceptance and preferences for design features.

Effective website design engages and attracts online consumers (Agarwal and Venkatesh, 2002; Cyr, 2008a; Fogg et al., 1999; 2002; Hoffman and Novak, 1996; Nielsen, 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. If websites are culturally appropriate or "localized" then users are more likely to visit and remain at the website (Barber and Badre, 2001; Evers and Day, 1997). 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 language translation, details such as currency, color sensitivities, product or service names, images, gender roles, and geographic examples are considered.

In research in which design characteristics were considered across cultures different user preferences were found (Cyr et al., 2009a; del Galdo and Nielsen, 1996; Marcus and Gould, 2000). 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 concluded that, "[T]he web is not a culturally neutral medium" (p. 63). Cyr and Trevor-Smith (2004) examined design elements using 30 municipal websites in each of Germany, Japan, and the U.S. Use of symbols and graphics, color preferences, site

features (links, maps, search functions, page layout), language and content were examined, and significant modal differences were uncovered in each design category. In other research in which color (Cyr et al., 2009a) or human images (Cyr et al., 2009b) were specifically investigated, cultural differences were likewise noted across culturally diverse groups.

To understand how national culture is related to social psychological phenomena such as trust, researchers (Cyr et al., 2005; Cyr, 2008a; 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.¹ In the research documented in this article, Hofstede's dimensions are used as a proxy to determine cultural differences or similarities among countries. However, it is recognized and expected that individual value differences also occur within countries.²

3. Background: Website Trust and Culture

–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” (McKnight et al., 1998, p. 473-490). –Trust 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, 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).

Considerable research has been dedicated to unraveling the complexities of online trust (Bhattacharjee, 2002; Chen and Dhillon, 2003; Gefen, 2000; Gefen et al., 2003). Corritore et al. (2003) provide a definition of online trust that includes cognitive and emotional elements, with trust encompassing –an attitude of confident expectation in an online situation or risk that one's vulnerabilities will not be exploited” (p. 740). Unlike vendor–shopper relationship established in traditional retail settings, the primary communication interface with the vendor is an information technology artifact—the website. In line with Jarvenpaa et al. (1999), trust is referred to here as consumer confidence in the website and –willingness to rely on the seller and take actions in circumstances where such action makes the consumer vulnerable to the seller” (p. 4). In addition, and related to Web site design elements, the design of the website is trusted.³

¹ 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 (1984), Dawar et al. (1996), or to Simon (2001) who provide an excellent overview of Hofstede's dimensions in a compressed format.

² Refer to Srite and Karahanna (2006) for a discussion of the role of individual and espoused cultural values in technology acceptance.

³ A thorough review of trust in offline and online settings is not feasible within the scope of the present paper. However, the reader may wish to refer to Rousseau et al. (1998) for a critique of offline trust and Gefen et al. (2003) for a summary of online trust. In research in which online trust is the primary focus, it is recognized a multidimensional construct for trust is most appropriate. Trust may result from a

Consumer trust in the website is fundamental to the establishment of online loyalty, including intentions to revisit an online vendor or to buy there in the future (Cyr, 2008a; Flavián et al., 2006; Gefen, 2000; Yoon, 2002). Antecedents to website trust vary and include Web design characteristics (Cyr 2008a; Cyr et al. 2009b), social presence (Cyr et al., 2007; Gefen et al., 2003), perceived vendor reputation (Jarvenpaa et al., 1999; Koufaris, 2002), clear and trustworthy privacy policies (Reichheld and Scheffer, 2000), online transaction security (Palmer et al., 2000), or information privacy (Hoffman and Novak, 1996) among other things. Overall the results from these studies indicate that website properties and trust are related and that they influence online purchase intentions.

There are cultural differences related to propensity to trust. For instance, *within* one's own culture, generally there is greater willingness 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 less risk averse when selecting 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. Alternately, individualistic societies tend to be less trusting and cooperation in relationships is transitory.

However in relationships that extend beyond one's own culture, 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 highly individualist Americans and highly collectivist Koreans and found that 59 percent of Americans 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 an Internet environment when institutional safeguards may be perceived as illusory, collectivists may consider online buying as more risky than do individualists (Jarvenpaa et al., 1999).

4. Empirical Findings: Website Trust and Culture

With a spotlight on prior research on website trust and 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

consumer's belief that an online vendor demonstrates ability, benevolence, or integrity (McKnight et al., 2002). Alternately, in studies such as this one, when trust is one element included to better understand a more comprehensive user reaction to a Web site, then trust as a single construct has been used (Gefen et al., 2003; Koufaris, 2002).

Yamagishi and Yamagishi, 1994 as noted above). Contrary to this hypothesis no strong cultural effects were found for 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. 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.

Considering the mixed results found in the above work, (Cyr et al., 2005) conducted a study to investigate whether or not local websites engender higher levels of trust for Web users than a foreign website of the same vendor (Samsung in this case).⁴ Related to earlier work by Yamagishi and Yamagishi (1994) and others, it was expected that Web users from individualistic cultures such as Canada or the U.S. would be least likely to trust the local website, and most likely to trust the foreign website than moderately individualistic German users, and collectivist Japanese users. When comparing the level of trust between countries for the *local* website almost no differences are reported between the Canadians, Americans and Germans. However, there were large differences between the Japanese and Americans, Canadians or Germans. Contrary to expectations, Japanese respondents trusted their local website least, while Germans trusted their local site most. Similar results were found for users viewing the *foreign* version of the website. Based on interview data all four cultural groups identify vendor familiarity and visibility of security signs as important factors influencing trust in online purchasing. For German participants personal experience with online purchasing or friend's opinions of a website affect online trust: *"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."*

4.1. VENDOR LEGITIMACY AND WILLINGNESS TO RISK

Building on the preceding, it is expected that vendor reputation is important and willingness to trust a vendor will differ across cultures (Jarvenpaa et al., 1999). According to Chen and Dhillon (2003), *"Since transactions [on the Internet] occur without personal contact, consumers are generally concerned with legitimacy of the vendor and authenticity of products or services"* (p. 1). Similarly, propensity to take risks is known to vary across cultures. Generally speaking, Canada and the U.S. are not high in uncertainty avoidance, and hence are more willing to take risks than countries such as Japan which is generally risk averse. Germany is in the middle (based on Hofstede, 1984). Additional data beyond that reported in (Cyr et al., 2005) documents user responses concerning vendor legitimacy and willingness to risk (for U.S., Canada, Germany, and Japan respondents) as outlined in Table 1. Data reported in these tables

⁴ Thirty participants were selected in each of Canada, the United States, Germany, and Japan. Participants had an average age of 35 years; 42% were female and 58% male. After navigating the Samsung website (local and foreign versions) in search of a cellular phone, each person completed a survey (translated and back translated for each required language), followed by a digitally recorded interview. Interpreters were used when necessary.

was collected from the sample population and using the same methodology as fully elaborated in Cyr et al. (2005).

Table 1. Risk and Vendor Legitimacy

	U.S.	CAN	GER	JPN	Sig
It is important to avoid risks	3.24	3.33	4.03	4.21	**
Concerned about security when buying on the Internet	3.66	3.59	3.43	4.11	*
Prefer recognized brands or companies when online shopping	3.93	4.07	3.67	2.93	*
Trust Internet store with well known reputation	3.86	4.19	4.03	3.82	ns
Concerned about the legitimacy of the online sales contact	3.17	3.26	3.27	3.54	ns

Notes: Scales are 1= low to 5 = high; ns = No significant differences
* significant differences ** very significant differences

There are significant differences across cultures regarding preference to buy recognized brands, with Canadians most concerned about this factor and rather surprising - Japanese least concerned. All groups feel it is important that the Internet store is known and has a positive reputation. Japanese participants comment, *"What is important is...if the supplier is very famous, very popular. Well, I can trust them."* or *"I don't buy anything from a company that I never heard of."* Germans indicate a company's name and reputation are associated with trustworthiness, especially if someone they consider to be reliable recommended that company. Canadians and Americans are more prone to independently seek information to determine a company's credibility, and mention acquiring information through the Web or by contacting the company directly.

Germans are least concerned with security when buying online, while Japanese are most concerned. Canadians note they are aware of security problems when using the Internet, but feel the benefits outweigh the risks. As one Canadian describes,

"You realize that some of the concerns the market has, or some of the perception that people have with security are unfounded...The likelihood that someone is going to intercept the transmission between your computer and a website, and decipher it, is very low."

In contrast, a Japanese participant mentions, *"I will stay away from risk, as much as possible."* The interpreter further added, *"He's worried about the risks all the time...Using a credit card is a secret matter."*

4.2. INFORMATION PRIVACY AND QUALITY

Information privacy is important and a lack of trust arises from cyber consumer's perceived lack of control over the access others have to their personal information during the online navigation process" (Hoffman et al., 1999, p.82). Defined,

information privacy in an online environment is the right of an individual to control the release of his or her personal information.

Accordingly, online business environments can result in problems associated with insecurity and privacy among transaction counterparts, which put pressure on Internet marketers to create a trust that is much stronger and more persistent than what is normally demanded offline” (Yoon 2002, p. 51). In support of this statement, in a study on information privacy 95 percent of those surveyed declined to provide personal information over the Internet (Hoffman et al., 1999). In a second investigation five years later this number had shrunk to 82 percent of online users refusing to provide personal information. Further, 34 percent of respondents admitted to being untruthful when asked about their personal habits and preferences (Teltzrow and Kobsa, 2004). While various studies have addressed the role of privacy and trust in e-commerce, there is little attention to information privacy concerns across cultures. In the current investigation, the first two items in Table 2 address this topic.

Table 2. Information Privacy and Quality

	U.S.	CAN	GER	JPN	Sig
Concerned about sharing personal information with online merchants	3.45	3.26	3.77	3.61	ns
Confident personal information will not be misused when shopping online	3.00	3.44	2.73	2.04	*
Product information on the website should be trustworthy	4.62	4.67	4.47	4.71	ns
Important that online product information is complete and detailed	4.10	4.56	4.47	4.46	ns
Trust information presented on website	4.11	3.93	4.40	3.43	**
Important that product ratings from customers or consumer publications are provided on the website	3.45	3.67	3.67	4.21	ns

Notes: Scales are 1= low to 5 = high ns = No significant difference

* significant differences ** very significant differences

Providing personal information online is more a concern for Germans and Japanese than for North Americans, although the difference is not statistically significant. This outcome is reflected in the following quotations. One German remarks, *“For example, if you download something, and you have to give your e-mail address, I don’t like it, because you can be sure you’ll get spam.”* A Japanese participant mentions, *“Actually I don’t show them my personal things...if I have to I will, but I hate it”*, while his interpreter adds, *“The sites where I shop online usually don’t require personal data. I’m choosing those kinds of sites.”* Regarding the misuse of personal information, significant differences exist for the four countries in this investigation. Japan is least confident about the proper use of information provided, followed by Germany, with Americans and Canadians moderately confident how personal information is used.

Whether shopping in a physical store or online, customers generally desire high quality information about a product or service in order to make a purchase decision. Quality information at a website further contributes to customer loyalty. This may

include perceptions of how information is presented, or how much information is appropriate for a particular cultural group. For example, in North America substantial amounts of product information are considered desirable, while in other cultures the same level of information would be considered inappropriate as outlined below (Cyr, 2002).

“[O]n the [customer] support side, there’s a lot of pride in some European countries. In France they have a long history of what they’re doing, and status comes from the knowledge and expertise acquired. So it’s very important to only tell customers information about products which they assume it’s reasonable not to have...otherwise, it’s like trying to tell them how to do their job.”

In the current study, there are no significant differences among participants regarding whether product information is trustworthy, complete, and detailed. However, it should be noted that the scores for participants in all countries are very high on these dimensions. Generally, participants across all country groups note they prefer few product details upon first entering a website, and like more details if they choose to investigate a product further. According to a Canadian respondent, *“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.”*

The amount of information preferred is often associated with the type of product or service being purchased, and in some instances, participants mention seeking information on their own if necessary. An American elaborates,

—Many times I’ll go online with Travelocity or Orbitz or Expedia to look for travel connections, and I end up calling the location directly and placing the order with them even though it costs me a little bit more because I can find out more information. I can ask, if I want a room with two double beds, can I get that, can you promise me it’s a non smoking room, can you tell me what I see when I look out the window, or, how far is the nearest McDonalds? I want to talk to somebody that has the information that answers my questions, not just general questions that aren’t complete.”

Concerning ability to trust the website, Germans are most trusting, followed by Canadians and Americans, with Japanese least trusting. Consumer reports, consumer opinions/ratings, product brand, and familiarity with the product are identified by all participants as ways to judge quality online. It is especially important to Japanese that product ratings from customers or consumer publications are provided on the website. Canadians emphasize consumer reports, consumer opinions/ratings, and familiarity with the product. For instance, a Canadian remarks, *“When I was looking for the digital camera, I didn’t buy the camera online, but I did the research online, and the things that counted the most for me were the reviews from other users, and the professional reviews.”*

4.3. TRANSACTION SECURITY

As a result of “separateness” of buyer and seller, security of the transaction process is important to the buyer. Online credit card fraud is a major concern for online shoppers, often ameliorated by privacy policies or security signs on the vendor website.

In this study, all groups are concerned with misuse of credit card information, and are very concerned with Internet security. Regarding security of the payment method, Japanese participants indicate the importance of this is 4.93 out of a possible score of 5 on the survey. Refer to Table 3. Japanese often refer to the dangers of using credit cards, and in some cases are apprehensive about vendor credibility. According to one Japanese respondent, *“When I think of all the Internet online shopping stores, I think maybe 50% cannot be credible.”* One interpreter added, *“I just don’t want to give my credit card number, so if the method of payment is something else, then I feel okay shopping online.”*

Table 3. Transaction Security

	U.S.	CAN	GER	JPN	Sig
Concerned about who will access credit card when shopping online	3.72	3.41	3.87	4.18	ns
Concerned about misuse of credit card when shopping online	3.55	3.19	3.57	4.04	ns
Concerned about unauthorized use of credit card when shopping online	3.79	3.26	3.87	4.11	ns
Important that payment method is secure	4.69	4.81	4.50	4.93	ns

Notes: Scales are 1= low to 5 = high ns = No significant differences
 * significant differences ** very significant differences

The presence of security signs do much to console online visitors, although some Germans feel these signs could be faked. Company contact information seems to imply a degree of legitimacy. While Canadians and Americans seem relatively comfortable with credit card purchases, Japanese users express concern about online payments and instead opt for payment through the mail. Germans likewise mention alternate ways of making payments, including using invoicing or direct bank transfers.

4.4. MODELLING WEBSITE DESIGN TO TRUST

The results presented in the previous sections illustrate cross-cultural comparisons concerning website design, trust and security although no causal relationships are implied. However, in research by (Cyr, 2008a) three elements of website design (Information Design, Navigation Design, and Visual Design) were modelled to determine if a statistical relationship exists between these various design elements and trust. The design categories are based on earlier work by Garrett (2003) and have been used in previous studies (Cyr and Bonanni, 2005; Singh et. al, 2003).

A total of 571 participants located in Canada, Germany, or China completed an experimental task and online survey (N=230 in Canada; 118 in Germany; and 223 in

China). To ensure participants are “of the culture” it was determined that each had lived in the country the majority of their lives and spoke the native language as their primary language. Participants were recruited from a wide range of sources, including universities, institutes, and companies. Average age across countries is very close with an overall average of 25.6 years. Participants are experienced online shoppers and well educated. Most had completed either a university degree or postgraduate education.

For the research treatment, participants responded to the local version of the SonyStyle Web site represented in their native language. Users were requested to initially view the home page of the local Web site, followed by navigation of the Web site to choose a cell phone they would hypothetically purchase. Once participants concluded this task, each completed an online survey. Background information to the study and all other written content, including the survey, were translated and back-translated into each required language. Instrument reliability and validity were confirmed (for details refer to Cyr, 2008a). Data were modelled using a Partial Least Squares analysis⁵. It was proposed that Information Design, Navigation Design, and Visual Design are central features of websites that potentially result in trust. As such, each feature is elaborated briefly below.

Information Design refers to website elements that convey accurate or inaccurate information about products or services to a user. The location of an icon on the screen would be the domain of information architecture, while whether or not that icon or text conveys the right information to a user is Information Design (Garrett, 2003). Information is considered an important prerequisite to trust (Flavián et al., 2006; Yoon 2002). As McKinney et al. (2002 p. 308] described, “[C]ustomers dissatisfied with web site information contents will leave the site without making a purchase”. As noted in an earlier section, research comparing user preferences in Canada, the U.S., Germany and Japan for perceived access and presentation of product information uncovered few significant differences between the U.S., Canada, and Germany but significant differences ($p < .01$) between these countries and highly collectivist Japan. Based on qualitative comments from the study, there appeared a desire on the part of Canadians, Americans, and Germans for utility - at least as far as obtaining site information is concerned. In Cyr (2008a) a further comparison is made between Germans and Chinese who both score moderately on Hofstede’s scale for uncertainty avoidance - suggesting German and Chinese users prefer to avoid risk when shopping online. Canadians score in the low category for uncertainty avoidance. Hence, it was expected that Information Design would result in website trust for Canadian users but not for Germans and Chinese (Cyr, 2008a).

Elements of *Visual Design* deal with balance, emotional appeal, aesthetics, and uniformity of the website overall graphical look. This includes colours, photographs, shapes, or font type (Garrett, 2003). In some research a relationship between the “aesthetic beauty” of a website and trust was established (Karvonen, 2000), while in other studies visual design of the website did not significantly impact trust (Yoon, 2002). Colour is a common differentiator by culture and connotes different meaning (Barber and Badre, 2001; Singh et al., 2003). Red means happiness in China but danger in the United States. Users from collectivist cultures such as China have a strong

⁵ A variance-based partial least squares (PLS) method was chosen over covariance-based methods such as LISREL because it supports both exploratory and confirmatory research (Gefen et al., 2000).

preference for visuals, whereas users from more individualistic cultures like Germany prefer a logical and structured page layout (Szymanski and Hise 2000). Therefore it was expected that Visual Design would be more important to Chinese users and result in trust compared to Canadians or Germans (Cyr, 2008a).

Navigation Design refers to the navigational scheme used to help or hinder users as they access different sections of a website (DeWulf et al., 2006; Garrett, 2002). “No matter how thorough the information content of a site is, a customer who has difficulty in searching and getting the needed information is likely to leave the site” (McKinney et al., p. 308). Preferences for the form of navigational scheme are expected to vary by culture (Marcus and Gould, 2000). Simon (2001) found that Europeans and individualist North Americans prefer navigation that enhances movement and makes the site simpler to use. Alternately, Asian/Latin and South Americans (generally collectivists) desire navigation aids to change the appearance of the site without particular concern for movement. Germans who are moderately high on uncertainty avoidance “feel anxiety about uncertain or unknown matters” (Marcus and Gould 2000, p. 39), and therefore prefer “navigation schemes intended to prevent users from becoming lost” (Ibid, p. 41). Similar to Germans, Chinese are moderate on Hofstede’s (1984) scale for uncertainty avoidance while Canadians are least risk averse. The preceding suggests differences in Navigation Design may exist between Canadians with German or Chinese users. More specifically, it was expected that Navigation Design would result in website trust for Canadian users but not for German or Chinese users (Cyr, 2008a).

Related to the above expectations, the outcome was that Navigation Design results in trust for Canada and China, Visual Design results in trust for Japan only, and Information Design results in trust for Canada only. It is clear that there are distinct design proclivities between the countries in this study. Also of interest is that the three design characteristics serve to explain an outcome of trust better in Canada and China, while the variance explained is lower in Germany ($R^2 = .173$). In the case of Germany, it would appear that other characteristics not captured in this study also contribute to online trust. This may include the company name and reputation, or perceived security of information as already reported. Predictions for how the various design features would result in trust were mostly supported as outlined earlier. That is, Information Design results in trust for Canadians but not for Germans and Chinese, and Visual Design results in trust for Chinese but not Canadian and German users. It was predicted that Navigation Design would result in trust for Canadians but not for Germans and Chinese. These relationships received partial support as Navigation Design resulted in trust for Canadians but also for Chinese users (Cyr, 2008a).

5. Concluding Remarks

Perhaps more online than anywhere, consumer perceptions of trust and security are a necessary universal ingredient if online browsers are to turn into purchasers. Willingness to take risks on the Internet varies across cultures, with Americans and Canadians least risk averse and concerned about security when buying online, Japanese most concerned with risk, and Germans somewhere in the middle. It is rather surprising that Japanese are least focused on buying recognized brands online, while Canadians are most likely to pay attention to this matter. It would seem that for Canadians, establishing product credibility is especially important.

For all groups it is paramount that online transactions are secure. No significant differences occur across the four country groups for any of the items regarding credit card access, misuse of credit card information, or the security of the payment method. However, in each category for each country these issues are of prime concern. To assure all users, and especially highly risk-averse Japanese users, managers and Web designers will want to place security symbols and other assurances strategically and prominently on websites. Credit cards are the most trusted payment method for North Americans, while Germans and Japanese prefer other forms of payment. Hence savvy online vendors will aim to match payment methods with country preferences.

A company's reputation is important and is often assessed based on other people's opinions - usually friends. Germans feel security symbols may be "faked" therefore a presence of security symbols that are easily identifiable would be especially important for this group. North Americans feel more secure about an online vendor if contact information is available on the website, and are also likely to seek information about a company's reputation through the Web.

Japanese are least trusting of information presented on websites and least confident that personal information will not be misused. Some of this concern can be moderated when online vendors provide product ratings from customers or consumer publications on their websites. Overall information quality should be high, with online product information complete, detailed and trustworthy. Information Design is especially important to Canadians and is statistically related to trust. This is a beacon to online vendors to pay special attention to effective presentation of information on the website. As already noted the type and amount of information varies by country and should therefore be tailored to particular users. For example, all users noted they prefer few product details when first entering a website and these details should be easily accessible. Detailed information can be embedded at the next level of the website.

Navigation Design is highly related to trust for Canadians and Chinese which suggests that users from these countries expect websites that are clear and transparent. Navigation itself has cultural nuances. Based on earlier studies Canadians expect utilitarian websites that enhance movement and are easy to use. On the other hand, Visual Design is very important to Chinese users related to trust, and less so for Canadians and Germans. As such, website designers should pay particular attention to the colours, images, shapes and overall graphical look of websites. Asian users tend to trust websites more if they have "emotional appeal" and are otherwise engaging (Cyr et al., 2005).

While elements of website trust formation are generally known, cross-cultural comparisons are not well documented. The results reported in this chapter provide online vendors with added insight as to how to most effectively build trust in consumers from international locations. As suggested in the introduction, even minor increases in customer retention rates serve to augment profits. As such, designing websites that are perceived as trustworthy and secure in alignment with cultural expectations of the user has potential for huge commercial advantage.

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