The Influence of Culture on iTrust Aspects in B2C E-Business

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Abstract

This research suggests an online interpersonal trust (iTrust) to better understand the buyer cognitive and affective reactions towards online purchasing. To complete this main goal, this study provides proposition on the effect of culture (Individualistic and collectivistic) on online interpersonal trust (cognitive and affect-based trust) related to web design and buyer behavior aspects towards purchase intention in B2C e-business website. It is important to compare online shopping perceptions between two different groups because the Individualistic buyers’ satisfaction may be completely ineffective in producing a desired response in the Collectivistic.

Keywords: E-commerce, E-business, B2C, Culture, interpersonal trust, Cognitive and Affect-based trust

Introduction

E-business or E-commerce is all about doing business online. To form a buyers trust in e-business environment may be challenging due to the uncertainty related with online transactions (Chen and Barnes, 2007). Online consumer trust has attracted widespread attention in e-commerce (Li et al., 2011). However, the number of online trust research studies overall remains limited because of the trust influencing factors are mainly based on the western (individualistic) background but not valid in other cultural scenarios (Binhui et al., 2011). This research suggests an online interpersonal trust (iTrust) to better understand the cognitive and affective reactions of buyer interaction towards online purchasing in business-to-consumer (B2C) e-commerce. There is a need to investigate cognitive and affective dimensions of online trust (Corritore et al., 2003). Online interpersonal trust refers to the individual trust formed in another specific party (McKnight and Chervany, 2001). In e-commerce environment, the two participating parties are the online buyer and the online vendor (Tan and Sutherland, 2004). The transaction complexity in e-commerce environment makes conditions more uncertain, and then the need for interpersonal trust grows (McKnight and Chervany, 2001). Two aspects of interpersonal trust are cognitive and affect aspects (Johnson and Grayson, 2005, McAllister, 1995). Cognitive based trust is a buyer confidence to rely on B2C design while affective based trust is the satisfying experience (feelings) demonstrated by the B2C website. The Internet has advanced and its functionality is improved and existing online trust models have not been updated to date, to consider the rapid changes in B2C e-commerce.

Culture may also affect the buyer online trust, buyers in dissimilar cultures might have different expectations of what makes an online store trustworthy (Jarvenpaa et al., 1999). Suitable user interface characteristics are require for building trust on the web for more culturally diverse audiences (Cyr and Fraser, 2004). Individualism-collectivism cultural dimension influence the way people build trust, and therefore have an influence on perception towards web design (Ahmed et al., 2008). It is one of the challenges for business owners, to decide how the information should be presented on B2C website for different cultures. Therefore, this study seeks to contribute to trust in B2C e-commerce by including the role of online interpersonal trust (cognitive and affect-based trust). No known or little research has been done at this point to empirically investigate whether the B2C design characteristics (website accessibility, colour, images and social networking services) and buyer behaviour characteristics (online shopping
experience, religious attitude, online store preferences) affects the online interpersonal trust and subsequently buyer intention to purchase online across cultures. The integration of above factors in a single study is important to the success of cross-culture business to-consumer (B2C) e-commerce. The Individualism vs. Collectivism culture dimension has been exposed in all cultural studies (Triandis and Gelfland 1988, Schwartz, 1992, Hofstede, 1980). Individualist cultures focus on individual decision making while collectivist cultures focuses on group norms. This research applied Individualism vs. Collectivism dimension, because Individualism vs. collectivism is the most important dimension in studying cultural differences (Triandis, 2004). It is well established dimension for cross-cultural research, and mostly applied in e-commerce research (Kim, 2005, Singh et al., 2005).

Following the above mentioned, our research questions is, how does culture influence buyer online interpersonal trust aspects towards purchase intention in B2C e-commerce? This study is organized as follows. The next section presents review on existing studies. Then the framework is discussed. Following that, Discussion and the future work is presented.

**Related Studies and Theoretical Background**

**Culture and Trust in E-commerce**

With reference to cultural differences, Hofstede’s (1980) cultural aspects have been comprehensively used in B2C e-commerce research studies (Sivaji et al., 2011, Nitish Singh, 2012, Sinkovics et al., 2007, Sohaib and Kang, 2014a). Moreover, researchers have also developed varieties of models for buyer trust in e-commerce context (McKnight et al., 2002, Kim et al., 2008, Kim, 2005, Pavlou and Gefen, 2004, Brengman and Karimov, 2012). The main similarities of these models are that they combine views on consumer cognition and affective reaction. However, they ignore the role of interpersonal trust. These similarities can be grouped to form interpersonal trust. Internet has advanced and its functionality encourage user to interact online. According to Gefen and Straub (2004) online trust refers to buyer trust in e-vendor. This is aligned with iTrust which refers to buyer interpersonal trust in B2C website. The concept of online interpersonal trust has its backgrounds in information systems, focuses buyer trust in specific e-vendor (Tan and Sutherland, 2004).

**E-commerce Web Design**

In e-business, effective website design plays an important part in attracting and engaging buyer’s interest and in influencing their purchase intention (Song and Zahedi, 2005). The website is the main way a firm communicates with its buyers, Therefore their appearances encourage or discourage a buyer purchase intentions (Cyr et al., 2005). Effective website accessibility is an important element for the design of B2C websites (Sohaib and Kang, 2013). According to (McLellan, 2011) “As public organizations and private businesses rely more on web based technologies for online shopping, information, and service delivery they must implement strategies to ensure all users can fully access web content”. E-commerce sites are complex; therefore there is a need of web accessibility to enhance trust on buyer intention to purchase. The concept of website accessibility adopted in this study considers the usefulness together with the concept of ease of use, website navigation and information content that contribute to the overall concept of usability in web. In addition, visual design such as the use of color and images are the most effective attributes of e-commerce design. To improve trust in e-commerce, color and images must be carefully selected with the target culture in mind. The concept of web design factors is consistent with (Ganguly et al., 2010, Cyr, 2013).

Concerning social networking, the relationship of social networking services (such as social network sites, blogs, forum, online chat and help) with online buyers in e-commerce environment can create trust and positive influence in certain cultures. A model by (Brengman and Karimov, 2012) showed the integration social media cues (i.e Facebook and blogs) as stimulus into the online store website impacts
cognitive trust towards online purchase intentions. The concept of social networking services adopted here is also aligned with (Brengman and Karimov, 2012).

**Online buyer behavior**

According to (Hasslinger et al., 2007) trust is one of the important factors that influence the online buyer behavior. Lei et al. (2009) presented a model based on “attitude-behavior relationship theory” that is used to predict the buyer’s future buying behavior in e-commerce websites. TAM (Technology Acceptance Model) developed by (Davis, 1989) and the TPB (Theory of Planned Behavior) developed by (Ajzen, 1991) has been applied to Internet shopping adoption in several studies (Guo, 2004, Lee et al., 2011, Lodorfos et al., 2006, Rofiq et al., 2011). The purpose is to predict online buyer attitudes regarding online purchasing. However, there are certain other factors such as online shopping experience, religious attitude than perceived confidence in e-commerce (Sohaib and Kang, 2012). A buyer’s own shopping experiences is necessary for the actual foundations of buyer trust in the online store Guo (2004)). The impact of religious attitude on trust in the context of e-commerce can vary with culture (Sohaib and Kang, 2014b). In addition, and online shopping preferences with respect to localization of online store is also an important factor towards purchasing online. There are differences on trust across culture for shopping preferences such as, local vs. international online store (Shi et al., 2013).

**Conceptual Model**

Based on the previous model and related theories, the following conceptual model and proposition are developed. This study does not provide the comprehensive view of all trust influencing factors such as security, privacy and risk etc. The goal is to provide buyer immediate cognitive and affective responses to build trust in e-commerce website. Figure 1 shows the conceptual model.

![Figure 1: Conceptual framework](image-url)
**Website Accessibility**

Lazar and Sears (2006) discussed that web accessibility should receive attention in e-commerce websites. Ease of use and usefulness is a concept in the Technology Acceptance Model developed by Davis (1989). Website Accessibility has the similar concept; it increased the website use with ease. Studies have showed that ease of use effects the online trust (McKnight et al., 2002). For example, ease of searching and navigation has been associated with changes in online trust (Corritore et al., 2003). Website accessibility is an important requirement in e-commerce websites for successful distribution of business information especially in developing countries (Sambhanthan and Good, 2012). Cyr et al. (2004) believes that e-commerce website has to be design with ease of access on a complete understanding of a consumer group’s culture. Singh et al. (2005)) discussed that buyer from collectivistic societies needs better web accessibility features. Cyr (2008) also found that collectivistic buyer give more preference to website navigational for forming trust. Therefore, we propose

**Proposition 1:** Collectivistic have positive influence on the relationship between website accessibility and cognitive-based trust to purchase online.

**Color and Images**

Color is also an important characteristic of appearance that is influenced by culture (Marcus and Hamoodi, 2009). For example, the red color is sign of happiness in the Chinese culture while in American culture red color is associated with danger (Kang and Kovacevic, 2012). Images meaning in one culture may not reflect the same meaning in another culture (Chakraborty, 2009). According to (Ford and Kotz, 2005) in collectivistic culture, images and color should be used in interface design to prevent end user from getting lost. While in Individualistic culture color and images should be used to provide additional information. Ganguly et al. (2009) argued and empirically recognized that the visual design such as graphics, colors, and photographs positively affects trust with the online store. Lee and Rao (2010) argued that in e-commerce, different colors make variance trust reactions in individuals. According to (Corritore et al., 2003) images have an impact on trustworthiness. Pelet (2011) studied the color effect on trust in e-commerce and found that color is an important e-commerce factor affecting the buyer trust. “A range of cross-cultural elements that need to be considered by the interface designer: text, number, Images, symbols, colors, flow and functionality” (Evers and Day, 1997). Images and color should be used in interface design to prevent end user from getting lost in collectivistic culture while in Individualistic culture color and images should be used to provide additional information (Ford and Kotz, 2005). To improve trust sensitivity in e-commerce, color and images must be carefully selected with the target culture in mind.

**Proposition 2:** Collectivistic have positive influence on the relationship between visual design (color and images) and cognitive-based trust to purchase online.

**Social Networking Services**

With the global increase of social networks sites, B2C e-commerce websites are integrating social networking elements to reach their target buyers and achieve their business target goals effectively across cultures (Sun, 2011). Social influence can form buyer trust in online store effectively in the collectivistic than in the individualistic (Lee et al., 2011). For example, people in collectivist’s culture are more likely to perceived reputation from a word-of-mouth recommendation while individualist cultures are more likely to take independent decisions. The relationship of online buyers in B2C environment with social networking seems that online trust will create positively influence in certain cultures. Social network elements positively influence online trust of a buyer (Guo et al, 2011). The continuous interaction of social networking can enhance the initial trust and can encourage the buyers to shop online (Grabner-
Kräuter, 2009). The integration of social network services can affect the trust such as affective trust and subsequently on purchase intentions (Brengman and Karimov, 2012). Therefore, we propose

Proposition 3: Collectivistic have positive influence on the relationship between social networking services and cognitive-based trust to purchase online

Online Purchasing Experience

Buyers’ past online shopping experience is also an important factor to trust the online store and subsequently to purchase online. As noted by An and Kim (2008) buyers’ experience affect trust in online shopping. A buyer’s own experiences with an online store are the actual foundations of buyer trust in the online store (Chen, 2007). Buyers’ experience may affect online trust (McKnight et al., 2002). Guo (2004) noted that online shopping experience includes affective activities, which can treat online buyer both as decision makers and emotional during the ongoing process of interaction with the website. Several researchers have provided evidence that culture also has effects on online shopping experience (An and Kim, 2008, Sun, 2011). The more frequently a buyer uses a B2C e-commerce website, the more they get experience to buy the product. Therefore we propose

Proposition 4: Individualistic have positive influence on the relationship between online purchasing experience and affect-based trust to purchase online.

Religious Attitude

Trust can vary with culture in e-commerce environment, even they are affiliated to any religion group (Siala and Siddiqui, 2004). Religion is an important element in purchasing decisions (Essoo and Dibb, 2004). Religion is an important element of trust and in purchasing decisions (Essoo and Dibb, 2004, Siala et al., 2004). According to Isa et al. (2009) Muslim buyers purchase quicker on websites designed for their own cultures. Islam, Judaism and Christianity share the qualities of a collectivist culture (Iannaccone, 1995). Siala et al. (2004) noted that the Muslims trusted the same religion websites are more than the other religion websites while Christians are not using religious attitude in forming their initial trust towards an e-commerce website. It is possible that Christians are more Individualistic. For example, Australia is a highly Christian country and widely considered as an Individualist society. The Islam religion does not support charging interest rates, and hence the use of credit card services makes difficult in Muslim countries (Omorogbe, 2012). It is also suggested that web developers or designers should pay great attention when developing or designing images that contain symbols with religious association (Chakraborty, 2009). Sohaib and Kang (2014b)) showed that collectivistic buyers are more religious towards online purchasing. Therefore, we propose

Proposition 5: Collectivistic have positive influence on the relationship between religious attitude and affect-based trust to purchase online.

Online Store Preference

Consumers are more satisfied with a localized e-commerce website that matches their cultural needs and preferences than with a foreign e-commerce website (Cyr et al., 2004). International firms are at a disadvantage to local firms when dealing with buyers based in other countries, because buyers’ trust in local online store may not appear to transfer to international online store to the same degree (Fisher and Chu, 2008). There are differences in trust across cultures for a local and a foreign e-commerce websites (Cyr et al., 2004). Foreign online stores are generally viewed as out-group entities, cultural sensitivity is important in determining the trust building strategies in foreign e-commerce (Shi et al., 2013).
Proposition 6: Individualistic have positive influence on the relationship between online store preference and affect-based trust to purchase online.

Cognitive and Affect-based trust towards Purchase Intention

Antecedents of cognitive-based trust may focus on grouping, because of a tendency to trust, members of the same group with shared values and opinions or it may focus on individual formed behaviours (Li et al., 2011). “Culture conserve cognitive resources and makes human interaction possible (Gifford Jr, 2009)”. According to Cyr et al. (2004)) “between cultures, the tendency to trust is reversed” where “Individualists are more optimistic than collectivists concerning benevolence from strangers”. Cognitive and affective skills affect each other and buyers do not use them independently (Hansen, 2005). The higher the degree of buyers’ trust, the higher the degree of online purchase intention (Chen and Barnes, 2007). We propose

Proposition 7: Cognitive-based trust positively influences affect-based trust both Individualistic and Collectivist.

Proposition 8: Cognitive-based trust positively influences the buyer’s intention to purchase in collectivist than individualistic.

Proposition 9: Affect-based trust positively influences the buyer’s intention to purchase in individualistic than collectivist.

Discussion and Conclusion

Online trust in e-business is not only based on the web design factors but also on their relations with the buyer behaviour and cultural norms. Individualism-collectivism dimension has influence on online trust (An and Kim, 2008). According to Kim (2005)) national culture influences individual trust development processes. In e-commerce environment, Kim (2005)) noted that the cognition-based trust is associated with buyers’ observations and perceptions regarding the features and characteristics of the e-commerce website. The affect-based trust is associated to indirect interactions with the other sources such as inputs from others (Kim et al., 2008). B2C e-commerce website presents cognitive and affective signals (Karimov et al., 2011). Cognitive based trust should exist before the affective based trust develops (Johnson and Grayson, 2005). This implies that cognitive based trust is a buyer confidence to rely on B2C design while affective based trust is the satisfying experience (feelings) demonstrated by the B2C website.

Confusion creates mistrust; therefore, multiple factors should be taken into account such as website accessibility, colour and graphic scheme for building trust towards e-commerce websites. This visual attractiveness along with social media cues can be also used to induce affective trust towards the website (Karimov et al., 2011). Affect-based trust is personalized and is based on emotion (also called emotional trust) and “based on affect experienced from interacting with the service provider” (Johnson and Grayson, 2005, Karimov et al., 2011).

It is important to compare online shopping perceptions between two different groups because the Individualistic buyers’ satisfaction may be completely ineffective in producing a desired response in the Collectivistic market. The research model will be empirically tested to compare the effect of above mentioned factors on trust and subsequently on online purchase intention between the two cultural groups, Individualistic and Collectivistic, to find out if there are significant differences on online interpersonal trust and on intention of online purchasing. Australia and Pakistan are chosen for this study because they represent nearly reverse position on Hofstede’s Individualism –Collectivism (IDV). The result of this study will be beneficial to the academics, e-commerce practitioners and business firms.
References


