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THE IMPACT OF RELIGIOSITY ON INTERPERSONAL TRUST IN B2C CONTEXT: A CROSS-CULTURE ANALYSIS

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Abstract

Religion has long been playing a significant role in influencing human behavior. However, its business value as a predictor of buyer behavior has not been sufficiently examined in e-commerce context. The main contribution of this paper is to show the connection between the degree of religiosity and interpersonal trust (cognitive and affect-based trust) in Business to-Consumer (B2C) e-commerce. The study uses responses obtained from a convenient sample from Muslims and Christians in two different societies, Pakistan and Australia respectively. The data of the survey were analyzed using Partial Least Square (PLS) approach. The results indicate that interpersonal trust related to religiosity in a web-based retailer can vary with culture, at least as represented by affiliation to a religion. It is suggested that religiosity should be considered as possible determinant of trust in online shopping in the future.

Keywords: B2C, Culture, E-commerce, Purchase Intention, Religiosity, Interpersonal Trust

1   INTRODUCTION

Business-to-Consumer (B2C) e-commerce is all about doing business electronically. B2C refers to the e-commerce in which business sells directly to individual buyers (Bidgoli 2002). This research suggests online interpersonal trust to better understand the cognitive and affect-based trust aspects of buyer interaction towards online purchasing. Online interpersonal trust refers to the individual trust formed in another specific party (McKnight and Chervany 2001). In a B2C context, the two participating parties are the online buyer and the online vendor (Tan and Sutherland 2004). The transaction complexity in B2C context makes conditions more uncertain, then the need for interpersonal trust grows (McKnight and Chervany 2001). The literature typically differentiates two broad foundations of interpersonal trust as cognitive and affect-based trust, cognitive-based trust is built on the available knowledge and good reasons for decision making, whereas affect-based trust is built on the emotional ties between partners (Karimov et al. 2011; McAllister 1995; McKnight et al. 1998).

Many previously conducted studies have found that the e-commerce design and online purchasing behaviour factors contributed to the trust on acceptance of online purchasing across cultures (An and Kim 2008; Cyr 2013). Researchers have identified adequately of trust factors such as, third trusted party seal, web assurance, disposition to trust, familiarity, security, privacy, social-cue design and attitude towards purchasing intentions (Gefen et al. 2003a; Kim et al. 2008). These perceptions reflect the early attitude of doing business online, initial trust in general that increased the click-through. However, religion has long been playing a significant role in influencing human behavior and is a significant element of trust in online purchasing decisions (Essoo and Dibb 2004). This study explores the role of cultural variable as a factor of trust with the key emphasis being on religiosity. Religiosity refers to the degree to which an individual believes in specific religious values and practices them, whereas religious affiliation refers to the devotion of individuals to a particular religious group (Delener 1990). Consumer trust in B2C e-commerce context can vary with culture even they are associated to any religious group. Religion is an observable model of an antecedent to trust (Siala and Siddiqui 2004). Cultures have different preferences associated with their cultural beliefs concerning the religious attitude. For that reason, the relationship between religiosity and interpersonal trust in the B2C context is of central importance to understand towards purchasing intentions at the individual level. The significance of religiosity has been recognized in sociology and psychology (Amin et al. 2014) but has not yet been recognized in B2C e-commerce across cultures.

Therefore, the aim of this study is to investigate religiosity that affect the online interpersonal trust (cognitive and affect-based trust) and subsequently purchasing intention in B2C e-commerce. We have used religiosity as an example of a cultural aspect in two different societies, collectivistic (Pakistan) and Individualistic (Australia). To complete this main goal, this empirical study will examine the differences between two groups, Christians and Muslims in two different societies Individualistic and Collectivistic (Australia and Pakistan) respectively. Individualistic (Australia) societies focus on individual decision making while collectivist (Pakistan) societies focuses on group norms (Hofstede 1980). Moreover, Pakistan is one of the largest Muslim populations and Christianity dominates in Australia. Religion is a key determinant of Pakistani society that directly affects the behavior of Pakistani buyers (Yousaf and Malik 2013). Trust in religious groups is generally raised by cultural values, thus providing a good example of out-group and in-group trust (Siala et al. 2004). The effect of religiosity in B2C context cannot be underestimated especially in Pakistan where the concept of online shopping is flourishing. Thus, religiosity should be studied as a considerable force shaping the online purchasing behavior of Pakistani buyers. In order to depict some useful measures that could be adopted for the e-commerce firms, it is important to compare online shopping perceptions in terms of religiosity between two different groups because the Western buyers satisfaction may be completely ineffective in producing a desired response in the Eastern market. We believe that by using the data from two different religion countries (Australia and Pakistan) it would be possible to determine whether religiosity effects trust towards online purchasing at the individual level.

The research questions we address are (1) Does religiosity effects online interpersonal trust (cognitive and affect-based) towards online purchasing in B2C e-commerce in Individualistic and Collectivistic societies (Australia and Pakistan)? (2) What are the differences in the effect of religiosity on online interpersonal trust (cognitive and affect-based) between Muslims and Christians consumers in B2C e-commerce in Individualistic and Collectivistic societies (Australia and Pakistan)?

The study is organized as, section 2 presents literature reivew. Section 3 provides theoretical explanation and proposes a research model. The research methodology and data analysis results follows in section 4 and 5. Finally, the study is concluded with discussion and limitations.

2   LITERATURE REVIEW

Hofstede (1980) defines "culture as a mental software" that is "the collective programming of the mind which distinguishes the members of one group or category of people from another". With reference to cultural differences, (Hofstede 1980) cultural aspects have been comprehensively used in B2C e-commerce research studies (Nitish Singh 2012). Lei et al. (2009) presented a model based on "attitude-behaviour relationship theory" that is used to predict the buyer's future buying behaviour in e-commerce websites. Sohaib and Kang (2014) examined Pakistani and Australian B2C websites and the results showed that there are differences in the representation of cultural aspects related to functional and hedonic features of B2C websites both in Australia and Pakistan. Cultural issues alone do not guarantee the success of e-commerce but social and trust elements are also critical issues (Casaló et al. 2011). Researchers have also developed general models for consumer trust that influences the online buyer behaviour (Kim et al. 2008; McKnight et al. 2002). There are differences in trust across cultures for a local and a foreign e-commerce websites where buyers 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).

Concerning religious attitude towards online purchasing, Siala et al. (2004) explored that people in the same religion trust the same religion e-commerce website more than other religion e-commerce website. Islam encouraged e-commerce as the new way of conducting business (Zainul et al. 2004). However, religious attitude may affect buyer perception to shop online (Sohaib and Kang 2012). Zainul et al. (2004) discuss e-commerce from an Islamic perspective, such as the validity of e-commerce, e-commerce transaction, characteristics and rights of producers and consumers. Isa et al. (2009) performed an experiment asking Muslim users to purchase religious books in online books store and the results were significant in faster purchasing. Alam et al. (2011) examined the influence of religiosity on Muslims consumer behaviour and on purchasing decision in the Malaysian context. The study shows that those high in religiosity have strong influence on online purchasing decisions. Mokhlis (2010) investigated that the religious differences exists in Muslims, Buddhists and Hindus consumer shopping styles in terms of their behaviour and cognitive orientations.

3   THEORETICAL BACKGROUND AND RESEARCH MODEL

Online trust has attracted widespread attention in e-commerce in explaining the trust in online vendors (Chen and Barnes 2007; Gefen et al. 2003b; Li et al. 2011). In particular, the interpersonal trust in computer-mediated communication is a new research topic for e-commerce (Thomas et al. 2012). Two aspects of interpersonal trust are cognitive and affect-based aspects (Johnson and Grayson 2005). Chen et al. (1998) highlighted that cognitive-based trust is encouraged by enlightened self-interest and build by universal rules and standards, whereas affect-based trust is encouraged by a commitment to the relationship and is made by showing specific concerns for the other party. B2C e-commerce website presents cognitive and affective signals (Karimov et al. 2011). A cognitive and affective model of communication for designing information technology (Te'eni 2001), which includes communication medium and the message form, have an impact on how the communication is received (Cyr et al. 2010). With references to this research, the B2C e-commerce website is the medium, and the message form is characterized by buyer's religiosity with potential to influence online

interpersonal trust towards purchasing intention. Religiosity effects must consider both cognitive and behavioral factors towards shopping orientation (Mokhlis 2009).

Consumer trust can vary with culture in e-commerce environment, even they are affiliated to any religious group (Siala and Siddiqui 2004). Religion is a significant cultural aspect because it is one of the most common and prominent social institutions that have noteworthy impact on people's attitudes at both the group and individual level (Mokhlis 2009). There have been some studies on the relationship between religiosity and consumer shopping behaviour with the overall conclusion that the relationship is real (Jianfeng et al. 2009). The literature shows evidence of a relationship between religiosity and human behaviour, both in terms of cognitive and affective aspects (Essoo and Dibb 2004). Moreover, religion affects the emotional nature of an individual and his or her physical actions (Siala et al. 2004). This raise further question about whether the linking between religiosity, cognitive and affect-based trust extends to purchasing intentions? Figure 1 shows the research model.
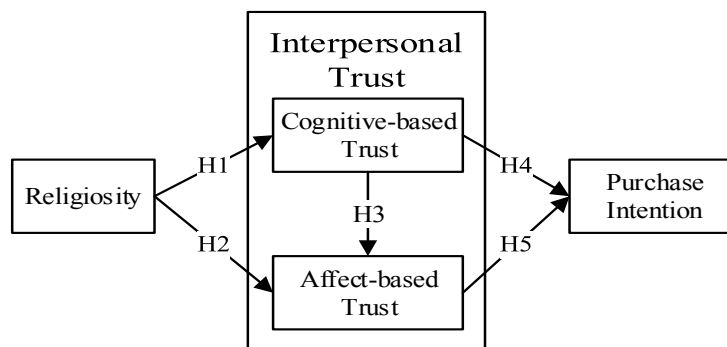

Figure 1: The Research Model

Figure 1:   Research Model

3.1   Hypothesis Development

Religion is an important element in purchasing decisions (Essoo and Dibb 2004). As noted by (Isa et al. 2009) Muslims users purchase faster from websites designed for their own culture. Siala et al. (2004) noted that the Muslims trusted the same religion websites more than the other religion websites while Christians are not religious in forming their initial trust towards an online shopping. According to Iannaccone (1995), Islam share the qualities of a collectivist culture. In Islam religion it is anticipated that the belief of cooperation between a consumer and a seller should be practiced at both the group and individual level of business (Siala et al. 2004). Mohd et al. (2010) used an Islamic culture as a case study to investigated whether users prefer the website designed for their own culture. The result shows that the users were more satisfied with culturally design websites. Therefore, we hypothesize,

H1: The relationship between religiosity and cognitive-based trust is stronger for Muslims in collectivistic society (Pakistan) than Christians in individualistic society (Australia).

H2: The relationship between religiosity and affect-based is stronger for Muslims in collectivistic society (Pakistan) than Christians in individualistic society (Australia).

When a user first time visits a website the initial trust can be based mainly on first perceptions of trust related attributes of the object, such as, cognition-based aspects which relies on quick cognitive cues or first impressions (McKnight et al. 1998). The website navigation, page layout consistency and easy access to navigational features are universally desirable (Cyr 2013). Lee (2002) believes that a user interface that offers information rich environments may likely operate upon the cognitive basis for user trust. Whereas, trust could also reflect the user's confidence and positive feelings (affect) towards the user interface. Cognitive and affective skills influence each other and buyers do not use them independently (Hansen 2005). Cognitive-based trust should exist before the affect-based trust develops (Johnson and Grayson 2005). E-vendors increasingly use religious themes online, and sincere followers of such religions are expected to abide by the rules set by their religious principles

(Solomon 2011). For-example, images that contain symbols with religious association should be carefully selected with targeted culture in mind (Chakraborty 2009).

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. For example, affect-based trust are more valued in members of a collectivist culture because they are more likely to share thoughts and beliefs, while cognitive-based trust are less valued in collectivist cultures than in individualist cultures. Cyr et al. (2004) believes that e-commerce website has to be design with ease of access on a complete understanding of a buyer's culture group. Therefore we hypothesize,

H3: The relationship between cognitive-based and affect-based trust is stronger for Christians in individualistic society (Australia) than Muslims in collectivistic society (Pakistan).

H4: The relationship between cognitive-based trust and purchase intention is stronger for Christians in individualistic society (Australia) than Muslims in collectivistic society (Pakistan).

H5: The relationship between affect-based trust and purchase intention is stronger for Muslims in collectivistic society (Pakistan) than Christians in individualistic society (Australia).

4 RESEARCH METHODOLOGY

For the research model validation and testing the hypotheses in a cross-cultural setting, a set of data were collected from undergraduate and postgraduate IT students in Australia and Pakistan. Universities students are composed of the majority of online users and considered typically more applicable to online consumers (Chen and Barnes 2007). The choice is also considered as a convenient sample because they are voluntarily available to the researcher. Participants studying in each country were recruited by scholars living in the country. This study used an online survey methodology where participants were asked to rate their responses regarding an interaction with an online vendor. Participants from both countries were asked to choose any localized online vendor. A well localized retailer website is considered to be appropriate to the culture and most workable option for research (Cyr 2013). The Muslims participants from Pakistan were asked to choose any of Islamic online bookstore (www.darussalampk.com, www.faridbookstall.com) and the Christians participants from Australia to choose any of Christian online bookstore (www.bibleshop.com.au, www.koorong.com). The participants were required to assume that they are interested in buying a book, search for a particular book and gather certain details to become more familiar with the chosen website (Chen and Barnes 2007). After the interaction with the chosen website, respondents were required to fill-out a closed-ended questionnaire on seven - point Likert scale. These includes options such as 7. Strongly Disagree, 6. Disagree, 5. Somewhat Disagree, 4. Neither Agree not Disagree, 3. Somewhat Agree, 2. Agree and 1. Strongly agree. Medium of instruction in Pakistani educational institutions is English. Thus, there was no need to translate the questionnaires into local language for Muslims participants.

Previously validated survey instruments were revised and used in order to ensure the measures are adequate and representative. Furthermore, an expert was used to validate whether the complete survey instrument adequately measures each construct. Religiosity was measured using scales adapted from (Allport and Ross 1967; Siala et al. 2004). Trust measures were adapted from (Brengman and Karimov 2012; Kim 2008; Lee and Kozar 2010) and purchase intention measures were adapted from (Kim and Park 2013; Yoon 2009). Appendix A shows all items used in the study.

A total of 119 responses from Pakistan and 133 responses from Australia were collected. After removing incomplete responses, a total of 115 Pakistan and 130 Australia samples were used to test the proposed model. Participants demographics are shown in Table 1.

		Pakistan Sample (n=115)	Australia Sample (n=130)
Gender	Male	61%	55%
	Female	39%	45%
Religious affiliation	Islam	100%	00
	Christianity	00	100%
Age	18-25	70%	65%
	26-35	19%	21%
	36-45	9%	11%
	Above 45	2%	3%
Internet experience	Less than 1	1.0%	00
	1-3 years	13%	2%
	4-6 years	21%	15%
	7 years or more	65%	83%
Online purchasing experience	Less than 6 months	7%	5%
	6-12 months	39%	30%
	1-3 years	36%	45%
	4 - 6years	13%	20%
	7 years or more	4%	10%

Table 1.   Respondents demographics

5   DATA ANALYSIS AND RESULTS

The Partial Least Squares (PLS) (smartPLS version 2.0) was used to test the research model. PLS is considered appropriate as it allows researchers to simultaneously assess measurement model parameters and structural path coefficients. Furthermore, it allows both formative and reflective constructs to be tested together (Chin et al. 2003). In our research model, cognitive and affect-based trust and purchase intention were modelled as reflective indicators because they were viewed as effects of latent variables (Hwang and Lee 2012; Kim 2005). Whereas Religiosity is a formative in nature because it is a multidimensional human phenomenon, which cover considerable concepts such as behaviours, attitudes, beliefs, feelings and experiences (Mokhlis 2010).

5.1   Reliability and Validity Assessment

The measurement models in PLS was evaluated by examining internal consistency, convergent validity and discriminant validity. Internal consistencies (Cronbach's alpha) of all variables were higher than the adequate benchmark of 0.70. Convergent and discriminant validity were evaluated by applying two criteria: (1) the square root of the average variance extracted (AVE) by a construct from its indicators was at least 0.70 and was greater than that construct's correlation with other constructs. (2) item loadings were at least 0.70 and are more strongly on their assigned construct rather than on the other constructs (Fornell and Larcke 1981). For the Australian and Pakistani models, Table 2 shows the Cronbach's reliability, composite reliability and the AVE of all constructs values exceeds the recommended value of 0.70. Religiosity is a formative construct that cannot be analyzed in this procedure.

Australia Sample

Construct	AVE	CR	C Alpha	ATrust	CTrust	PINT	REL
ATrust	0.824	0.933	0.892	**0.907**			
CTrust	0.939	0.978	0.967	0.660	**0.969**		
PINT	0.895	0.971	0.960	0.682	0.639	**0.946**	
REL	NA	NA	NA	-0.177	0.124	-0.135	1

Pakistan Sample

Construct	AVE	CR	C Alpha	ATrust	CTrust	PINT	REL
ATrust	0.742	0.872	0.785	**0.861**			
CTrust	0.756	0.925	0.893	0.178	**0.869**		
PINT	0.869	0.910	0.857	0.310	0.060	**0.932**	
REL	NA	NA	NA	0.234	0.070	0.222	1

Table 2.   Reliability, Correlation, and Discriminant Validity of Constructs

Notes:

1. ATrust: Affect-Based Trust, CTrust: Cognitive-Based Trust, PINT: Purchase Intention, REL: Religiosity

2. AVE: Average Variance Extracted, CR: Composite Reliability, C Alpha: Cronbachs Alpha

3. Diagonal elements are the square root of AVE.
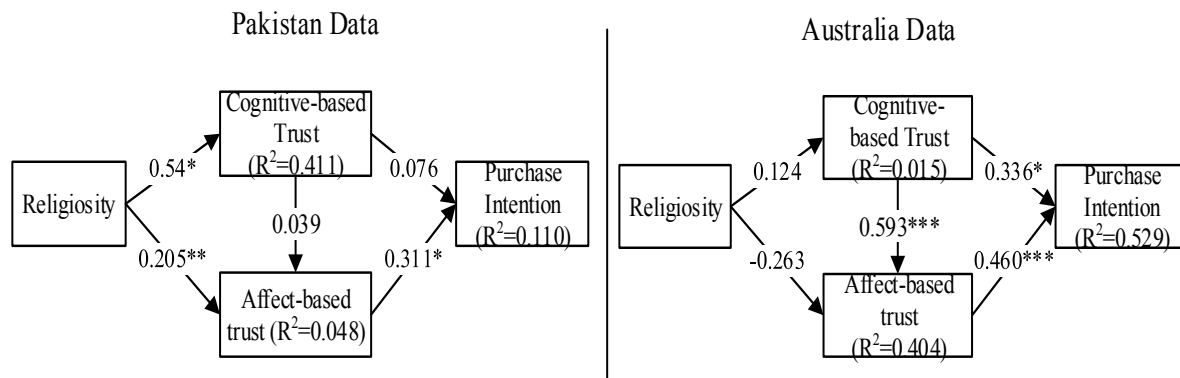
5.2   Structural Model Testing

The structural models and hypotheses were assessed by examining the significance of the path coefficients and the (R^2) variance for the dependent constructs. Furthermore, to compare between group differences (Australia and Pakistan), multi-group PLS analysis method is used (see Appendix B) which is considered appropriate for this study (Sia et al. 2009). Results are shown in Table 3. The significance of the paths was determined using the t-statistical test calculated with the bootstrapping technique (with subsampling of 200). A 5 percent significance level was employed. The results of PLS analyses for the Australian and the Pakistani models are shown in Figure 2 and Table 4 respectively.

Path	Pakistan Sample		Australia Sample		Mean Difference	t-statistics	p-value
	Mean	S. D	Mean	S.D			
Religiosity -> CognitiveTrust	0.472	0.121	0.175	0.01	0.297	2.38	0.018***
Religiosity -> AffectTrust	0.311	0.136	-0.021	0.103	-0.322	2.03	0.043***
CognitiveTrust -> AffectTrust	0.072	0.069	0.644	0.080	-0.572	5.30	0.000*
CognitiveTrust -> Purchase Intention	0.078	0.082	0.328	0.061	-0.250	2.5	0.01**
AffectTrust -> Purchase Intention	0.312	0.050	0.462	0.053	0.259	1.99	0.047***
Notes: S.D: Standard Deviation, *significant at the 0.001 level, **significant at the 0.01 level, ***significant at the 0.05 level							

Table 3.   Results of Independent Sample t-tests

The t-tests depict the mean differences between the two cultural data sets (Table 3). The results confirm that there are differences in the effect of religiosity on online interpersonal trust and subsequently on purchase intention between Muslims in collectivist society (Pakistan) and Christians in an individualist society (Australia).

Pakistan Data

Australia Data

Note: *p < .01, **p < .05, ***p < .001,

Figure 2.   Structural Model Results

	Pakistan Sample (n=115)		Australia Sample (n=130)	
	T-statistics	p-value	T-statistics	p-value
Religiosity -> CognitiveTrust	3.99	0.000	1.060	0.319
Religiosity -> AffectTrust	1.99	0.048	1.294	0.232
CognitiveTrust -> AffectTrust	0.43	0.66	8.624	0.000
CognitiveTrust -> Purchase Intention	0.93	0.32	5.501	0.000
AffectTrust -> Purchase Intention	3.19	0.002	8.651	0.000
Note: t >1.96 at p < 0.05, t > 2.576 at p < 0.01, t > 3.29 at p < 0.001 for two-tailed tests				

Table 4.   t-statistics for each sample

Comparing differences in coefficients of the corresponding structural paths for the two research models, as shown in Figure 2 and Table 4, In Pakistan sample religiosity has significant impact on buyer's cognitive and affect-based trust with path coefficients of 0.54 and 0.245 respectively, compare to Australia 0.124 and -0.263. whereas, the effects cognitive and affect-based trusts have significant impact on purchase intention in the Australia sample with path coefficients of 0.336 and 0.460 compare to Pakistan 0.076 and 0.311 respectively. The impact of cognitive-based trust on affect-based trust is also significant in Australia sample with path coefficients of 0.593 compare to Pakistan 0.039. Variance in buyer's cognitive-based trust in Pakistan sample ($R^2=0.411$) is higher than Australia sample ($R^2=0.015$) while the affect-based trust is higher for the Australian sample ($R^2=0.404$) compare to Pakistan ($R^2=0.048$). Pakistan model indicates 41 percent variance in buyer's cognitive-based trust while Australia model explains 40 percent of the variance in affect-based trust in e-vendor. On the other hand, variance in buyer's purchase intention for Australia sample ($R^2=0.529$) is significant than a Pakistan sample ($R^2=0.110$). The results show that the relationship between religiosity and interpersonal trust (cognitive and affect-based trust) is significant for Muslims in collectivist society (Pakistan) than Christians in an individualist society (Australia). While the effect of cognitive-based trust on affect-based trust and purchase intention is significant for Christians (Australia) in an individualist society than Muslims in collectivist society (Pakistan). Thus all hypotheses (H1 to H5) are supported.

5.3   Global Fit Measures

For the global validation of the models, a global criterion of Goodness of Fit (GoF) has been proposed by (Tenenhausa et al. 2005) for PLS path modeling. GoF index is appropriate for both reflective and

formative models, in order to take into account the measurement performance and thus provide a single measure for the overall prediction performance of the model (Vinzi et al. 2010). The GoF index is obtained as the geometric mean of the average communality (AVE in PLS path modeling approach) and the average R² for the endogenous constructs.

$$GoF = \sqrt{AVE * \overline{R^2}}$$

In line with the effect size of R², $GoF_{small} = 0.1$, $GoF_{medium} = 0.25$ and $GoF_{large} = 0.36$ are the baseline values for validating the PLS model globally (Wetzels et al. 2009). We obtained a GoF value of 0.52 for the Australia model and 0.39 for the Pakistan model, which exceeds the baseline value of 0.36 for large effect sizes of R² and allows us to conclude that our models are acceptable and fit.

6 DISCUSSION AND CONCLUSION

The main findings of this study indicate that interpersonal trust (cognitive and affect-based trust) related to religiosity in an e-retailer can vary with culture, at least as represented by affiliation to a religion. Within one in-group collectivist society (Pakistan), the Muslim religion has shown that interpersonal trust effects can transfer to the same religion web context. Thus, in a B2C context the relationship between religiosity and interpersonal trust for Muslims were found significant compared to Christians in Individualist society. Although, Christians had significantly more positive in purchase intention compared to Muslims. This suggests out-group individualist would more likely to purchase online.

Religious attitude is also an important element of trust in purchasing decisions and may affect a buyer's perception of confidence to buy online (Essoo and Dibb 2004). Zainul et al. (2004) highlighted the Muslims attitude towards online shopping and stated that there should be clarity in offering the products. For example, "the picture of the products must be clearly displayed on the screen, give product details, the price, the mode of delivery and the mode of payment must be clearly stated". The Islam religion does not encourage charging interest rates and thus the introduction of credit card services towards online shopping makes difficult in some countries (Omorogbe 2012) such as Pakistan. Hussain et al. (2007) discusses the issues concerning payment methods for online purchases in China, India and Pakistan, and identified that e-commerce users are unwilling to use a credit card for online purchases as a method of payment. Furthermore, religion considerably determines cultural and social behaviors in Eastern societies as compared to western (Lindridge 2005). This explains that individuals with higher levels of religiosity maintain behavioral patterns that are expected to be guided by sanctions derived from religion.

In Conclusion, the hypothesized relationships between religiosity and interpersonal trust were supported for Muslim participants in the Collectivistic society (Pakistan); this was not the case with the Christian participant's in Individualistic society (Australia). On the other hand, the effects of purchasing intention are stronger for Christian participants in Individualistic society (Australia) than the Muslim participants in the Collectivistic society (Pakistan). Siala et al. (2004) determined that Christians are not religious in forming their trust towards an e-vendor website as compared to Muslims, this study confirm these results. The findings of this study can act as eye openers for academics, e-commerce practitioners and business firms as they shed some light on Muslims online buyers. Practical implications extend to business firms to make changes to their market strategies to trigger their online sale better by targeting Muslim online buyers and different religions.

6.1 Limitations and Future Work

Like most survey research, this study also faces some limitations. First, a larger sample size would have been more helpful to evaluate the stability and dependability of the findings. Second, it must be remembered that we have used religiosity as an example of a cultural attribute in two different societies, collectivistic (Pakistan) and individualistic (Australia). Future works might include moderation effect of religiosity on trust aspects towards online purchasing across cultures. Moreover,

it will be interesting to see our research model is reasonable acceptable for Muslim buyers in non-Muslims society and among various religious groups. Despite the shortcomings, the study has been able to demonstrate that the participant's religiosity has impacted their trust towards online shopping to some degree. Furthermore, religion is an under researched feature of individual differences in information systems research and we put forward an important one.

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Appendix A: Questionnaire items

Measures		
Religiosity (Allport and Ross 1967; Essoo and Dibb 2004; Siala et al. 2004)	RE1	Religion is especially important to me because it answers many questions about the meaning of life.
	RE2	I enjoy spending time with others of my religious affiliation.
	RE3	Religious beliefs influence all my dealings in life.
	RE4	It is important to me to spend a period of time in private religious thought and prayer.
	RE5	The use of religious symbols and images in this websites does not affect my online purchasing (new item).
	RE6	I don't prefer using credit cards to buy online because I don't want to pay interests (new item).
	RE7	Although I believe in my religion, many other things are more important in life.
Cognitive-based Trust (Brengman and Karimov 2012; Lee and Kozar 2010; Siala et al. 2004)	CT1	I feel comfortable using this website to achieve my goals.
	CT2	Promises made by this website are likely to be reliable.
	CT3	I only shop from places (online store) whose owners are members of my religion.
Affect-based Trust (Kim 2008; Lee and Kozar 2010; Siala et al. 2004)	AT2	Visiting this retailer website is pleasant and enjoyable.
	AT3	This retailer website is trustworthy.
	AT3	Although I am religious I don't let it affect my online shopping (new item).
Purchase Intention (Chen and Barnes 2007; Kim and Park 2013; Siala et al. 2004; Yoon 2009)	INT1	I am likely to purchase the product(s) from from this retailer website.
	INT2	Given the opportunity, I intend to place a purchase from this retailer website.
	INT3	It is likely that I will actually purchase products from this retailer website in the near future.
	INT4	I only purchase products online that are in compliance with my religious traditions and beliefs.

Appendix B: Multigroup PLS Analysis

Multi-group PLS analysis is a component-based structural equation modeling that allows the comparisons of structural model differences across cultural groups (Chin 2004). It is performed by taking the standard errors for the structural model paths and comparing the equivalent paths across different groups (Pakistan and Australia in this study) by performing t-tests on their path coefficients.

$$t = \frac{Path_{sample\_1} - Path_{sample\_2}}{\left[\sqrt{\frac{(m-1)^2}{(m+n-2)} * S.E._{sample1}^2 + \frac{(n-1)^2}{(m+n-2)} * S.E._{sample2}^2} \right] * \left[\sqrt{\frac{1}{m} + \frac{1}{n}} \right]}$$

Where
S.E is the standard error.
Path $_{sample}$ is the path coefficients in each structural model.
m, n are the sample sizes of dataset.
(m+n-2) is the degree of freedom.