A STUDY OF INDIVIDUAL CONSUMER LEVEL CULTURE IN B2C E-COMMERCE THROUGH A MULTI-PERSPECTIVE iTRUST MODEL

A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF

DOCTOR OF PHILOSOPHY

BY

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Certificate of Original Authorship

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Signature of Student:

Date:

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List of Publications

The following research articles were produced to publish some concepts and findings from the work undertaken by the author during the course of this PhD research study.

Referred Conference Papers

- SOHAIB, O. & KANG, K. 2012. The role of Technology, Human and Social Networks in Serviceable Cross-Cultural B2C Websites. 19th International Business Information Management Conference (IBIMA), 2012 Barcelona, Italy. IBIMA, 1-11. Published in Journal of Internet and e-Business Studies http://www.ibimapublishing.com/journals/JIEBS/2012/264305/264305.pdf

- SOHAIB, O. & KANG, K. 2014. Impact of Religiosity on Interpersonal Trust in B2C Context: A Cross-Culture Analysis. The 18th Pacific Asia Conference on Information Systems (PACIS 2014), Chengdu, China. PACIS 2014 Proceedings. http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1078&context=pacis2014

- SOHAIB, O. & KANG, K. 2014. The Influence of Culture on iTrust Aspects in B2C E-Business. 24th International Business Information Management Conference (IBIMA), Milan, Italy. IBIMA. http://www.ibima.org/ITALY2014/papers/osam.html

Referred Journal Publications

- SOHAIB, O. & KANG, K. 2014. Cultural Aspects of Business-to-Consumer (B2C) E-commerce: A Comparative Analysis of Pakistan and Australia. *The Electronic Journal of Information Systems in Developing Countries,* 61**,** 1-18. http://www.ejisdc.org/ojs2/index.php/ejisdc/article/view/1208

- SOHAIB, O. & KANG, K. 2015. Individualtic-Collectivistic Impact on iTrust towards Purchase Intention in B2C E-Business. *Journal of Internet and e-Business Studies. IBIMA publishing.* Accepted for Publication

- SOHAIB, O. & KANG, K. 2015. Individual Level Culture Influences on Online Consumer iTrust Aspects towards Purchasing Intention across Cultures: A S-O-R Model. *International Journal of Electronic Business.* Inderscience Publishers, vol 12, issue 2, pp. 143-161

Refereed Journals papers: under review (as of June 2015**)**

- SOHAIB, O. & KANG, K. 2014. Effects of Culture on Consumers Cognition, Emotion and iTrust in B2C Context at the Individual Level across Cultures. *Journal of Global Information Management (JGIM)*. IGI Publishing

PhD Consortium Papers

- SOHAIB, O. & KANG, K. 2013. The Importance of Web Aceesibility in Business to-Consuemer (B2C) Websites'. Doctoral Consortium, 22nd Australasian Software Engineering Conference (ASWEC 2013). Melbourne. http://aswec2013.ict.swin.edu.au/ASWEC2013-PhD Symposium/papers/paper_2.pdf

- SOHAIB, O. & KANG, K. 2014. Examining the Effects of Culture on iTrust in B2C at the Individual Level: A Cross-Culture Analysis. Doctoral Consortium, The 18th Pacific Asia Conference on Information Systems (PACIS 2014), Chengdu, China. http://pacis2014.org/data/pacisDC.html

Abstract

Building trust and understanding their relationship with consumer online purchasing decisions is important to business-to-consumer (B2C) e-commerce firms seeking to extend their reach to consumers globally. This study addresses the gap in the knowledge about this relationship by studying the cognitive and affective responses of consumers towards a B2C e-commerce website.

Based on the Stimulus–Organism–Response (S–O–R) model, this study examines the moderating role of individual consumer culture on the relationship between web design (website accessibility, visual appearance (colour and images) and social networking services), consumer behaviour (religiosity), privacy, security, emotions (fear and joy) and interpersonal trust (iTrust), cognitive and affect-based trust concerning online purchasing intentions. The motivation of this study includes testing and comparing individual consumer cultural values (individualism and uncertainty avoidance) difference moderators in proposed multi-perspective model of online interpersonal trust (iTrust) across two different societies (Australia and Pakistan).

This research applied a quantitative methodology and a cross-sectional survey design approach. In order to empirically test the research model, surveys were conducted in Pakistan and Australia. A total of 270 participants from Pakistan and 255 from Australia responded to the survey. The data of the survey were analysed with the SEM-Partial Least Square (PLS) approach using SmartPLS 3.0.

The results of the analysis generated mixed findings. It was found that depending on the stimulus (S) towards which a reaction is made provides a signal regarding the cognitive and affect-based trust (Organism) of B2C e-commerce website, which influence consumers purchase intentions (Response) at the individual level across culture.

The results of this study highlight the need to consider individual consumer level cultural differences when identifying the mix of e-commerce strategies to employ in B2C websites, not only at the country level but also in culturally diverse country such as Australia.

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CHAPTER 1 : INTRODUCTION

This chapter presents an overview of this thesis by describing the key issues related to the research objectives, scopes and method. The chapter begins with the research problem statement and the motivation for undertaking this study. Then the purpose of this research including the research aim and objectives are presented. Following that, the research questions are provided. Finally, an overview of research method and the layout of this thesis are presented.

1.1 Statement of the Problem

Business-to-consumer (B2C) refers to the e-business or e-commerce model in which businesses directly sells to individual consumers (Bidgoli, 2002). The main way a business-to-consumer (B2C) e-commerce firm communicates with its consumers is through their websites. Therefore, identifying the website's components is required to understand whether the online store is providing the quality of services and interaction desired by consumers (Cheng et al., 2009). For example, a lack of perceived security in a website is a major concern for many of the potential consumers who shop online because of the lack of trust involved in transmitting sensitive information, such as credit card payments and private information (Éthier et al., 2006, Greenberg et al., 2008b). The appearance of a website also encourages or discourages a consumer's online purchasing intention (Cyr et al. 2005). The development of B2C websites that are visually pleasing, have accessible content information and are easy to navigate influences consumers' trust with cognitive and affective responses (Cyr, 2013, Éthier et al., 2008).

Establishing trust is one of the key obstacles for online vendors in the success of e-commerce globally. Trust refers to the consumer's expectation that the online vendor will execute specific activities, regardless of the consumer's ability to control the vendor action (Pavlou and Chai, 2002). In order to develop a sense of trust in an e-commerce context, e-vendors try to provide positive online purchasing experiences for potential consumers. Previous research has identified some of the factors that contribute to online trust in e-commerce (Gefen et al., 2003b, Kim et al., 2008, Sun, 2010, Palvia, 2009, Ou and Sia, 2009) such as a trusted third-party seal, web assurance, consumer disposition to trust, familiarity, security, privacy, social-cue design and attitude. This provides an essential foundation for trust formation in e-commerce. However, the existing research assumes that these trust factors are built uniformly across different cultures. There is a need for an interpersonal trust model to identify a base set of factors, which can be used to form an innovative multi-perspective trust model that can be applied to the changing nature of e-commerce.

Researchers have found that in an e-commerce context online trust is formed differently in different cultures (Cyr, 2013, Sia et al., 2009). However, country has been used as a proxy for culture at a group level by several past researchers in cross-cultural studies such as (Cyr, 2008a, Lee et al., 2007). In particular, Hofstede's (1980) country scores have been applied to examine the effect of cultural values on consumer purchasing intentions in e-commerce. However, the assumption of homogeneity in any nation is not suitable, particularly if the national culture concepts are to be integrated into business-to-consumer (B2C) e-commerce, which reflect individual behavior.

McCoy et al. (2005) argue that it is inapplicable to use Hofstede's (1980) country scores of national cultural dimensions because members of a same society may not have the same culture values. Considering nations as single cultures raised complications because within one country heterogeneity may be larger than between culture heterogeneity (Hofstede, 1980). Srite and Karahanna (2006) contend that national culture is a macro-level phenomenon, although online purchasing is a one-person action, therefore analysing culture at the individual consumer level is the most appropriate way to determine how culture affects technology acceptance (McCoy et al. 2005). Therefore, the level of analysis at the individual consumer level is most appropriate in the B2C context.

Given the relationship between trust and e-commerce, it is important to observe the cross-cultural aspects of trust when looking at online businesses. This is mostly overlooked by current research, which deals almost completely with Western culture (Greenberg et al., 2008a, Gefen et al., 2006) and largely ignores other cultural scenarios (Huang and Fu, 2009). Therefore, the research studies on online trust remain limited because the trust-influencing factors examined are mainly have Western backgrounds and might not be valid in other cultural scenarios (Binhui et al., 2011). For example, the adoption rate of online purchasing is lower in Asian countries than the Western world (Lee Heng et al., 2010) and one reason for this is the lack of trust affecting the online purchase intention (Ranzhe et al., 2008). Therefore, with e-commerce becoming a global phenomenon, by not considering the effect of culture, the research on consumer online trust remains limited.

E-commerce has the ability to attract global consumers to improve productivity (Sohaib and Kang, 2014). E-commerce plays a significant role in bridging the digital gap between developing and developed countries (Kurnia and Peng, 2010). However, there have been some uncertainties in the significance of e-commerce in developing countries (Lawrence and Usman, 2010). Pakistan is a developing country in south Asia with an increasing trend of Internet use. In 2013 Pakistan reached over 20 million Internet users, ranking 15 worldwide for total number of Internet users (WDI 2013). According to the Pakistan Telecommunication Authority (PTA, 2011), in 2020 the number of broadband subscribers will increase to 19 million and there will be more than 160 million mobile users. With the growth of online consumers, e-commerce is developing in Pakistan. Studies have shown that trust in e-commerce is the main reason for consumer reluctance to engage in online shopping in Pakistan; in particular, the use of credit or debit cards as a mode of payment (Yousaf et al., 2012, Nazir et al., 2012, Hussain et al., 2007).

In addition to this, Internet banking has only recently been adopted and other payment systems such as PayPal are not available in Pakistan like they are in developed countries. To overcome this issue, online shopping firms are now providing cash on delivery option to establish trust. In order for B2C e-commerce to be successful in Pakistan, researchers must find out some useful measures to provide an effective online shopping experience. After this is done, there is still a need to investigate other factors that will build confidence and develop trust in individuals in B2C e-commerce in Pakistan so they will make online purchases.

A lot of the information that is available on the e-commerce web may be relevant to global consumers. However, it may also be misinterpreted by specific cultural groups

and may overwhelm the consumers by number of functionalities. For e-commerce to build trust on the web, suitable user interface characteristics for more culturally diverse consumers are required (Cyr and Fraser, 2004). Also, existing B2C online trust studies reflect the early attitude of doing business online, which is that initial trust in general increased the click-throughs. Although trust does maintain long-term relationships between consumers and online store, researchers must also take a new perspective in regards to retaining consumers. Hence, a gap in the literature still exists. Trust has been extensively researched in an e-commerce context; research on building online trust at the individual level across cultures is limited.

Therefore, examining consumer trust is critical and must be well understood for the continuous development of e-commerce across cultures at individual level. In particular, interpersonal trust (iTrust) in computer-mediated communication is a new research topic for e-commerce (Thomas et al., 2012). 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 consumer and the online vendor (Tan and Sutherland 2004).

When transaction complexity in an e-commerce environment makes consumer more uncertain about online purchasing, then the need for interpersonal trust grows between consumer and online vendor. Two aspects of interpersonal trust are cognitive and affect-based (Johnson and Grayson, 2005). B2C e-commerce websites present both cognitive and affective signals (Karimov et al. 2011).

Previous studies have attempted to examine the effect of cognitive-based trust aspects (such as security and privacy protection, system reliability, information quality, legibility and coherence) and affect-based trust aspects (such as presence of a third-party seal, reputation, word-of-mouth referral, variety, mystery, joy and fear) on purchasing intentions (Johnson and Grayson, 2005, Kim, 2005, Kim et al., 2008, Lee and Kozar, 2010, Eastlick and Lotz, 2011, Li et al., 2011). However, these studies examine specific factors and may prevent a comprehensive understanding of the consumer's purchasing intentions in the B2C e-commerce context at the individual level across cultures. The research problem of this thesis is finding the key determinants that play a significant role in forming interpersonal trust (both cognitive and affect-based) in B2C e-commerce at the individual level across cultures.

1.2 Purpose of the Study

As e-commerce continues to grow, a re-investigation of the relationship between consumers and online vendor is required in order to attain a better understanding of the aspects that influence a consumer's online trust. This study investigates how individuals from different cultures form their interpersonal trust in a B2C website. This purpose of this study is to propose a multi-perspective model for interpersonal trust (iTrust) that focuses on the consumer interpersonal aspects of online interaction in a B2C e-commerce website. This research seeks to fill the gap in the research by studying consumers' cognitive and affective responses towards a business-to-consumer (B2C) e-commerce website.

The researcher intends to apply individual consumer level cultural values (individualism-collectivism (IDV) and uncertainty avoidance (UA)) as moderators to a proposed model that will uncover new and improved methods for fostering consumer trust in an online B2C context, including more innovative approaches to B2C websites, customer retention and online businesses strategies across cultures.

Therefore, the main aim of this research is to investigate the moderating role of individual consumer level cultural values (individualism-collectivism (IDV) and uncertainty avoidance (UA)) on the key determinants of interpersonal trust (iTrust) towards purchasing intention in B2C e-commerce across cultures. To do this, the difference in cognitive and affect-based interpersonal trust in a B2C e-commerce between two different societies (Australia and Pakistan) will also be examined.

Following on from the aim, the research objectives are:

- To propose a multi-perspective iTrust model for B2C e-commerce adoption by examining web design (website accessibility, visual appearance and social networking services), consumer behaviour (religiosity), privacy, security and emotions (fear and joy).
- To investigate individual consumer cultural values (individualism and uncertainty avoidance) as moderators to a proposed model to uncover innovative approaches for fostering consumer trust in an online business-to-consumer context.
- To empirically validate the multi-perspective itrust model in two different societies (Australia and Pakistan).

- To provide empirical evidence for B2C e-commerce academics, e-commerce practitioners and business firms to increase awareness of the effect of cultural differences on online interpersonal trust concerning purchasing intention at the individual level.

This research applied the cultural values of uncertainty avoidance (UA) and individualism-collectivism (IDV) (Hofstede, 1980) at the individual consumer level because these are believed to be highly relevant to trust in cross-cultural business relationships (Cyr, 2013, McCoy et al., 2005). Hofstede's (1980) cultural dimensions show a clear difference between the country score of the two cultural types on the individualism-collectivism dimension, for Australia scoring 90 and Pakistan 14 (a difference of 76); and Australia scoring 51 and Pakistan 70 for uncertainty avoidance (a difference of 19).

Moreover, this research applies the IDV and UA dimensions because this is highly relevant to trust in cross-culture business relationships (Cyr, 2013, McCoy et al., 2005). These index scores reveal the country culture of all individuals from that nation. The culture values applied in this study (IDV and UA) were adopted from (McCoy et al., 2005, Srite and Karahanna, 2006) in a multi-cultural context as moderators at the individual consumer level and not according to their national cultural association. In addition, there are more cultural differences between countries. By using the data from two different countries, such as Australia (individualistic and with low UA) and Pakistan (collectivistic and with high UA), it is possible to determine how cultural values operate at individual consumer levels in an online B2C relationship across cultures.

1.3 Significance of the Study

The B2C e-commerce website is a dynamic medium. What attracts e-businesses today may not be effective tomorrow because of constantly changing web technologies and increasing numbers of consumers worldwide. By understanding how individuals process information about online purchasing, better guidance can be provided for those designing the e-commerce websites of tomorrow. The multi-perspective model of interpersonal trust (iTrust) developed in this research is one step in this direction.

This research addresses the gap in the existing literature by evaluating how consumers' cognitive and affective responses to interpersonal trust (iTrust) in B2C online stores differ across two very different cultural value systems at the individual consumer level. More specifically, the responses of Pakistani consumers, a collectivist culture, are directly compared to the responses of Australian consumers, an individualistic culture, by examining the B2C online store cognitive and affect-based trust aspects.

Consumers who shop online may be less collectivistic than average even though they are in a high collectivist society and vice versa. For that reasons, by comparing two different cultural societies, it is possible to better understand the stimuli of individual cultural differences on interpersonal trust in B2C e-commerce. This study is unique in its focus on Pakistani e-commerce, which is a relatively unexplored area of online trust in B2C e-commerce context.

Understanding the differences between two different cultures, Australia and Pakistan, benefits B2C e-commerce since both represent a significant share of the Internet market. Pakistan is a developing country in south Asia with a growing number of Internet users that reached approximately 30 million in 2013, while the number of Internet users per 100 in Australia was 82 in 2013, the 24th highest worldwide (WDI, 2013)

One of the key benefits of this research is providing an understanding of the new drivers of online consumer interpersonal trust in B2C e-commerce across cultures. The major determinants of consumer trust in an online store are web design (website accessibility, visual appearance, and social networking services), consumer behaviour (religiosity), privacy, security and emotions (fear and joy). This research specifically examines a consumer's interpersonal trust (cognitive and affect-based) towards these factors in a B2C e-commerce website. The integration of the above factors in a single study is important to the success of understanding cross-cultural B2C e-commerce at the individual consumer level.

This thesis also verifies the validity of the consumer trust aspects examined in the research on e-commerce in developed countries in a developing country such as Pakistan, where the use of e-commerce is more limited (Kundi and Shah, 2009). Therefore, empirical research is required to document and compare the interpersonal trust aspects and subsequently consumer intention of purchasing in different countries in order to draw research implications on the development of global e-commerce.

It is important to identify the online shopping perceptions of these two different groups because the high uncertainty avoidance consumer's satisfaction may be

completely ineffective in producing a desired response of the consumers with low uncertainty avoidance. As technology becomes an increasingly important part of e-commerce, e-vendors involved in selling products can benefit from understanding their targeted consumers' culture, not only in terms of the whole country's culture but also culturally diverse countries such as Australia.

The results of this study may help online shopping managers who could use the insights from this research to modify their approaches. Developers and website designers can also use this understanding to increase desirable outcomes by focusing on the relationship between emotional reactions, cognitive evaluations and trust, therefore increasing the chances of an online business succeeding in countries with different degrees of uncertainty avoidance. The results of this study may also contribute to providing guidance to e-business firms to make changes to their market strategies to improve their online sales by targeting different cultures.

1.4 Research Questions

The research questions examined in this study are:

1. How is consumer interpersonal trust (iTrust) formed at the individual consumer level in relation to purchasing intention in B2C e-commerce across cultures?
    a) What is the relationship between security, privacy and cognitive-based trust in relation to purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of uncertainty avoidance (UA) influence this relationship?

b) What is the relationship between web design factors and cognitive and affect-based iTrust in relation to purchasing intention in B2C e-commerce across cultures and how do the individual-level cultural values of individualism (IDV) and uncertainty avoidance (UA) influence this relationship?

c) What is the relationship between consumer behaviour (religiosity) and online cognitive and affect-based iTrust in relation to purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of individualism (IDV) influence this relationship?

d) What is the relationship between consumer emotions (joy and fear) and affect-based trust in relation to purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of uncertainty avoidance (UA) influence this relationship?

e) What is the relationship between cognitive and affect-based iTrust and purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of uncertainty avoidance (UA) influence this relationship?

2. What are the differences between Australia and Pakistan regarding purchasing intentions in B2C e-commerce?

1.5 Research Method Overview

The study applies a quantitative correlational research method to collect numerical data to test the hypotheses. This method uses non-experimental cross-sectional research. The purpose of cross-sectional research is to collect data at one point in time in order to make comparison across different groups of respondents (Belli, 2008). This is considered appropriate in this study because this study involves two groups, Australia and Pakistan. The details of the research methodology are presented in Chapter 4.

Figure 1.1 shows the different research activities conducted in this study. First, existing studies were reviewed to identify the gap in the knowledge, and research questions were developed that would address this gap. Subsequently, based on the understanding gained from the review of literature, the research model and hypotheses were developed to answer the research questions.

The constructs used in the conceptual model were operationalised to develop a questionnaire. Previous validated measures were revised and used for the survey, then the data sets collected from Pakistan and Australia were statistically analysed. The data was analysed using variance-based Structural Equation Modeling (SEM) statistical techniques, such as Partial Least Squares (PLS) path modeling using SmartPLS version 3 (Ringle et al., 2014), to examine the relationships between the different parameters of the research model.

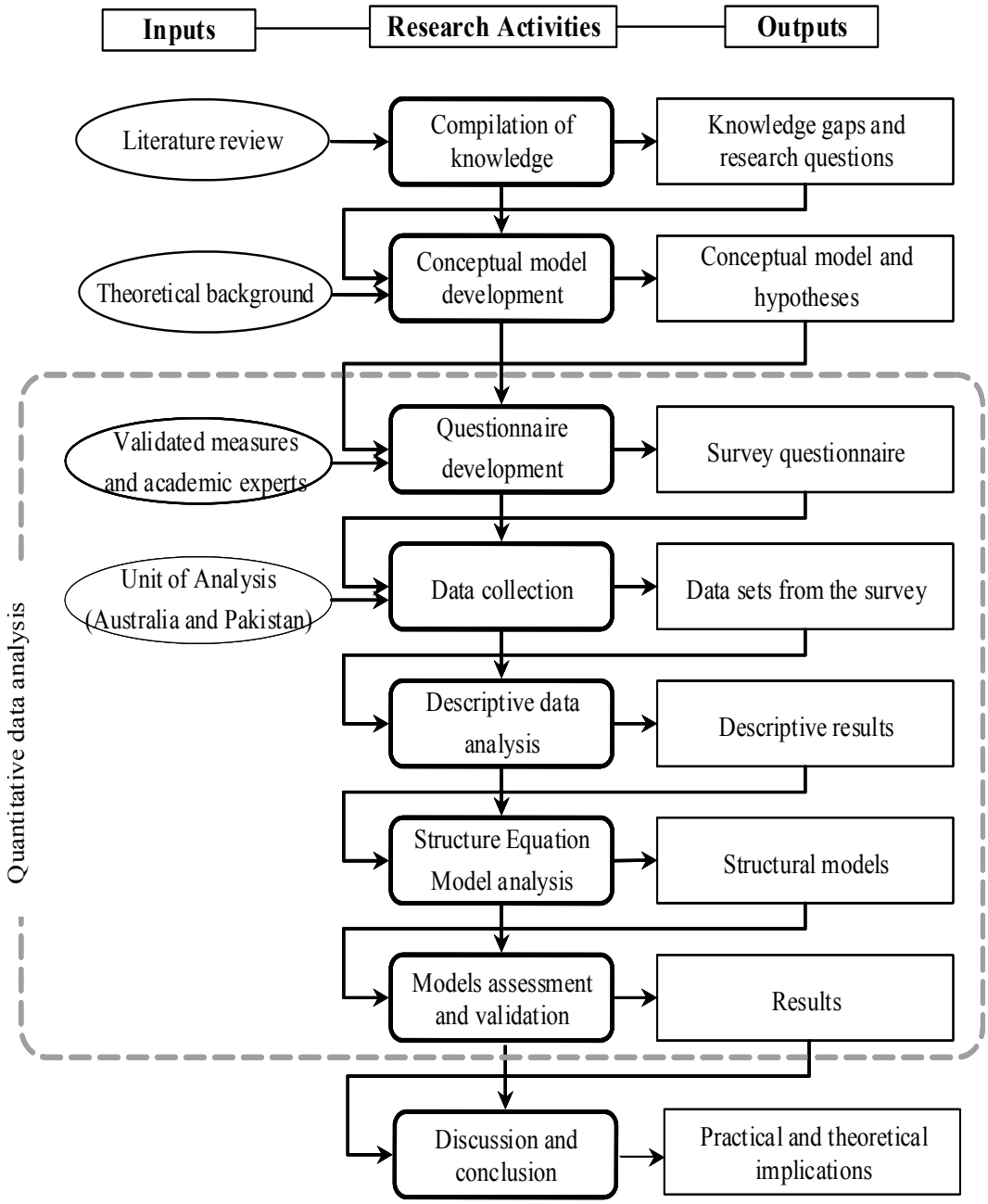

Figure 1.1: Research Activities

1.6 Thesis Outline

This thesis consists of six chapters. The current chapter introduces the research study by outlining the problem statement, the purpose of the study and the research objectives and questions. An overview of the research method and an outline of the thesis layout are also presented. Figure 1.2 shows the chapter sequence and the number of refereed research articles produced during the course of this research study.

Chapter 2 reviews the existing literature related to the cultural difference, web design, consumer behaviour, cognition, emotion and trust, all within the context of B2C e-commerce. The critical review of existing studies provides a theoretical foundation for the key concepts used in the study.

Chapter 3 further explains the development of the theoretical framework and presents the conceptual model. The operationalisation of the constructs used in the model is described and the development of the hypotheses is discussed. Chapter 4 outlines the research methodology, including the instruments used and the population and sample. The data collection process is highlighted and the data analysis procedure is discussed.

Chapter 5 outlines the details of descriptive statistics, assessing measurement and structural model validity for the testing of the hypotheses. The final chapter, Chapter 6, discusses the findings of the study. The theoretical and practical implications are also presented. This chapter concludes by identifying the study's limitations and recommendations for future research. Subsequently, the reference list is provided and the questionnaire survey in presented in Appendix A.

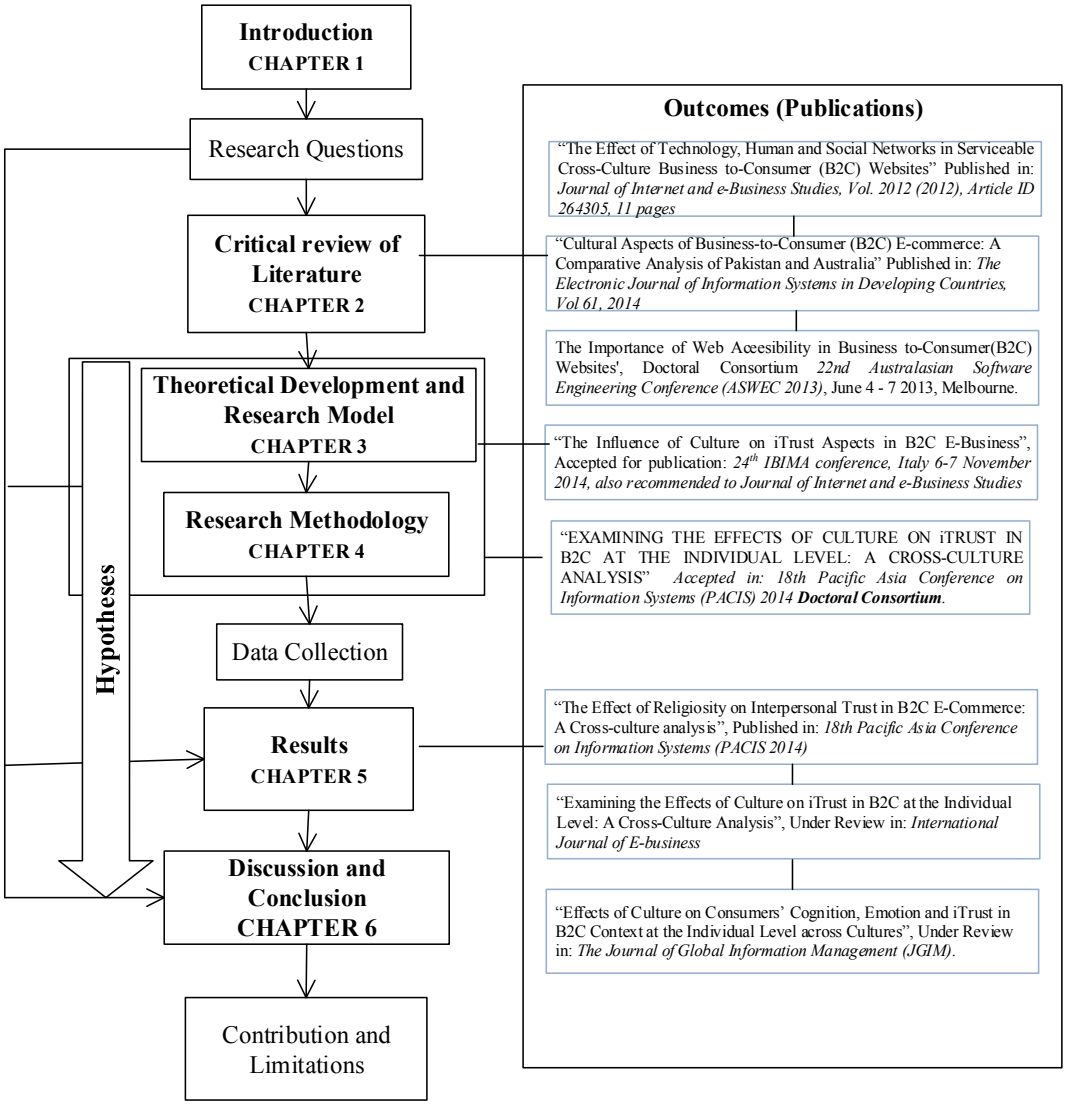

Figure 1.2: Thesis outline

CHAPTER 2 : LITERATURE REVIEW

The purpose of this chapter is to provide a background on trust and cultural differences in B2C e-commerce. The relevant literature is reviewed to introduce the existing theories, which are then used to build the research model in Chapter 3. Firstly, this chapter discusses the current online shopping trends in Pakistan and Australia. Then the existing literature on cultural difference, web design, consumer behaviour, cognition and emotion and trust is examined in the context of B2C e-commerce.

2.1 B2C E-Commerce in Pakistan

Pakistan is a developing country in south Asia with a population of 180 million. The number of Internet users in Pakistan is increasing, with over 20 million in 2013 and a rank of 15 worldwide for Internet users (WDI, 2013)**.** Pakistan was also ranked world development indicators as one of the countries that registered the highest growth rate in broadband Internet penetration (Yasir, 2011, WDI, 2013). Kundi and Shah (2009) note that in Pakistan, "IT business is growing at annual rate of 50% per annum, where computers growth rate is 30% per year". According to the Pakistan Telecommunication Authority, the number of broadband subscribers in Pakistan reached 1.79 million in December 2011. They estimate that by 2020 the number of broadband subscribers will exceed 19 million and mobile users 160 million (PTA, 2011).

Among Pakistan's online consumers, those who had done online shopping looked at buying computer hardware (25%) and clothing (18%) (Nielsen, 2010). According to a Nielsen Global Online Survey (2010), "Online Shopping is the most

underdeveloped in the Middle East, Africa and Pakistan region." Almost 47% of online consumers from this region indicated that they have never done any online shopping, which is the highest percentage of any region in the world. Hussain et al. (2007) discuss the issues concerning payment methods for online purchases in China, India and Pakistan. The authors find that e-commerce consumers are unwilling to use a credit card for online purchases as a method of payment. Instead, most online consumers preferred to use cash on delivery as a method of payment because they perceive it as more convenient, familiar and trusted.

Online shopping in Pakistan affects consumer buying behaviour (Nazir et al., 2012). According to a survey conducted by the authors, almost 57% people enjoyed online shopping while 43% had never experienced online shopping. Online shopping is a new phenomenon for people in Pakistan, however the survey results show that people are moving towards online shopping. E-business in Pakistan is still in its early stages but it is developing (Kundi and Shah, 2009), however, the pace is rather slow due to governmental, organisational or technologically unfavourable conditions. In their study, the author found that personal computer penetration, infrastructure, economic, political, business, cultural and marketing issues affect e-business in Pakistan.

Pakistan is building its e-business capabilities and the number of online consumers is growing rapidly in Pakistan. These consumers need facilitation to familiarise them with online business practices, so there is a need to build confidence and develop trust in transactions made online (Kundi and Shah, 2009).

2.2 B2C E-commerce in Australia

In 2013, there were 83 Internet users in Australia per 100 people, the 24th highest ranking worldwide (WDI 2013). Australia has experienced fast growth in e-commerce, with almost 90% of online shoppers in July 2012 reporting that they were expecting to increase their online spending over the next twelve months (PwC, 2012). According to (NAB 2012), Australian domestic online sales exceed that of international websites. However, Campbell (2012) reports that "the lack of local big brand retailers selling online is forcing shoppers to buy from overseas competitors" (Campbell, 2012). However, despite its popularity with existing online shoppers, online shopping still is not a major force in Australian retail (Simmons, 2012), with an absence of trust and personal preference being the main reasons for people to not shop online.

In Australia, consumers are becoming more comfortable with online purchasing. According to the 2010 Access Economics report, in Australia 65% to 75% of online consumer groups are aged between 25 and 44 years of age. Smartphones are also play an important role in e-commerce. However, the report also states that, "70% of online shoppers mostly shop at overseas retailers," with the presentation or ease of use of e-commerce websites a possible factor for this (Access et al. 2010). The most common reason (25%) for Australians not purchasing online is a lack of trust in the Internet (ACMA, 2010). Kang and Kovacevic (2012) highlight that there are also cultural issues in B2C e-commerce website design. The authors investigated Australian B2C websites and find that Australian consumers have different preferences concerning the use e-commerce websites than other cultures.

According to 2012 digital media research, 75% of Australians have made purchases from overseas online shops. Within the Australian context, it is imperative for firms to identify critical success factors and challenges in order to achieve benefits from e-business globally (Kuzic et al., 2006).Online shopping in Australia has grown significantly in recent years with the improvements in mobile technology and consumers are increasingly demanding a smooth experience of online shopping.

2.3 Culture Differences in E-Commerce

National culture has been defined by various authors in different ways. Hofstede et al. (2010) define national culture as "mental software", which is "the collective programming of the mind which distinguishes the members of one group or category of people from another". Trompenaars and Hampden-Tuner (1998) define culture as the "the way the human group solves its problems". This research will refer to national culture as the systems and values adopted by a society, but specifically focus on the values of individualism – collectivism (IDV) and uncertainty avoidance (UA) exposed in all cultural studies (Triandis and Gelfland 1988, Schwartz, 1992, Hofstede, 1980). Hofstede's (1980) cultural dimensions are considered the most universal differences associated with the culture of various countries.

According to Hofstede (2013) national cultures vary along six key dimensions: power distance (PDI), individualism-collectivism (IDV), masculinity-femininity (MAS), uncertainty avoidance (UA), long-term versus short-term orientation (LTO) and indulgence versus restraint (IVR). High power distance societies lean towards the authorities and accept an unequal distribution of power, while low power distance societies believe in equal rights.

Individualist societies focus on individual decision-making while collectivist societies focus on group norms. In masculine societies, gender roles are clearly distinctive, while in feminine societies social gender roles overlap. Uncertainty avoidance refers to societies, which have a certain degree of uncertain situations, and tries to avoid them. In long-term-orientated societies, people search for virtue, while short-term-oriented societies believe in establishing the absolute truth. Indulgent societies allow free enjoyment and pleasure while restrained societies prevent enjoyment and delight. Figure 2.1 shows the national country comparison of Pakistan and Australia.

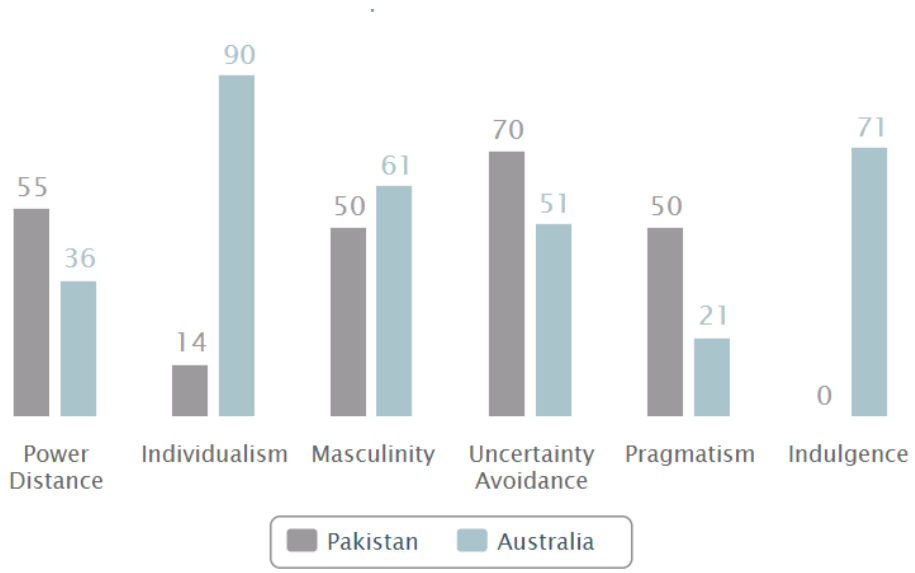

Figure 2.1: Hofstede (2013) national culture country comparison

The individualism-collectivism (IDV) and uncertainty avoidance (UA) cultural values are adopted in this study because online shopping is an individual decision making process that comprises inherent uncertainty (Karahanna et al., 2013). Therefore, IDV and UA are closely associated with online trust in e-commerce. This research also applied the IDV and UA cultural dimensions for the following reasons.

- These are the most universal differences associated with culture of various countries, because these are more focused on societal values (Triandis, 2004) and are highly relevant to cross-cultural business relationships (Williams et al., 1998).
- These are the most studied dimensions at cultural level for comparing human behaviour (Gouveia and Ros, 2000, Schimmack et al., 2005, Basabe and Ros, 2005, Triandis and Gelfland 1988).
- These are well established dimensions for cross-cultural research (Kim, 2005, Singh et al., 2005) and have been extensively applied in e-commerce research (Pavlou and Chai, 2002, Lim et al., 2004, Angeli and Kyriakoullis, 2006, Kang, 2009, Ahmed et al., 2008, Frost et al., 2010).

The first of the Hofstede's two cultural dimensions used in this research is individualism-collectivism (IDV). Individualist societies focus on individual decision-making while collectivist societies place a stronger focus on group norms. As shown in Figure 2.1, Australia has a country score of 90 for individualism, demonstrating it is a highly individualistic society that places more emphasis on the good of the individual over the group. With a country score of 14, Pakistan is at the opposite end of the spectrum, placing group achievement and acceptance over that of the individual; thus, it is considered a highly collectivist society.

The second of Hofstede's cultural dimensions used in this research is uncertainty avoidance (UA). Uncertainty avoidance refers to the degree to which societies avoid situations with uncertainty. As shown in Figure 2.13, with a country score of 70 for uncertainty avoidance, Pakistan has a high preference for avoiding uncertainty. This means that innovation may be resisted.

On the other hand, Australia is a fairly practical society in terms of uncertainty avoidance (index score: 50) and has a high degree of acceptance for new ideas, technology and business practices.

Hofstede's (1980/1991) national cultural aspects have been comprehensively used in B2C e-commerce research studies when examining cultural differences (Sivaji et al., 2011, Nitish Singh, 2012, Sinkovics et al., 2007, Isa et al., 2009, Karacay et al., 2010). Tian and Xuehua (2009) state that just like in a traditional market, awareness of cultural variation is necessary in Internet marketing. However, the benefits of B2C marketing are not as clear in developing countries as they are in developed countries (El-Said, 2006). Culture can affect the behaviour of online consumers (Costa, 2009). However, the effect of the individualism-collectivism dimension in information system applications has not been entirely studied globally and its effects on the consumer's preference for information on purchase intentions are yet to be researched (Frost, Goode & Hart 2010). Su and Adams (2005) find that e-commerce models developed for the West may not be totally suitable for the East. According to (Costa, 2006) culture is clearly a factor in the design of information systems with good usability. Therefore, a culturally diverse B2C e-commerce website will integrate human-computer interaction that will have a significant positive impact on consumer trust concerning online purchasing.

Understanding cultural issues alone does not guarantee the success of e-commerce as trust factor is also a critical concern (Casaló et al., 2011, Yoon, 2009, Clemons et al., 2012, Kang and Kovacevic, 2012). (Cyr et al., 2004) find that culture is an important element related to website trust. One of the most common reasons that consumers have not adopted e-commerce is because of trust related issues Kim, Zhang and

Slone (2012) (Pavlou, 2002/03). According to Kim (2005), national culture influences individuals' trust development processes. For-example, affect-based trust elements are more valued in members of a collectivist culture because they are more likely to share thoughts and beliefs, while cognition-based trust elements are less valued in collectivist members than in individualist members. Therefore, the individualism-collectivism dimension has an influence on online trust (An and Kim 2008).

In recent years, research interest related to the cultural aspects of e-commerce technologies has developed significantly. Such as, there has been research related to Taiwanese culture (Thatcher et al., 2006), Chinese consumers (Clemons et al., 2012, Junjie and Guang, 2010, Kurnia, 2008, Yoon, 2009, Tan et al., 2007), Arab countries (Rambo et al., 2009, El-Said, 2006), e-commerce consumer differences between France and Belgium (Goethals et al., 2009), comparing the cultures of the United Kingdom (UK), the United States (US) and China (Su and Adams, 2005, Liao et al., 2008), e-commerce acceptance in Malaysia and Singapore (Poong et al., 2007) and cultural considerations in Australia, Singapore and Korea for Internet shopping (Kang, 2005, Kang and Araújo, 2006, Kang, 2009). These studies show there is a connection between culture and e-commerce.

Concerning culture in an e-commerce application, Yap and Dad (2006) suggest that an e-commerce model developed for one cultural context might not be suitable for another culture. Su and Adams (2005) investigated two case studies using Hofstede's cultural dimension of individualism versus collectivism. Their results show that e-commerce business models developed for the advanced countries culture may not be totally suitable for the developing country culture.

Cultural variation in Internet marketing is necessary as it is in a traditional market. (Tian & Xuehua 2009) analysed various key cross cultural issues related to Internet shopping and state that, "product, price, promotion and place are elements of the marketing mix that can be applied to Internet marketing strategy cross-culturally". However, the benefits of Internet shopping are not as clear in developing countries as they are in developing countries because customer cultures vary in most developing countries. Yoon (2009) proposed model shows that culture can affect the behaviour of online consumers. However, the model does not have an effective theoretical background and data was collected only from Chinese university students. Various effects can be seen if cross-cultural issues are considered in parallel with the development of e-commerce web design (Isa et al., 2009).

2.3.1 Individual Consumer Level Cultural Analysis

As discussed above in Section 2.3, existing studies have applied Hofstede's (1980) national cultural dimensions to analyze the effect of cultural values on online purchasing decisions. However, in these studies national cultural differences were observed at a country level and the assumption of homogeneity in any nation is not suitable, in particular if the national cultural concepts are to be integrated into information systems models that reflect individual behaviour (McCoy et al., 2005). (Doney et al., 1998) propose a model of cognitive-based trust building process that shows the significance of culture in the development of trust. Evers and Day (1997) incorporated and validated the Hofstede's cultural aspects into the technology acceptance model (TAM) using the data between a group of collectivist cultures (Indonesia, China, Taiwan, Singapore and Japan) and an individualistic culture (Australia) in Australia. It was found that 87% of the people from the individualistic

culture were satisfied using technology adapted to their culture, compared to 70% of those from the collectivist cultures. Carey and Day (2005) then applied Ever and Day's (1997) proposed model in China (a collectivist culture) and found significant differences between two groups (individualistic and collectivist) of the same nationality (Chinese). Thus, it is evident that differences exist within countries regarding the use of technology.

Researchers such as (Srite and Karahanna, 2006, Yoon, 2009) have empirically established moderator analysis with individuals' cultural values concerning their online consumer trust and purchasing intention. Online consumers might have different expectations in different cultures for what makes an online store trustworthy (Sia et al., 2009, Ganguly et al., 2010, Kim, 2005, Kim and Park, 2013). Culture is a significant influence on consumers' responses to online store atmospherics, producing a range of emotional effects to a given stimulus (Hofstede, 2001). In particular, the uncertainty avoidance (UA) cultural value is closely associated with online trust in e-commerce. As noted by (Karahanna et al., 2013), "Online purchasing is a decision-making process that involves inherent uncertainty". In high UA cultures, people generally feel threatened by uncertain situations, such as in Pakistan where people tends to be doubtful of new services, whereas people in low uncertainty cultures such as Australia are willing to try new technologies and services (Sohaib and Kang, 2014a).

Concerning the interpersonal trust between consumer and Internet vendor, cognitive and affect-based trust determinants may also vary across cultures (Kim, 2005). As B2C e-commerce continues to grow across cultures, it becomes critical to understand the cognitive and affect-based interpersonal trust between the consumer and the

Internet vendor and the nature of cultural differences at the individual level (Hwang and Lee, 2012a). This research looks at IDV and UA at the individual level. The researchers (McCoy et al., 2005, Srite and Karahanna, 2006, Yoon, 2009, Hwang and Lee, 2012a) found IDV and UA individual level cultural values acceptable in e-commerce research.

2.4 Trust in E- Commerce

Only the consumer's cultural issues do not assure the success of e-commerce. Trust factors are also serious issues (Casaló et al., 2011, Yoon, 2009, Clemons et al., 2012, Kang and Kovacevic, 2012). Trust is defined as the expectation that the online merchant will perform specific activities, regardless of the consumer's ability to control the merchant's action (Pavlou and Chai, 2002). Trust in an online store is considered as a significant behavioural belief that directly effects consumer's attitudes and indirectly influences behavioural intentions for online purchasing (Bolchini and Paolini, 2004). A commonly reported issue for consumers not adopting e-commerce is because of trust-related issues (Pavlou, 2002/03). Therefore, understanding a consumer trust is critical for the continuous development of e-commerce (Pavlou and Chai, 2002).

McKnight et al. (2002) define initial trust in the context of e-commerce as "trust in an unfamiliar web vendor": a relationship where the parties do not have reliable, meaningful information about each other yet but where trust may develop over time. When parties are unfamiliar to each other, online retailers may face a big challenge and thus the initial trust can determine whether the online transaction will occur or not (Hu et al., 2010, Karimov et al., 2011). Jarvenpaa et al. (1999) propose an Internet consumer trust model to find out the effect of perceived size, reputation,

attitude and risk on the level of initial trust. A cross-cultural validation was performed using Australian, Israeli and Finnish cultures. The study did not find strong cultural differences. Gefen et al. (2003) explain that both technology and trust-based determinants should work together to affect the decision to contribute in e-commerce. Since its original publication, the TAM model has undergone substantial extensions. Perceived enjoyment (Davis et al., 1992) and the familiarity constructs (Gefen et al., 2003a) were added to enlighten the consumer intrinsic motivations in adoption of online shopping. The integration of trust-building mechanisms and TAM creates a trust-based connection on consumer purchasing decisions (Gefen et al., 2003b). Yoon (2009) has showed a trust model for e-commerce across cultures that assimilates features such as perceived usefulness and perceived ease of use. Kim et al. (2012) note that consumer initial trust is an important factor in an e-commerce context and compared a three-factor model of initial trust (competence, benevolence, and integrity) with a two-factor model (competence and goodwill). Their results show that the three-factor model failed to provide discriminant validity.

Table 2.1 provides a brief summary of the research studies done on online trust in the context of e-commerce. The limitations of each study are also listed.

Table 2.1: Summaries of trust model in e-commerce context

Source	Factors Examined	Outcomes	Limitations
(Chen and Teng, 2013)	• Enjoyment • Ease of use • Usefulness • Familiarity • Settlement performance	• Trust • Purchase intention	Only considered the design for the online store image
(Azam et al., 2012)	• Security • Privacy • Deposition to trust • Non-deposition • Fulfilment reliability • Third-party seal	• Trust • Satisfaction • Intention • Online purchase	Limited factors of trust and satisfaction
(Hong and Juan, 2012)	• Reputation • Integrity • Benevolence • Security • Authenticity • Confidentiality • Completeness • Mandatory • Familiarity • Propensity to trust • Accuracy • Completeness • Price setting • After-sales service • Payment options • Logistics	• Consumer trust • Purchase intention • Decision-making	Failed to address virtual communities and information interaction between customers and e-vendors.
(Hsiao et al., 2010)	Social network • Perceived ability • Perceived ability/benevolence • Perceived critical mass Website • Perceived web reputation • Perceived web quality • Perceived institutional assurance	• Trust in product recommendation • Trust in website • Purchase intention	Assesses consumers' intentions rather than their actual behaviour
(Chen and Dibb, 2010)	Website quality • Website usability • Security and privacy • Speed of download • Product information quality • Service information quality • Aesthetic aspects	• Attitudes toward the site • Trust • Website approach intentions	Limited to website quality only

(Al-Dwairi and Kamala, 2009)	Website quality • Security • Privacy • Design • Content E-vendor's attributes • Ability • Integrity • Quality of services Consumer's factors • Self-efficacy • Propensity to trust • Online experience • Demographics	• Transacting online • Trust • Risk	Failed to address web accessibility
(Palvia, 2009)	TAM-related • Perceived usefulness • Attitude • Perceived ease of use TRA-related • Integrity • Competence • Benevolence • Trustworthiness	• Customer loyalty • Word of mouth • Intention to participate	Did not consider the effect of industry sectors, size of the companies, and business strategies
(Fisher and Chu, 2008)	• Location • Web assurance • Structural assurance • Propensity to trust • Perceived usefulness • Complexity • Compatibility • Normative influences • Self-efficacy • Facilitating conditions	• Trusting beliefs • Trusting intention	Culturally similar countries were used for analysis
(Kim, 2008)	Buyer • Consumer characteristics • Consumer experience • Consumer perceptions Seller • Vendor (company) Characteristics • Vendor website • Product and service Third-party and social context Technology • Network (wired and wireless) infrastructure • Transaction devices (mobile units, computers) e-Market environment • Regulations and structural assurances • Ethics • Cultural factors and industry characteristics	• Consumer trust in e-Commerce	Failed to address the web accessibility and religious attitude towards the user interfaces
(Chen and Barnes, 2007)	Perceived usefulness Perceived ease of use Enjoyment of technology	• Online initial trust • Purchase	Only focused on technology-related factors

	Perceived privacy Perceived security Company size Reputation Willingness to customise Interaction	intention	
(Teo and Liu, 2007)	• Perceived reputation • Perceived size • Multichannel integration • System assurance • Attitude • Perceived risk	• Consumer trust • Willingness to buy	Failed to address web design factors
(Mukherjee and Nath, 2007)	• Security • Privacy • Shared value • Communication • Opportunistic behaviour • Relationship benefit • Termination cost • Trust in Internet • Commitment	• Behavioural intentions	Failed to address website design variables with such customer personal variables on trust formation
(Wang et al., 2006)	• Direct experience • Evaluation, recommendation • Certification, evaluation schemas • Digital credentials • System guarantees	• Trust level	More information sources are required for enhancing trust
(Yang et al., 2005)	• Graphic design • Structural design • Content design • Social-cue design	• Web trust	The framework is preliminary and in need of refinement and evaluation
(Kim and Ahn, 2005)	Characteristics of the market-maker • Size • Reputation • Web Usability • Security Characteristics of the seller • Expertise • Reputation • Risk perception	• Trust in sellers • Trust in a • market-maker • Trust in the • transaction • Transaction • intention	Includes only one Internet business model: online knowledge market
(McKnight et al., 2004)	Institutional-based trust of the web structure Reputation advertising Noticeable assurance icon Disposition to trust Perceived site quality Web experience	• Trusting belief • Trust intentions	Trust-building factors also need to be examined
(Tan and Sutherland, 2004)	Dispositional Trust • Extroversion • Neuroticism • Agreeableness • Conscientiousness • Openness to experience • Culture Institutional trust	• Intention to trust • Online purchase behaviour	Failed to address dispositional trust in the development of trust within the institutional and interpersonal dimensions

	• Internet experience • Perceived Internet • Protection Interpersonal Trust • Competence • Predictability • Benevolence • Integrity		
(Kim and Kim, 2004)	• Privacy • Disposition to trust • Familiarity • Third-party seal • Security • Reputation	• Trust in e-commerce • Willingness to buy	Cross-cultural study is needed to verify
(Chen and Dhillon, 2003)	• Consumer characteristics • Website infrastructure • Internet vendor • Interactions	• Overall trust • Purchase intention	Opportunity for improvement exists and empirical study is needed to test the model
(Gefen et al., 2003b)	• Calculative-based • Institution-based structural assurances • Institution-based situational normality • Knowledge-based familiarity • TAM model	• Intended use	More constructs of each trust type are needed
(Corritore et al., 2003)	• External factors • Credibility • Ease of use • Risk	• Trust	Cognitive and affective dimensions of on-line trust are needed for investigation
(McKnight et al., 2002)	• Perceived vendor reputation • Perceived site quality • Structural assurance • Perceived web risk	• Trusting belief in vendor • Trust intentions • Intention to purchase • Intention to share personal info • Intention to follow vendor advice	Results were only based on the use of legal advice websites
(Egger, 2000)	• Risk • Transparency • Cooperation • Appeal • Usability	• Trustworthiness	Lack of consumer behaviour characteristics
(Tan and Thoen, 2000)	• Trust in other party • Trust in control mechanism • Risk • Potential gain • Party trust • Control trust	• Trust or transaction trust	Failed to address cognitive and social aspects of the trust in detail

Table 2.1 shows that all these factors have significant effects on consumer trust towards purchasing intentions. However, consumer trust formation in B2C e-commerce is not simply an issue related to e-commerce technology, but it is a complex issue that includes the interactions of key factors, such as consumer, seller, third-party, technology and social context. To establish an interpersonal trust between a consumer and e-retailer within one country and across cultures, consumers might have diverse expectations of online store trustworthiness. Table 2.1 presents a comprehensive understanding of the consumer's trust in a B2C e-commerce context. The review made it evident that the various consumer trust models have been developed but there is a lack of multi-perspective trust aspects that exists in B2C relationship, such as cognition, emotions and web design aspects.

2.4.1 Interpersonal Trust (iTrust) in B2C E-Commerce

Interpersonal trust (iTrust) describes the trust of an individual in another party (McKnight and Chervany 2001). In the B2C e-commerce environment, the two parties are the online consumers and the online vendor (Tan and Sutherland 2004). The transaction involvedness in an e-commerce environment makes online purchasing decision more uncertain (Chen and Barnes 2007). Therefore, the need for interpersonal trust grows between online consumers and an online store. The concept of online interpersonal trust has its origins in e-commerce context, focuses consumers trust in specific online store (Pennanen, 2009, Tan and Sutherland, 2004). As online shopping continues to increase in popularity globally, so do cross-cultural interactions between online retailers and consumers, therefore it becomes critical to understand interpersonal trust and the nature of cultural differences in B2C e-commerce at the individual consumer level (Hwang and Lee, 2012b).

The literature typically differentiates interpersonal trust in two broad foundations: cognitive and affect-based trust (McAllister, 1995, Karimov et al., 2011, McKnight et al., 1998). Chen et al. (1998) highlight that cognitive-based trust is encouraged by enlightened self-interest and built 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. According to (Pi et al., 2012), cognitive-based trust is a knowledge-driven and objective process of evaluation, where a consumer's confidence relies on a service provider's ability and reliability, while affect-based trust is a subjective process of evaluation that is characterised by the strengths of the relationship on the basis of feelings generated between partners. Concerning cognitive-based trust, Lim et al. (2006) examine the effectiveness of trust-building strategies on actual buying behaviour in an e-commerce environment. The authors found that the first-time visitor's forms trust based on cognitive cues of the website in an online store that does not have an established reputation. Kim (2005) notes that the cognitive-based trust is associated with consumer's observations and perceptions regarding the features and characteristics of an e-commerce website, whereas affect-based trust could reflect the consumer's confidence and positive feelings (affect) towards the user interface. Affect-based trust is associated with indirect interactions with the other sources such as inputs from others (for example, a trusted third-party seal, referral, comments and recommendations) (Kim et al. 2008).

Previous research has examined cognitive-based trust determinants, such as perceived security and privacy awareness, system reliability, information quality and coherence, and affect-based trust aspects, such as mystery, joy and fear, the presence of a third-party seal, reputation, word-of-mouth referrals, and variety in e-commerce

(Johnson and Grayson, 2005, Kim, 2005, Kim et al., 2008, Lee and Kozar, 2010, Eastlick and Lotz, 2011, Li et al., 2011).The findings show that these factors have significant effects on purchasing intentions.

Kim (2008) presents a comprehensive model for consumer trust in B2C and mobile commerce and states that "trust building is not simply an issue related to consumer-technology-buyer, but it is a complex issue that involves the interactions of key elements (buyer, seller, third-party, technology, and market environment) at least". To establish interpersonal trust, in particular across cultures, vendors must understand that consumers might have diverse expectations of online store trustworthiness (Sia et al., 2009, Ganguly et al., 2010, Kim, 2005, Kim and Park, 2013). Greenberg et al. (2008b) examined the impact of culture on consumers' interpersonal trust in online business between participants from Hong Kong and the US. Their findings show Hong Kong online consumers have less interpersonal trust than the US's online consumers regarding security and privacy concerns. However, in this study the effect of culture was examined at a country level not at the level of the individual.

Therefore, there is a need to investigate the cognitive and affect-based trust aspects of interpersonal trust in B2C e-commerce context (Corritore et al., 2003, Sun, 2010). Previously conducted studies have attempted to investigate the roles of cognitive and affect-based trust in relation to online purchasing in e-commerce (Table 2.2). However, they provide a limited view of the phenomenon and may not present a comprehensive understanding of the consumer's purchasing intention in a B2C e-commerce context.

Table 2.2: Cognitive and affect-based trust in e-commerce

Sources	**Context**	**Interpersonal Trust**		**Outcomes**
		Cognitive-based aspects	**Affect-based aspects**	
(Brengman and Karimov, 2012)	B2C	Ability (competence), Integrity	Benevolence	Purchase intention
(Karimov et al., 2011)	B2C	Content design Visual design Social media	Attitude	Initial trust
(Lee et al., 2010)	B2C	Site effectiveness	Emotions and feeling	Online trust Online loyalty
(Sun, 2010)	B2C	Usefulness Integrity Ability Benevolence	Enjoyment Security Comfort	Retention to the marketplace
(Pennanen, 2009)	B2C	E-vendor services	Consumer characteristics Experience	Interpersonal trust
(Kim et al., 2008)	B2C	Information quality, Perceived privacy Protection Perceived security, Protection	Presence of a third-party seal Positive reputation of selling party	Trust Intention to purchase
(Kim, 2005)	B2C	System reliability Privacy Security	Third-party seal Referral Experience-based trust antecedents	Trust in e-vendor Willingness to buy

2.5 Web Design Factors Impacting Trust in E-Commerce

When a consumer visits a website for the first time, the initial trust is primarily based on initial perceptions of the trust-related attributes of the website, such as the cognition-based aspects which are formed from quick cognitive cues or first impressions (McKnight et al. 1998). For example, visual design consists of graphical aspects that give consumers a first impression (Karimov et al., 2011). According to (Nielson, 2012), "The first law of e-commerce is that if users cannot find the product, they cannot buy it either". Lee (2002) believes that a user interface that offers information-rich environments may likely operate on a cognitive basis for consumer trust.

According to McLellan (2011), “As 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”.

Researchers have proposed different approaches concerning the quality design features in e-commerce websites (Smith et al., 2004, Ying et al., 2007, Song and Zahedi, 2005, Jung-Min et al., 2011, Hasan and Abuelrub, 2011, Evers and Day, 1997, Cebi, 2013). A noteworthy exception to this is (Evers and Day, 1997), who considered users’ cultural differences concerning the design of web interfaces. The authors examined the website satisfaction preferences of a group of collectivist cultures (Indonesia, China, Taiwan, Singapore and Japan) and an individualistic culture (Australia) in Australia. The results showed that 87% of the individualistic culture was satisfied using technology adapted to their culture, compared to 70% of the collectivist cultures. Carey and Day (2005) compares the Chinese data to Ever and Day’s (1997) findings in Australia and extends the TAM model by introducing cultural preferences for interface design. Sutcliffe (2002) defines usability as a trade-off between consumer’s exploration and purchasing in e-commerce. Downing and Chang (2011) believe that usability in e-commerce is one of the critical issues for organisations, not only to attract consumers but so they can meet their business targets. Wang (2011) finds that the interaction design is an significant aspect to analyse an e-commerce website usability. Ranjbarian et al. (2012) found through an e-satisfaction model that factors such as convenience, security and serviceability merchandising and website design are important indicators for e-commerce website.

In e-commerce, effective website design plays an important part in attracting and engaging consumers' interest and in influencing their purchase intention (Song and Zahedi, 2005). The website is the main way an e-commerce firm communicates with its consumers. E-commerce website features such as layout, graphics and ease of use can influence consumers' clicking frequency and their appearance can encourage or discourage a consumer's purchase intentions (Cyr et al., 2005). There are still usability and user experience concerns in B2C e-commerce website design (Kang & Kovacevic 2012). Carlin (2009) suggests that guidelines can be used to establish successful e-commerce websites by taking into full consideration cross-cultural complexities.

Concerning the e-commerce website design, Huiyang et al. (2007) address the cultural issues in e-commerce for consumers around the world and found that innovative website design aspects are imperative to appeal consumers and increase the success of e-commerce. Purwati (2011) found that e-commerce website lose approximately 50 percent of sales because consumers cannot find the right information they want. Hasan and Abuelrub (2011) also proposed a model that recommends some ample factors that can be used by web developers to construct quality websites that provide e-services. The guidelines include content, design and organisation and user-friendly quality. A clear understanding of how best to design effective B2C websites is important (Tan et al., 2009). For-example, Jung-Min et al. (2011) find that there are problems in website user interfaces, such as lack of consumer behaviour patterns, cultural and social interaction issues. Therefore, "more research should be conducted in this area on how technology can be most efficient and effective across countries, cultures and languages" (Lituchy and Barra, 2008).

The interaction between design characteristics is also important in online shopping websites (Cebi, 2013). For that reason, Cebi (2013) proposes the quality evaluation model (QuEM) to evaluate the web design qualities of online store websites. The results show that technical adequacy, security, privacy, reliability and reputation are the most important design factors.

There are two sub-dimensions of visual design: graphic design, which includes colour and product image, and structural design, which includes navigation design and accessibility of information (Wang and Emurian, 2005, Karimov et al., 2011). The structural design of a website is concerned with technical aspects, such as content information, site availability and the ease of accessing the website (Ahn et al., 2007). Effective navigational structure contributes to building consumer trust in e-commerce websites (Cyr, 2008b). Additionally, B2C e-commerce website design features also have the ability to evoke a consumer's affective state.

As discussed above, previous research dealing with web design considered several factors as predictors of trust in online vendors. There are other different B2C design key factors that influence B2C e-commerce success across cultures, such as web accessibility, colour and images and the presence of social networking services (Table 2.3).

Table 2.3 summaries the existing studies on B2C e-commerce website design factors examined in this study.

Table 2.3: Previous Studies on E-Commerce Design Factors

Factors affecting trust and purchase intention		**Sources**	**Description**
B2C web design aspects	Website accessibility	(McLellan, 2011, Hasan and Abuelrub, 2011, Roggio, 2008, Smallman, 2006, Maswera et al., 2005, Sohaib et al., 2011, Maswera et al., 2009, Travis, 2003, Berners-Lee, 2012, Lazar and Sears, 2006, Purwati, 2011, Chelule, 2010, Dolson, 2009, Elsley, 2007, Constantinides, 2004, Sambhanthan and Good, 2012)	E-commerce sites are complex, therefore there is a need for web accessibility to influence trust on consumers' intention to purchase.
	Colour and images	(Marcus and Hamoodi, 2009, Marcus and Gould, 2000, Kang and Kovacevic, 2012, Badre, 2000, Sun, 2011, Ford and Kotz, 2005, Ganguly et al., 2009, Lee and Rao, 2010, Uang, 2003, Pelet et al., 2008, Lo and Gong, 2005, Roberto, 2007, Pelet, 2011, Corritore et al., 2003)	To improve trust in e-commerce, colour and images must be carefully selected with the target culture in mind.
	Social networking services	(Sun, 2011, Guo et al., 2011, Swamynathan et al., 2008a, Pei-Lee and Ahmed, 2011, Sohaib and Kang, 2012, Pei-Lee and Ahmed, 2012, Matsuo and Yamamoto, 2009, Weijun and Lin, 2011, Tzu-Yu, 2010, Saraee et al., 2010, Nielsen, 2012, Hsiao et al., 2010, Brengman and Karimov, 2012)	The relationship of social networking with online consumers in the e-commerce environment can create online trust and have a positive influence in certain cultures.

2.5.1 E-Commerce Website Accessibility

According to the International Organization for Standardization known as ISO, accessibility is defined as the "usability of a product, service, environment or facility by people with the widest range of capabilities" (ISO 2008). Usability in web applications defined by five key components: learnability, efficiency, memorability, satisfaction and how easy it is to recover from errors (Éthier et al., 2008, Nielson, 2012). Web accessibility is considered a subset of usability (Mifsud, 2011).

In the context of e-commerce, "usefulness" is how online vendor websites are helping consumers to accomplish their goal, and "ease of use" is a perception regarding how easy the online vendor website a shopping medium is to use and the process free of effort leading to achieving the final task (Monsuwe et al., 2004). A usable e-commerce website provides consumers with a satisfying experience, and hence increasing online sales and revenue (Chelule, 2010). This implies that as consumers continue to use the B2C e-commerce websites, the perception of consumer trust will rise over time. Sambhanthan and Good (2012) believe that the lack of conformance to web content accessibility guidelines (W3C 2008) in e-commerce websites reduce the overall accessibility and hence results in poor readability and less navigable page designs.

Website accessibility increases when a website has high ease of use. Ease of use includes accessibility, such as navigation, website content structure and search facilities (Lodorfos et al., 2006). Website design factors such as information design, visual design (colour and images) and navigation design should be used in e-commerce websites to build consumer trust and subsequently enhance purchase intention (Ganguly et al., 2010, Cyr, 2013). Effective website accessibility is an important factor for the design of B2C e-commerce. For example, a colour-blind consumer using online shopping cannot differentiate the red font highlighting the discounted prices and an elderly person might have the difficulty in reading small fonts (Sohaib and Kang 2013). Effective web accessibility gives people with disabilities the ability to use websites.

According to Australian Bureau of Statistics' 2009 "Survey of Disability, Ageing and Carers" four million (18.5%) of Australians had a disability, with 30% relating

to sight and 10% to hearing 10%. Often, a consumer with a disability needs online shopping facilities more than a person without a disability does as it can provide access to goods and services that might otherwise be unavailable. Dolson (2009) notes that "The physical disabilities of a merchant's visitors are a factor that he or she should consider". 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". Maswera et al. (2005) used an automated tool to analyse the web accessibility errors of African e-commerce websites compared to European websites. Maswera et al. (2009) recommend their own web accessibility guidelines for African countries to ensure website accessibility for all end-users. The studies done by Maswera et al. (2005, 2009) shows the web accessibility is necessary both in developing and developed countries. It is important that the web should be accessible in order to provide equal access and equal opportunity to people of all ages and with disabilities. Therefore, a website accessibility model that benefits all public and private e-businesses is necessary.

E-commerce development is not just a simple "buy and sell" experiences but also needs other resources. For-example, **"**solid network infrastructure, talented IT workforce, supportive country policy and regulation, healthy global competition, loyal customer base and protection for new business venture in e-commerce" (Poong et al., 2007). This means, the presentation of e-commerce website is not conveyed through web accessibility to the consumer's perception. B2C e-commerce website accessibility can influence consumers clicking frequency and the website appearance can encourage or discourage a consumer's purchase intentions.

Sambhanthan and Good (2012) investigated whether the lack of conformance to web accessibility guidelines in e-commerce results in poor readability and less navigable page designs. Through a study of Sri Lankan hotel websites, the authors explored the accessibility issues in e-commerce websites in developing countries. They find that websites not following the accessibility guidelines results in poor accessibility for users with visual and mobility impairments. The two key beliefs in TAM model for predicting user acceptance of information systems, ease-of-use and usefulness focus on the functional motives of the individual's behavioural intention to use technology. Due to the widespread availability of the Internet, online stores provide consumers with the ease of buying and selling products. However, often required technological infrastructure is either inadequate or does not exists in terms of website accessibility guidelines (Sohaib and Kang 2013).

Website accessibility for B2C e-commerce websites is also important from the legal and business points of view. Oh et al. (2011) argue that consumers needs should be kept in mind for novel interaction strategies for the e-commerce websites globally. Therefore, it is important to analyse an e-commerce website usability and accessibility (Hasan and Abuelrub, 2011).

2.5.2 Colour and Images

Visual design cues such as colour and images can provide information about the Internet vendor as well as have an impact on consumers' emotional responses (Eroglu et al., 2003). Visual design elements such as colour usage, graphics usage and presentation of information are the most effective trust aspects of B2C websites (Tan et al., 2009). The role of colour and image acceptance in creating cultural e-commerce websites have been expressed in many studies (Sun, 2001, Smith et al.,

2004, Marcus, 2003, Chakraborty, 2009, Kang, 2009, Marcus and Hamoodi, 2009). The findings show that different cultures have preferences for colours that are associated with their cultural beliefs. Colour is an important characteristic of appearance that is influenced by culture (Marcus and Hamoodi, 2009, Lo and Gong, 2005). For example, the colour red is a sign of happiness in the Chinese culture while in American culture, red is associated with danger (Kang and Kovacevic, 2012). As noted by Sun (2001), "Users from different cultures prefer different modes of cultural markers" (Sun, 2001). A culturally sensitive interface design that incorporates appropriate colour combinations can impact user performance (Badre, 2000). Marcus and Gould (2000) note that in high uncertainty avoidance cultures, colour should be used in web design to avoid ambiguity and for low uncertainty avoidance cultures, colour should be used to maximise information to aid with decision-making. According to Ford and Kotz (2005), in collectivistic cultures images and colour should be used in interface design to prevent the consumer from getting lost, while in individualistic cultures colour and images should be used to provide additional information.

The use of familiar metaphors, layout orientation, icons, symbols and colour are important factors during the interface design on information systems (Marcus et al., 2000). In addition, Marcus (2003) performed a study on the extent to which e-business designs show cultural differences. The author finding shows that web design appearance is matched to Hofstede's cultural findings. Uang (2003) analysed the influence of preference and performance of using colours and icons in web design. The results show that participants preferred culturally familiar designs. According to Barber and Badre (1998) "culturability is the merging of culture and usability and represents a relationship between design elements and culture".

Badre (2000) also outlines that colour, icons and shapes contribute to the cultural usability to emphasise the significance of the relationship between culture and website usability. Smith et al. (2004) use the term cultural attractor in relation to interface design, stating, "The interface design elements of the website that reflect the signs and their meanings to match the expectations of the local culture." Cultural attractors consist of colour and similar visual elements that together match the cultural expectations of the online consumers.

Pelet et al. (2008) performed an experiment on the impact of the colour of e-commerce websites on memorisation and consumer intention. The results show that chromatic colours are more likely to enhance memorisation than black and white colour. Lo and Gong (2005) also studied the impact of culture on colour usage, page layout and interactivity on e-commerce websites from the US and China. The authors find that "colour plays a very important role in our perception which is influenced by our cultural background". Roberto (2007) used the term web comfortability to describe "the means to provide feeling of pleasantness in the virtual cyberspace," noting that "users with different cultural backgrounds have different preferences". The author found that in all studied countries, the most influential design elements are colour and the content of pictures.

Much of the research in online shopping context focuses more on the functional benefits of using the Internet, often assuming that consumer are more likely to be motivated by functional benefits (Gefen et al., 2003b). Certain aspects of a stimulus in one's environment, such as colour, can provoke immediate affective responses (Mehrabian et al. 1974). Analogously, a B2C e-commerce website design features have the ability to evoke a consumer's affective state. Possible affective cues of e-

commerce websites include the website's colour scheme and use of images (Li, 2008). The affective factors that may predict trust and purchase intention directly or indirectly is lacking in existing studies.

2.5.3 Social Networking Services in E-Commerce

A social networking service is one of the main factors that can form consumer interpersonal trust in an online store. According to Gefen and Straub (2004), "social presence should also build trust through the perception that the vendor is displaying through the website a sense of personal, sociable, and sensitive human contact." As consumers' trust is formed through permeating the mode of communication with a high social presence in a B2C e-commerce website (Gefen and Straub, 2004), the authors found a significant impact of social existence on consumer trust in B2C e-commerce, such as ability, integrity, predictability and benevolence. A model proposed by (Brengman and Karimov, 2012) investigated whether integrating social media cues (such as Facebook and blogs) as stimulus into the online store website may provide a signal regarding the cognitive and affect-based trust (organism) of an online vendor. The results show that social media cues have a significant effect on consumer's cognitive and affect-based trust towards purchase intentions (response).

Concerning the practice of social networks in e-commerce, Swamynathan et al. (2008b) evaluate the use of social media e-business transactions and their results show a significant consumer satisfaction. Guo et al. (2011) investigated the Chinese e-commerce website named Taobao, where social media is integrated into the website and the consumers can ask sellers or other consumers for advice.

According to Pei-Lee and Ahmed (2011), social commerce has been able to change the nature of e-commerce. Zhang and Feng (2011) find that the online experience in virtual communities such as social networks affects consumers' online shopping decisions. Discussion in virtual communities can affect consumers' intention to purchase online (Yalin and Xiaoping, 2009). Krasnova et al. (2010) recognise that effective use of online social networking can ease privacy concerns and increase individual trust.

E-commerce is still confronting challenges concerning the effective use of social media. (Sun, 2011) assessed two successful e-commerce websites, TaoBao and Etsy, and found that the use of social networks in e-commerce can engage consumer globally. Teh and Ahmed (2012) also studied the behavioural intention of social commerce consumers by examining the impact of perceived ease of use, usefulness and trust. The author proposed model is an extension of the technology acceptance model (TAM), and their empirical results show that "individuals behavioural intention to use social commerce is built through user trust." Grabner-Kräuter (2009) proposed framework presents a multifaceted study of several aspects of trust in online social networking. The author conducted three focus groups with participants using the social networking websites Facebook, StudiVZ and XING to learn about attitudes and feelings with regards to trust. The findings show that in business-related social networking, institutional-based trust is important, as it is related legal and technological protection.

Karimov and Brengman (2011) studied the adoption of social media cues by online retailers. The authors analysed 210 B2C websites and found that the majority of top online retailers is adopting a wide range of social media cues. These cues include

photo and videos cues, avatars, recommendation agents, online product reviewing/rating, blogs and online social-networks. These cues can enhance feelings of trust, loyalty and enjoyment from the consumer to the web merchant. Brengman and Karimov (2012) also tested the efficacy of the integration of social network applications in unfamiliar online store to provide a signal concerning trust and to subsequently enhance purchase intentions. The authors note that the combination of Facebook and a corporate blog presenting the picture of a sales representative could develop the perceived ability, benevolence or integrity of the online merchant and have a positive impact on online purchase intentions. Lee et al. (2011) investigated the social influence factor in consumer's decision to shop online. A laboratory experiment was conducted where a focus group was required to read positive messages about online shopping experiences in an online discussion forum. The findings show that positive social influence strengthens the relationship between attitudes toward online shopping. Thabet and Zghal (2013) explored the effect of perceived social presence on consumer trust in B2C websites. The results of the qualitative study shows that different online social presence such as, "FAQ, forums, animations, instant messaging, website data, the number of registered on the website, human pictures, personalized welcome, virtual agents and social networking sites" enhances trust towards e-retailer websites.

From the literature, it is concluded that social networking is an important contributor to trust in online shopping. The social networking services include integration (for example with social networking sites) and online chat, product reviews, rankings and recommendations to friends.

2.6 Consumer Behaviour Factors Impacting Trust in E-Commerce

Trust and consumer behaviour have been well researched in the e-commerce literature (Zhu and Guo, 2004) (Osman et al., 2010). Price, trust and convenience are the most significant elements that influence an online consumer's behaviour (Hasslinger et al., 2007). An e-business transaction is a complex process (Ranzhe et al., 2008) and research has explored the influencing factors in the process of e-commerce transactions in terms of consumer behaviour. Lei et al. (2009) presented a model based on attitude-behaviour relationship theory that is used to predict consumers' future buying behaviour in e-commerce websites. Soo Yeon and Cheol (2009) proposed a conceptual model called the culture-value-attitude-behaviour model that recognises the importance of culture, consumption behaviour (the volume and frequency of buying), consumer characteristics (innovativeness, intention of web experience) and trust on online purchasing intentions. As discussed in Section 2.3, culture also has an influence on the behaviour of online consumers.

Examining the key online consumer behaviour factors is important because they can affect B2C e-commerce success across cultures. Firms that invest wisely in B2C e-commerce technology for their business practices in order to get maximum benefits should also consider religiosity as consumer behavior factor. It is imperative to further understand how consumer behaviour factors such as religiosity contribute to forming trust in a B2C relationship. Previous researchers that have studied the relationship between trust and religiosity in a B2C context are listed in Table 2.4.

Table 2.4: Previous Studies on Religiosity

Factors affecting trust and purchasing intention		Sources	Description
Consumer behaviour	Religiosity	(Siala et al., 2004, Mohd et al., 2010, Essoo and Dibb, 2004, Isa et al., 2009, Metwally, 1997, Jamal and Ahmed, 2007)	Trust in the B2C e-commerce context can vary with culture even when online consumers are associated with a religious group.

2.6.1 Religiosity in E-Commerce

Affiliation with religious groups affects consumer behaviour because it affects consumer trust in an e-commerce context (Siala and Siddiqui, 2004). Religion is also a significant cultural aspect because it is one of the most common and prominent social institutions that has a 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 the relationship between religiosity and human behaviour, both in terms of cognitive and affective aspects (Essoo and Dibb, 2004). When looking at the effects of religiosity, both the cognitive and affective factors towards shopping orientation must be considered (Mokhlis, 2009). Moreover, religion affects the emotional nature of an individual and his or her physical actions (Siala et al., 2004).

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). Trust can vary with culture in the e-commerce environment, even consumers are affiliated to any religion group (Siala and Siddiqui, 2004). According to Iannaccone (1995), Islam, Judaism

and Christianity share the qualities of a collectivist culture. Islam encourages e-commerce as the new way of conducting business (Zainul et al., 2004). People in the same religion trust e-commerce websites in the same religion more than other religion's e-commerce websites (Siala et al., 2004). Isa et al. (2009) performed an experiment asking consumers to shop online for religious books in online bookstores and the results were significant in faster purchasing.

Concerning the effect of religious attitudes on online purchasing, Siala et al. (2004) explore the role of religious affiliation towards online purchasing in e-commerce. The authors analysed how Christian, Muslim and other faiths consumer interact with online bookstores. The results show that the Muslim group expressed significantly higher trust in the website designed for Muslims compared to the Christian. Zainul et al. (2004) discuss e-commerce from an Islamic perspective, such as the validity of e-commerce, e-commerce transactions, characteristics and the rights of producers and consumers. The authors highlighted the Muslim attitude towards online shopping and stated that there should be clarity in the communicating the products offered, For example, "the pictures of the products must be clearly displayed on the screen, give detailed specifications, the prices, the mode of delivery and the mode of payment must be clearly stated".

Mohd et al. (2010) propose a framework based on Hofstede's (1980) cultural dimensions and used Islamic values as a case study to investigate whether end-users prefer websites developed for their own religion. The results show that the end-users were more gratified with websites that were designed for their own religion.

It has been suggested that web designers should take care when designing or developing images that contain symbols with religious meaning (Aykin, 2005). Unfortunately, little research in this area has been performed to date.

2.7 Security Information and Privacy Concerns

Consumers are usually concerned about their privacy and security when engaged in online shopping (Salo and Karjaluoto, 2007). Online consumer interactions with a B2C website lead to cognitive responses (Parboteeah et al., 2009). For example, cognitive responses relate to how the online consumer processes technology-mediated information presented on the website, such as sensitive security information and privacy concerns. Pavlou and Gefen (2004) examine found the effectiveness of institutional trust mechanisms (for example, credit card guarantees and the presence of a trusted intermediary) shape consumers' trust in an online community of sellers

Consumers may feel an online retailer is trustworthy if the retailer follows a set of policies, such as the Platform for Privacy Preferences Project (P3P) issued by World Wide Web Consortium and TRUSTe organisational guidelines. Belanger et al. (2002) investigated the relative significance of security features and privacy in B2C e-commerce. Their results indicate that when making transactions online, consumers rely on the perception of trustworthiness of an online store. Wolfinbargera and Gilly (2003) developed a model (etailQ) to assess the quality of the e-retail website experience. They proposed four important dimensions of website quality: website design, customer service, fulfillment/reliability and security/privacy.

Most importantly, the authors found that when conducting transactions at a specific e-retailer store, security/privacy is a significant predictor of consumer judgement of website quality.

Consumers are ready to disclose their personal information to online vendors when they recognise reliability and credibility, thus reducing consumers' worries about privacy and security and helping to build online trust in websites (Chen and Barnes, 2007). Kim et al. (2011) investigated online shopping orientation in South Korea and found that the perception of security stimulated by risk-free credit card payments and privacy of personal information had a significant positive influence on consumer trust. Casaló et al. (2011) also found in the case of Spanish e-commerce, that consumer trust is effected by the perceived security and privacy of the e-commerce website. Availability and accessibility of privacy policies influence consumers' purchasing decision. Tsai et al. (2011) find that more dominant privacy information reduces the information asymmetry gap between online stores and consumer. This reduction is likely to encourage consumer to purchase from online stores who better protect their privacy. Additionally, once privacy policy information is displayed more noticeable, some consumers are prepared to pay a premium to purchase from online store websites because of more privacy protection.

2.8 Emotions in B2C Websites

A number of research studies have found that consumers' emotions play a significant role in consumer purchasing behaviour, affecting trust beliefs and purchase intentions (Salo and Karjaluoto, 2007, Cheng et al., 2009, Sheng and Joginapelly, 2012). Numerous theories such as the affect-as-information model have been presented to describe how emotional affect consumer's thinking and decisions in

online shopping. The affect-as-information model "assumes that emotional feelings serve as affective feedback that guides judgment, decision making and information processing" (Clore et al., 2001). In information systems literature, emotions have been statistically found to impact trust. For instance, "happiness and gratitude – emotions with positive valence – increase trust. Anger – an emotion with negative valence – decreases trust" (Dunn and Schweitzer, 2005). The affect-as-information model "assumes that emotional feelings serve as affective feedback that guides judgment, decision making and information processing" (Clore et al., 2001).

In the context of B2C e-commerce, the role of consumer emotions is important in building trust in unfamiliar websites (Li et al., 2011). B2C website features act as a elements of the cognitive process that generate emotions during online purchasing (Éthier et al., 2008). Affective responses with respect to cognitive cues in B2C e-commerce websites can reflect the emotions experienced when interacting with a website. For example, a visually appealing website may produce joy, while a poorly designed website may generate fear or frustration (Li et al., 2011). Éthier et al. (2006) state that B2C website quality had a positive effect on the cognitive evaluation of situational states, which in turn influences emotions, such as like, joy, pride, dislike, and frustration. Cheng et al. (2009) indicate that colour also have significant influences on consumer emotional responses in online store.

Based on the Stimulus-Organism-Response (S-O-R) model, (Éthier et al., 2008) examined the connections between B2C website interface features and consumers' cognitive processes, looking at the emotions produced during online purchasing for low-touch goods. Their findings show that consumers experienced affective states (emotions) such as, pride, dislike, frustration and fear at a low to moderate intensity,

while a considerable number of consumers experienced strong emotions, such as like and joy. Li et al. (2011) suggest that online stores need to pay special attention to their overall website design to produce favorable consumer initial emotions such as joy or fear concerning their decision-making about online purchasing. Cheng et al. (2009) also examined consumers' emotional responses like joy and fear in an online shopping context. Their findings indicate that such cues significantly affect consumers' purchase intentions.

2.9 Summary

In this chapter, a detailed review of the literature relevant to this study was conducted. The importance of e-commerce across cultures and at the individual level was presented before reviewing the different factors that contributes to the consumer's trust-building process in online purchasing decisions. The literature review reveals that research on consumer cognitive and affective reactions in the trust-building process in e-commerce websites is diverse and the impact of different factors on consumer cognitive and affect-based trust needs further investigations. Overall, there is a need for more explorations of the major determinants of consumer trust related to consumer cognition, emotions, web design and consumer behaviour for building interpersonal trust between consumers and online store.

CHAPTER 3 : THEORETICAL BACKGROUND AND RESEARCH MODEL

Based upon the theoretical foundation outlined in Chapter 2, this chapter further explains the development of the theoretical framework that forms the foundation of the conceptual model created to address the identified knowledge gap. The proposed model builds upon the definition of key concepts (Section 3.1) and general theoretical understandings from existing models and empirical evidence relevant to this study.

The chapter is structured as followed. Firstly, the chapter describes the operationalisation of the model constructs, a critical step that must be conducted prior to the data collection and analysis. The research model is then proposed. The development of the hypotheses is then discussed in detail, using the theoretical reasoning from previous studies.

3.1 Key Concepts in the Proposed Model

As elaborated in Chapter 2 Literature review, researchers have determined that the overall acceptance of an e-commerce technology is an important influence on consumers' privacy/security (Chen and Barnes, 2007) and emotions (Yayla and Hu, 2007, Éthier et al., 2008, Palvia, 2009), while web design elements such as colour/images (Cyr, 2013, Cyr et al., 2010) and website accessibility including ease of use, usefulness, navigational design, information content and design (Chen and Dibb, 2010, Chen and Barnes, 2007, Yoon, 2009, Ganguly et al., 2010, Cyr, 2013), social presence (Gefen and Straub, 2004) such as social networking services (Lee et al., 2011) and religiosity (Siala and Siddiqui 2004; Essoo and Dibb, 2004) are

significant factors in establishing consumer interpersonal trust in B2C websites. The definitions of the key concepts used in the research model are summarised in Table 3.1. The general rule of choosing concepts for the proposed model is to build on the literature and to use well-studied concepts.

Table 3.1: Construct Definitions and Sources

Factor	Definition	Source(s)
Interpersonal trust (iTrust)	Trust is "willingness to rely on the seller and take actions in circumstances where such action makes the consumer vulnerable to the seller." Building on this definition, online interpersonal trust refers to consumer trust formed in another specific party, such as website. For example, in the B2C e-commerce relationship the two parties are the online consumer and the online merchant, where the consumer can trust the business process as well as information presented.	(McKnight and Chervany, 2001–2002, Jarvenpaa et al., 1999, Cyr, 2013)
Cognitive-based trust	Cognitive-based trust develops from a "pattern of careful rational thinking and thus it reflects the customer's confidence that an e-retailer is honest, accurate, and dependable and keeps promises."	(Brengman and Karimov, 2012).
Affect-based trust	Also called emotional trust, affect-based trust "develops from one's instincts, intuition, or feelings concerning whether an individual, group or organization is trustworthy."	
Web accessibility	The web accessibility concept adopted here considers the ease of use and usefulness aspects together with various design features that contribute to the overall website quality and usability such as, navigational design, information content and design, Navigational design "refers to the navigational scheme used to help or hinder users as they access different sections of a website." Information content "refers to information that is of high quality and assessed by the user to be complete, sufficient, and effective" and information design "refers to the organization and logical representation of information."	(Éthier et al., 2008, McKnight et al., 2002, Chen and Dibb, 2010, Casaló et al., 2011, Chen and Barnes, 2007, Cebi, 2013, Lee and Kozar, 2010, W3C, 2008, Cyr, 2013, Ganguly et al., 2010)
Visual appearance (colour and images)	Visual appearance refers to the aesthetic and emotional appeal of a website, for example the colour appeal and product images. The colour appeal is the degree to which colours used are perceived as pleasing, appealing and appropriate, such as the background and font colour.	(Bonnardel et al., 2011, Cyr, 2013, Cyr et al., 2010)

	Product images are image interactive features such as 3D virtual models that consumers can operate to view product information by zooming in or out on product images, rotating a product in different angles and viewing in product colours.	(Hyun-Hwa et al., 2010, Kim and Forsythe, 2009, Shim and Lee, 2011)
Social networking services	Social networking services are the social presence in the website. This includes informational social influence, in which people will ask for help from opinions of their family/friends or online consumer groups before they make an online purchase decision. Social networking services are defined as a set of actors (people/organisations) and the set of connections among the actors representing some relationship (friendship/affiliation/information exchange). These include web communities and communication media. Web communities are online social networking sites, blogs, newsletter, forums and online product reviewing/ratings. Communication media include instant messaging**,** online help emails and chat.	(Karimov and Brengman, 2011, Brengman and Karimov, 2012) (Grabner-Kräuter, 2009, Gefen and Straub, 2004, Lee et al., 2011).
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)
Emotions	Emotions refer to the extent to which a website evokes a user's emotional reactions. The evaluation dimension of affect refers to the degree to which one feels joy and fear, where joy is defined as An emotional state of pleasure while using a B2C e-commerce website and fear is An emotional state of anxiety while using a B2C e-commerce website.	(Li et al., 2011, Casaló et al., 2011)
Security	Security refers to the personal information that informs the "level of discomfort a consumer perceives when revealing that confidential information to the e-vendor website."	
Privacy	An awareness of privacy statement is "an individual's awareness of the content in the privacy statement of a website."	
Uncertainty avoidance	Uncertainty avoidance is "The extent to which the members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions that tries to avoid these".	(Hofstede, 2013, Hofstede, 1980)
Individualism-collectivism	"Individualism can be defined as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families". "Collectivism represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty."	

3.2 Theoretical Foundation and Research Model

As discussed in Chapter 2, the biggest barrier to successful e-commerce is online consumer trust. A variety of trust models have been identified in the literature in the context of e-commerce, with each model usually focusing on a specific type of trust. However, there are similarities between trust models, such as consumer cognitive and affective reactions towards e-commerce websites and purchasing online. These similarities can be grouped together to form a generic trust model that brings together the significant components of trust models in a B2C relationship. However, even though there are similarities in the online trust models concerning the relationship between consumers and Internet stores, the existing models of online trust ignore the role of interpersonal trust.

This research aim to develop a multi-perspective trust model to identify a base set of constructs, which can be used to form a consumer interpersonal trust that can be applied to B2C e-commerce. The fast development of Internet technologies and trends of continuous growth in e-commerce creates opportunities for businesses. With e-commerce, the development of interpersonal trust between consumers and Internet stores is now possible. For example, Web 2.0 encourages consumer to interact online, and the always evolving Internet provides an opportunity for existing online trust models to be updated in the B2C e-commerce context. Therefore this study aims to contribute to existing knowledge by proposing an updated multi-perspective trust model that includes the role of interpersonal trust (iTrust).

The Chapter 2 literature review made it evident that the various consumer trust models have been developed but there is a lack of interpersonal trust components that exists in B2C relationship. One of the key benefits of B2C e-commerce firm is to

understand the new drivers of online consumer trust. Specifically, a consumer's cognitive and affect-based interpersonal trust towards the key components of a B2C e-commerce website, such as web design (website accessibility, visual appearance, and social networking services), consumer behaviour (religiosity), privacy, security and emotions (fear and joy), are viewed as the major factors of consumer trust in an online store. These determinants will be used in this study as cognitive and affect-based trust aspects towards purchasing intentions. The researcher will also apply individual level culture (IDV and UA) values as moderators (as discussed in Section 2.3.1) to a proposed model to uncover new and improved methods for fostering consumer trust in an online business-to-consumer context, including more innovative approaches to B2C websites, customer retention and online businesses strategies across cultures. The following sections describe the different constructs that research model is based on.

3.1.1 Interpersonal Trust (iTrust) in B2C E-Commerce

Consumer trust in B2C e-commerce, the key construct of this study, is investigated based upon the conceptualisation of online trust as defined by Gefen and Straub (2004), which refers online trust to as "consumer trust in Internet vendors (e-Trust)". This study extends that definition to include consumers' trust in a B2C Internet vendor, which is specified as a unit of analysis in this study, terming it "consumer interpersonal trust (iTrust) in B2C e-commerce website". In doing so, this study embraces two broad online consumer trust-building foundation constructs, cognitive and affect-based trust, as multi-perspective approach of interpersonal trust (iTrust) in the B2C e-commerce relationship. As discussed in Section 2.4, previously conducted studies have attempted to examine the effect of either cognitive-based trust or affect-

based trust aspects on purchasing intentions. This provides an essential foundation with which to examine the multi-perspective of trust (cognitive and affect-based) on their own as part of the online consumer interpersonal trust formation in a B2C relationship. According to Corritore et al. (2003), cognitive and affect-based trust can exist at the same time for the same consumer towards the same website. Therefore, this research considers both the cognitive and affect-based trust dimensions.

3.1.2 B2C Website Design (Website Accessibility and Visual Appearance)

As illustrated in Section 2.5 there are two main sub-dimensions of B2C web design: structural design and visual design. The structural design of a website is concerned with technical aspects such as navigation design, content information, website availability and ease of accessing the website (Ahn et al., 2007). In this research, website accessibility considers the ease of use and usefulness aspects together with various design features that contribute to the overall website quality and usability such as navigational design and information content. The visual design of B2C websites concerns their appearance and includes the colour scheme and use of product images. This concept of B2C website design (website accessibility and visual appearance) is aligned with (Cyr, 2013, Ganguly et al., 2010).

B2C e-commerce website design features have the ability to evoke a consumer's cognitive and affective state. Based on the theories and observation discussed in Section 2.4, it is evident that not only the functional but also the hedonic aspects of B2C websites are the significant determinants in the context of e-commerce. This suggests that online consumer cognitive and affect-based trust exists and is associated with the accessibility and visual appearance (colour and product images) of a B2C e-commerce website.

3.1.3 Social Networking Services in B2C E-commerce

As discussed in Section 2.4, consumer trust is formed in a B2C e-commerce website through permeating the mode of communication with a high social presence. Lee et al. (2011) introduce the concept of informational social influence on the intention to purchase online. Informational social influence is a process in which people will ask for help before they make an online purchase decision, such as opinions from their family/friends or online consumer groups. Brengman and Karimov (2012) show that the integration of social media cues (such as Facebook and blogs) into an online store website affects cognitive and affect-based trust on purchase intentions. Social influences affect multi-dimensional consumer online trust such as ability, integrity (cognitive-based trust) and benevolence (affect-based trust) in the B2C e-commerce relationship (Hwang and Lee, 2012a). Therefore, the concept of social networking services adopted here is aligned with (Lee et al., 2011, Hwang and Lee, 2012a, Brengman and Karimov, 2012, Kim and Srivastava, 2007). Thus, it is suggested that social networking services are significant determinants in the context of B2C e-commerce.

3.1.4 Religiosity in B2C E-commerce

In Section 2.5, evidence of the relationship between religiosity and human behaviour, both in terms of cognitive and affective aspects, was discussed. Religion is an observable model of an antecedent to trust in online shopping (Siala et al., 2004). However, as noted in Table 2.5, the concept of religious affiliation is different from religiosity. Religiosity has an effect on both cognitive and affective factors towards shopping orientation (Mokhlis, 2009).

Sohaib and Kang (2014b) showed the connection between the degree of religiosity and interpersonal trust (cognitive and affect-based trust) in B2C e-commerce across cultures. Religiosity is considered an important business value as a predictor of consumer behaviour in the B2C e-commerce context. Thus, an understanding of individual religiosity might contribute to the ongoing development of multi-perspective iTrust in B2C e-commerce context.

3.1.5 Security and Privacy in B2C E-Commerce

When looking at consumer trust regarding security and privacy in B2C e-commerce, not only from the consumer's point of view but also from the Internet vendor's point of view, the two constructs need to be considered as separate concepts (Casaló et al., 2011). This is because the two constructs show "the consumer's perception of practices regarding personal data protection carried out by the website, and the security of the information system in which these practices are to be found." As noted in Section 2.7, previous studies have identified that security and privacy concerns are important trust determinants in the context of e-commerce because they are associated with consumer technology-mediated behaviour. For example (Kim, 2005, Kim et al., 2008) identified security and privacy concerns as cognitive-based trust determinants. Therefore, in this study, security and privacy are adopted as cognitive-based trust aspects.

3.1.6 Emotions in B2C E-Commerce

Section 2.8 identifies that the role of consumer emotions is important in building trust towards B2C e-commerce websites. Shaver et al. (1987) identify five basic types of emotions: love, joy, anger, sadness and fear.

Joy and fear are considered natural and common across cultures (Power, 2006). In the B2C context, joy and fear are the most suitable emotional reactions to a website. For-example, a visually appealing e-commerce website may cause joy, while a poorly designed website may cause annoyance, anxiety or fear. Consistent with (Li et al., 2011), consumers' affect-based trust determinants are taken as their emotional responses (such as joy and fear) to a B2C website's overall design and feel. Therefore, it is essential to consider the influence of emotions (joy and fear) to recognize the formation of consumer affect-based trust (also called emotional-based trust) in an online B2C relationship.

3.1.7 Individual Consumer Level Culture Analysis

As discussed in Section 2.3.1, individual differences exist within countries regarding the use of e-commerce. As information technology becomes an increasingly important part of e-business, companies involved in selling products can benefit from understanding the target country's culture, not only the country as a whole also the difference cultures within a country, especially with culturally diverse countries such as Australia. Srite and Karahanna (2006) note that the national culture is a macro level phenomenon whereas online purchasing is a one-person action, therefore measuring culture at the individual consumer level is most appropriate to examine technology acceptance.

This research identifies uses two cultural dimensions, individualism (IDV) and uncertainty avoidance (UA) to measure culture at the individual consumer level. The researchers (McCoy et al., 2005, Srite and Karahanna, 2006, Yoon, 2009, Hwang and Lee, 2012a) found these cultural dimensions at the individual level acceptable in e-commerce research.

Based on the prior e-commerce studies, which mostly incorporated the IDV and UA cultural values, as described in Section 2.3.1, this research adopted IDV and UA because they are viewed as significant factors associated with online purchasing decisions in B2C context. Moreover, the IDV cultural dimension describes how individuals interact with one another on an interpersonal level (Williams et al., 1998). Concerning UA, (Karahanna et al., 2013) state that "online purchasing is a decision-making process that involves inherent uncertainty". Thus, interpersonal trust might serve to reduce the uncertainty related the online purchasing transaction.

Given the importance of consumer issues at the individual level to interpersonal trust and uncertainty towards a B2C e-commerce website in the online purchasing process, the cultural dimensions of IDV and UA (Hofstede, 2001) are important factors influencing how consumers behave on e-commerce websites at the individual level.

3.1.8 Multi-Perspective iTrust Model

To investigate the influence of cognitive and affect-based trust aspects on purchasing intention, a multi-perspective model of iTrust is proposed based on the S-O-R paradigm. The Stimulus–Organism–Response (S–O–R) model is used to identify both cognition and emotions-based aspects. The S-O-R paradigm was first proposed by (Mehrabian and Russell, 1974) in the context of environmental psychology. The paradigm suggests that stimuli from environments effect an individual's cognitive and affective reactions, which in turn lead to a response and behaviour (Mehrabian and Russell, 1974). This paradigm was later extended and has been extensively applied to shopping outcomes of online stores.

In the context of online shopping, the stimuli (S) are defined as "the total sum of all the cues that are visible and audible to the online shopper". For example, "cognitive states are related to a consumer's information processing, retention, and retrieval ability, whereas affective states describe the user's emotional responses" (Sheng and Joginapelly, 2012). These internal states (Organism) affect consumer responses, such as purchase intention. Eroglu et al. (2003) found the effect of atmospheric cues as the stimuli that influence online consumer emotional and cognitive states and then contribute to the approach/response.

In addition, a cognitive-affective communication model for designing information technology (Te'eni, 2001) takes into account the communication medium and the message form. A website is a communication medium that has an impact on consumers' emotional perceptions concerning trust (Cyr et al., 2010). Therefore, in this research, the B2C e-commerce website is the medium and the message form is characterised by consumer cognitive and affective responses with the potential to impact online interpersonal trust and subsequently purchasing intention. B2C e-commerce websites present cognitive and affective signals (Karimov et al., 2011). Culture is also a significant factor of consumers' responses to online store atmospherics, producing a range of emotional influences to a given stimulus (Hofstede, 2001).

The research model integrates the cultural values of individualism (IDV) and uncertainty avoidance (UA) at the individual consumer level as moderators on the relationship between various aspects and online interpersonal trust towards purchasing intention (Figure 3.1). As discussed above, multiple factors can help consumers to place their cognitive and affect-based trust on in a B2C e-commerce

relationship, such as web design (accessibility, visual appearance and social networking services), consumer behaviour (religiosity), privacy, security and emotions (fear and joy).

This study draws from various approaches, including from previous models of trust building processes in e-commerce as outlined in Table 2.1 and Table 2.2. Based on the above theories, a model is proposed to describe how a consumer's trust is formed as related to the intention to purchase online when using e-commerce websites (Figure 3.1). The goal is not to provide a complete view of all aspects influencing the formation of trust and intention to purchase. Rather, the emphasis is on revealing the role of immediate cognitive and affective responses in the consumer trust-building process towards online purchasing intention.

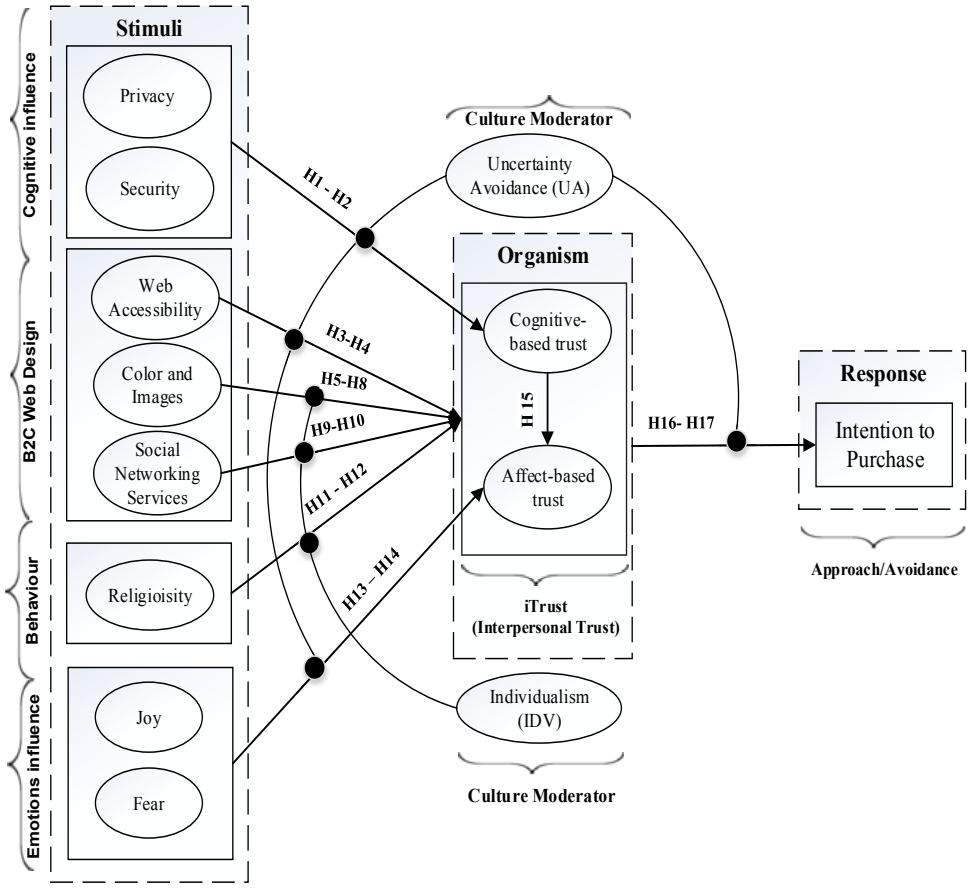

Figure 3.1. Research Model

3.2 Hypothesis Development

In relation to research questions, the following hypotheses were developed to guide this study.

3.2.1 Security and Privacy

In order to make an online transaction, consumers have to send confidential information to e-vendors. Without an appropriate level of security, such as confidentiality, integrity and availability, the number of security attacks would also increase with an increase in transactions (Kim, 2005). Thus, the online consumer's perception regarding sensitive security information affects their trust in the e-vendor. The nature of information requested by an e-vendor website could influence trust through its level of sensitive information in relation to the purpose of exchange (Li et al., 2011).

Privacy policies in online store often remain invisible to consumer's, who rarely make the effort to read and understand them (Tsai et al., 2011). Although a more noticeable display of privacy policy information will help consumers in their online purchasing decisions, e-vendors are responsible for protecting the consumer information by applying privacy policies. Concerns about privacy are likely to decrease consumer trust in an online vendor and lower purchase intentions (Kim, 2005). According to Hofstede (2013), in high UA cultures "security is an important element in individual motivation". Cognitive-based trust determinants also vary across cultures.

For example, the factors that affect trust, such as security and privacy concerns in e-commerce, vary between a high uncertainty avoidance and low uncertainty avoidance type of culture (Kim and Kim, 2004). Privacy is more significant in an individualistic-low uncertainty avoidance culture than a collectivist-high uncertainty avoidance society (Kim, 2005).

Greenberg et al. (2008b) also state that privacy is considered as a higher risk of violation in an individualistic-low uncertainty avoidance culture while security is considered as a higher risk of violation in a collectivist-high uncertainty avoidance culture. Therefore, the following hypotheses were derived.

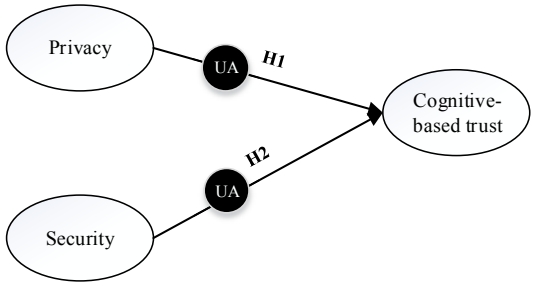

Figure 3.2: Hypotheses 1 and 2

H1: The relationship between privacy and cognitive-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan).

H2: The relationship between security and cognitive-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia).

3.2.2 Website Accessibility

With respect to B2C e-commerce website, consumer's cognitive behaviour may directly impact consumers' trust in relation to intention to purchase online. For example, if the website structure is poor, such as the menu frame and links are difficult to understand, or if the checkout process is complex, then consumers can experience cognitive overload. As noted by Bolchini and Paolini (2004), Internet consumers can experience cognitive overload if they face too many links on the website. Therefore, this cognitive behaviour may directly impact consumers thinking (affective) behaviour concerning whether they trust the service and buy online. Initial trust in online stores is positively influenced by cognitive antecedents of website quality (Eastlick and Lotz, 2011). Researchers have indicated that ease of use affects online trust (McKnight et al. 2002). For example, ease of searching and navigation has been related with changes in consumer online trust (Corritore et al. 2003). If a consumer can obtain the related information from the e-commerce website then their perception of the trustworthiness is increased and hence leads to stronger purchase intention (Ganguly et al. 2010).

Cyr et al. (2004) believe that an e-commerce website has to be designed with ease of access with a complete understanding of a consumer group's culture. The website's navigation, page layout consistency and easy access to navigational features are culturally desirable (Cyr, 2013). When consumers recognize that an e-commerce website display accessible information, they are more expected to have trust in the e-vendor and will perceive the business as trustworthy (Kim et al. 2008). Uncertainty avoidance (UA) is closely associated with trust. In high UA societies, such as Pakistan, people generally feel threatened by uncertain situations and tend to be

doubtful towards new services. On the other hand, people in low uncertainty societies, such as Australia, are willing to try new technologies and services. Singh et al. (2005) note that consumer from high UA societies needs better web accessibility so that they do not leave the website. Cyr (2008a) also found that consumers who are high on UA scale give more preference to web navigational design for forming trust. (Cyr, 2013) finds that consumers from high UA societies are more anxious about clarity concerning how to navigate websites to find out about new products or services than consumers from lower UA societies. Yoon (2009) discusses the moderating role of UA on perceived usefulness and finds that consumers with a high degree of UA feel less trust about engaging in online shopping because they perceive e-commerce as having uncertain effects. Consumers who are low on UA score like having a logical flow of website information, which allows them to complete the online purchasing on their own. Therefore, the following hypotheses were derived.

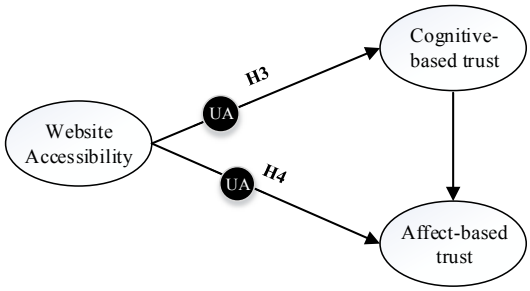

Figure 3.3: Hypotheses 3 and 4

H3: The relationship between web accessibility and cognitive-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia).

H4: The relationship between web accessibility and affect-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan).

3.2.3 Visual Appearance (Colour and Images)

A number of elements of the visual appearance of a website have a significant impact on consumer's perceptions to purchase through an online store. Lorenzo-Romero et al. (2013) show that the web design aesthetics in online store, such as the use of colour and images, have a significant effect on the consumer's purchasing intention. Specifically, colours such as blue, yellow and grey have the potential to generate certain emotions or behaviours and is a significant factor for both website trust and satisfaction across cultures (Cyr et al., 2010). How colour is perceived by consumers creates a determining factor in the cognitive process towards interaction with the website (Bonnardel et al. 2011). Colours can build trust in online vendors by conveying benevolence in the consumer's interest (Pelet, 2011). Customised service in online store environments may influence consumer's responses of their affective and cognitive attitudes towards online purchasing (Shim and Lee, 2011). In particular, the use of images and colour appeals to the consumer's emotions and can create a positive impression of the overall graphical look of a website across cultures (Cyr, 2013). Image interactivity features, such as enlarged product images, 360 degree views and 3D virtual models affect the cognitive and affective aspects of consumer trust (Hyun-Hwa et al., 2010, Kim and Forsythe, 2009). These product virtualisation technologies in online stores can improve the quality of product information and can also present well-customised services to potential consumers.

Lee and Rao (2010) argue that in e-commerce, different colours produce differential trust responses in individuals. For example, according to (Ford and Kotz, 2005), in collectivistic cultures colour and images should be used in interface design to prevent the consumer from getting lost, while in individualistic cultures they should be used

to provide additional information. Visual appearance such as colour and images resulted in high trust in collectivistic cultures but not in individualistic cultures (Cyr, 2008a). Visual appearance is more important to collectivist consumers than individualistic (Ganguly et al., 2010).

Therefore, the following hypotheses were derived.

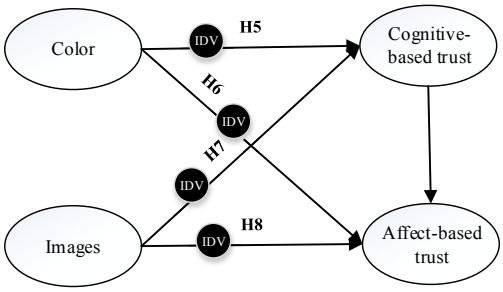

Figure 3.4: Hypothesis 5 to 8

H5: "The relationship between colour and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia)."

H6: The relationship between colour and affect-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).

H7: The relationship between images and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).

H8: The relationship between images and affect-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).

3.2.4 Social Networking Services

The presence of social networking services, such as blogs and online social-networks, online help and product reviewing/ratings, enhances the trust and enjoyment of consumers towards web merchants and their absence may prevent consumer's from online purchasing (Karimov et al. 2011). The right combination of social network services can have an effect on the trust beliefs of consumers about an online store and subsequently on purchase intentions (Grabner-Kräuter, 2009, Guo et al., 2011) . For example, the integration of web communities such as Facebook and corporate blogs has a positive influence on cognitive and affect-based trust towards purchasing intentions (Brengman and Karimov, 2012). As noted by (Swamynathan et al., 2008b), consumers who engage in social networking, for example those who discuss transactions with friends of friends, generally obtain significantly benefits in the form of higher consumer satisfaction.

With the global popularity of social networking services, B2C e-commerce websites are integrating social networking elements to reach their target customers and achieve their business goals effectively across cultures (Sun, 2011). Social influence can build consumer trust in online shopping more effectively in collectivistic societies than in individualistic societies (Lee et al., 2011). For example, people in collectivist cultures such as Pakistan are more likely to obtain perceptions of a website's reputation from friends and family recommendations, whereas those from individualist cultures such as Australia are more likely to make independent decisions. Srite and Karahanna (2006) state that individuals with individualistic cultural values are less concerned about the views of others in their social setting, while individuals with collectivistic cultural values will conform to the views of

others in a group. Thus, consumers who are individualistic avoid getting into groups and instead perform online purchasing on their own without asking anybody for any help. Therefore, the following hypotheses were derived.

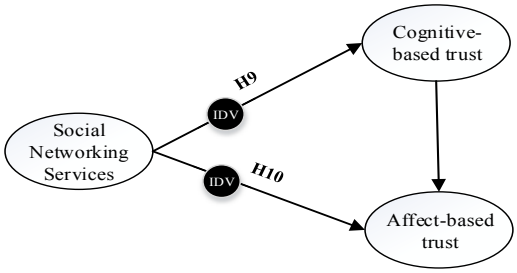

Figure 3.5: Hypotheses 9 and 10

H9: The relationship between social networking services and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).

H10: The relationship between social networking services and affect-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).

3.2.5 Religiosity

Religion is an important element in purchasing decisions (Essoo and Dibb, 2004). As highlighted by (Isa et al., 2009) Muslims consumers purchase faster from websites developed for their own culture. Siala et al. (2004) note that Muslims trust Muslim websites more than websites from the other religions while Christians are not religious in forming their initial trust towards an online shopping vendor. According to Iannaccone (1995), the religion of Islam share the qualities of a collectivist culture. In the Islamic religion, it is anticipated that 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) examined an Islamic culture as a case study to investigate whether consumers prefer websites designed for their own culture. Their result shows that the consumers were more pleased with websites that were designed for their culture. Therefore, religion is considered as a observable model of an antecedent to trust in e-commerce (Siala and Siddiqui, 2004).

E-vendors increasingly use religious themes online and sincere followers of 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). Therefore, the following hypotheses were derived.

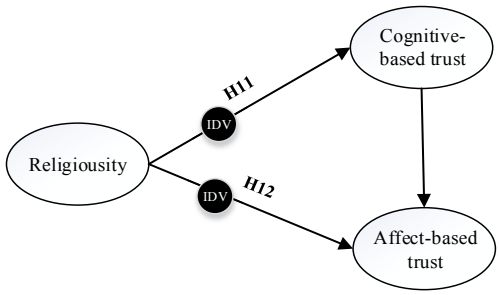

Figure 3.6: Hypotheses 11 and 12

H11: The relationship between religiosity and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than an individualistic society (Australia).

H12: The relationship between religiosity and affect-based is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).

3.2.6 Emotions (Joy and Fear)

In a B2C context, consumers may be experiencing certain emotions when they visit an online shopping website and the online shopping experience may also induce emotions. For example, a visually appealing website may generate joy, while a poorly designed website may cause the consumers to experience frustration or fear. Emotions have been found to impact consumer trust such that positive emotion (joy) increases trust whiles a negative emotion (fear) decreases trust (Parboteeah et al., 2009, Li et al., 2011). According to (David and Hyi, 2012), culture also influences the relative intensity of emotional experiences. Concerning the online shopping context, (Kim, 2005) highlights that affect-based trust (also called emotional-based trust) determinants are more important in collectivist cultures because people in collectivistic societies need more emotional cues to build a trust relationship. Culture is also a significant factor in consumer responses to online store atmospherics, including all the cues used to design the website (Li et al., 2011). For example, initial emotions such as joy and fear formed from the overall website impression may differ at various stages of the interaction between website and online consumer. According to (Hofstede, 2013), in high UA cultures "there is an emotional need for rules". This research focuses on the initial emotions of consumers.

Therefore, the following hypotheses were derived.

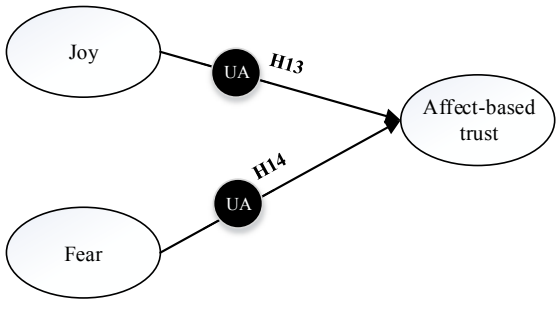

Figure 3.7: Hypotheses 13 and 14

H13: The relationship between initial joy and affect-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia).

H14: The relationship between initial fear and affect-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia).

3.2.7 iTrust (Interpersonal Trust) and Purchase Intention

As discussed in Section 2.4.1, two forms of interpersonal trust are cognitive and affect-based trust. However, cognitive-based trust should exist before affect-based trust develops (Johnson and Grayson, 2005). This implies that cognitive-based trust is how a consumer's trust is related to the B2C design characteristics; while affect-based trust is how a consumer's trust relates to the satisfying experience (feelings) through interacting with the B2C website. Cognitive and affective skills affect each other and consumer's do not use them independently (Hansen, 2005). For-example, if the consumer doesn't like the design characteristics or if they experience negative feelings. This interaction may influence the consumer's confidence directly. As consumers remain to use the e-commerce websites, their perception of trust will increase or decrease over time.

According to (Lim et al., 2004), online shopping naturally involves more uncertainties than in brick-and-mortar businesses. Therefore, it is reasonable to anticipate that consumers in high UA cultures are more likely to resist shopping online than consumers in low UA cultures. In addition, adoption rates of online shopping are higher for individualist than for collectivist cultures (Lim et al., 2004). Yoon (2009) also notes that individualistic cultures are usually more willing to rely on and trust online shopping than collectivist cultures. For consumers in a high UA

culture, trust has less effect on intention to purchase than those in a low UA culture. Therefore, the following hypotheses were derived.

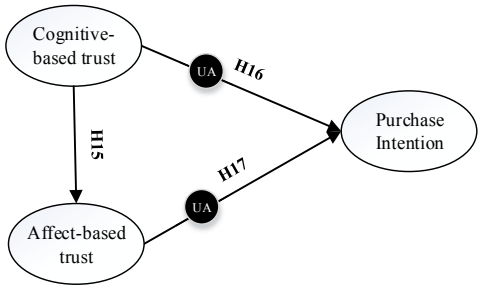

Figure 3.8: Hypotheses 16 and 17

H15: Cognitive-based trust has a stronger influence than affect-based trust in a B2C e-commerce context in Pakistan than it does in Australia.

H16: The relationship between cognitive-based trust and purchase intention is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan).

H17: The relationship between affect-based trust and purchase intention is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan).

3.3 Statement of Research Questions

The following research questions were addressed in this study.

1. How is consumer interpersonal trust (iTrust) formed at the individual consumer level in relation to purchasing intention in B2C e-commerce across cultures?

   1a. What is the relationship between security, privacy and cognitive-based trust in relation to purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of uncertainty avoidance (UA) influence this relationship?

1b. What is the relationship between web design factors and cognitive and affect-based iTrust in relation to purchasing intention in B2C e-commerce across cultures and how do the individual-level cultural values of individualism (IDV) and uncertainty avoidance (UA) influence this relationship?

1c. What is the relationship between consumer behaviour (religiosity) and online cognitive and affect-based iTrust in relation to purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of individualism (IDV) influence this relationship?

1d. What is the relationship between consumer emotions (joy and fear) and affect-based trust in relation to purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of uncertainty avoidance (UA) influence this relationship?

1e. What is the relationship between cognitive and affect-based iTrust and purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of uncertainty avoidance (UA) influence this relationship?

2. What are the differences between Australia and Pakistan regarding purchasing intentions in B2C e-commerce?

Table 3.2 shows the alignment between constructs, research questions and hypotheses.

Table 3.2: Alignment between constructs, research questions and hypotheses.

Research Question	Factors	Hypotheses
1.a: What is the relationship between security, privacy and cognitive-based trust in relation to purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of uncertainty avoidance (UA) influence this relationship?	Privacy	H1: The relationship between privacy and cognitive-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan).
	Security	H2: The relationship between security and cognitive-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia).
1.b: What is the relationship between web design factors and cognitive and affect-based iTrust in relation to purchasing intention in B2C e-commerce across cultures and how do the individual-level cultural values of individualism (IDV) and uncertainty avoidance (UA) influence this relationship?	Website accessibility	H3: The relationship between web accessibility and cognitive-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia). H4: The relationship between web accessibility and affect-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan).
	Colour and images	H5: The relationship between colour and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia). H6: The relationship between colour and affect-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia). H7: The relationship between images and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia). H8: The relationship between images and affect-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).
	Social networking services	H9: The relationship between social networking services and cognitive-based trust is moderated by the individual-level cultural

		value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia). H10: The relationship between social networking services and affect-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).
1.c: What is the relationship between consumer behaviour (religiosity) and online cognitive and affect-based iTrust in relation to purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of individualism (IDV) influence this relationship	Religiosity	H11: The relationship between religiosity and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than an individualistic society (Australia). H12: The relationship between religiosity and affect-based is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).
1.d: What is the relationship between consumer emotions (joy and fear) and affect-based trust in relation to purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of uncertainty avoidance (UA) influence this relationship?	Emotions (joy and fear)	H13: The relationship between initial joy and affect-based trust is moderated by the individual-level cultural value such of UA that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia). H14: The relationship between initial fear and affect-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia).
1.e: What is the relationship between cognitive and affect-based iTrust and purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of uncertainty avoidance (UA) influence this relationship?	iTrust (cognitive and affect-based)	H15: Cognitive-based trust has a stronger influence than affect-based trust in a B2C e-commerce context in Pakistan than it does in Australia. H16: The relationship between cognitive-based trust and purchase intention is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan). H17: The relationship between affect-based trust and purchase intention is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan).

3.4 Summary

In this chapter, key concepts and supporting theories are presented to build a multi-perspective iTrust model. The proposed research model (Figure 1) integrates the individual consumer level culture values of individualism (IDV) and uncertainty avoidance (UA), as moderators on the relationship between various factors and the interpersonal trust towards purchasing intention. To investigate the research questions, hypotheses were developed that guide this study. The factors examined in the hypotheses include web design factors (accessibility, visual appearance, and social networking services), consumer behaviour (religiosity), privacy, security and emotions (fear and joy). This research examines how these affect the consumer placing their cognitive and affect-based trust in a B2C e-commerce relationship.

CHAPTER 4 : RESEARCH METHODOLOGY

This chapter focuses on the methodology of this study. The chapter opens with an explanation of the research design and justification of the design adopted for the current study. The instruments used for this study are then presented with evidence, after which the population and sample are described. Following this, the data collection procedure is highlighted. Finally, the data analysis procedure is discussed in detail.

4.1 Research Design

The research design is important in any research study, as it represents the framework that drives the conduct of the research study through the search to find the answers to the research questions (Cooper and Schindler, 2011). The research design involves a series of choices made by the researcher. For example, decisions are made regarding the purpose of study, unit of analysis, type of sample and data collection methods to be used, how the variables are to be measured and how the data will be analysed (Vogt, 2010).

Figure 4.1 shows the different research activities designed for this study. The existing studies were reviewed to build a theoretical background and to identify the gap in the knowledge, which steered the development of the research questions. The conceptual model and hypotheses were then developed to answer the research questions, based on the understanding gained from the literature review. The constructs used in model were operationalised for the questionnaire development. A quantitative methodology was chosen, as quantitative methods are usually applied to collect numerical data when the purpose is to test hypotheses. The researcher can use

statistical methods to identify facts and relationships among variables (Creswell, 2003).

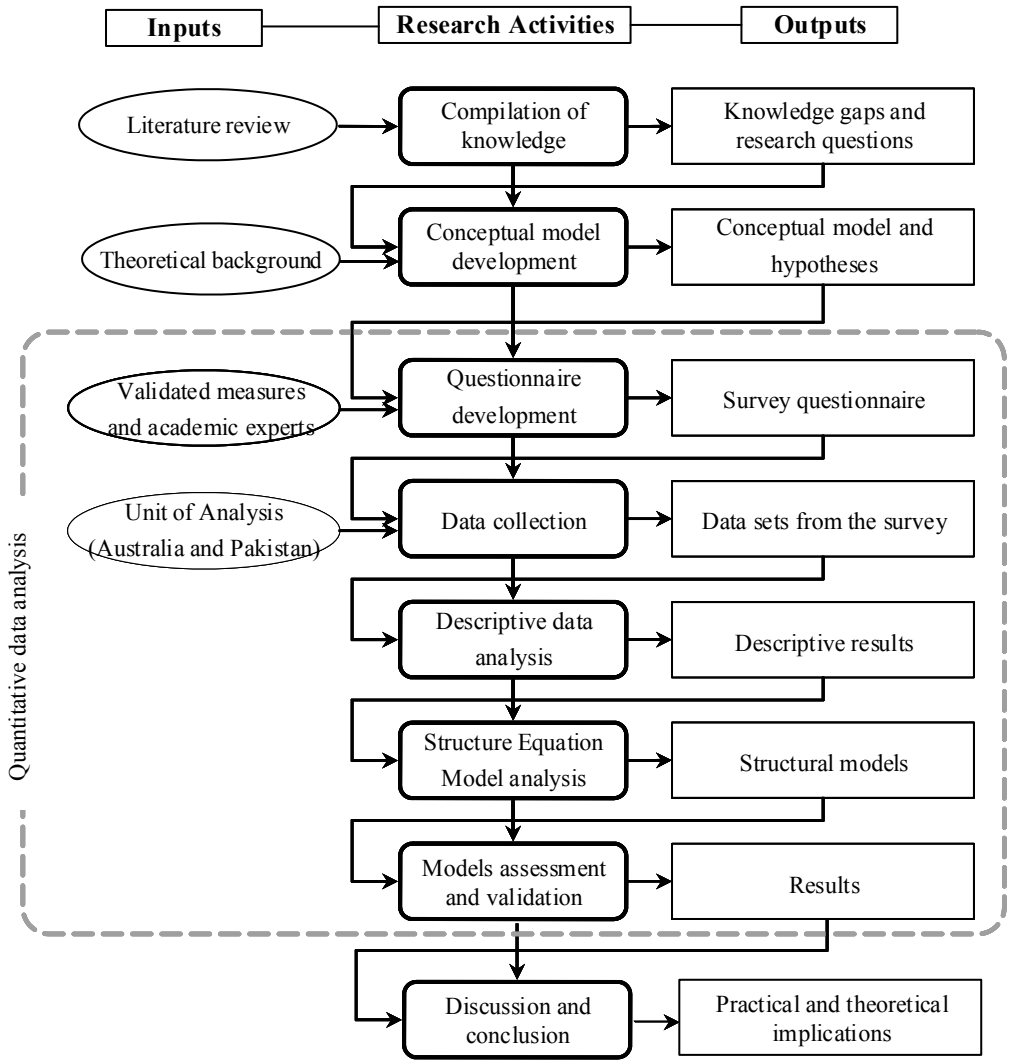

Figure 4.1: Research Design

This research applied a quantitative correlational design approach. This method is the most appropriate when the research does not aim to establish causality but rather to establish correlations between constructs and generalise the findings to a larger population (Trochim, 2006). More specifically, the non-experimental approach of predictive cross-sectional design was used in this study.

The aim of predictive non-experimental research is to predict some variables of interest using information from other predictors (other variables), while the aim of cross-sectional research is to make comparisons across different groups from data collected at one point in time (Belli, 2008). Unlike the experimental design approach that is most effective for determining causality, a cross-sectional design is more effective for demonstrating correlations between research variables and for generalising from a sample to a target population (De Vaus, 2001). Based on the characteristics of this study, which examine the correlation between independent and dependent variables, a quantitative non-experimental cross-sectional design is most appropriate. In this study, the independent variables include website accessibility, visual appearance (colour and images), social networking services and consumer behaviour (religiosity). These variables are examined in their relationship to the dependent variables, cognitive and affect-based interpersonal trust. Furthermore, trust is also an independent variable used in relationship to the dependent variable intention to purchase in B2C e-commerce. The quantitative non-experimental cross-sectional approach is well suited for investigating the research questions of this study, which investigate the moderating influence of two cultural dimensions, individualism-collectivism (IDV) and uncertainty avoidance (UA), on the relationship between interpersonal trust formation and purchase intention.

Additionally, cross-sectional studies generally focus on studying a specific issue by questioning a cross-section of a target population at a specific point in time (Jesson, 2001). In this study, the broad phenomenon as articulated in the research questions can be appropriately investigated by surveying a cross-section of the population who are familiar with online purchasing in order to gather quantitative data that is used to establish the necessary correlations between the constructs in the study.

According to Jesson (2001), unlike the experimental approach, cross-sectional designs are better suited for obtaining representativeness. So, the choice of a cross-sectional design for this study is also based on the need to be able to draw implications from the sample and generalise the findings of the study to a broader population. As De Vaus (2001) suggests, this generalisation can be achieved using random sampling techniques that help ensure that each individual in the target population has an equivalent opportunity of being picked as part of the sample. This research design is also consistent with the design and approach adopted in prior e-commerce studies, which this research builds upon, as presented in Chapter 3.

4.2 Instrumentation/Measures

Several researchers have suggested that whenever possible, researchers should use previously validated survey instruments rather than developing new ones in order to facilitate the confirmation of reliability and validity (Bélanger and Crossler, 2011). Therefore, in this study previously validated survey instruments were revised and used in order to ensure the measures are adequate and representative, thereby adding to content validity. Furthermore, two experts from the Faculty of Engineering and Information Technology at the University of Technology Sydney were consulted to examine whether the complete survey instrument adequately measures each construct. The feedback from the experts recommended minor amendments of the wording and eliminating a few redundant questions.

Multi-scale items using at least three observable indicators measured all constructs. All items used in the study are listed in Appendix A. The instrumentation adopted is as follows.

- **Security and Privacy:** Security and privacy measures derived from (Casaló et al., 2011, Kim, 2005),
- **Web Accessibility:** Website accessibility measures adapted from (Ganguly et al., 2010, Chen and Barnes, 2007, Chen and Dibb, 2010, Yoon, 2009).
- **Colour:** Colour measures adapted from (Chen and Dibb, 2010, Cyr et al., 2010).
- **Image:** Image measures adapted from (Chen and Dibb, 2010, Cyr, 2013, Kim and Forsythe, 2007).
- **Social networking services:** Social networking services derived from (Hasslinger et al., 2007, Huynh and Andrade, 2012, Brengman and Karimov, 2012).
- **Religiosity:** Religiosity measures adapted from (Siala et al., 2004, Allport and Ross, 1967, Essoo and Dibb, 2004).
- **Joy and fear:** Joy and fear measures derived from (Li et al., 2011, Parboteeah et al., 2009).
- **Cognitive and affect-based trust:** Cognitive and affect-based trust measures derived from (Karimov et al., 2011, Kim, 2008).
- **Purchase intention:** Purchase intention measures obtained from (Yoon, 2009, Chen and Barnes, 2007).
- **Uncertainty Avoidance:** Uncertainty avoidance individual culture value derived from (Yoon, 2009, Srite and Karahanna, 2006, Hwang and Lee, 2012a)
- **Individualism:** Individualism individual culture value derived from (Yoon, 2009, Srite and Karahanna, 2006).

4.3 Population and Sample

This research is a cross-cultural study that involves two groups from Pakistan and Australia. Therefore, the population for this study is the Pakistani and Australian citizens who use the Internet. The sample of this study includes Australian and Pakistani university students, who were chosen as the research subject in both Pakistan and Australia. There are several reasons for choosing university students as participants. Such as, Internet usage is comparatively higher in university students. In addition, university students represent the most dominant group of online consumers (Sia et al., 2009). The two groups were also comparable in that they consisted of students enrolled in an Information systems courses. Students' participation in the survey was voluntary and their role was not rewarded in their grades by their professors. Therefore, adopting students as sample is considered applicable to online consumer studies. The choice is also considered as a convenient sample because they are voluntarily available to the researcher. The researcher has convenient access to the student population at universities from both countries. In order to ensure that the participants are representative of the countries, the culture of each participant, was the country where the participant had lived the most of their lives and spoke the local language as their primary language are included in the sample. Which is consistent with prior study of (Cyr, 2013).

Determining the proper sample size for a study is also important to ensure its reliability and validity (Wolverton, 2009). Several SEM researchers have suggested rules of thumb for estimating approximate sample sizes for SEM studies. For example, Hair et al. (2006) observed that in the vast SEM literature, SEM studies generally use a sample size of between 200 and 400 for 10 to 15 indicators.

As a method of comparison with prior studies, (Srite and Karahanna, 2006) used a sample of 181 participants, (Sia et al., 2009) used a sample of 166 and 128 participants, while (Hwang and Lee, 2012a) used a sample of 209 participants. This study used a sample size of 270 participants from Pakistan and 255 participants from Australia.

4.4 Data Collection Procedure

The survey instrument is used as the method of data collection in this research. According to (Creswell, 2003), "A survey design provides a quantitative or a numeric description of trends, attitudes, or opinions of a population by studying a sample of the population". Babbie (2012) states that "surveys are particularly useful in descripting the characteristics of a large population because they make large samples feasible".

Online survey approach was used in this study. Participants in each country were recruited from universities with the help of researchers living in those countries. Data collection lasted from November 2013 to March 2014. The survey instrument was administered to university students from three universities in Pakistan and one university in Australia. The three universities in Pakistan were the Balochistan University of Engineering, Information Technology and Management Sciences (BUITMS), Sardar Bahadur Khan Women's University (SBK) and COMSAT Institute of Information Technology. The one university in Australia was the University of Technology, Sydney.

This study used closed-ended questions when conducting the survey. In closed-ended questions, a small set of responses generates precise answers. The respondents were asked to select or rank answers rather than to express their opinions. To increase the

response rate, the questionnaire was designed to take no more than 15 minutes to complete.

The web-based survey was administered using the online survey software Qualtrics. The online survey was announced through the selected universities' webmail. Participants in each research site were asked to visit a local online vendor. A well-known localised retailer website is considered to be appropriate to the culture and most workable option for research (Cyr, 2013). Students' participation in the online survey was voluntary. However, in order to increase the participant response rate a lucky draw for one of two gift cards, each worth US$25, was offered.

Participants were required to provide a valid email address to enter for the draw. The participants from Pakistan were asked to visit the B2C website homeshopping.pk and participants from Australia to visit www.oo.com.au. The participants were instructed by the researcher to assume that they are interested in buying a product, to search for any product and gather certain details to become more familiar with the chosen website and then to go through the complete online buying process up to except for making the transaction to purchase the product. This process is consistent with (Chen and Barnes, 2007). After the interaction with the chosen website, respondents were required to fill out a closed-ended questionnaire on a seven-point Likert scale. The options in this scale ranged from "1. Strongly disagree" to "7. Strongly agree". The language of instruction in Pakistani educational institutions is English, thus there was no need to translate the questionnaires into a local language.

4.5 Data Analysis Process

The data was analysed using a variance-based structural equation modeling (SEM) statistical technique, such as partial least squares (PLS) path modeling using SmartPLS version 3 (Ringle et al., 2014), to estimate the relationships between the different parameters of the research model. SEM tests theoretical models using hypothesis testing to understand the simultaneous modeling of relationships among various independent and dependent variables (Schumacker and Lomax, 2010). Unlike first-generation statistical techniques, such as regression analysis and analysis of variance, SEM is a second-generation multivariate analysis technique that overcomes the limitations of first-generation techniques (Haenlein and Kaplan, 2004).

SEM approach can be covariance-based, such as those used in LISREL and SPSS-AMOS, or variance-based (or components-based), such as PLS analysis. Partial Least Squares (PLS-SEM) approach is a preferred analysis technique in information systems and business research because it offers several flexibilities. For example, this approach is well suited for prediction-oriented research, does not require a large sample size, does not require normality and subsequently works without distributional assumptions and with nominal, ordinal and interval-scaled variables (Haenlein and Kaplan, 2004, Hair et al., 2014). Additionally, covariance-based SEM techniques are not appropriate for some types of research because they deal only with reflective variables (Henseler et al., 2009).

The research model in this study has both formative and reflective constructs. Therefore, PLS-SEM (also called PLS path modeling) is appropriate for this study as it allows for the simultaneous assessment of structural model parameters and path

coefficients. Moreover, PLS-SEM allows both reflective and formative constructs to be examined together (Chin et al., 2003).

4.5.1 Measurement Models

The two types of construct measurement models are reflective and formative. Measures, also known as items or indicators, influence latent variables (also called constructs or factors). The direction of the relationship between measures and the latent variables can flow in two directions: directly from the measure to the construct (known as reflective) or directly from the construct to the measure (known as formative) (Freeze and Raschke, 2007). Constructs are considered either exogenous or endogenous (Hair et al., 2014). Exogenous constructs are considered as independent variables, while endogenous constructs can acts both as independent and dependent variables. Figure 4.3 illustrates a simple path model showing the concepts of formative, reflective, exogenous and endogenous constructs, adapted from (Hair et al., 2014).

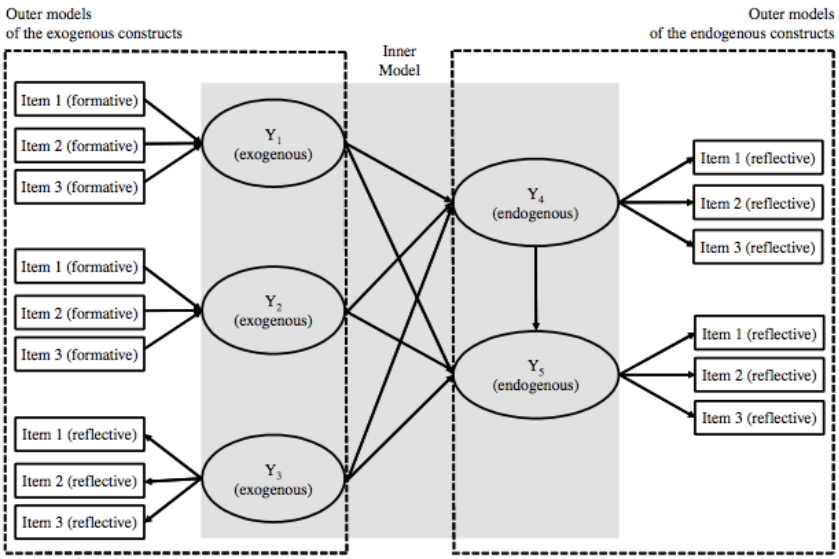

Figure 4.2: A path model from (Hair et al., 2014)
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Reflective measures are caused by the latent construct in that changes in the latent construct are reflected by changes in the indicators. For example, website accessibility (a latent variable) is reflected by different indicators, such as easy to learn, easy to use and clear and understandable, to which it is highly correlated. So, an increase in website accessibility is reflected by increases in all indicators. Due to the high correlations, the reflective indicators are interchangeable, such that dropping an indicator should not change the conceptual meaning of the construct (Jarvis et al., 2003).

Formative indicators causes the latent construct and can have positive, negative, or zero correlation among items. This means that a change in one measure does not essentially denote a change in other measures (Chin, 1998). Therefore, formative indicators are not interchangeable and high correlation is not expected. For example, social influence (a latent variable) is caused by different measures, such as friends, family and relatives and the media. An increase in influence from friends would increase social influence even if there were no influence from relatives and the media.

In this study, the research model has both formative and reflective constructs. Security and privacy, website accessibility, colour and image, emotions, culture (UA and IDV), cognitive-based trust, affect-based trust and purchase intention are modeled as reflective constructs because they are considered as effects of the constructs. Social networking services is modeled as formative because it is a multi-dimensional construct that covers various referent groups such as social networks sites, online help, reviews and rankings. Religiosity is also a formative construct because it is a multi-dimensional human phenomenon, which covers considerable

concepts such as human behaviour, attitudes, beliefs, feelings and experiences. This is consistent with prior research, such as (Mokhlis, 2010, Kim, 2005, Hwang and Lee, 2012a, Li et al., 2011, Yoon, 2009, Kim and Park, 2013).

4.5.2 Moderating Effects

The moderating effects of culture (UA and IDV) on constructs were performed using the product indicator approach. The product indicator approach by (Chin, 2003) refers to the products of each indicator of the independent latent construct with each indicator of the moderator construct. This approach is considered as the most promising technique to determine the moderating effects (Henseler and Fassott, 2010), in particular when the moderator variable is reflective (Henseler and Chin, 2010). In this study, the moderating constructs of culture are modeled as reflective. An example of the product indicator approach is shown in Figure 4.4, adapted from (Henseler and Chin, 2010).

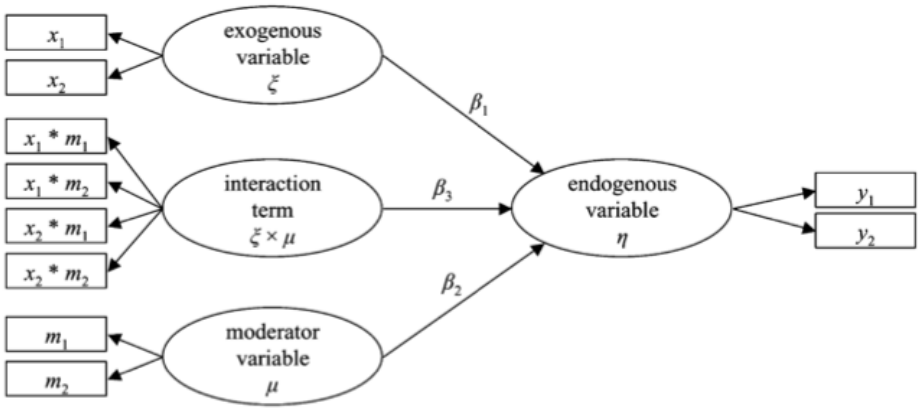

Figure 4.3: Product Indicator Approach

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4.5.3 Confirmatory Factor Analysis

As suggested by Anderson and Gerbing (1988), examining a measurement model involves firstly conducting a two-step SEM approach in order to ensure that the quality of the research model is established before assessing the structural model. This research's measurement model includes conducting confirmatory factor analysis (CFA) and model fit to confirm that the indicator variables load onto their corresponding latent variables using the collected data (Kline, 2011). CFA established whether widely accepted criteria for acceptable discriminant validity, convergent validity and reliability of latent variables were met.

4.5.4 Reliability and Validity Assessment

The reliability and validity of the research instrument and the measurement models were evaluated by observing internal consistency, convergent validity and discriminant validity. Firstly, for reflective constructs, item loadings were used to assess convergent validity. For appropriate convergent validity, the loadings of individual items should exceed 0.7 with respect to their proposed constructs (Chin, 1998).

Secondly, the internal consistency of latent constructs was evaluated using Cronbach's alpha of 0.7 as an acceptable threshold and average variance extracted (AVE) above 0.5. An AVE of great than 0.5 shows that more than 50 per cent of the variance of the measurement items can be accounted for the latent variables (Hair et al., 2006).

Finally, convergent validity and discriminant validity were evaluated by employing the square root of the average variance extracted (AVE) by a variable from its

indicators, which was at least 0.70 and was greater than that constructs correlation with other constructs. Moreover, items loading were at least 0.70 and are more strongly on their assigned construct rather than on the other constructs (Fornell and Larcke, 1981).

To determine the validity of the formative constructs, the indicator validity of construct was examined using outer weights. The T-value was calculated using the bootstrapping method to test for significance. All indicator weights are considered significant. The two tailed t-test values are 1.645, 1.96, and 2.57 with p-value of 0.1, 0.05 and 0.01 respectively (Hair et al., 2011). To determine reliability for formative indicators, researchers should assess the degree of multicollinearity (Hair et al., 2011). With formative indicators, high multicollinearity can destabilise the structural model, unlike reflective indicators, where multicollinearity between construct items is desirable (proven by high Cronbach's alpha) (Petter et al., 2007). To ensure there is no multicollinearity in formative constructs, the variance inflation factor (VIF) statistic was used. The VIF value should be less than 5 (Hair et al., 2011).

4.5.5 Model Fit Measures

For the global validation of the models, a global criterion of Goodness of Fit (GoF), proposed by (Tenenhausa et al., 2005), was applied for PLS path modeling. In order to take into account the measurement performance and thus provide a single measure for the overall prediction performance of the model, the GoF index can be applied to both reflective and formative models (Vinzi et al., 2010, Chin, 2010). The GoF index is obtained as the geometric mean of the average communality (AVE in PLS path modeling approach) and the average R^2 for the endogenous constructs. The formula for calculating GoF is:

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

In line with the effect size of R^2, $GoF_{small} = 0.1$, $GoF_{medium} = 0.25$ and $GoF_{large} = 0.36$ are the baseline values for validating the PLS model globally (Wetzels et al., 2009).

4.5.6 Hypothesis Testing

Following the confirmation of the measurement model, the latent variables were linked up to represent the relationships in the various hypotheses in a structural model. The significance of the path coefficients was examined to assess the hypotheses. The significance of the paths was determined using the t-statistical calculated with the bootstrapping technique (with 5000 subsamples). SmartPLS 3 can perform bootstrapping (a nonparametric procedure that can be applied to test whether coefficients such as outer weights, outer loadings and path coefficients are significant by estimating standard errors for the estimates) (Ringle et al., 2014) for both the inner and outer model to specify the t-value for significance. In order to get approximate t-values for the significance test, researchers should use a large subsample (for example, 5000) from the original sample to draw a standard error, and the number of cases should be equal to the number of observations in the original sample (Hair et al., 2014, Hair et al., 2011). Critical t-values for a two-tailed test are 1.65 (significance level = 10%), 1.96 (significance level = 5%) and 2.58 (significance level = 1%) (Hair et al., 2011). In the current study, a 5% significance level was employed for two-tailed test in this study. To measure the predictive power of research model (Chin, 1998), the R^2 value was used to measure the percentage of the variance explained by the independent constructs in the structural model. R^2 values of 0.75, 0.50, or 0.25 for endogenous latent variables in the structural model can be described as substantial, moderate or weak, respectively (Hair et al., 2011).

Furthermore, to compare the research model across two groups (Australia and Pakistan), a multi-group PLS analysis method by (Chin, 2004b) was conducted by comparing group differences in coefficients of the corresponding structural path for the two research models, which is considered appropriate for this study (Sia et al., 2009). Multi-group PLS analysis allows for the comparisons of structural model differences across cultural groups (Chin, 2004a), for example, an analysis of the same model using data collected in two different countries (Kock, 2014). The analysis was conducted by taking the standard errors of the structural models' paths by comparing equivalent paths across different groups (Pakistan and Australia in this study) by performing t-tests on their path coefficients.

The following equation shows the multi-group PLS analysis method by (Chin, 2004b).

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

- 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.

4.6 Ethics Consideration

This research involves human participants. In order to ensure the anonymity and ethical protection of the participants, the Human Research Ethics Committee (HREC) – University of Technology, Sydney's guidelines were compiled to show the integrity of the research methodology. The faculty considers this research as negligible/nil risk [Ethics approval: UTS HREC 2013000308].

4.7 Summary

This chapter provided a justification of the research design, which was a non-experimental quantitative correlational design. The survey instrument used for this study was described then the data collection procedure was explained. A description of the data analysis used in the study was also presented. The statistical analysis using structural equation modelling (SEM) and the moderating relationship using product indicator approach to test the hypotheses was presented.

A Partial Least Square (PLS-SEM) approach using SmartPLS 3.0 software was found to be an appropriate approach because it allows both reflective and formative constructs to be examined together. To compare the research model across two groups, a multi-group PLS analysis method by (Chin, 2004b) was selected, which is also considered appropriate for this study.

CHAPTER 5 : RESULTS

This chapter presents the results of the study along with several summarised tables and figures that describe and support its findings. This chapter also contains descriptive statistics, assessments of the measurement model's validity, such as confirmatory factor analysis (reliability and validity of measures), and assessments of the structural model's validity for hypothesis testing.

5.1 Descriptive Statistics

5.1.1 Descriptive Analysis of Demographic Variables

The demographic variables considered in this study are gender, age, education, religious affiliation, Internet experience, online shopping experience and preferred mode of payment. The gender distribution of participants from Australia and Pakistan sample are shown in Table 5.1 and Figure 5.1. There were 59% male and 41% female respondents in the Australian sample compared to 65% male and 35% female in the Pakistani sample.

Table 5.1: Gender Distribution

		Country		
		AUS	**PAK**	**Total**
Gender	**Male**	150	175	325
	Female	105	95	200
Total		255	270	525

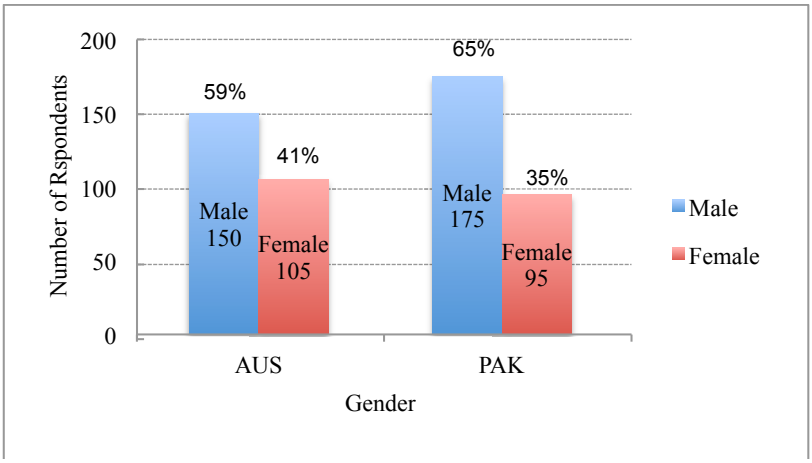


Figure 5.1: Gender Distribution

The age distribution is shown in Table 5.2 and Figure 5.2. Out of 255 respondents in the Australian sample, the age group 18-25 years was most represented (49%) followed by 26-35 years (29%), and 36-45 years (21%) and older than 45 years (1%). Out of the 270 respondents in the Pakistani sample, the age group 18-25 years (72%) was the most represented, followed by 26-35 years (24%), 36-45 years (3%) and older than 45 years (1%).

Table 5.2: Respondents' Age Group

	Years	Country		Total
		AUS	**PAK**	
Age	18-25	124	194	318
	26-35	74	65	139
	36-45	53	9	62
	Above 45	4	2	6
Total		255	270	525

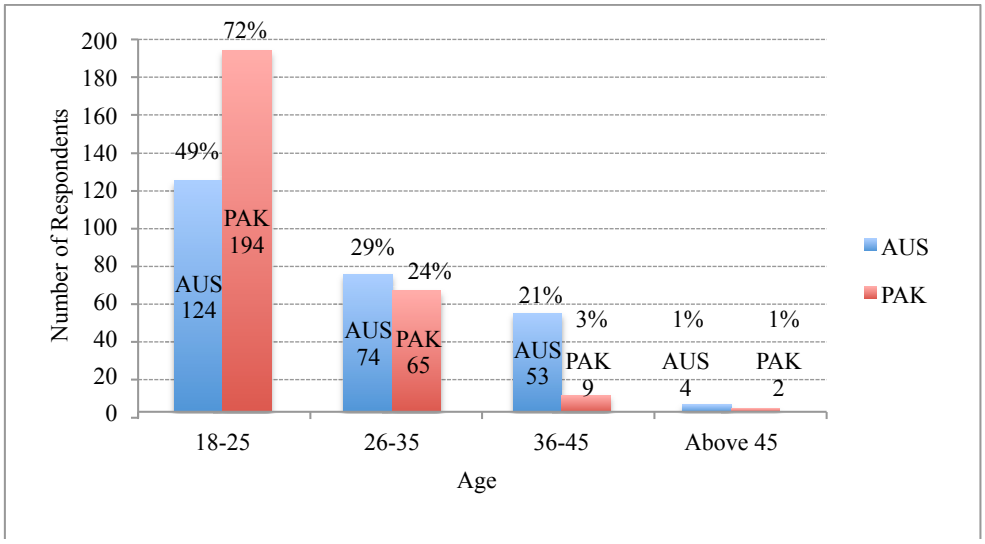


Figure 5.2: Respondents' Age Distribution

The level of education of participants is shown in Table 5.3 and Figure 5.3. In the Australian sample, participants with a bachelor's degree (73%) had the highest representation followed by master's degree (22%) and PhD (5%). In the Pakistani sample, bachelor's degree (85%) had the highest representation followed by master's degree (12%) and PhD (3%).

Table 5.3: Participants' Education

		Country		Total
		AUS	**PAK**	
Education	Bachelor's degree	185	230	415
	Master's degree	55	33	88
	PhD	15	7	22
Total		255	270	525

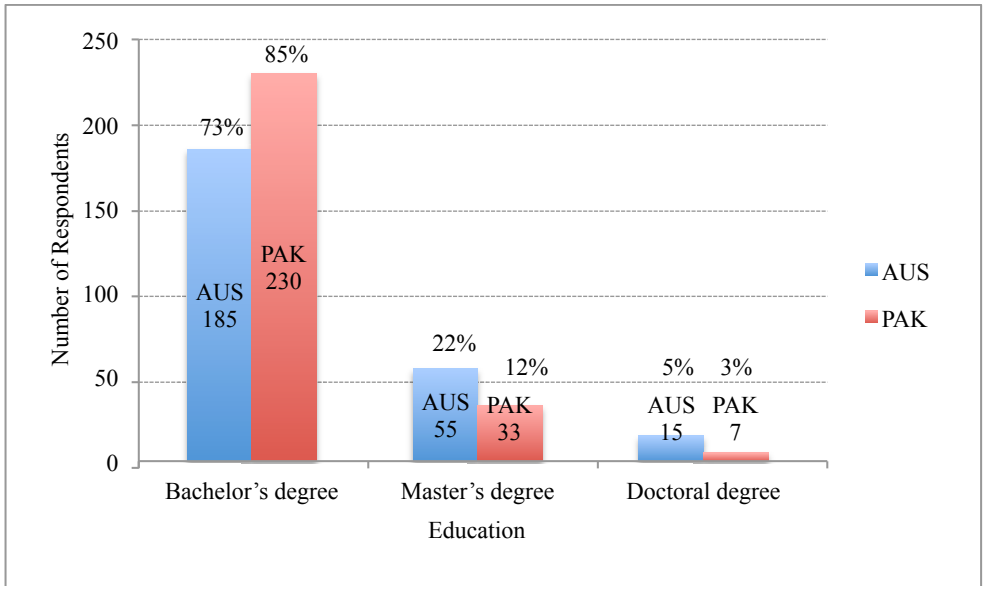


Figure 5.3: Participants' Education

Participants were also distributed across religious affiliation, as shown in Table 5.4 and Figure 5.4. 94% participants were Muslims in the Pakistani sample, while 82% were Christians in the Australian sample.

Table 5.4: Participants' Religious Affiliation

		Country		Total
		AUS	**PAK**	
Religion	Muslim	20	255	275
	Christian	210	8	218
	Other	15	5	20
	Prefer not to answer	10	2	12
Total		255	270	525

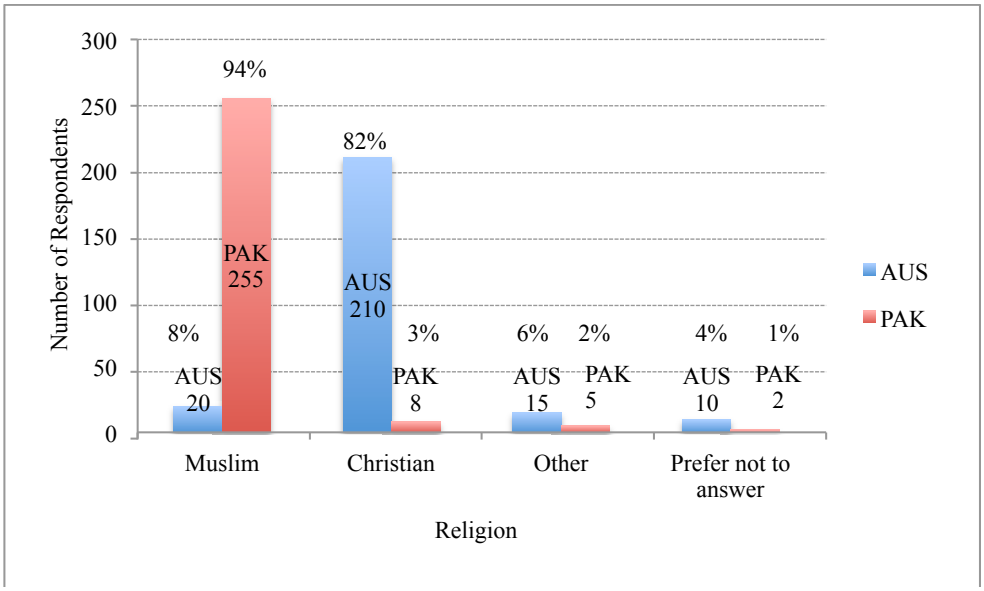


Figure 5.4: Participants' Religious Affiliation

Concerning the Internet experience of participants, as shown in Table 5.5 and Figure 5.5, in the Australian sample 83% of participants have Internet experience of 7 or more years or compared to 73% in the Pakistani sample.

Table 5.5: Internet experience

Number of years		Country		Total
		AUS	**PAK**	
Internet experience	1-3	5	8	13
	4-6	40	65	105
	Above 7	210	197	407
Total		255	270	525

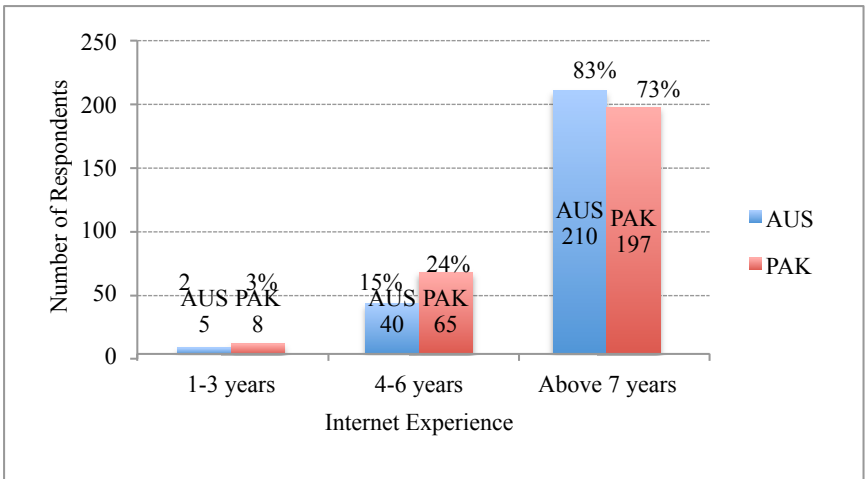


Figure 5.5: Participants' Internet Experience

Table 5.6 and Figure 5.6 show the online purchasing experience of participants. In the Australian sample, participants with 1-3 years of online purchasing experience had the highest representation (43%) followed by 4-6 years (18%) and 6-12 months (15%), less than 6 months (12%) and 7 years or above (12%). In the Pakistani sample, participants with 1-3 years of online purchasing experience had the highest representation (36%) followed by 6-12 months (29%) and less than 6 months (15%), 4-6 years (13%) and 7 years or above (7%).

Table 5.6: Online purchasing experience

		Country		Total
		AUS	**PAK**	
Online shopping experience	Less than 6 months	31	40	71
	6-12 months	39	79	118
	1-3 years	110	98	208
	4-6 years	46	36	82
	7 years or more	29	17	46
Total		255	270	525

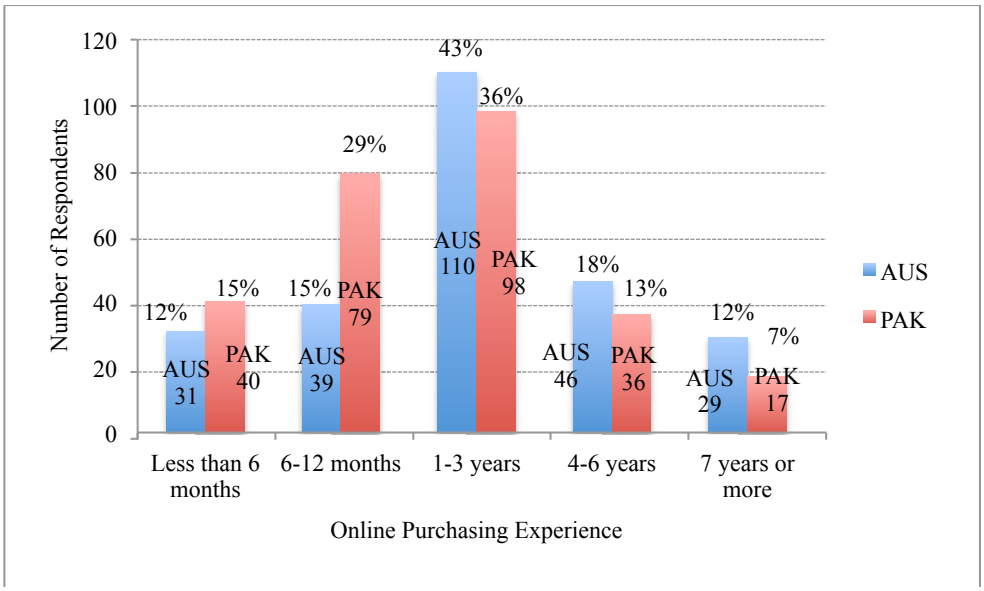


Figure 5.6: Participants' Online Shopping Experience

Concerning the preferred mode of payment, as shown in Table 5.7 and Figure 5.7, for participants in the Australian sample, credit card was the most preferred mode of payment (32%) followed by PayPal (27%), debit card (22%), other modes of payment (11%) and cash on delivery (8%). In the Pakistani sample, cash on delivery was the most preferred mode of payment (57%) followed by other modes of payment (23%), debit card (15%) and credit card (5%). PayPal was not an option as it is not available in Pakistan.

Table 5.7: Preferred mode of payment

		Country		Total
		AUS	**PAK**	
Preferred mode of payment	Credit card	81	15	
	Debit card	55	40	
	PayPal	70	0	
	Cash on delivery	20	155	
	Other	29	60	
Total		255	270	525

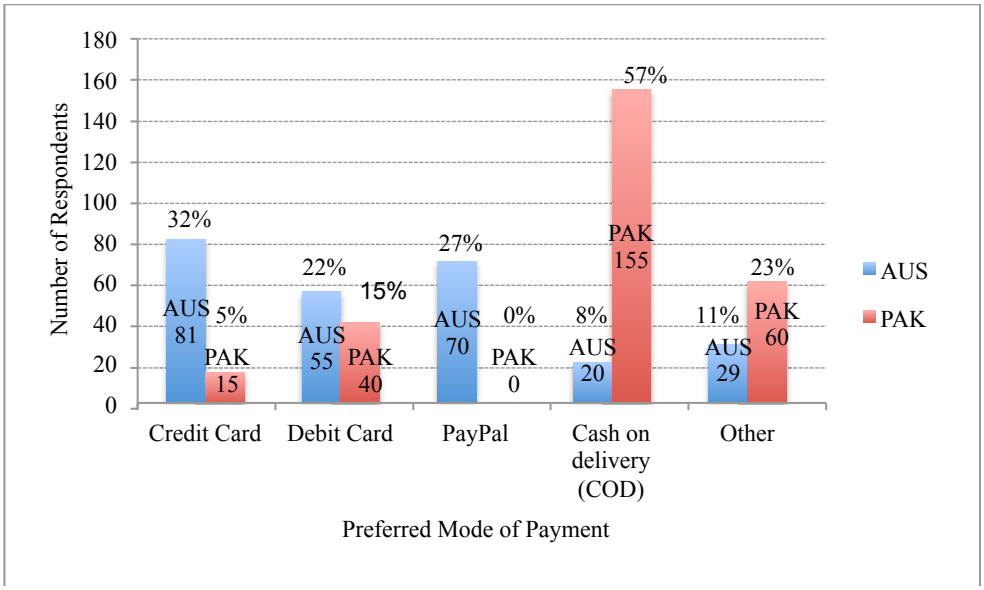


Figure 5.7: Preferred Mode of Payment

5.1.2 Descriptive and Missing Data Analysis of Latent Variables

Before the PLS-SEM procedure was conducted, the survey data was screened for missing data using missing value analysis in SPSS. Missing data arises when respondents do not respond to a survey question or when there are omissions in the data collected. The output of the missing value analysis in Tables 5.8 and 5.9 indicated that out of the 255 survey responses in Australian sample and 270 survey responses in the Pakistani sample, there were no missing values. This was probably due to the fact that all questions were designed to require a response, so incomplete surveys were not submitted.

The descriptive statistics for each of the latent variables were also analysed by calculating their means and standard deviation on a 7-point Likert scale. In order to get the mean and standard deviation of each latent variable, the equally weighted average of the item scores within each factor were calculated. For example, the score for the uncertainty avoidance dimension was calculated as:

$$Score(\text{Uncertainty Avoidance}) = [Score(UA1) + Score(UA2) + Score(UA3)] \,/\, 3$$

Tables 5.8 (Australian sample) and 5.9 (Pakistani sample) show the means and standard deviations. The calculated mean value illustrates that participants from Australia are higher in individualism (mean = 2.63) than the participants from Pakistan (mean = 2.51). However, uncertainty avoidance is higher for the participants in the Pakistani sample (mean = 2.68) than the participants in the Australian sample (mean = 2.51). Participants from Australia reported stronger preference for security features (mean = 3.56) than participants from Pakistan (mean

= 3.47), although privacy concerns were a bit higher for participants from Pakistan (mean = 3.49) than participants from Australia (mean = 3.39). Concerning the perception of the website's accessibility, the Pakistani sample shows (mean = 4.25), while the Australian sample shows (mean = 5.26), which means Australian sample found the website more accessible. Regarding the visual appearance, for example the colour and product images, participants from Pakistan pay more attention to website colour (mean = 2.32) than participants from Australia (mean = 2.2), while product images are more important to participants from Australia (mean = 2.61) than participants from Pakistan (mean = 2.57). The use of social networking services is higher for the Pakistani sample (mean = 3.30) than the Australian sample (mean=3.10). Participants from Pakistan shows that the religion had a strong influence towards online purchasing (mean = 5.41) compared to participants from Australia (mean = 4.33).

Furthermore, the intensity of joy in B2C e-commerce websites is higher in the Australian sample (mean = 2.72) than the Pakistani sample (mean = 2.63), while the intensity of fear is higher in the Pakistani sample (mean = 2.62) than the Australian sample (mean = 2.52). Participants from Pakistan show more cognitive-based trust (mean = 2.57) than the participants from Australia (mean = 2.54). However, affect-based trust is higher in participants from Australia (mean = 2.62) than participants from Pakistan (mean = 2.55). Finally, participants from Australia reported greater purchase intention (mean = 2.81) than participants from Pakistan (mean = 2.68).

Table 5.8: Case Processing Summary (Australia)					
Factors	**Descriptive analysis**			**Missing value**	
	N	**Mean**	**SD**	**N**	**Percent**
Individualism (IDV)	255	2.633	0.484	0	0.0%
Uncertainty avoidance (UA)	255	2.519	0.471	0	0.0%
Security (SEC)	255	3.565	0.456	0	0.0%
Privacy (PRV)	255	3.390	0.625	0	0.0%
Website accessibility (WA)	255	5.264	0.942	0	0.0%
Colour (COL)	255	2.299	0.461	0	0.0%
Image (IMG)	255	2.610	0.427	0	0.0%
Social networking services (SNS)	255	3.162	0.588	0	0.0%
Religiosity (REL)	255	4.337	0.623	0	0.0%
Joy (JOY)	255	2.728	0.549	0	0.0%
Fear (FEAR)	255	2.526	0.487	0	0.0%
Cognitive-based trust (CTR)	255	2.545	0.451	0	0.0%
Affect-based trust (ATR)	255	2.626	0.487	0	0.0%
Purchase intention (PINT)	255	2.811	0.436	0	0.0%

Table 5.9: Case Processing Summary (Pakistan)					
Factors	**Descriptive analysis**			**Missing value**	
	N	**Mean**	**SD**	**N**	**Percent**
Individualism (IDV)	270	2.517	0.355	0	0.0%
Uncertainty avoidance (UA)	270	2.682	0.466	0	0.0%
Security (SEC)	270	3.474	0.702	0	0.0%
Privacy (PRV)	270	3.498	0.620	0	0.0%
Website accessibility (WA)	270	4.259	0.888	0	0.0%
Colour (COL)	270	2.320	0.506	0	0.0%
Image (IMG)	270	2.573	0.433	0	0.0%
Social networking services (SNS)	270	3.307	0.535	0	0.0%
Religiosity (REL)	270	5.414	0.728	0	0.0%
Joy (JOY)	270	2.639	0.432	0	0.0%
Fear (FEAR)	270	2.623	0.478	0	0.0%
Cognitive-based trust (CTR)	270	2.579	0.516	0	0.0%
Affect-based trust (ATR)	270	2.551	0.385	0	0.0%
Purchase Intention (PINT)	270	2.680	0.434	0	0.0%

5.2 Measurement Model

The measurement model for validity and reliability of latent constructs was assessed. As discussed in Chapter 4, a two-step SEM analysis was carried out, which includes confirmatory factor analysis and model fit to ensure the quality of proposed model before assessing the structural model.

5.2.1 Confirmatory Factor Analysis

As discussed in Chapter 4, convergent and discriminant validity along with the reliability coefficients are important parts of the confirmatory factor analysis (CFA). To demonstrate the reliability of the instrument for reflective constructs, the loadings of individual items for each construct exceeded 0.7 values and were significant (p value < 0.05). Cronbach's alpha (CA) and the composite reliability (CR) coefficients exceeded an acceptable measure 0.7 for CA and CR.

The purpose of discriminant validity assesses whether a construct is different from all other constructs. Convergent validity is assessed using average variance extracted (AVE) and the composite reliability (CR). Convergent validity is established if the CR value is more than the AVE and all of the AVE are greater than 0.50 (Hair et al., 2006). The results show that all of the CR are greater than their corresponding AVE and all the AVE meet the required minimum of 0.50, thereby establishing convergent validity. Discriminant validity assesses whether a variable is different from all other constructs. The square root of individual AVE should be more than any correlation between the latent variables. The results show the square root of the AVE for each individual construct is greater than the correlations with all other constructs. This demonstrates the discriminant validity of all the constructs in the study.

For reflective indicators (social networking services and religiosity), the validity of constructs using outer weights was significant (p value < 0.05). In addition to this, to determine reliability for formative indicators, the variance inflation factor (VIF) value was less than 5, which means there is no multicollinearity in the formative constructs.

The following section shows that the reliability and validity assessment of all constructs are above the threshold values.

5.2.2 Model Fit

As discussed in Chapter 4, for the global validation of the models, a model fit was evaluated using Goodness of Fit (GoF) in line with the effect size of R^2 and using GoF_{small} = 0.1, GoF_{medium} = 0.25 and GoF_{large} = 0.36 as the baseline values for validating the PLS model globally. A GoF value of 0.554 was obtained for the Australian sample and 0.405 for the Pakistani sample, which exceeds the baseline value of 0.36 for large effect sizes of R^2 and allows for the conclusion that the model is acceptable and fit.

5.3 Structural Model Testing

Following the acceptable measurement model, the structural model was analysed to address the hypotheses and answer the research questions proposed in the study. The following sections explain the measurement and structural model for latent variables to answer the research questions and address the hypotheses.

5.3.1 Moderating Variables (IDV and UA)

Concerning the reliability and validity of the moderating constructs, individualism (IDV) and uncertainty avoidance (UA), items loadings, average variance extracted,

composite reliability and Cronbach's alpha is presented in Tables 5.10 and 5.11 for both the Pakistani and Australian samples. The number of items of moderating variables is IDV = 3 and UA = 3. The results show that all moderating latent variables studied are above the suggested threshold.

Table 5.10: Factors Loading (IDV and UA)

	Australia		**Pakistan**	
Item <- Factor	**Items loading**	**P values**	**Items loading**	**P values**
IDV1 <- IDV	0.730	0.000***	0.977	0.000***
IDV2 <- IDV	0.934	0.000***	0.987	0.000***
IDV3 <- IDV	0.912	0.000***	0.988	0.000***
UA1 <- UA	0.922	0.000***	0.964	0.000***
UA2 <- UA	0.873	0.000***	0.944	0.000***
UA3 <- UA	0.941	0.000***	0.906	0.000***
Notes: • *Significant at 0.05 level, ** Significant at 0.01 level, *** Significant at 0.001 level; • UA: Uncertainty avoidance, IDV: Individualism-collectivism				

Table 5.11: Reliability and Discriminant Validity of Moderating Constructs

Confirmatory factor analysis (CFA)	**Australia**		**Pakistan**	
	UA	**IDV**	**UA**	**IDV**
Average variance extracted (AVE)	0.732	0.719	0.881	0.731
Composite reliability (CR)	0.835	0.830	0.957	0.889
Cronbach's alpha	0.763	0.725	0.935	0.814
Notes: UA: Uncertainty avoidance, IDV: Individualism-collectivism				

5.3.2 Security and Privacy

As discussed in Section 5.1, the reliability and validity of constructs, security and privacy items loadings and average variance extracted (AVE), composite reliability (CR), Cronbach's alpha and correlation among construct is presented in Tables 5.12 and 5.13 for the Pakistani and Australian samples. The number of items for latent variables is (privacy = 4, security = 3). The results show that all latent variable items are above the suggested threshold of 0.70 and significant at $p < 0.001$ for both the Pakistani and Australian sample.

Table 5.12: Factors Loading (Security and Privacy)

	Australia		Pakistan	
Item <- Factor	**Items loading**	**P values**	**Items loading**	**P values**
PRV1 <- PRIVACY	0.838	0.000***	0.947	0.000***
PRV2 <- PRIVACY	0.937	0.000***	0.937	0.000***
PRV3 <- PRIVACY	0.914	0.000***	0.951	0.000***
PRV4 <- PRIVACY	0.921	0.000***	0.943	0.000***
SEC1 <- SECURITY	0.830	0.018**	0.787	0.001**
SEC2 <- SECURITY	0.878	0.001***	0.888	0.000***
SEC3 <- SECURITY	0.751	0.010**	0.984	0.000***
*Significant at 0.05 level, ** Significant at 0.01 level, *** Significant at 0.001 level;				

Table 5.13: Correlation, Reliability and Discriminant Validity of Constructs for H1-H2

Australian sample							
	AVE	**CR**	**Calpha**	**CTrust**	**Privacy**	**Security**	**UA**
CTrust	0.790	0.896	0.833	**0.889**			
Privacy	0.893	0.971	0.960	0.588	**0.944**		
Security	0.792	0.919	0.890	-0.038	-0.016	**0.899**	
UA	0.732	0.835	0.763	0.057	-0.010	0.020	**0.855**
Pakistani sample							
	AVE	**CR**	**Calpha**	**CTrust**	**Privacy**	**Security**	**UA**
CTrust	0.770	0.930	0.899	**0.877**			
Privacy	0.815	0.946	0.942	0.060	**0.902**		
Security	0.892	0.861	0.932	-0.045	0.023	**0.944**	
UA	0.881	0.957	0.935	-0.046	0.170	-0.027	**0.939**

Notes:
- AVE: Average variance extracted, CR: Composite reliability, Calpha: Cronbach's alpha
- CTrust: Cognitive-based trust, UA: Uncertainty avoidance
- Diagonal elements are the square root of AVE

Research question 1a asked if the individual culture value of uncertainty avoidance (UA) influences the relationship between cognitive factors (security and privacy) and cognitive-based trust towards purchasing intention in B2C e-commerce across cultures. The question was addressed in the following hypotheses.

Hypothesis 1 (H1) postulates that the relationship between privacy and cognitive-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan). The differences in coefficients of the corresponding structural

paths for the two models are compared and shown in Figures 5.8 and 5.9. In the Australian sample, the interaction effect of uncertainty avoidance (UA) * privacy is stronger on consumers' cognitive-based trust with path coefficients of 0.122, compared to -0.162 for the Pakistani sample. For the structural model results in Table 5.14, the t-test depicts that, consistent with hypothesis 1, the relationship is significant (t-test 2.966, $p < 0.05$). Thus, hypothesis H1 is supported.

Hypothesis 2 (H2) postulates that the relationship between security and cognitive-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia). Comparing differences in coefficients of the corresponding structural paths for the two models, as shown in Figures 5.8 and 5.9, the interaction effects of uncertainty avoidance (UA) * security on cognitive-based trust is stronger for Pakistan with path coefficients of 2.99 compared to Australia with 0.033. For the structural model results in Table 5.14, the t-test depicts that, consistent with H2, the relationship is significant (t-test 2.899, $p < 0.05$). Thus, hypothesis H2 is supported.

Table 5.14: Results for H1 and H2

		Australia		**Pakistan**				
	Path	**Mean**	**SD**	**Mean**	**SD**	**Mean difference**	**T statistics**	**P values**
H1	**UA * Privacy -> CTrust**	**0.128**	**0.064**	**-0.175**	**0.079**	**-0.162**	**2.966**	**0.003***
H2	**UA * Security -> CTrust**	**0.033**	**0.053**	**0.299**	**0.074**	**0.041**	**2.899**	**0.004***
	Privacy -> CTrust	0.526	0.077	0.020	0.072	0.454	4.814	0.000***
	Security -> CTrust	-0.045	0.056	-0.026	0.072	-0.071	0.207	0.836

Notes:
- SD: Standard deviation, CTrust: Cognitive-based trust, UA: Uncertainty avoidance;
- Significant at 0.05 level **, Significant at 0.01 level, *** Significant at 0.001 level;
- 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

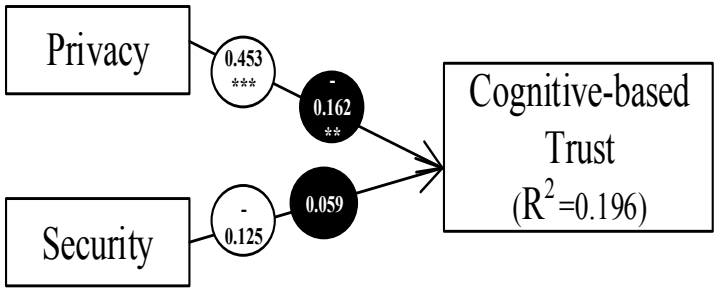


Figure 5.8: H1-H2 Structural Model Result (Australian Sample)

Notes: Direct Effect Moderating effect * Significant at 0.05 level, ** Significant at 0.01 level, *** Significant at 0.001 level

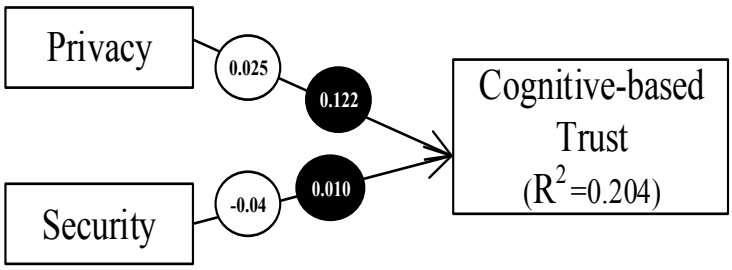


Figure 5.9: H1-H2 Structural Model Result (Pakistani sample)

5.3.3 Web Design

The item loadings, average variance extracted (AVE), composite reliability (CR), Cronbach's alpha and correlation among constructs are presented in Tables 5.15 and 5.16 for the Pakistani and Australian samples. The numbers of items of latent variables (colour = 3, image = 3, website accessibility = 6 and social networking services = 4) are assessed. The results show that all latent variable items are above the suggested threshold of 0.70 and significant at $p < 0.001$ for both samples. The social networking services latent variable is a formative construct, so reliability and validity in terms of items weight and variance inflation factor (VIF) are presented in Table 5.16. The VIF is less than the suggested threshold value of 5 for both the Pakistani and Australian sample.

Table 5.15: Item Loadings (WA, Colour, Image)

Item <- Factor	Pakistan		Australia	
	Loadings	**P values**	**Loadings**	**P values**
COL1 <- Colour	0.887	0.000***	0.732	0.000***
COL2 <- Colour	0.812	0.000***	0.559	0.020*
COL3 <- Colour	0.839	0.000***	0.959	0.000***
IMG1 <- Image	0.866	0.000***	0.873	0.000***
IMG2 <- Image	0.800	0.000***	0.739	0.000***
IMG3 <- Image	0.894	0.000***	0.878	0.000***
WA1 <- WebAccess	0.779	0.000***	0.907	0.000***
WA2 <- WebAccess	0.899	0.000***	0.950	0.000***
WA3 <- WebAccess	0.909	0.000***	0.976	0.000***
WA4 <- WebAccess	0.861	0.000***	0.975	0.000***
WA5 <- WebAccess	0.932	0.000***	0.974	0.000***
WA6 <- WebAccess	0.877	0.000***	0.910	0.000***

*Significant at 0.05 level, ** Significant at 0.01 level, *** Significant at 0.001 level

Table 5.16: Item Weights (SNS)

Item->Factor	Pakistan			Australia		
	Weights	**VIF**	**P values**	**Weights**	**VIF**	**P values**
SN1 -> SNS	0.745	1.474	0.000	0.585	1.390	0.004
SN2 -> SNS	0.170	1.494	0.005	0.127	1.485	0.005
SN3 -> SNS	0.524	1.487	0.000	0.484	1.436	0.005
SN4 -> SNS	0.621	1.502	0.000	0.407	1.537	0.002

Notes: SNS: Social networking services;
VIF: Variance inflation factor < 5.

Table 5.17. Reliability, Correlation, and Discriminant Validity of Constructs for H3-H10

Australian sample											
Factor	AVE	CR	Calpha	ATrust	CTrust	COL	IDV	IMG	SNS	UA	WA
ATrust	0.825	0.934	0.893	**0.908**							
CTrust	0.790	0.896	0.833	0.161	**0.889**						
COL	0.743	0.896	0.838	0.184	-0.076	**0.862**					
IDV	0.719	0.830	0.725	-0.100	-0.105	0.105	**0.848**				
IMG	0.776	0.862	0.769	0.176	-0.064	-0.10	0.023	**0.881**			
SNS	NA	NA	NA	0.141	0.047	0.078	-0.08	-0.11	1		
UA	0.732	0.835	0.763	0.151	0.057	0.130	-0.12	-0.02	0.022	**0.855**	
WA	0.921	0.986	0.983	0.707	0.017	0.109	0.007	0.075	0.209	0.061	**0.95**
Pakistani sample											
Factor	AVE	CR	Calpha	ATrust	CTrust	COL	IDV	IMG	SNS	UA	WA
ATrust	0.804	0.924	0.881	**0.897**							
CTrust	0.770	0.930	0.899	-0.008	**0.877**						
COL	0.705	0.877	0.792	-0.208	0.017	**0.839**					
IDV	0.731	0.889	0.814	-0.002	0.133	0.063	**0.855**				
IMG	0.804	0.925	0.879	0.011	-0.128	0.089	0.021	**0.897**			
SNS	NA	NA	NA	-0.138	0.199	0.273	-0.00	-0.05	1		
UA	0.881	0.957	0.935	-0.111	-0.046	-0.06	-0.04	0.380	-0.06	**0.939**	
WA	0.725	0.940	0.930	-0.079	0.116	0.208	-0.09	-0.05	0.177	-0.20	**0.85**

Notes:

- AVE: Average variance extracted, CR: Composite reliability, CAlpha: Cronbach's alpha
- ATrust: Affect-based trust, CTrust: Cognitive-based trust, COL: Colour, IMG: Image, IDV: Individualism, SNS: Social networking services, UA: Uncertainty avoidance, WA: Web accessibility
- Diagonal elements are the square root of AVE

Research question 1b asked if the individual cultural values of individualism (IDV) and uncertainty avoidance (UA) influence the relationship between B2C website design factors and cognitive and affect-based online interpersonal trust on purchasing intention in B2C e-commerce across cultures. The question was addressed in the following hypotheses.

Hypothesis 3 (H3) postulates that the relationship between website accessibility and cognitive-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia).

Comparing differences in the coefficients of the corresponding structural paths for the two models, as shown in Figures 5.10 and 5.11, in the Pakistani sample the interaction effects of uncertainty avoidance (UA) * website accessibility is significant on consumer's cognitive-based trust with path coefficients of 0.065 compared to the Australian sample's -0.229. For the structural model results shown in Table 5.18, the t-test depicts that consistent with H3, the relationship is significant (t-test 1.955, $p < 0.05$). Thus, hypothesis H3 is supported.

Hypothesis 4 (H4) postulates that the relationship between web accessibility and affect-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan). Although, t-tests depict the mean differences between the two cultural data sets (Table 5.18), the interaction effects of uncertainty avoidance (UA) * website accessibility on affect-based trust is insignificant for Australia with path coefficients of -0.085, compared to -0.021 for Pakistan. Thus, hypothesis H4 is not supported. However, the path coefficient and t-value without the moderating effect of UA showed that website accessibility has significant (t-test 4.897, $p < 0.000$) effect on affect-based trust in Australian sample.

Hypothesis 5 (H5) postulates that the relationship between colour and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia). As depicted in Figure 5.10 and Figure 5.11, the moderating effects of individualism (IDV) * colour is significant on cognitive-based trust, with path coefficients of 0.124 for the Pakistani sample compared to the Australian sample's -0.120.

As shown in the structural model results in Table 5.18, the t-test depicts that consistent with H5, the relationship is significant (t-test 3.292, $p < 0.001$). Thus, hypothesis H5 is supported.

Hypothesis 6 (H6) postulates that the relationship between colour and affect-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia). Comparing differences in coefficients of the corresponding structural paths for the two models, as shown in Figures 5.10 and 5.11, the effects of individualism (IDV) * colour is insignificant on affect-based trust with path coefficients of -0.165 for the Pakistani sample compared to the Australian sample's 0.061. As shown in the structural model results in Table 5.18, the t-test depicts the relationship is insignificant ($p > 0.05$). Thus, hypothesis H6 is not supported.

Hypothesis 7 (H7) postulates that the relationship between image and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia). In the Pakistani sample (Figure 5.10) the interaction effects of individualism (IDV) * image has significant impact on consumer's cognitive-based trust with path coefficients of 0.143, compared to the Australian sample's -0.222. As shown in the structural model results in Table 5.18, the t-test depicts the relationship is insignificant (t-test 3.292, $p < 0.001$). Thus, hypothesis H7 is supported.

Hypothesis 8 (H8) postulates that relationship between images and affect-based trust is moderated by the individual-level cultural value of IDV such that the relationship

is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia). Comparing differences in coefficients of the corresponding structural paths for the two models, as shown in Figures 5.10 and 5.11, in the Pakistani sample the interaction effects of individualism (IDV) * image has significant impact on affect-based trust with path coefficients of 0.176, compared to -0.190 for the Australian sample. As shown in the structural model results in Table 5.18, the t-test depicts the relationship is significant (t-test 3.186, $p < 0.05$). Thus, hypothesis H8 is supported.

Hypothesis 9 (H9) postulates that the relationship between social networking services and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia). As depicted in Figures 5.10 and 5.11, the interaction effects of individualism (IDV) * social networking services also has significant impact on consumers' cognitive-based trust for the Pakistani sample, with path coefficients of 0.065 compared to the Australian sample's -0.249. For the structural model results in Table 5.18, the t-test depicts that consistent with H9, the relationship is significant (t-test 3.723, $p < 0.001$). Thus, hypothesis H9 is supported.

Hypothesis 10 (H10) postulates that the relationship between social networking services and affect-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).

Comparing differences in coefficients of the corresponding structural paths for the two models, as shown in Figures 5.10 and 5.11, the interaction effects of

individualism (IDV) * social networking services has a significant impact on consumer's affect-based trust for the Pakistani sample, with path coefficients of 0.154 compared to the Australian sample's -0.019. For the structural model results in Table 5.18, the t-test depicts that consistent with H10, the relationship is significant (t-test 4.189, $p < 0.001$). Thus, hypothesis H10 is supported.

Table 5.18: Hypotheses H3-H10 Testing Results

	Path	**Australia**		**Pakistan**				
		Mean	**SD**	**Mean**	**SD**	**Mean difference**	**t-statistics**	**p-value**
	WA -> Trust	-0.021	0.079	0.069	0.098	-0.100	0.729	0.467
H3	**WA * UA -> CTrust**	**-0.198**	**0.097**	**0.068**	**0.090**	**-0.266**	**1.955**	**0.045***
	WA -> ATrust	0.201	0.070	-0.054	0.092	0.667	4.897	0.000
H4	**WA * UA -> ATrust**	**-0.149**	**0.101**	**-0.124**	**0.118**	**-0.025**	**0.160**	**0.873**
	COL -> CTrust	-0.035	0.081	-0.052	0.077	0.017	0.153	0.879
H5	**COL * IDV -> CTrust**	**-0.132**	**0.050**	**0.127**	**0.062**	**-0.259**	**3.292**	**0.001****
	COL -> ATrust	-0.132	0.092	0.065	0.157	-0.196	1.115	0.266
H6	**COL * IDV -> ATrust**	**0.028**	**0.074**	**-0.132**	**0.094**	**0.160**	**1.355**	**0.177**
	IMG -> CTrust	-0.036	0.078	-0.096	0.071	0.060	0.561	0.575
H7	**IMG * IDV -> CTrust**	**-0.022**	**0.224**	**0.151**	**0.050**	**-0.173**	**3.238**	**0.001****
	IMG -> ATrust	0.155	0.049	0.050	0.096	0.105	1.000	0.315
H8	**IMG * IDV -> ATrust**	**-0.178**	**0.048**	**0.163**	**0.101**	**-0.341**	**3.186**	**0.002***
	SNS -> CTrust	0.111	0.103	0.168	0.085	-0.057	0.424	0.672
H9	**SNS * IDV -> CTrust**	**0.006**	**0.014**	**0.083**	**0.016**	**-0.077**	**3.723**	**0.000*****
	SNS -> ATrust	-0.015	0.092	0.042	0.179	-0.164	1.456	0.087
H10	**SNS * IDV -> ATrust**	**-0.131**	**0.051**	**0.722**	**0.058**	**-0.853**	**4.189**	**0.000*****

Notes:

- SD: Standard deviation, ATrust: Affect-based trust, CTrust: Cognitive-based trust, COL: Colour, IMG: Image, IDV: Individualism, SNS: Social networking services, UA: Uncertainty avoidance, WA: Web accessibility;
- Significant at 0.05 level, ** Significant at 0.01 level, *** Significant at 0.001 level;
- 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.

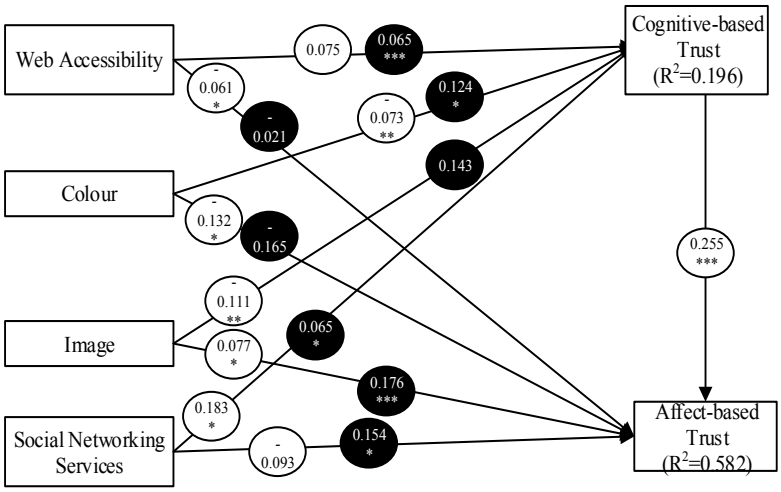


Figure 5.10: H13-H10 Structural Model Result (Pakistani Sample)

Note: Direct Effect, Moderating effect * Significant at 0.05 level, ** Significant at 0.01 level, *** Significant at 0.001 level

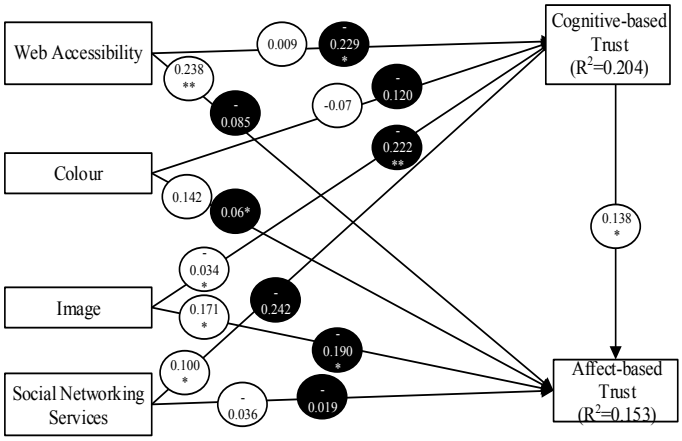


Figure 5.11: H13-H10 Structural Model Results (Australian Sample)

5.3.4 Religiosity

Religiosity is modeled as formative construct and the reliability and validity, including the items' weight and variance inflation factor (VIF) of the construct are presented in Table 5.19 for both the Pakistani and Australian samples. The numbers of items of latent variable (religiosity = 6) are assessed. The results show VIF is less than the suggested threshold value of 5 for both samples.

Table 5.19: Factor Weights (Religiosity)

	Pakistan			Australia		
Item -> Factor	**Weights**	**VIF**	**P values**	**Weights**	**VIF**	**P values**
RE1 -> Religiosity	0.064	2.661	0.817	-0.449	3.045	0.408
RE2 -> Religiosity	-0.275	3.092	0.396	0.632	3.307	0.099
RE3 -> Religiosity	0.507	2.696	0.026	-0.116	2.766	0.721
RE4 -> Religiosity	0.901	1.013	0.000	0.502	1.735	0.149
RE5 -> Religiosity	-0.043	1.010	0.795	0.430	1.032	0.024
RE6 -> Religiosity	-0.164	1.016	0.293	0.096	1.008	0.562
VIF: Variance inflation factor < 5						

Research question 1c asked if the individual cultural value of individualism (IDV) influences the relationship between consumer behaviour (religiosity) and cognitive and affect-based online interpersonal trust on purchasing intention in B2C e-commerce across cultures. This is address in the following hypotheses.

Hypothesis 11 (H11) postulates that the relationship between religiosity and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia). As depicted in Figures 5.12 and 5.13, the moderating effects of individualism (IDV) * religiosity has significant impact on consumers'consumers' cognitive and affect-based trust for the Pakistani sample with path coefficients of 0.284 compared to the Australian sample's -0.162. For the structural model results in Table 5.20, the t-test depicts that consistent with H11, the relationship is significant (t-test 2.899, $p < 0.005$). Thus, hypothesis H11 is supported.

Hypothesis 12 (H12) suggests that the relationship between religiosity and affect-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).

Comparing the differences in Figures 5.12 and Figure 5.13, the moderating effects of individualism (IDV) * religiosity has significant impact on consumers' affect-based trust for the Pakistani sample with path coefficients of 0.136 compared to the Australian sample's -0.033. For the structural model results shown in Table 5.20, the t-test depicts that consistent with H12, the relationship is significant (t-test 2.115, $p < 0.05$). Thus, hypothesis H12 is supported.

Table 5.20: Hypotheses H11-H12 Testing Results

Path	**Pakistan**		**Australia**		**T statistics**	**P values**
	Sample mean (M)	**SD**	**Sample mean (M)**	**SD**		
IDV * Religiosity -> CTrust	0.278	0.134	-0.161	0.066	2.899	0.004*
IDV* Religiosity -> ATrust	0.261	0.111	-0.036	0.082	2.115	0.035*
Religiosity -> ATrust	0.240	0.088	0.130	0.112	2.000	0.046*
Religiosity -> CTrust	0.292	0.068	-0.213	0.146	3.534	0.000***

Notes:
- SD: Standard Deviation, ATrust: Affect-based trust, CTrust: Cognitive-based trust, IDV: Individualism
- Significant at 0.05 level ** Significant at 0.01 level *** Significant at 0.001 level
- 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

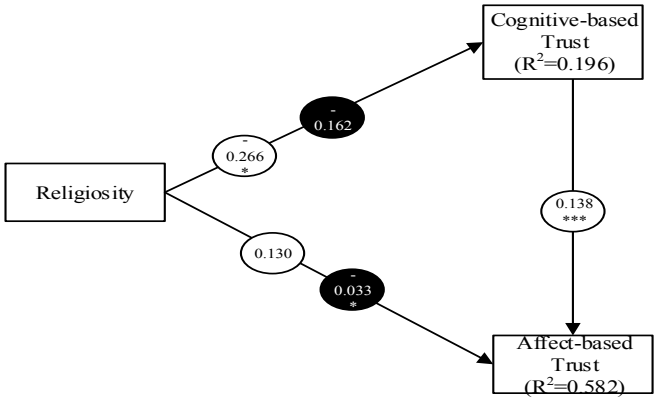


Figure 5.12: Religiosity Structural Model Result (Australian Sample)

Note: Direct Effect Moderating effect * Significant at 0.05 level ** Significant at 0.01 level *** Significant at 0.001 level

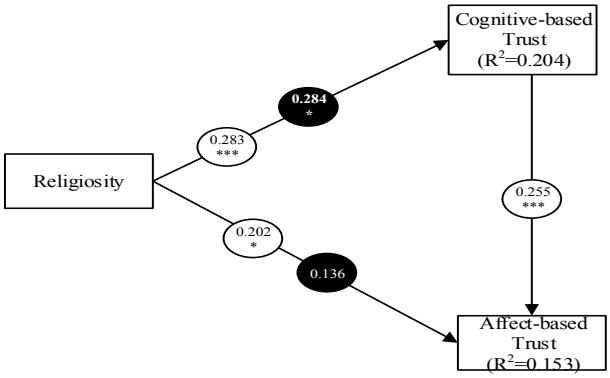


Figure 5.13: Religiosity Structural Model Result (Pakistani Sample)

5.3.5 Emotions

Items loadings, average variance extracted (AVE), composite reliability (CR), Cronbach's alpha and correlation among constructs are presented in Tables 5.21 and 5.22 for the Pakistani and Australian samples. The numbers of items of latent variables (joy = 3, fear = 3) are assessed. The results show that all latent variable items are above the suggested threshold of 0.70 and significant at $p < 0.001$ for the both samples.

Table 5.21: Item Loading (Fear and Joy)

Item <-Factor	**Pakistan**		**Australia**	
	Loading	**P values**	**Loading**	**P values**
FEAR1 <- FEAR	0.938	0.002*	0.978	0.000***
FEAR2 <- FEAR	0.908	0.003*	0.963	0.000***
FEAR3 <- FEAR	0.922	0.002*	0.920	0.000***
JOY1 <- JOY	0.782	0.029*	0.742	0.012**
JOY2 <- JOY	0.797	0.045*	0.827	0.002**
JOY3 <- JOY	0.708	0.050*	0.922	0.005**
* Significant at 0.05 level, ** Significant at 0.01 level, *** Significant at 0.001 level				

Table 5.22: Reliability, Correlation, and Discriminant Validity of Constructs for H13-H14

Pakistani Sample							
Factors	**AVE**	**CR**	**CAlpha**	**ATrust**	**FEAR**	**JOY**	**UA**
ATrust	0.804	0.924	0.881	**0.897**			
FEAR	0.897	0.963	0.944	-0.043	**0.947**		
JOY	0.749	0.899	0.839	0.203	-0.167	**0.865**	
UA	0.881	0.957	0.935	-0.111	-0.058	0.147	**0.939**
Australian Sample							
Factors	**AVE**	**CR**	**CAlpha**	**ATrust**	**FEAR**	**JOY**	**UA**
ATrust	0.825	0.934	0.893	**0.908**			
FEAR	0.727	0.867	0.786	0.206	**0.852**		
JOY	0.711	0.880	0.797	-0.229	0.129	**0.843**	
UA	0.732	0.835	0.763	0.151	0.339	-0.04	**0.855**

Research question 1d asked if the individual cultural value of uncertainty avoidance (UA) influences the relationship between emotions (joy and fear) and affect-based trust on purchasing intention in B2C e-commerce across cultures. This is addressed in the following hypotheses.

Hypothesis 13 (H13) postulated that the relationship between initial joy and affect-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia). Comparing the differences shown in Figures 5.14 and 5.15, the moderating effects of uncertainty avoidance (UA) * joy has significant impact on consumers' affect-based trust for the Pakistani sample with path coefficients of 0.300 compared to the Australian sample's 0.096. For the structural model results shown in Table 5.23, the t-test depicts that consistent with H13, the relationship is significant (t-test 2.07, $p < 0.05$). Thus, hypothesis H13 is supported.

Hypothesis 14 (H14) postulated that the relationship between initial fear and affect-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia).

Comparing the differences in Figures 5.14 and 5.15, the moderating effects of uncertainty avoidance (UA) * fear has significant impact on consumers' affect-based trust for the Pakistani sample with path coefficients of 0.150 compared to the Australian sample's -0.03. However, as shown in the structural model results in Table 5.23, the t-test depicts that the relationship is insignificant (t-test 0.723, $p > 0.005$). Thus, hypothesis H14 is not supported, although comparing the difference the direct effect of fear on affect-based trust is significant ($p < 0.05$).

Table 5.23: Hypotheses H13-H14 Testing Results

		Pakistan		**Australia**				
	Path	**Mean**	**SD**	**Mean**	**SD**	**Mean difference**	**T statistics**	**p-value**
	JOY -> ATrust	0.250	0.088	-0.212	0.063	0.462	4.328	0.000***
H13	**JOY * UA -> ATrust**	**0.298**	**0.070**	**-0.206**	**0.131**	**0.504**	**2.07**	**0.039****
	FEAR -> ATrust	0.298	0.068	-0.007	0.077	0.305	2.955	0.003**
H14	**FEAR * UA -> ATrust**	**-0.053**	**0.091**	**-0.169**	**0.130**	**0.116**	**0.723**	**0.47**

Notes:
- SD: Standard deviation, ATrust: Affect-based trust, UA: Uncertainty avoidance;
- Significant at 0.05 level, ** Significant at 0.01 level, *** Significant at 0.001 level;
- $T > 1.96$ at $p < 0.05$, $T > 2.576$ at $p < 0.01$, $T > 3.29$ at $p < 0.001$ for two-tailed tests

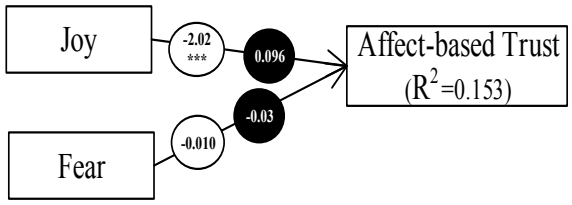


Figure 5.14: Structural Model Result (Pakistani Sample)

Notes: Direct Effect Moderating effect * Significant at 0.05 level ** Significant at 0.01 level *** Significant at 0.001 level

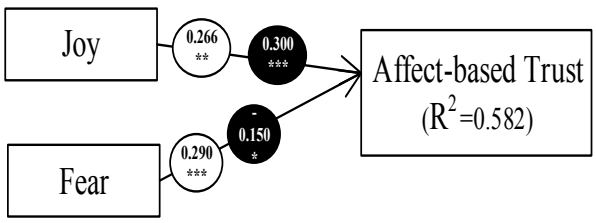


Figure 5.15: Structural Model Result (Australian Sample)

5.3.6 iTrust (Cognitive, Affect-based) and Purchase Intention

Items loadings, average variance extracted (AVE), composite reliability (CR), Cronbach's alpha and correlation among constructs are presented in Tables 5.24 and 5.25 for the Pakistani and Australian samples. The numbers of items of latent variables (cognitive-based trust = 3, affect-based trust = 3 and purchase intention = 3) are assessed. The results show that all latent variable items are above the suggested threshold of 0.70 and significant at $p < 0.001$ for both samples.

Table 5.24: Item Loading (Cognitive and Affect-based Trust, Purchase Intention)

Item <- Factor	**Pakistan**		**Australia**	
	Loadings	**P values**	**Loadings**	**P values**
ATR1 <- ATrust	0.934	0.000***	0.919	0.000***
ATR2 <- ATrust	0.935	0.000***	0.940	0.000***
ATR3 <- ATrust	0.850	0.000***	0.873	0.000***
CTR1 <- CTrust	0.923	0.000***	0.845	0.000***
CTR2 <- CTrust	0.942	0.000***	0.880	0.000***
CTR3 <- CTrust	0.948	0.000***	0.873	0.000***
PINT1 <- PINT	0.899	0.000***	0.950	0.000***
PINT2 <- PINT	0.909	0.000***	0.976	0.000***
PINT3 <- PINT	0.861	0.000***	0.975	0.000***

Notes: ATrust: Affect-based trust, CTrust: Cognitive-based trust, PINT: Purchase intention,
- Significant at 0.05 level, ** Significant at 0.01 level, *** Significant at 0.001 level

Table 5.25: Reliability, Correlation, and Discriminant Validity of Constructs for H15-H17

Australia							
	AVE	**CR**	**C-Alpha**	**ATrust**	**CTrust**	**PINT**	**UA**
ATrust	0.825	0.934	0.893	**0.908**			
CTrust	0.790	0.896	0.833	0.161	**0.889**		
PINT	0.877	0.955	0.930	0.684	0.070	**0.936**	
UA	0.732	0.835	0.763	0.151	0.057	0.140	**0.855**
Pakistan							
	AVE	**CR**	**C Alpha**	**ATrust**	**CTrust**	**PINT**	**UA**
ATrust	0.804	0.924	0.881	**0.897**			
CTrust	0.770	0.930	0.899	-0.008	**0.877**		
PINT	0.768	0.908	0.847	-0.153	0.147	**0.876**	
UA	0.881	0.957	0.935	-0.111	-0.046	0.181	**0.939**

Notes:
- AVE: Average variance extracted, CR: Composite reliability, C Alpha: Cronbach's alpha
- ATrust: Affect-based trust, CTrust: Cognitive-based trust, PINT: Purchase intention, UA: Uncertainty avoidance
- Diagonal elements are the square root of AVE

Research question 1e asked if the individual cultural value of uncertainty avoidance (UA) influences the relationship between cognitive and affect-based iTrust and purchasing intention in B2C e-commerce across cultures. This is addressed in the following hypotheses.

Hypothesis 15 (H15) postulated that cognitive-based trust has a stronger influence than affect-based trust in a B2C e-commerce context in Pakistan than it does in Australia. Looking at the differences in Figures 5.16 and 5.17, the effect of cognitive-based trust on consumer affect-based trust for the Pakistani sample is significant with path coefficients of 0.255 compared to 0.138 for the Australian sample. For the structural model results in Table 5.26, the t-test results are consistent with 15 and the relationship is significant (t-test 1.977, $p < 0.05$). Thus, H15 is supported.

Hypothesis 16 (H16) postulated that the relationship between cognitive-based trust and purchase intention is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan). Comparing the differences in Figures 5.16 and 5.17, the moderating effects of uncertainty avoidance (UA) * cognitive-based trust has a significant impact on purchase intention for the Australian sample with path coefficients of 0.136 compared to the Pakistani sample's 0.106. For the structural model results in Table 5.26, the t-test depicts that the relationship is significant (t-test 2.434, $p < 0.05$). Thus, hypothesis H16 is supported.

Hypothesis 17 (H17) postulated that the relationship between affect-based trust and purchase intention is moderated by individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a

high UA society (Pakistan). Comparing the differences in Figures 5.16 and 5.17, the moderating effects of uncertainty avoidance (UA) * affect-based trust has significant impact on purchase intention for the Australian sample with path coefficients of 0.060 compared to the Pakistani sample's -0.173. As shown in the structural model results in Table 5.26, the t-test depicts that the relationship is significant (t-test 2.310, $p < 0.05$). Thus, hypothesis H17 is supported.

Table 5.26: Hypothesis H15- H17 Testing Results

	Path	**Australia**		**Pakistan**				
		Mean	**SD**	**Mean**	**SD**	**Mean difference**	**T statistics**	**p-value**
H15	**CTrust -> ATrust**	**-0.075**	**0.078**	**0.122**	**0.072**	**-0.197**	**1.977**	**0.049*** **
	CTrust -> PINT	0.134	0.079	0.026	0.056	0.108	1.091	0.276
H16	**CTrust * UA -> PINT**	**-0.169**	**0.086**	**0.160**	**0.107**	**-0.329**	**2.434**	**0.016** **
	ATrust -> PINT	0.005	0.060	0.042	0.179	-0.036	0.202	0.840
H17	**ATrust * UA -> PINT**	**0.096**	**0.059**	**-0.14**	**0.088**	**0.239**	**2.310**	**0.022*** **

Notes:
- SD: Standard deviation, ATrust: Affect-based trust, CTrust: Cognitive-based trust, PINT: Purchase intention, UA: Uncertainty avoidance,
- *Significant at the 0.001 level, **significant at the 0.01 level, ***significant at the 0.05 level
- 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

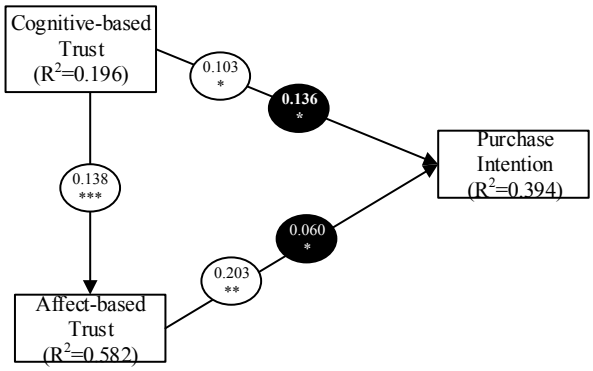


Figure 5.16: Trust and Purchase Intention Structural Model Result (Australia Sample)

Notes: Direct Effect Moderating effect * Significant at 0.05 level ** Significant at 0.01 level *** Significant at 0.001 level

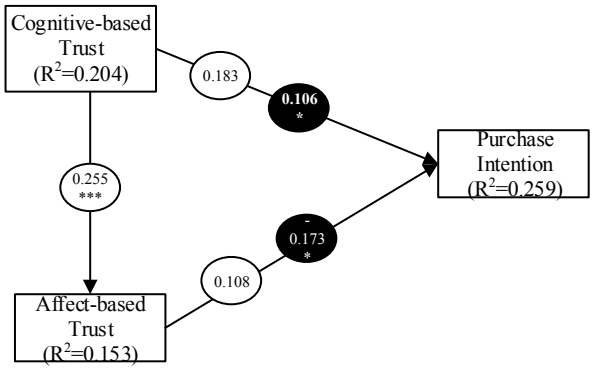


Figure 5.17: Trust and Purchase Intention Structural Model Result (Pakistan Sample)

Variance in consumers' cognitive-based trust for the Pakistani sample (R^2=0.204) is higher than Australian sample (R^2=0.196) while affect-based trust (R^2=0.582) for the Australian sample is higher than the Pakistani sample (R^2=0.153). However, the Australian sample indicates (R^2=0.394) variance in consumers' purchase intention and the Pakistani sample shows (R^2=0.259) variance in consumers' purchase intention.

Table 5.27: R^2 Trust and Purchase Intention

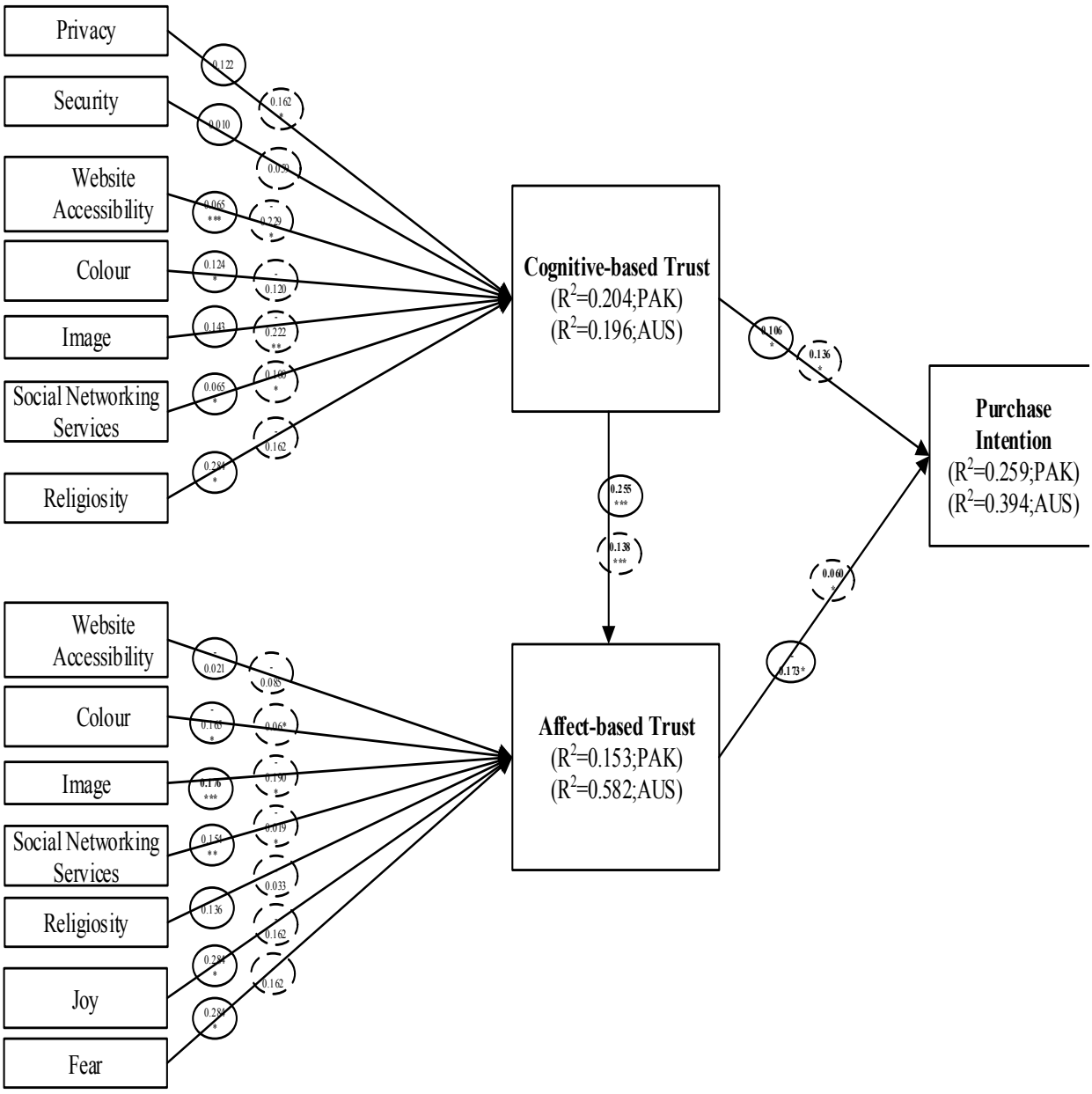
	Pakistan	**Australia**
	R^2	**R^2**
CTrust	0.204	0.196
ATrust	0.153	0.582
PINT	0.259	0.394

5.4 Multi-Perspective iTrust Model

The moderating effects in the whole proposed model are shown in Figure 5.18 and Table 5.28. As discussed above, comparing differences in coefficients of the corresponding structural path across the two groups (Australia and Pakistan), the moderating effect of UA * privacy ($t = 2.96$, $p < 0.01$), UA * security ($t = 2.89$, $p < 0.01$), UA * website accessibility ($t = 1.95$, $p < 0.05$), IDV * colour ($t = 3.29$, $p < 0.01$), IDV * image ($t = 3.23$, $p < 0.01$), IDV * social networking services

($t = 3.72$, $p < 0.001$) and IDV * religiosity ($t = 2.89$, $p < 0.05$) are found to have a significant impact on cognitive-based trust. Furthermore, the moderating effect of IDV * image ($t = 3.18$, $p < 0.01$), IDV * social networking services ($t = 4.18$, $p < 0.001$), IDV * religiosity ($t = 2.11$, $p < 0.01$) and UA * joy ($t = 2.07$, $p < 0.05$) has a significant impact on affect-based trust. However, the impact is not significant on the relationship between UA * website accessibility ($t = 0.16$, $p > 0.05$), IDV * colour ($t = 1.355$, $p > 0.05$) and UA * fear ($t = 0.723$, $p > 0.05$) and affect-based trust.

In addition, cognitive-based trust has a stronger influence on affect-based trust in the Pakistani sample than in the Australian sample ($t = 1.97$, $p < 0.05$), while the relationship between UA * cognitive-based trust and purchase intention ($t = 0.723$, $p > 0.05$) and the relationship between UA * affect-based trust and purchase intention ($t = 0.723$, $p > 0.05$) is significant. However, variance in consumers' cognitive-based trust is 20% and affect-based trust is 15% in the Pakistani sample compare to the Australian sample's 19% and 58% respectively. The whole empirical model predicted 39% of the variance in intention to use an e-commerce website in Australia and 25.9% in Pakistan.



Notes: PAK: Pakist+an, AUS: Australia, PAK AUS moderating effects, * Significant at 0.05 level, ** Significant at 0.01 level, *** Significant at 0.001 level

Figure 5.18: Multi-Perspective iTrust Model

Table 5.28 summarises the results of the moderating effects in the whole structural model.

Table 5.28: Hypothesis (H1-H17) Testing Results

	Path	Pakistan	Australia				
		Path coefficient (Mean)	**Path coefficient (Mean)**	**Mean difference**	**T value**	**p-value**	**Supported ?**
H1	PRV * UA -> CTrust	-0.175	0.128	-0.162	2.966	0.003*	Yes
H2	SEC * UA -> CTrust	0.299	0.033	0.041	2.899	0.004*	Yes
H3	WA * UA -> CTrust	-0.198	0.068	-0.266	1.955	0.045*	Yes
H4	WA * UA -> ATrust	-0.149	-0.124	-0.025	0.160	0.873	No
H5	COL * IDV -> CTrust	-0.132	0.127	-0.259	3.292	0.001**	Yes
H6	COL * IDV -> ATrust	0.028	-0.132	0.160	1.355	0.177	No
H7	IMG * IDV -> CTrust	-0.022	0.151	-0.173	3.238	0.001**	Yes
H8	IMG * IDV -> ATrust	-0.178	0.163	-0.341	3.186	0.002*	Yes
H9	SNS * IDV -> CTrust	0.006	0.083	-0.077	3.723	0.000***	Yes
H10	SNS * IDV -> ATrust	-0.131	0.722	-0.853	4.189	0.000***	Yes
H11	REL * IDV -> CTrust	0.278	-0.161	-0.117	2.899	0.004*	Yes
H12	REL * IDV -> ATrust	0.261	-0.036	0.225	2.115	0.035*	Yes
H13	JOY * UA -> ATrust	0.298	-0.206	0.504	2.07	0.039*	Yes
H14	FEAR * UA -> ATrust	-0.053	-0.169	0.116	0.723	0.47	No
H15	CTrust -> ATrust	0.122	-0.075	-0.197	1.977	0.049***	Yes
H16	CTrust * UA -> PINT	0.160	0.160	-0.329	2.434	0.016**	Yes
H17	ATrust * UA -> PINT	-0.14	0.096	0.239	2.310	0.022***	Yes

Notes:

- ATrust: Affect-based trust, CTrust: Cognitive-based trust, COL: Colour, IMG: Image, IDV: Individualism, PINT: Purchase intention, PRV: Privacy, REL: Religiosity, SNS: Social networking services, SEC: Security, UA: Uncertainty avoidance, WA: Web accessibility;
- Significant at 0.05 level, ** Significant at 0.01 level, *** Significant at 0.001 level;
- 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.

5.5 Summary

The results of this study were presented in this chapter. Descriptive analyses were conducted using SPSS, then the PLS-SEM was conducted using SmartPLS 3.0 and all of the assumptions for SEM were met. The data analysis generated mixed results for the hypotheses. In particular, H4, H6 and H14 were not supported, while the all other hypotheses were supported.

CHAPTER 6 : DISCUSSION, IMPLICATIONS AND CONCLUSION

This chapter presents the discussion and recommendations of the study. The research aim and objectives, research questions and hypotheses of the study are revisited then an analysis of study's findings is discussed. This is followed by a presentation of the theoretical and practical implications of the study. Finally, this chapter concludes by identifying the limitation of the study and providing recommendations for future research.

6.1 Revisiting the Research's Aim and Objectives, Research Questions and Hypotheses

Prior to concluding the major findings of the study, revisiting the links between the research aim, objectives, research questions and hypotheses is important. Chapter 3 Figure 3.1 shows the research model developed in this research and Table 6.1 presents a review of the problem statement, research aim and objectives, research questions and hypotheses addressed in this thesis.

Table 6.1: Revisiting Research Aim, Objective, Questions and Hypotheses

<table>
<tr><td colspan="3">Research Problem
As e-commerce continues to grow, it requires a reinvestigation of the relationship between consumers and online vendors as well as a means to achieve better understanding of aspects that are influential to a consumer's interpersonal trust towards online purchasing. Therefore, there is a need to address the effect of individual consumer culture on key determinants that play a significant role in forming cognitive and affect-based trust in B2C e-commerce across cultures.</td></tr>
<tr><td colspan="3">Research Aim and Objectives
The main aim of this study is to investigate the individual cultural effects(individualism and uncertainty avoidance) on key determinants of online interpersonal trust and subsequently on purchasing intention in business to-consumer (B2C) e-commerce and examine these differences between two different cultures (Australia and Pakistan). Following on from this aim, the research objectives are
• To propose a multi-perspective trust model for B2C e-commerce adoption by including web design (website accessibility, visual appearance, and social networking services), consumer behaviour (religiosity), privacy, security and emotions (fear and joy).
• To investigate individual consumer cultural values (individualism and uncertainty avoidance) as moderators to a proposed multi-perspective trust model to uncover innovative approaches for fostering consumer trust in the online business-to-consumer context.
• To empirically validate the multi-perspective trust model in two different societies (Australia and Pakistan).
• To provide empirical evidence for B2C e-commerce academics, e-commerce practitioners and business firms to increase the awareness of cultural differences on online interpersonal trust concerning purchasing intentions at the individual level.</td></tr>
<tr><td>Factors</td><td>Research questions</td><td>Hypotheses</td></tr>
<tr><td>Privacy and Security</td><td>1.a: What is the relationship between security, privacy and cognitive-based trust in relation to purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of uncertainty avoidance (UA) influence this relationship?</td><td>H1: The relationship between privacy and cognitive-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan).

H2: The relationship between security and cognitive-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia).</td></tr>
<tr><td>Website accessibility

Colour and Images

Social networking services</td><td>1.b: What is the relationship between web design factors and cognitive and affect-based iTrust in relation to purchasing intention in B2C e-commerce across cultures and how do the individual-level cultural values of individualism (IDV) and uncertainty avoidance (UA) influence this relationship?</td><td>H5: The relationship between colour and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).

H6: The relationship between colour and affect-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).

H7: The relationship between images and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).</td></tr>
</table>

		H8: The relationship between images and affect-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia). H9: The relationship between social networking services and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia). H10: The relationship between social networking services and affect-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).
Religiosity	1.c: What is the relationship between consumer behaviour (religiosity) and online cognitive and affect-based iTrust in relation to purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of individualism (IDV) influence this relationship?	H11: The relationship between religiosity and cognitive-based trust is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than an individualistic society (Australia). H12: The relationship between religiosity and affect-based is moderated by the individual-level cultural value of IDV such that the relationship is stronger for individuals in a collectivistic society (Pakistan) than in an individualistic society (Australia).
Emotions (joy and fear)	1.d: What is the relationship between consumer emotions (joy and fear) and affect-based trust in relation to purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of uncertainty avoidance (UA) influence this relationship?	H13: The relationship between initial joy and affect-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia). H14: The relationship between initial fear and affect-based trust is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a high UA society (Pakistan) than in a low UA society (Australia).
iTrust (cognitive and affect-based trust)	1.e: What is the relationship between cognitive and affect-based iTrust and purchasing intention in B2C e-commerce across cultures and how does the individual cultural value of uncertainty avoidance (UA) influence this relationship?	H15: Cognitive-based trust has a stronger influence than affect-based trust in a B2C e-commerce context in Pakistan than it does in Australia. H16: The relationship between cognitive-based trust and purchase intention is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan). H17: The relationship between affect-based trust and purchase intention is moderated by the individual-level cultural value of UA such that the relationship is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan).

6.2 Discussion of Research Findings

The results of the data analysis generated mixed findings for the stated hypotheses. In some respects, the results are consistent with previous research; however, some results contradict previous findings. The findings of this study are discussed below.

6.2.1 Findings on Privacy and Security

Privacy and security concerns in B2C e-commerce differ both in low and uncertainty avoidance (UA) cultures. The findings from the Australian and Pakistani samples showed a strong statistical support for the direct and moderating effect of uncertainty avoidance on the relationship between privacy and cognitive-based trust in B2C e-commerce websites. Hypothesis 1 argued that the uncertainty avoidance (UA) individual consumer cultural effects on privacy are stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan). This means that individuals from Australia are more anxious about the privacy of their personal information than individuals from Pakistan.

However, concerning security, hypothesis 2 posited that the uncertainty avoidance (UA) individual cultural effects on security are stronger for individuals in a high UA country (Pakistan) than in a low UA country (Australia). Statistically significant support was also found for hypothesis 2, which means that security concerns about online transactions seems to be greater in Pakistan than in Australia. This shows that offering a secure online transactions system within the B2C website would be a vital step to build a consumer trust in the website.

The findings related to privacy and security concerns in a B2C website are consistent with (Kim and Kim, 2004, Kim, 2005, Gupta et al., 2010). Chen and Dibb (2010) believe that security and privacy can be guaranteed by displaying the logos of trusted third-party seals which can assure consumers of a certain level of security protection. For instance, security assurance seals such as VeriSign, CyberTrust, GeoTrust and Entrust guarantee consumers online transactions will be secure and have been shown to considerably affect consumers' trust in an e-commerce website (Karimov and Brengman, 2014). Interpersonal trust between consumers and online vendors could also be significantly improved if the privacy statement and security policy were displayed on every page of the website, so that online consumers are informed how they can be compensated if their financial and personal information is released to a third party.

6.2.2 Findings on Website Accessibility, Visual Appearance (Colour and Images) and Social Networking Services

The findings showed that web design factors, such as website accessibility, visual appearance (for example colour and image) and social networking services affect cognitive and affect-based trust towards purchasing intention at the individual level both in Australia and Pakistan. Statistically significant support was found for hypothesis 3, which argued the uncertainty avoidance (UA) individual effects on the relationship between website accessibility and cognitive-based trust is stronger in a high UA country (Pakistan) than in a low UA country (Australia). This means that individuals from Pakistan believe that the structural design of a B2C website, including technical aspects such as navigation design, web content information, website availability and accessibility is most important.

Contrary to expectation, statistically significant support was not found for hypothesis 4, which argued that the uncertainty avoidance (UA) individual effects on the relationship between website accessibility and affect-based trust is stronger in a low UA society (Australia) than in a high UA society (Pakistan). This means individuals both from Australia and Pakistan showed affective reactions related to website accessibility, such as experiencing an emotional reaction to the entire website's accessibility. In addition, this shows that both high and low uncertainty avoidance consumers require B2C websites more accessible and usable.

Concerning the visual appearance of e-commerce websites, such as colours and product images, hypotheses 5 to 8 posited that the individualism-collectivism (IDV) individual effects on the relationship between colour, images and cognitive and affect-based iTrust are stronger in a collectivistic society (Pakistan) than in an individualistic society (Australia). The findings showed that when consumers from Pakistan visited a website, their cognitive-based trust was mainly based on quick cognitive cues or first impressions of the B2C website. In addition, the findings from the Pakistani sample also showed that colour and product images features have also the ability to evoke a consumer's affective reactions. In other words, when considering the visual appearance of a B2C website, consumers from Pakistan are more expressive in forming affect-based trust.

The results related to cultural effects on website accessibility and visual appearance are consistent with (Cyr, 2013, Ganguly et al., 2010). (Cyr, 2013) highlights that visual design preferences vary across countries; therefore, in higher uncertainty avoidance societies website designers should pay particular attention to colours and images. For-example, image interactivity features, such as 360 degree views and 3D

virtual models impact affective aspects of consumer online shopping experience, this is consistent with (Hyun-Hwa et al., 2010, Kim and Forsythe, 2009).

Statistically significant support was also found for hypotheses 9 and 10, which argued that the individualism-collectivism (IDV) individual effects on the relationship between social networking services and cognitive and affect-based iTrust is stronger in a collectivistic society (Pakistan) than in an individualistic society (Australia). This shows that consumers from Pakistan will consider the opinions of their peers when making their online purchase decisions more than consumers from Australia will. In other words, the use intensity of social networking services, such as opinions from family/friends, online consumer groups or social media cues (such as social network site, chat rooms, discussions and blogs.) is higher in building the cognitive and affect-based trust towards B2C e-commerce websites in a collectivistic society (Pakistan) than in an individualistic society (Australia). This is consistent with (Pavlou and Chai, 2002). The results from both Pakistan and Australia provided evidence that social presence in e-commerce website increases consumer trust in purchasing online. This is in line with (Gefen and Straub, 2004, Brengman and Karimov, 2012, Hwang and Lee, 2012a).

6.2.3 Findings on Religiosity

This research finds that the individualism-collectivism (IDV) individual consumer effects on the relationship between religiosity and cognitive and affect-based interpersonal trust (iTrust) in B2C website is stronger in a collectivistic society (Pakistan) than in an individualistic society (Australia). These results confirm the statistically significant support for hypotheses H11 and H12.

This means that in Pakistan the individualism-collectivism cultural dimension has an impact on religiosity that influences the enhancement of trust towards online purchasing, but in Australia it does not.

A recent study discussed the effects of religiosity on cognitive and affect-based interpersonal trust on Muslims in a collectivist society (Pakistan) and Christians in an individualist society (Australia) (Sohaib and Kang, 2014b). The results show that the relationship between religiosity and interpersonal trust is more significant for Muslims in a collectivist society (Pakistan) than Christians in an individualist society (Australia). Consistent with previous research (Isa et al., 2009, Siala et al., 2004), this research showed that religiosity is an important trust determinant in online purchasing intentions.

6.2.4 Findings on Emotions

Hypothesis H13 argued that the uncertainty avoidance (UA) individual effects on the relationship between initial joy and affect-based trust are stronger in a high UA society (Pakistan) than in a low UA society (Australia). The findings showed that positive emotions such as joy are more positively related to consumers' affect-based trust in B2C websites in a high uncertainty avoidance society (Pakistan) than in a low uncertainty avoidance society (Australia). This means that a visually appealing B2C website produces joy in consumers from Pakistan but not from Australia. Additionally, hypothesis H14 posited that the uncertainty avoidance (UA) individual effects on the relationship between initial fear and affect-based trust are stronger in a high UA society (Pakistan) than in a low UA society (Australia).

However, strong statistical support was not found. This indicates that poorly designed B2C websites produce fear or anxiety that prevents consumers interacting with the website both in Pakistan and Australia. The results are consistent with (Kim, 2005, Cyr, 2013, Parboteeah et al., 2009, Li et al., 2011).

6.2.5 Findings on iTrust (Cognitive, Affect-based) and Purchase Intention

The finding confirmed hypothesis H15, which argued that in Pakistan, cognitive-based trust has a stronger influence on affect-based trust in B2C websites than in Australia. This means that in Pakistan, consumers' cognitive-based trust in Pakistan relies on quick cognitive cues or first impressions of the B2C website certain design evaluation to induce affect-based trust, which in turn results in affective reactions such as joy and fear caused by use of the B2C website. This means that cognitive and affective reactions influence each other and consumers did not use them independently in when visiting a B2C e-commerce website. The finding is consistent with (Hansen, 2005, Brengman and Karimov, 2012).

Moreover, support was found for hypotheses H16 and H17, which argued that the uncertainty avoidance (UA) individual effects on the relationship between consumers' cognitive and affect-based interpersonal trust and purchase intention in B2C e-commerce websites is stronger for individuals in a low UA society (Australia) than in a high UA society (Pakistan). This means that consumers in Pakistan are reluctant to engage in online purchasing. This is possibly because of the online shopping involves more uncertainties, therefore consumers' individual levels of tolerance for ambiguity or uncertainty towards online purchasing intention in a high uncertainty avoidance society (Pakistan) was lower than consumers in a low .

6.3 Contribution and Implications of the Study Results

This research provided both theoretical and practical implications of the cultural effects of UA and IDV on cognitive and affect-based iTrust in B2C e-commerce in two different societies. The implications are presented as follows.

6.3.1 Theoretical Implications

There are several theoretical implications resulting from this study. Firstly, the main theoretical contribution of the study is the development of a multi-perspective trust model that can be used in further studies. Therefore, this research contributes to the existing knowledge by proposing an updated multi-perspective trust model that includes the role of interpersonal trust (iTrust) in B2C e-commerce websites.

Secondly, this study extended prior research on the effects of culture on trust towards online purchasing intentions and provided essential results. Additionally, this research addresses the shortcomings in the existing literature, by applying individual cultural values (IDV and UA) as moderators to a proposed model to uncover new and improved methods for fostering consumer trust in a B2C website.

Thirdly, this study provided an understanding of the new drivers of online consumer trust; specifically, a consumer's cognitive and affect-based interpersonal trust towards the key components on in a B2C e-commerce website, such as web design (website accessibility, visual appearance, and social networking services), consumer behaviour (religiosity), privacy, security and emotions (fear and joy), which are viewed as the major elements of consumer trust in an online store.

Fourth, this study examined how cognitive and emotional responses to consumer interpersonal trust in a B2C online store differ across two very different cultural

value systems (Australia and Pakistan) at the individual level. This study verified the validity of the consumer trust aspects in e-commerce research that have primarily been studied in relation to developed countries for use in a developing country such as Pakistan. This is the first research that has investigated this phenomenon within Pakistan.

Finally, the various hypotheses supported in this study all add to the literature for developing hypotheses for future studies. Additionally, this study contributes to validating the survey instrument of the various factors used in a proposed model. Since a new population (Pakistan) was used for all factors and Australia for some factors such as religiosity, the reliability and validity of all constructs were established in that context. Researchers can now use the survey instrument with increased confidence in an e-commerce context.

6.3.2 Practical Implications

The findings provide some practical implications and guidelines for online vendors to enhance consumer trust in an online business-to-consumer context, including innovative approaches to B2C websites, consumer retention and online businesses strategies across cultures. The results of this study may help online shopping managers who could use the insights of this research to modify their approaches, not only for considering a country's culture but also for culturally diverse countries such as Australia. Developers and website designers can use these results to increase desirable outcomes by focusing on the relationship between emotional reactions, cognitive evaluations and trust, to increase the chances that an online business will succeed in countries with diverse degrees of individualism-collectivism and uncertainty avoidance. The practical implications extend to business firms to make

changes to their market strategies to improve their online sales by targeting two different cultures.

Consistent with prior research, as discussed in the above section 6.2, the results of this study highlight the practical implication that e-commerce firms need to consider individual consumer cultural differences when identifying what e-commerce web design strategies to employ in B2C websites, which involves not only a country-level strategy but also multiple strategies in culturally diverse countries. For example, in Pakistan, consumers are unwilling to use online methods of payment for online purchases because of the perceived risk involved in making the transaction. Therefore, for a country Pakistan, which is highly collectivistic, has a high degree of uncertainty avoidance and has traditionally low Internet shopping rates, online vendors can guarantee security and privacy by displaying the logos of trusted third parties on every page of their website to enhance consumer trust in the online vendor.

The cultural differences between Pakistan and Australia also showed that a 'one-design-fits-all' strategy for designing e-commerce websites does not essentially enhance consumer trust. For example, as described in section 6.2.2 considering the consumer cognition perception of B2C websites in Pakistan, online vendors can capture consumer attention by providing visual aesthetics that contributed to the overall look and feel of the website, whereas for consumers in Australia, website accessibility factors such as accessible content information and navigational design are more desirable.

The results also suggest that consumer emotions such as joy and fear are formed based on the cognitive processing of overall website design impressions. Therefore,

it is universally desirable that online vendors should pay attention to the overall website design to reflect a consumer's prototype of an extremely reputable online vendor. In addition, the use of product virtualisation technologies such as image interactivity features (enlarged product images, 360 degree views and 3D virtual models), pictures with different colour combinations, such as showing clothing on human models in different colours, enhance consumer trust in e-commerce websites.

The presentation of B2C e-commerce website design aspects should be conveyed through website accessibility guidelines aimed at the global consumer's perception, such as meeting the WCAG 2.0 (Web Content Accessibility Guidelines) developed by World Wide Web Consortium (W3C) to help make the website accessible for users of all ages and abilities. For example, a colour-blind consumer making online purchase will not distinguish the red font highlighting the discounted prices. Therefore, web designers should use website accessibility tools to prevent web page accessibility errors.

Furthermore, the results showed that the use intensity of social networking services for online purchasing is higher in the Pakistani sample than in the Australian sample. This means that the social aspects of e-commerce websites should be implemented to increase interpersonal trust between consumer and the online vendor in Pakistan. For example, the integration of social networking sites, chat rooms, discussion forums and reviews of products enhance consumer cognitive and affective perception towards Internet retailers and subsequently their purchase intention.

Consumer trust can also vary with strong affiliation to religion. E-commerce companies that target Pakistan consumers may need to consider religiosity measures to enhance consumer trust to purchase online. For example, online vendors should

pay great attention when designing images that contain symbols with religious meaning. Also, the Islamic religion does not encourage charging interest rates and thus the use of credit cards for online shopping is difficult in Pakistan. Therefore, online vendors should focus on alternative mode of payments other than credit cards, such as cash on delivery, to enhance trust towards online purchasing.

6.4 Conclusion

This study proposed a multi-perspective model for consumer interpersonal trust (iTrust) in a B2C e-commerce website, which focused on the individual consumer level culture. The main objective of this research was to investigate the effects of web design (website accessibility, visual appearance, and social networking services), consumer behaviour (religiosity), privacy, security and emotions (fear and joy) on (cognitive and affect-based) interpersonal trust in B2C e-commerce context. The study also examined how individual consumer cultural values (individualism-collectivism and uncertainty avoidance) moderate the effect of these factors on trust in two distinct cultural environments (Pakistan and Australia). Based on an extensive literature review, a multi-perspective iTrust model was created and then tested in the context of B2C e-commerce in Australia and Pakistan.

The results highlighted that interpersonal trust (iTrust) between consumers and online vendors concerning purchase intentions is moderated by the interactive effect of consumers' individual culture values of individualism-collectivism and uncertainty avoidance in a positive direction, both in Pakistan and Australia.

The Internet has changed as a business medium and the results of this research are useful for e-commerce firms who would want a set of powerful features to include in their B2C website that can be used to enhance consumer trust across cultures,.

In conducting e-commerce with consumer from cultures that are collectivistic and high in uncertainty avoidance, such as Pakistan, online vendors should focus on the cognitive reactions to B2C e-commerce website. For example, e-commerce managers and designers should emphasise security signs, web design (such as website accessibility including navigation design, content information, website availability and visual appearance (color and images)) to promote consumer interpersonal trust towards purchasing intention.

In addition, the more collectivist an individual's orientation is, the more likely the person will be to use social influence to trust the online vendor in the purchase decision. Therefore, online vendors should place more emphasis on social networking services with the consumers by providing more social media cues such as integration of social network sites, chat rooms, discussions, blogs and online chat. Furthermore, in a collectivistic society, religiosity (an individual's perception of specific religious values) is also related to cognitive and affective reactions in regards to forming trust in a B2C website.

In conducting e-business with people who are low in uncertainty avoidance and highly individualistic, such as Australia, e-vendors should note that consumers generate affective reactions during the exploration stage of B2C e-commerce website rather than making a quick impression based on design aesthetics, although web design features do impact affective reactions.

In conclusion, the stimulus (S) towards which a reaction is made provides a signal regarding the cognitive and affect-based trust (Organism) of an online store website, which influence consumers purchase intentions (Response). Thus, different e-business strategies would be required to establish interpersonal (cognitive and affect-based) trust between consumer and online vendors across cultures, depending on the consumer's individual cultural orientations.

6.5 Limitations and Recommendations for Future Research

Like most survey research, this study has some limitations. Firstly, data was collected from only two countries. Therefore, caution is advised in making generalisation of the study findings. Secondly a larger sample size would have been more useful to evaluate the constancy and dependability of the findings. Thirdly, all subjects for data collection were university students at each research site (Australia and Pakistan). The study could be evaluated using different group of Internet users. Fourth, although sound judgment was made in the selection of factors for the research model, the study did not consider all possible factors that could impact trust towards purchase intention that have been used in prior studies.

While the results of this study clearly indicate there are country-based differences, it will be interesting to see if the research model developed in this study is acceptable for in-group (country of origin) members living in an out-group society (country of residence). Moreover, these results provide some evidence that consumer trust could be a link between country level and individual level cultural analyses. More practical support at the individual consumer level cultural values would have to be established in this study's research model in future studies of e-commerce, such as including Hofstede's other cultural dimensions such as power distance index (PDI),

masculinity versus femininity (MAS), long-term orientation versus short-term normative orientation (LTO) and indulgence versus restraint (IND).

Moreover, an examination of consumers' religiosity provides a good starting point in the quest to develop a greater knowledge of consumers' trust towards online purchasing intention based on their specific cultural context. Finally, this research didn't provide a complete view of all aspects influencing the formation of trust and intention to purchase, such as consumer attitude and loyalty, perceived risk and price etc.

6.6 Summary

In this chapter, discussion as well as an analysis of the study findings was presented. This chapter also addressed the implications of the study by presenting the theoretical implications as well as the practical implications. Furthermore, the limitations of the study and the recommendations for future research were also presented.

REFERENCES

ACMA. 2010. Australia in the Digital Economy - Consumer engagement with e-commerce. Available: http://www.acma.gov.au/webwr/_assets/main/lib310665/aust_in_digital_economy-consumer_engagement_with_e-commerce.pdf.

AHMED, T., MOURATIDIS, H. & PRESTON, D. 2008. Website Design and Localisation: A Comparison of Malaysia and Britain. *International Journal of Cyber Society and Education,* 1**,** 3-16.

AHN, T., RYU, S. & HAN, I. 2007. The Impact of Web Quality and Playfulness on User Acceptance of Online Retailing. *Information and Management,* 4**,** 263-275.

AL-DWAIRI, R. M. & KAMALA, M. A. An Integrated Trust Model for Business-to-Consumer (B2C) E-commerce: Integrating Trust with the Technology Acceptance Model. CyberWorlds, 2009. CW '09. International Conference on, 7-11 Sept. 2009 2009. 351-356.

ALLPORT, G. W. & ROSS, M. 1967. Personal Religious Orientation and Prejudice. *Journal of Personality and Social Psychology,* 5**,** 432-443.

ANGELI, A. D. & KYRIAKOULLIS, L. Globalisation vs. localisation in e-commerce: Cultural-aware interaction design. AVI '06, 2006 Venezia, Italy. ACM, 250-253.

AYKIN, N. 2005. *Usability and Internationalization of Information Technology*.

AZAM, A., FU, Q. & ABDULLAH, M. I. Consumers' E-commerce acceptance model: Antecedents of trust and satisfaction constructs. Business Engineering and Industrial Applications Colloquium (BEIAC), 2012 IEEE, 7-8 April 2012 2012. 371-376.

BABBIE, E. R. 2012. *The Practice of Social Research*, Cengage Learning.

BADRE, A. 2000. The effects of cross cultural interface design orientation on World Wide Web user performance. *GVU Tech Reports*. Georgia Institute of Technology.

BARBER, W. & BADRE, A. Culturability: The Merger of Culture and Usability. 4th Conference of Human Factors and the Web, 1998.

BASABE, N. & ROS, M. 2005. Cultural dimensions and social behavior correlates: Individualism-Collectivism and Power Distance. *REVUE INTERNATIONALE DE PSYCHOLOGIE SOCIALE,* 1.

BÉLANGER, F. & CROSSLER, R. E. 2011. Privacy in the digital age: A review of information privacy research in information systems. *MIS Quarterly,* 35**,** 1-36.

BELANGER, F., HILLER, J. S. & SMITH, W. J. 2002. Trustworthiness in electronic commerce: the role of privacy, security, and site attributes. *The Journal of Strategic Information Systems,* 11**,** 245-270.

BELLI, G. 2008. Nonexperimental Quantitative Research. *In:* LAPAN, S. D. & QUARTAROLI, M. T. (eds.) *Research Essentials: An Introduction to Designs and Practices.* Wiley.

BERNERS-LEE, T. 2012. Accessibility. W3C.

BIDGOLI, H. 2002. *Electronic Commerce: Principles and Practice*, Academic Press.

BINHUI, W., XUAN, G., HUIJING, N. & HAOYANG, L. A Review and Prospects of Initial Trust in E-Commerce. Management and Service Science (MASS), 2011 International Conference on, 12-14 Aug. 2011 2011. 1-4.

BOLCHINI, D. & PAOLINI, P. 2004. Goal-driven requirements analysis for hypermedia-intensive Web applications. *Requir. Eng.,* 9**,** 85-103.

BONNARDEL, N., PIOLAT, A. & LE BIGOT, L. 2011. The impact of colour on Website appeal and users' cognitive processes. *Displays,* 32**,** 69-80.

BRENGMAN, M. & KARIMOV, F. P. 2012. The effect of web communities on consumers' initial trust in B2C e-commerce websites. *Management Research Review,* 35**,** 791-817.

CAMPBELL. 2012. Trends in online shopping in Australia. Available: http://www.fastdesign.com.au/trends-online-shopping-australia.

CAREY, J. M. & DAY, D. Cultural Aspects for Technology Acceptance: Asian Perspectives and Research Techniques. Americas Conference on Information Systems (AMCIS), 2005. AIS, 2463-2475.

CARLIN, M. S. 2009. Cross-Cultural *E-commerce Design Guidlines for American and Chinse College Student Populations: Results from an Empirical Comparative study.* PhD, University of Maryland.

CASALÓ, L. V., FLAVIÁN, C. & GUINALÍU, M. 2011. The Generation of Trust in the online service and product distribution. the case of spanish elcectronic commerce. *Journal of Electronic Commerce Research,* 12**,** 199-213.

CEBI, S. 2013. A quality evaluation model for the design quality of online shopping websites. *Electronic Commerce Research and Applications,* 12**,** 124-135.

CHAKRABORTY, J. 2009. *A Cross-Cultural Usability Study on the Internationalization of User Interfaces Based upon an Empirical Five Factor Model.* PhD, University of Maryland.

CHELULE, E. E-commerce usability : Do we need guidelines for emerging economics? IADIS International Interfaces and Human Computer Interaction 2010, 2010. 19-26.

CHEN, C. C., CHEN, X.-P. & MEINDL, J. R. 1998. How can Cooperation be Fostered? The Cultural Effects of Individualism- Collectivism. *Academy of Management review,* 23**,** 285-304.

CHEN, J. & DIBB, S. 2010. Consumer trust in the online retail context: Exploring the antecedents and consequences. *Psychology and Marketing,* 27**,** 323-346.

CHEN, M.-Y. & TENG, C.-I. 2013. A comprehensive model of the effects of online store image on purchase intention in an e-commerce environment. *Electronic Commerce Research,* 13**,** 1-23.

CHEN, S. & DHILLON, G. 2003. Interpreting Dimensions of Consumer Trust in E-Commerce. *Information Technology and Management,* 4**,** 303-318.

CHEN, Y.-H. & BARNES, S. 2007. Initial trust and online buyer behaviour. *Industrial Management & Data Systems,* 107**,** 21-36.

CHENG, F.-F., WU, C.-S. & YEN, D. C. 2009. The effect of online store atmosphere on consumer's emotional responses - an experimental study of music and colour. *Behaviour & Information Technology,* 28**,** 323-334.

CHIN, W. W. 1998. *The partial least squares approach for structural equation modeling,* New Jersey, Lawrence Erlbaum.

CHIN, W. W. 2003. A partial least squares latent variable modeling approach for measuring interaction effects: results from a monte carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research,* 14**,** 189-217.

CHIN, W. W. 2004a. Multi-Group analysis with PLS.

CHIN, W. W. 2004b. *Multi-Group analysis with PLS* [Online]. Available: http://disc-nt.cba.uh.edu/chin/plsfaq/multigroup.htm.

CHIN, W. W. 2010. How to Write Up and Report PLS Analyses. *Handbook of Partial Least Squares: Concepts, Methods and Applications.* Springer.

CHIN, W. W., MARCOLIN, B. L. & NEWSTED, P. R. 2003. A Partial Least Squares Latent Variable Modeling Approach for Measuring Interaction Effects: Results from a Monte Carlo Simulation Study and an Electronic-Mail Emotion/Adoption Study. *Info. Sys. Research,* 14**,** 189-217.

CLEMONS, E. K., FUJIE, J., FEI, R., YING, W. & WILSON, J. The Special Challenges of Ecommerce in China: A Preliminary Investigation of Sufficient Conditions for Generating Adequate Consumer Trust for Initial Launch. System Science (HICSS), 2012 45th Hawaii International Conference on, 4-7 Jan. 2012 2012. 4562 - 4571.

CLORE, G. L., GASPER, K. & GARVIN, E. 2001. Affect as information. *In:* ASSOCIATES, L. E. (ed.) *Handbook of Affect and Social Cognition.* Mahwah: J.P. Forgas.

CONSTANTINIDES, E. 2004. Influencing the online consumer's behavior: the Web experience. *Internet Research,* 14**,** 111-126.

COOPER, D. R. & SCHINDLER, P. S. 2011. *Business research methods*, McGraw-Hill.

CORRITORE, C. L., KRACHER, B. & WIEDENBECK, S. 2003. On-line trust: concepts, evolving themes, a model. *Int. J. Hum.-Comput. Stud.,* 58**,** 737-758.

CRESWELL, J. W. 2003. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, SAGE.

CYR, D. 2008a. Modeling Web Site Design Across Cultures: Relationships to Trust, Satisfaction, and E-Loyalty. *J. Manage. Inf. Syst.,* 24**,** 47-72.

CYR, D. 2008b. Modeling Web Site Design Across Cultures: Relationships to Trust, Satisfaction, and E-Loyalty. *Journalvof Management Information Systems,* 24**,** 47-72.

CYR, D. 2013. Website design, trust and culture: An eight country investigation. *Electronic Commerce Research and Applications***,** 1-12.

CYR, D., BONANNI, C., BOWES, J. & ILSEVER, J. 2005. Beyond Trust: Web Site Design Preferences Across Cultures. *Journal of Global Information Management (JGIM),* 13**,** 30.

CYR, D., BONANNI, C. & ILSEVER, J. 2004. Design and e-loyalty across cultures in electronic commerce. *Proceedings of the 6th international conference on Electronic commerce.* Delft, The Netherlands: ACM.

CYR, D. & FRASER, S. 2004. Localization of Web Design: An Empirical Comparison of German, Japanese, and U.S. Website Characteristics. *Journal of the American Society of Information Science and Technology,* 55**,** 1199-1208.

CYR, D., HEAD, M. & LARIOS, H. 2010. Colour appeal in website design within and across cultures: A multi-method evaluation. *International Journal of Human-Computer Studies,* 68**,** 1-21.

DAVID, M. & HYI, H. 2012. Culture and Emotion. *Journal of Cross-Cultural Psychology,* 43**,** 91-118.

DAVIS, F. D., BAGOZZI, R. P. & WARSHAW, P. R. 1992. Extrinsic and Intrinsic Motivation to Use Computers in the Workplace1. *Journal of Applied Social Psychology,* 22**,** 1111-1132.

DE VAUS, D. 2001. *Research design in social research,* Sage.

DELENER, N. 1990. The effects of religious factors on perceived risk in durable goods purchase decisions. *Journal of Consumer Marketing* 7**,** 27-38.

DOLSON, J. C. 2009. *Accessibility: How Many Disabled Web Users Are There?* [Online]. Available: http://www.practicalecommerce.com/articles/1417-Accessibility-How-Many-Disabled-Web-Users-Are-There- [Accessed September 2012.

DONEY, P. M., CANNON, J. P. & MULLEN, M. R. 1998. Understanding the influence of national culture on the development of trust. *Academy of Management review,* 23**,** 601+.

DOWNING, C. E. & CHANG, L. Assessing Web Site Usability in Retail Electronic Commerce. Computer Software and Applications Conference (COMPSAC), 2011 IEEE 35th Annual, 18-22 July 2011 2011. 144-151.

DUNN, J. R. & SCHWEITZER, M. E. 2005. Feeling and Believing: The Influence of Emotion on Trust. *Journal of Personality and Social Psychology,* 88**,** 736-748.

EASTLICK, M. A. & LOTZ, S. 2011. Cognitive and institutional predictors of initial trust toward an online retailer. *International Journal of Retail & Distribution Management,* 39**,** 234-255.

EGGER, F. N. 2000. Trust me, I'm an online vendor: towards a model of trust for e-commerce system design. *CHI '00 Extended Abstracts on Human Factors in Computing Systems.* The Hague, The Netherlands: ACM.

EL-SAID, G. R. The Role of Culture in E-Commerce Use for the Egyptian Consumers. Information & Communications Technology, 2006. ICICT '06. ITI 4th International Conference on, 10-12 Dec. 2006 2006. 1-1.

ELSLEY, M. 2007. *The Issue of Accessibility: Considerations when Designing for a Worldwide Audience.* RMIT University.

EROGLU, S. A., MACHLEIT, K. A. & DAVIS, L. M. 2003. Empirical Testing of a Model of Online Store Atmospherics and Shopper Responses. *Psychology & Marketing,* 20**,** 139-150.

ESSOO, N. & DIBB, S. 2004. Religious Influences on Shopping Behaviour: An Exploratory Study. *Journal of Marketing Management,* 20**,** 683-712.

ÉTHIER, J., HADAYA, P., TALBOT, J. & CADIEUX, J. 2006. B2C web site quality and emotions during online shopping episodes: An empirical study. *Information & Management,* 43**,** 627-639.

ÉTHIER, J., HADAYA, P., TALBOT, J. & CADIEUX, J. 2008. Interface design and emotions experienced on B2C Web sites: Empirical testing of a research model. *Computers in Human Behavior,* 24**,** 2771–2791.

EVERS, V. & DAY, D. 1997. The Role of Culture in Interface Acceptance. *Proceedings of the IFIP TC13 Interantional Conference on Human-Computer Interaction.* Chapman & Hall, Ltd.

FISHER, R. & CHU, S. Z. 2008. Initial online trust formation: the role of company location and web assurance. *Managerial Auditing Journal,* 24**,** 542 - 563.

FORD, G. & KOTZ, P. 2005. Designing usable interfaces with cultural dimensions. *Proceedings of the 2005 IFIP TC13 international conference on Human-Computer Interaction.* Rome, Italy: Springer-Verlag.

FORNELL, C. & LARCKE, D. F. 1981. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research,* 18**,** 39-50.

FREEZE, R. & RASCHKE, R. L. An Assessment of Formative and Reflective Constructs in IS Research. ECIS 2007 Proceedings, 2007. AIS.

FROST, D., GOODE, S. & HART, D. 2010. Individualist and collectivist factors affecting online repurchase intentions. *Internet Research,* 20**,** 6-28.

GANGULY, B., DASH, S. B. & CYR, D. 2009. Website characteristics, Trust and purchase intention in online stores: An Empirical study in the Indian context. *Journal of Information Science and Technology,* 6.

GANGULY, B., DASH, S. B. & CYR, D. 2010. The effects of website design on purchase intentionin online shopping: the mediating role of trustand the moderating role of culture. *Int. J. Electronic Business,* 8**,** 302-329.

GEFEN, D., HEART, T. & BEN-GURION 2006. On the Need to Include National Culture as a Central Issue in E-Commerce Trust Beliefs. *Journal of Global Information Management (JGIM),* 14**,** 1-30.

GEFEN, D., KARAHANNA, E. & STRAUB, D. W. 2003a. Inexperience and experience with online stores: the importance of TAM and trust. *Engineering Management, IEEE Transactions on,* 50**,** 307-321.

GEFEN, D., KARAHANNA, E. & STRAUB, D. W. 2003b. Trust and TAM in Online Shopping: An Integrated Model. *MIS Quarterly,* 27**,** 51-90.

GEFEN, D. & STRAUB, D. W. 2004. Consumer trust in B2C e-Commerce and the importance of social presence: experiments in e-Products and e-Services. *Omega,* 32**,** 407-424.

GOETHALS, F. G., CARUGATI, A. & LECLERCQ, L. 2009. Differences in e-commerce behavior between neighboring countries: the case of France and Belgium. *SIGMIS Database,* 40**,** 88-116.

GOUVEIA, V. V. & ROS, M. 2000. Hofstede and Schwartz's models for classifying individualism at the cultural level: their relation to macro-social and macro-economic variables. *Psicothema,* 12**,** 25-33.

GRABNER-KRÄUTER, S. 2009. Web 2.0 Social Networks: The Role of Trust. *Journal of Business Ethics,* 90**,** 505-522.

GREENBERG, R., WONG-ON-WING, B. & LUI, G. 2008a. Culture and Consumer Trust in Online Businesses. *Journal of Global Information Management (JGIM),* 16**,** 27-44.

GREENBERG, R., WONG-ON-WING, B. & LUI, G. 2008b. Culture and Consumer Trust in Online Businesses. *Journal of Global Information Management (JGIM),* 16**,** 26-44.

GUO, S., WANG, M. & LESKOVEC, J. 2011. The role of social networks in online shopping: information passing, price of trust, and consumer choice. *Proceedings of the 12th ACM conference on Electronic commerce.* San Jose, California, USA: ACM.

GUPTA, B., IYER, L. S. & WEISSKIRCH, R. S. 2010. Facilitating Global E-Commerce: A Comparison of Consumer's Willingness to Disclose Personal Information Online in the U.S. and India *Journal of Electronic Commerce Research,* 11**,** 41-52.

HAENLEIN, M. & KAPLAN, A. M. 2004. A Beginner's Guide to Partial Least Squares Analysis. *Understanding Statistics,* 3**,** 283-297.

HAIR, F., MARKO, J. S., LUCAS, H. & VOLKER, G. K. 2014. Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review,* 26**,** 106-121.

HAIR, J. F., BLACK, W. C., BABIN, B. J., ANDERSON, R. E. & TATHAM, R. L. 2006. *Multivariate Data Analysis*, Prentice Hall.

HAIR, J. F., RINGLE, C. M. & SARSTEDT, M. 2011. PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice,,* 19**,** 139-151.

HANSEN, T. 2005. Perspectives on consumer decision making: an integrated approach. *Journal of Consumer Behaviour,* 4**,** 420-437.

HASAN, L. & ABUELRUB, E. 2011. Assessing the quality of web sites. *Applied Computing and Informatics,* 9**,** 11-29.

HASSLINGER, A., HODZIC, S. & OPAZO, C. 2007. *Online consumer behavior in online shopping.* Kristianstad university.

HENSELER, J. & CHIN, W. W. 2010. A Comparison of Approaches for the Analysis of Interaction Effects Between Latent Variables Using Partial Least Squares Path Modeling. *Structural Equation Modeling: A Multidisciplinary Journal,* 17**,** 82-109.

HENSELER, J. & FASSOTT, G. 2010. Testing Moderating Effects in PLS Path Models: An Illustration of Available Procedures. *In:* VINZI, V. E., CHIN, W. W., HENSELER, J. & WANG, H. (eds.) *Handbook of Partial Least Squares Concepts, Methods and Applications.* Springer.

HENSELER, J., RINGLE, C. M. & SINKOVICS, R. R. 2009. The use of partial least squares path modeling in international marketing. *New Challenges to International Marketing (Advances in International Marketing,* 20**,** 277 - 319.

HOFSTEDE, G. 1980. *Culture's Consequences: International Differences in Work-related Values,* CA, Sage, Beverly Hills,.

HOFSTEDE, G. 2001. *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations,* CA, SAGE Publications, Inc.

HOFSTEDE, G. 2013. National Culture Dimensions. *Dimensions* [Online]. Available: http://geert-hofstede.com/dimensions.html.

HOFSTEDE, G., HOFSTEDE, G. J. & MINKOV, M. 2010. *Cultures and Organizations: Software of the Mind, Intercultural cooperation and its importance for survival* McGraw-Hill.

HONG, G. & JUAN, Y. A multi-dimensional trust model in e-commerce. Computer Science and Automation Engineering (CSAE), 2012 IEEE International Conference on, 25-27 May 2012 2012. 653-657.

HSIAO, K.-L., LIN, J. C.-C., WANG, X.-Y., LU, H.-P. & YU, H. 2010. Antecedents and consequences of trust in online product recommendations An empirical study in social shopping. *Online Information Review,* 34**,** 935-953.

HU, X., WU, G., WU, Y. & ZHANG, H. 2010. The effects of Web assurance seals on consumers' initial trust in an online vendor: A functional perspective. *Decision Support Systems,* 48**,** 407-418.

HUANG, T. K. & FU, F.-L. 2009. Understanding user interface needs of e-commerce web sites. *Behaviour & Information Technology,* 28**,** 461-469.

HUIYANG, L., XIANGHONG, S. & KAN, Z. Culture-Centered Design: Cultural Factors in Interface Usability and Usability Tests. Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing, 2007. SNPD 2007. Eighth ACIS International Conference on, July 30 2007-Aug. 1 2007 2007. 1084-1088.

HUSSAIN, Z., WALLACE, J., TASSABEHJI, R. & KHAN, O. 2007. E-business in the developing world: an empirical study of payment methods and their implications. *International Journal of Electronic Business,* 5**,** 315-335.

HUYNH, P. T. & ANDRADE, A. D. Effects of Web 2.0 Experience on Consumers' Online Purchase Intention: The Social Networking and Interaction Orientation Factors. International Conference on Information Resources Management, 2012. AIS, 1-16.

HWANG, Y. & LEE, K. C. 2012a. Investigating the moderating role of uncertainty avoidance cultural values on multidimensional online trust. *Inf. Manage.,* 49**,** 171-176.

HWANG, Y. & LEE, K. C. 2012b. Investigating the moderating role of uncertainty avoidance cultural values on multidimensional online trust. *Information & Management,* 49**,** 171-176.

HYUN-HWA, L., JIHYUN, K. & ANN, F. 2010. Affective and Cognitive Online Shopping Experience. *Clothing & Textiles Research Journal,* 28**,** 140-154.

IANNACCONE, L. R. 1995. RISK, RATIONALITY, AND RELIGIOUS PORTFOLIOS. *Economic Inquiry,* 33**,** 285-295.

ISA, W. A. W. M., NOOR, N. L. M. & MEHAD, S. 2009. Culture Design of Information Architecture for B2C E-Commerce Websites. *Proceedings of the*

1st International Conference on Human Centered Design: Held as Part of HCI International 2009. San Diego, CA: Springer-Verlag.

JAMAL, A. S. & AHMED, A. F. Socio-cultural Factors Influencing Consumer Adoption of Online Transactions. Management of eBusiness, 2007. WCMeB 2007. Eighth World Congress on the, 11-13 July 2007 2007. 5-5.

JARVENPAA, S. L., TRACTINSKY, N. & SAARINEN, L. 1999. Consumer Trust in an Internet store: A cross-cultural validation. *Journal of Computer Mediated Communication,* 5.

JARVIS, C. B., MACKENZIE, S. B. & PODSAKOFF, P. M. 2003. A Critical Review of Construct Indicators and Measurement Model Misspecification in Marketing and Consumer Research. *Journal of Consumer Research,* 30**,** 199-218.

JESSON, J. J. 2001. Cross-sectional studies in prescribing research. *Journal of Clinical Pharmacy & Therapeutics,* 26**,** 397-403.

JIANFENG, L., HONGPING, L. & LANYING, D. The Effect of Religiosity on Shopping Behavior: An Exploratory Study during the Transitional Period in China. International Conference on Information Management, Innovation Management and Industrial Engineering, 2009. IEEE.

JOHNSON, D. & GRAYSON, K. 2005. Cognitive and affective trust in service relationships. *Journal of Business Research,* 58**,** 500-507.

JUNG-MIN, O., YONG SUB, L. & NAMMEE, M. Towards Cultural User Interface Generator Principles. Multimedia and Ubiquitous Engineering (MUE), 2011 5th FTRA International Conference on, 28-30 June 2011 2011. 143-148.

JUNJIE, C. & GUANG, Y. A culture-based study on information density of e-commerce websites. Computer Design and Applications (ICCDA), 2010 International Conference on, 25-27 June 2010 2010. V4-60-V4-63.

KANG, K. 2009. Supportive Web Design for Users from Different Culture Origins in E-Commerce Internationalization, Design and Global Development. *In:* AYKIN, N. (ed.). Springer Berlin / Heidelberg.

KANG, K. & ARAÚJO, J. Cultural and Requirement Aspects on International E-commerce sites EEE'06- The 2006 International Conference on e-Learning, e-Business, Enterprise Information Systems, e-Government, and Outsourcing, 2006 Las Vegas Nevada, USA,.

KANG, K. & KOVACEVIC, L. 2012. The Effect of Culture on Emotions and Trust of Websites. *Journal of Internet and e-Business Studies,* 2012**,** 12.

KANG, K. S. Considering the Cultural Issues of Web Design in Implementing Web-Based E-Commerce for International Customers. the Fifth International Conference on Electronic Business,, 2005 Hong Kong,. 323-327.

KARACAY, G., AKBEN, E. & ELIF, A. 2010. Cultural Variability in Web Content: A Comparative Analysis of American and Turkish Websites. *International Business Research,* 3**,** 97-103.

KARAHANNA, E., WILLIAMS, C. K., POLITES, G. L., LIU, B. & SELIGMAN, L. 2013. Uncertainty Avoidance and Consumer Perceptions of Global e-Commerce Sites: A Multi-Level Model. *Drake Management Review,* 3**,** 12-47.

KARIMOV, F. & BRENGMAN, M. 2014. An examination of trust assurances adopted by top internet retailers: unveiling some critical determinants. *Electronic Commerce Research***,** 1-38.

KARIMOV, F. P. & BRENGMAN, M. 2011. Adoption of Social Media by Online Retailers: Assessment of Current Practices and Future Directions. *International Journal of E-Entrepreneurship and Innovation,* 2**,** 26-45.

KARIMOV, F. P., BRENGMAN, M. & HOVE, L. V. 2011. The Effect of Website Design Dimensions on Initial Trust: A Synthesis of the Empirical Literature. *Journal of Electronic Commerce Research,* 12**,** 272-301.

KIM, D. J. Cognition-based versus affect-based trust determinants in e-commerce: A cross-cultural comparison study. Twenty-Sixth International Conference on Information Systems (ICIS), 2005. AIS, 741-753.

KIM, D. J. 2008. Antecedents of Consumer Trust in B2C Electronic Commerce and Mobile Commerce. *Computer-Mediated Relationships and Trust: Managerial and Organizational Effects.* IGI Global.

KIM, D. J., FERRIN, D. L. & RAO, H. R. 2008. A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decis. Support Syst.,* 44**,** 544-564.

KIM, E., ZHANG, R. & SLONE, K. Initial Trust: Three-Factor Model vs. Two-Factor Model. Americas Conference on Information Systems (AMCIS), 2012 Washington. AIS, 1-6.

KIM, J. & FORSYTHE, S. 2007. Hedonic usage of product virtualization technologies in online apparel shopping. *International Journal of Retail & Distribution Management,* 35**,** 502-514.

KIM, J. & FORSYTHE, S. 2009. Adoption of sensory enabling technology for online apparel shopping. *European Journal of Marketing,* 43**,** 1101 - 1120.

KIM, M.-J., CHUNG, N. & LEE, C.-K. 2011. The effect of perceived trust on electronic commerce: Shopping online for tourism products and services in South Korea. *Tourism Management,* 32**,** 256-265.

KIM, M.-S. & AHN, J.-H. 2005. A model for buyer's trust in the e-marketplace. *Proceedings of the 7th international conference on Electronic commerce.* Xi'an, China: ACM.

KIM, S. & PARK, H. 2013. Effects of various characteristics of social commerce (s-commerce) on consumers' trust and trust performance. *International Journal of Information Management,* 33**,** 318-232.

KIM, Y. A. & SRIVASTAVA, J. 2007. Impact of social influence in e-commerce decision making. *Proceedings of the ninth international conference on Electronic commerce.* Minneapolis, MN, USA: ACM.

KIM, Y. H. & KIM, D. J. THE IMPACT OF CULTURAL DIFFERENCES ON TRUST IN E-COMMERCE. IADIS International Conference e-Society, 2004. 872-877.

KOCK, N. 2014. Advanced Mediating Effects Tests, Multi-Group Analyses, and Measurement Model Assessments in PLS-Based SEM. *International Journal of e-Collaboration,* 10**,** 1-13.

KRASNOVA, H., KOLESNIKOVA, E. & GUENTHER, O. Leveraging Trust and Privacy Concerns in Online Social Networks: An Empirical Study. European Conference on Information Systems (ECIS), 2010. AIS, 1-12.

KUNDI, G. M. & SHAH, B. 2009. IT in Pakistan: Threats & opportunities for ebusiness *The Electronic Journal on Information Systems in Developing Countries,* 38**,** 1-31.

KURNIA, S. 2008. Exploring E-Commerce Readiness in China: The Case of the Grocery Industry. *Proceedings of the Proceedings of the 41st Annual Hawaii International Conference on System Sciences.* IEEE Computer Society.

KURNIA, S. & PENG, F. 2010. Electronic Commerce Readiness in Developing Countries: The Case of the Chinese Grocery Industry. *In:* KANG, K. (ed.) *Electronic Commerce.* In-Teh publisher.

KUZIC, J., FISHER, J., SCOLLARY, A., DAWSON, L., KUZIC, M. & TURNER, R. Modus Vivendi of E-Business. Pacific Asia Conference on Information Systems (PACIS), 2006. AIS, 1192-1201.

LAWRENCE, J. E. & USMAN, A. 2010. Barriers to ecommerce in developing countries. *Information, Society and Justice,* 3**,** 23-35.

LAZAR, J. & SEARS, A. 2006. Design of E-Business Web Sites. *Handbook of Human Factors and Ergonomics.* John Wiley & Sons, Inc.

LEE HENG, W., OSMAN, M. A., ZAKARIA, N. & TAN, B. Adoption of E-Commerce Online Shopping in Malaysia. e-Business Engineering (ICEBE), 2010 IEEE 7th International Conference on, 10-12 Nov. 2010 2010. 140-143.

LEE, J., LEE, J.-N. & TAN, B. C. Y. Emotional Trust and Cognitive Distrust: From A Cognitive-Affective Personality System Theory Perspective. Pacific Asia Conference on Information Systems (PACIS), 2010. 1172-1183.

LEE, J. A., GARBARINO, E. & LERMAN, D. 2007. How cultural differences in uncertainty avoidance affect product perceptions. *International Marketing Review,* 24**,** 330-349.

LEE, M. K. O., SHI, N., CHEUNG, C. M. K., LIM, K. H. & SIA, C. L. 2011. Consumer's decision to shop online: The moderating role of positive informational social influence. *Information & Management,* 48**,** 185-191.

LEE, S. & RAO, V. S. 2010. Color and store choice in electronic commerce: The explanatory role of trust. *Journal of Electronic Commerce Research,* 11**,** 110-126.

LEE, Y. & KOZAR, K. A. 2010. Designing usable online stores: A landscape preference perspective. *Information & Management***,** 1-11.

LEI, S., YIMING, Z., CHAO, X., XIA, H. & BIYUN, H. Predicting User Behavior in E-commerce Based on Psychology Model. Fuzzy Systems and Knowledge Discovery, 2009. FSKD '09. Sixth International Conference on, 14-16 Aug. 2009 2009. 576-580.

LI, H., SARATHY, R. & XU, H. 2011. The role of affect and cognition on online consumers' decision to disclose personal information to unfamiliar online vendors. *Decision Support Systems,* 51**,** 434-445.

LIAO, H., PROCTOR, R. W. & SALVENDY, G. 2008. Chinese and US online consumers' preferences for content of e-commerce websites: a survey. *Theoretical Issues in Ergonomics Science,* 10**,** 19-42.

LIM, K., LEUNG, K., SIA, C. L. & LEE, M. K. 2004. Is Ecommerce Boundary-Less? Effects of Individualism–Collectivism and Uncertainty Avoidance on Internet Shopping. *Journal of International Business Studies,* 35**,** 545-559.

LITUCHY, T. R. & BARRA, R. A. 2008. International issues of the design and usage of websites for e-commerce: Hotel and airline examples. *J. Eng. Technol. Manag.,* 25**,** 93-111.

LO, B. W. N. & GONG, P. 2005. Cultural impact on the design of e-commerce websites: Part I – Site Format and Layout. *Issues in Information Systems,* 6**,** 182-189.

LODORFOS, G. N., TROSTERUD, T. A. & WHITWORTH, C. 2006. E-Consumers' attitude and behaviour in the online commodities market. *Innovative Marketing,* 2**,** 77-96.

LORENZO-ROMERO, C., CONSTANTINIDES, E. & ALARCÓN-DEL-AMO, M.-D.-C. 2013. Web Aesthetics Effects on User Decisions: Impact of Exposure Length on Website Quality Perceptions and Buying Intentions. *Journal of Internet Commerce,* 12**,** 76-105.

MARCUS, A. 2003. Global and intercultural user-interface design. *In:* JULIE, A. J. & ANDREW, S. (eds.) *The human-computer interaction handbook.* L. Erlbaum Associates Inc.

MARCUS, A. & GOULD, E. W. 2000. Crosscurrents: cultural dimensions and global Web user-interface design. *interactions,* 7**,** 32-46.

MARCUS, A. & HAMOODI, S. 2009. The Impact of Culture on the Design of Arabic Websites. *Proceedings of the 3rd International Conference on Internationalization, Design and Global Development: Held as Part of HCI International 2009.* San Diego, CA: Springer-Verlag.

MARCUS, A., WIESER, K., ARMITAGE, J. & FRANK, V. 2000. User-Interface Design for Medical Informatics: A Case Study of Kaiser Permanente. *Proceedings of the 33rd Hawaii International Conference on System Sciences-Volume 5 - Volume 5.* IEEE Computer Society.

MASWERA, T., DAWSON, R. & EDWARDS, J. 2005. Analysis of Usability and Accessibility Errors of E-Commerce Websites of Tourist Organisations in Four African Countries. *In:* FREW, A. (ed.) *Information and Communication Technologies in Tourism 2005.* Springer Vienna.

MASWERA, T., EDWARDS, J. & DAWSON, R. 2009. Recommendations for e-commerce systems in the tourism industry of sub-Saharan Africa. *Telematics and Informatics,* 26**,** 12-19.

MATSUO, Y. & YAMAMOTO, H. 2009. Community gravity: measuring bidirectional effects by trust and rating on online social networks. *Proceedings of the 18th international conference on World wide web.* Madrid, Spain: ACM.

MCALLISTER, D. J. 1995. Affect- and Cognition-Based Trust as Foundations for Interpersonal Cooperation in Organizations. *The Academy of Management Journal,* 38**,** 24-59.

MCCOY, S., GALLETTA, D. F. & KING, W. R. 2005. Integrating National Culture into IS Research: The Need for Current Individual Level Measures. *Communications of the Association for Information Systems,* 15.

MCKNIGHT, D. H. & CHERVANY, N. L. 2001–2002. What Trust Means in E-Commerce Customer Relationships: An Interdisciplinary Conceptual Typology. *International Journal of Electronic Commerce,* 6**,** 35–59.

MCKNIGHT, D. H., CHOUDHURY, V. & KACMAR, C. 2002. The impact of initial consumer trust on intentions to transact with a web site: a trust building model. *Journal of Strategic Information Systems,* 11**,** 297–323.

MCKNIGHT, D. H., CUMMINGS, L. L. & CHERVANY, N. L. 1998. Initial trust formation in new organizational relationships. *Academy of Management review,* 23**,** 473-490.

MCKNIGHT, D. H., KACMAR, C. J. & CHOUDHURY, V. 2004. Shifting Factors and the Ineffectiveness of Third Party Assurance Seals: A Two-Stage Model of Initial Trust in a Web Business. *Electronic Market,* 14**,** 252-266.

MCLELLAN, P. A. 2011. *Web Accessibility.* Master, The College of St. Scholastica, Duluth, Minnesota.

MEHRABIAN, A. & RUSSELL, J. A. 1974. *An Approach to Environmental Psychology,* MIT, Cambridge, MA.

METWALLY, M. M. 1997. Economic consequences of applying Islamic principles in Muslim societies. *International Journal of Social Economics,* 24**,** 941-957.

MIFSUD, J. 2011. *The Difference between Web Site Usability and Accessibility* [Online]. usabilitygeek. Available: http://usabilitygeek.com/the-difference-between-web-site-usability-and-accessibility/ - difference-usability-accessibility-9 [Accessed September 2013.

MOHD, W. A. R., NOOR, N. L. & MEHAD, S. 2010. The Information Architecture of E-Commerce: An Experimental Study on User Performance and Preference Information Systems Development. *In:* PAPADOPOULOS, G. A., WOJTKOWSKI, W., WOJTKOWSKI, G., WRYCZA, S. & ZUPANCIC, J. (eds.). Springer US.

MOKHLIS, S. 2009. Relevancy and Measurement of Religiosity in Consumer Behavior Research. *International Business Research,* 2**,** 75-84.

MOKHLIS, S. 2010. Religious Contrasts in Consumer Shopping Styles: A Factor Analytic Comparison. *Journal of Business Studies Quarterly,* 2**,** 52-64.

MONSUWE, T. P. Y., DELLAERT, B. G. C. & RUYTER, K. D. 2004. What drives consumers to shop online? A literature review. *International Journal of Service Industry Management,* 15**,** 102-121.

MUKHERJEE, A. & NATH, P. 2007. Role of electronic trust in online retailing: A re-examination of the commitment-trust theory. *European Journal of Marketing,* 41**,** 1172 - 1201.

NAZIR, S., TAYYAB, A., SAJID, A., RASHID, H. U. & JAVED, I. 2012. How Online Shopping Is Affecting Consumers Buying Behavior in Pakistan? 9**,** 486-495.

NIELSEN. 2010. Global Trends in Online Shopping, A Nielsen Global Consumer Report. Available: http://hk.nielsen.com/documents/Q12010OnlineShoppingTrendsReport.pdf.

NIELSEN 2012. How Digital Influences How We Shop Around the World. *In:* COMPANY, T. N. (ed.) *Nielsen Global Survey.*

NIELSON, J. 2012. *Usability 101: Introduction to Usability* [Online]. Available: http://www.nngroup.com/articles/usability-101-introduction-to-usability/ [Accessed 16 August 2014.

NITISH SINGH, H. Z., XIAORUI HU 2012. Analyzing the cultural content of web sites: A cross-national comparision of China, India, Japan, and US. *International Marketing Review,* 22**,** 129-145.

OH, J.-M., LEE, Y. S. & MOON, N. 2011. Towards Cultural User Interface Generator Principles. *Proceedings of the 2011 Fifth FTRA International Conference on Multimedia and Ubiquitous Engineering.* IEEE Computer Society.

OSMAN, S., YIN-FAH, B. C. & HOOI-CHOO, B. 2010. Undergraduates and Online Purchasing Behavior. *Asian Social Science,* 6**,** 133-146.

OU, C. X. & SIA, C. L. 2009. To trust or to distrust, that is the question: investigating the trust-distrust paradox. *Commun. ACM,* 52**,** 135-139.

PALVIA, P. 2009. The role of trust in e-commerce relational exchange: a unified model. *Information & Management,* 46**,** 213-220.

PARBOTEEAH, D. V., VALACICH, J. S. & WELLS, J. D. 2009. The Influence of Website Characteristics on a Consumer's Urge to Buy Impulsively. *Information Systems Research,* 20**,** 60-78.

PAVLOU, P. A. 2002/03. Consumer Acceptance of Electronic Commerce – Integrating Trust and Risk with the Technology Acceptance Model. *International Journal of Electronic Commerce,* 7.

PAVLOU, P. A. & CHAI, L. 2002. What drives electronic commerce across cultures? a cross-cultures? A cross-cultural emphirical investigation of the theory of planned bahavior. *Journal of Electronic Commerce Research,* 3**,** 240-253.

PEI-LEE, T. & AHMED, P. K. MOA and TRA in social commerce: An integrated model. Industrial Engineering and Engineering Management (IEEM), 2011 IEEE International Conference on, 6-9 Dec. 2011 2011. 1375-1379.

PEI-LEE, T. & AHMED, P. K. Understanding social commerce adoption: An extension of the Technology Acceptance Model. Management of Innovation and Technology (ICMIT), 2012 IEEE International Conference on, 11-13 June 2012 2012. 359-364.

PELET, J.-É. 2011. The Effect of E-Commerce Websites' Colors on Customer Trust. *International Journal of E-Business Research,* 7**,** 1-18.

PELET, J.-E., JEAN-FRAN & LEMOINE, O. 2008. Experimental Study on the Effects of the Colors of E-Commerce Websites upon Memorization and Intent of Buying. *Proceedings of the 2008 19th International Conference on Database and Expert Systems Application.* IEEE Computer Society.

PENNANEN, K. 2009. *The Initial Stages of Consumer Trust Building in e-Commerce: A Study on Finnish Consumers.* University of Vaasa.

PETTER, S., STRAUB, D. & RAI, A. 2007. Specifying Formative Constructs in Information Systemm Research. *MIS Quarterly,* 31**,** 623-656.

PI, S.-M., LIAO, H.-L. & CHEN, H.-M. 2012. Factors That Affect Consumers' Trust and Continuous Adoption of Online Financial Services. *International Journal of Business and Management,* 7**,** 109-119.

POONG, Y.-S., TALHA, M. & EZE, U. C. 2007. A flower analogy of e-commerce infrastructure development in Malaysia and Singapore. *Proceedings of the ninth international conference on Electronic commerce.* Minneapolis, MN, USA: ACM.

POWER, M. J. 2006. The structure of emotion: An empirical comparison of six models. *Cognition and Emotion,* 20**,** 694-713.

PTA 2011. Pakistan Telecommunication Authority. Pakistan.

PURWATI, Y. 2011. Standard features of e-commerce user interface for the web. *Journal of Arts, Science & Commerce,* 2**,** 77-87.

PWC. 2012. *Australia and New zealand online shopping market and digital insights* [Online]. Available: http://www.pwc.com.au/industry/retail-consumer/assets/Digital-Media-Online-Shopping-Jul12.pdf.

RAMBO, K., LIU, K. & NAKATA, K. 2009. The Socio-cultural Factors Influencing Online Female Consumers in Saudi Arabia. *Proceedings of the 2009 International Conference on Computational Science and Engineering - Volume 04.* IEEE Computer Society.

RANJBARIAN, B., FATHI, S. & REZAEI, Z. 2012. Factors Influencing on Customers' E-Satisfaction: A case Study from Iran. *INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS,* 3**,** 1496-1511.

RANZHE, J., JIANWEI, Y. & ZUO, J. Exploring Influencing Factors in E-Commerce Transaction Behaviors. Electronic Commerce and Security, 2008 International Symposium on, 3-5 Aug. 2008 2008. 603-607.

RINGLE, C. M., WENDE, S. & BECKER, J.-M. 2014. *Smartpls 3. Hamburg: SmartPLS* [Online]. Available: http://www.smartpls.com 2014].

ROBERTO, O. Cross Cultural Web Comfortability and the Study on the Influence of Cultural Profiles in Chile. *In:* WILSON, C., ed., 2007. 142-149.

ROGGIO, A. 2008. *The Importance of Web Accessibility for Ecommerce* [Online]. Available: http://www.getelastic.com/the-importance-of-web-accessibility-for-ecommerce/ [Accessed September 2012.

SALO, J. & KARJALUOTO, H. 2007. A conceptual model of trust in the online environment. *Online Information Review,* 31 604 - 621.

SAMBHANTHAN, A. & GOOD, A. 2012. Implications for Improving Accessibility to E-Commerce Websites in Developing Countries: A Study of Hotel Websites. *International Journal of Knowledge-Based Organizations,* 2**,** 1-20.

SARAEE, M. H., SHAHGHOLIAN, A. & MAZROOEI, P. 2010. Social Networking Approach for Building Trust in E-commerce. *Journal of Communication and Computer,* 7**,** 49-53.

SCHIMMACK, U., OISHI, S. & DIENER, E. 2005. Individualism: A Valid and Important Dimension of Cultural Differences Between Nations. *Personality and Social Psychology Review,* 9**,** 17-31.

SCHUMACKER, R. E. & LOMAX, R. G. 2010. *A beginner's guide to structural equation modeling: Third Edition*, Taylor and Francis Group.

SCHWARTZ, S. H. 1992. *Universals in the content and structure of values: Theory and empirical tests in 20 countries,* New York, Academic Press.

SHAVER, P., SCHWARTZ, J., KIRSON, D. & O'CONNOR, C. 1987. Emotion knowledge: further exploration of a prototype approach. *Journal of Personality and Social Psychology,* 52.

SHENG, H. & JOGINAPELLY, T. 2012. Effects of Web Atmospheric Cues on Users' Emotional Responses in E-Commerce *Transactions on Human-Computer Interaction,* 4**,** 1-24.

SHIM, S. I. & LEE, Y. 2011. Consumer's perceived risk reduction by 3D virtual model. *International Journal of Retail & Distribution Management,* 39**,** 945-959.

SIA, C. L., LIM, K. H., LEUNG, K., LEE, M. K. O. & HUANG, W. W. 2009. Web strategies to promote internet shopping: is cultural customization needed? *MIS Quarterly,* 33**,** 491-512.

SIALA, H., O'KEEFE, R. & HONE, K. 2004. The impact of religious affiliation on trust in the context of electronic commerce. *Interacting With Computers,* 16**,** 7-27.

SIALA, H. & SIDDIQUI, F. The Impact of a 'Theological' Web Interface on Trust in the Context of Electronic Commerce. The Fourth International Conference on Electronic Business (ICEB2004), 2004 Beijing. 886-892.

SIMMONS, A. 2012. Most online sales 'made on domestic sites'. *ABC*.

SINGH, N., KUMAR, V. & BAACK, D. 2005. Adaptation of cultural content: evidence from B2C e-commerce firms. *European Journal of Marketing,* 39**,** 71-86.

SINKOVICS, R. R., YAMIN, M. & HOSSINGER, M. 2007. Cultural Adaptation in Cross Border E-Commerce: A Study of German Companies. *Journal of Electronic Commerce Research,* 8**,** 221 - 235.

SIVAJI, A., DOWNE, A. G., MAZLAN, M. F., SHI-TZUAAN, S. & ABDULLAH, A. Importance of incorporating fundamental usability with social and trust elements for E-Commerce website. Business, Engineering and Industrial Applications (ICBEIA), 2011 International Conference on, 5-7 June 2011 2011. 221-226.

SMALLMAN, W. 2006. *Should e-commerce websites support Web Accessibility by law?* [Online]. Available: http://www.blahblahtech.com/2006/11/should-e-commerce-websites-support-web-accessibility-by-law.html [Accessed September 2012.

SMITH, A., DUNCKLEY, L., FRENCH, T., MINOCHA, S. & CHANG, Y. 2004. A process model for developing usable cross-cultural websites. *Interacting With Computers,* 16**,** 63-91.

SOHAIB, O., HUSSAIN, W. & BADINI, K. 2011. User Experience (UX) and the Web Accessibility Standards. *IJCSI International Journal of Computer Science Issues,* 8**,** 584-587.

SOHAIB, O. & KANG, K. 2012. The Effect of Technology, Human and Social Networks in Serviceable Cross-Culture Business to-Consumer (B2C) Websites *Journal of Internet and e-Business Studies,* 2012**,** 1-11.

SOHAIB, O. & KANG, K. 2014a. Cultural Aspects of Business-to-Consumer (B2C) E-commerce: A Comparative Analysis of Pakistan and Australia. *The Electronic Journal of Information Systems in Developing Countries,* 61**,** 1-18.

SOHAIB, O. & KANG, K. 2014b. Impact of Religiosity on Interpersonal Trust in B2C Context: A Cross-Culture Analysis. The 18th Pacific Asia Conference on Information Systems (PACIS 2014), Chengdu, China. PACIS 2014 Proceedings.

SOLOMON, M. R. 2011. *Consumer behavior : buying, having, and being / Michael R. Solomon,* London, Pearson.

SONG, J. & ZAHEDI, F. M. 2005. A Theoretical Approach to Web Design in E-Commerce: A Belief Reinforcement Model. *Manage. Sci.,* 51**,** 1219-1235.

SOO YEON, C. & CHEOL, P. Online shopping behavior model: A literature review and proposed model. Advanced Communication Technology, 2009. ICACT 2009. 11th International Conference on, 15-18 Feb. 2009 2009. 2276-2282.

SRITE, M. & KARAHANNA, E. 2006. The Role of Espoused National Cultural Values in Technology Acceptance. *MIS Quarterly,* 30**,** 679-704.

SU, Q.-Y. & ADAMS, C. 2005. Will B2C e-commerce developed in one cultural environment be suitable for another culture: a cross-cultural study between amazon.co.uk (UK) and dangdang.com (China). *Proceedings of the 7th international conference on Electronic commerce.* Xi'an, China: ACM.

SUN, H. 2001. Building a culturally-competent corporate web site: an exploratory study of cultural markers in multilingual web design. *Proceedings of the 19th annual international conference on Computer documentation.* Sante Fe, New Mexico, USA: ACM.

SUN, H. 2010. Sellers' Trust and Continued Use of Online Marketplaces. *Journal of the Association for Information Systems,* 11**,** 182-2011.

SUN, H. 2011. Designing for social commerce experience as cultural consumption. *Proceedings of the 4th international conference on Internationalization, design and global development.* Orlando, FL: Springer-Verlag.

SUTCLIFFE, A. 2002. Assessing the Reliability of Heuristic Evaluation for Website Attractiveness and Usability. *Proceedings of the 35th Annual Hawaii International Conference on System Sciences (HICSS'02)-Volume 5 - Volume 5.* IEEE Computer Society.

SWAMYNATHAN, G., WILSON, C., BOE, B., ALMEROTH, K. & ZHAO, B. Y. 2008a. Do Social Networks Improve e-Commerce? A Study on Social Marketplaces. *Proceedings of the first workshop on Online social networks.* Seattle, Washington, USA: ACM.

SWAMYNATHAN, G., WILSON, C., BOE, B., ALMEROTH, K. & ZHAO, B. Y. 2008b. Do social networks improve e-commerce?: a study on social

marketplaces. *Proceedings of the first workshop on Online social networks.* Seattle, WA, USA: ACM.

TAN, F. B. & SUTHERLAND, P. 2004. Online Consumer Trust: A Multi-Dimensional Model. IGI Global.

TAN, F. B., TUNG, L.-L. & XU, Y. 2009. A study of web designer criteria for effective bunsiness to-consumer websites using repertory grid technique. *Journal of Electronic Commerce Research,* 10**,** 155-177.

TAN, J., TYLER, K. & MANICA, A. 2007. Business-to-business adoption of eCommerce in China. *Inf. Manage.,* 44**,** 332-351.

TAN, Y.-H. & THOEN, W. 2000. Toward a Generic Model of Trust for Electronic Commerce. *Int. J. Electron. Commerce,* 5**,** 61-74.

TE'ENI, D. 2001. A Cognitive–Affective Model of Organizational Communication for Designing IT. *MIS Quarterly,* 25**,** 251–312.

TEH, P.-L. & AHMED, P. K. Understanding social commerce adoption: An extension of the Technology Acceptance Model. Management of Innovation and Technology (ICMIT), 2012 IEEE International Conference on, 11-13 June 2012 2012. 359-364.

TENENHAUSA, M., VINZI, V. E., CHATELIN, Y.-M. & LAURO, C. 2005. PLS path modeling. *Computational Statistics & Data Analysis,* 48**,** 159-205.

TEO, T. S. H. & LIU, J. 2007. Consumer trust in e-commerce in the United States, Singapore and China. *Omega,* 35**,** 22-38.

THABET, M. & ZGHAL, M. 2013. An Exploratory Approach to the Influence of Perceived Social Presence on Consumer Trust in a Website. *Journal of Internet and e-Business Studies,* 2013**,** 1-20.

THATCHER, S. M. B., FOSTER, W. & ZHU, L. 2006. B2B e-commerce adoption decisions in Taiwan: The interaction of cultural and other institutional factors. *Electron. Commer. Rec. Appl.,* 5**,** 92-104.

THOMAS, P., MICHAELA, K. & RALPH, B. Integrating E-Commerce and Social Engineering Perspectives on Trust in Online Communication. User-centered Trust in Interactive Systems- NordiCHI 2012, 2012. ACM.

TIAN, R. G. & XUEHUA, L. E-commerce Concerns: Cross-Cultural Factors in Internet Marketing. Electronic Commerce and Business Intelligence, 2009. ECBI 2009. International Conference on, 6-7 June 2009 2009. 83-86.

TRAVIS, D. 2003. E-Commerce Usability: Tools and Techniques to Perfect the On-Line Experience. Taylor & Francis.

TRIANDIS, H. C. 2004. The many dimensions of culture. *Academy of Management Executive,* 18**,** 88-93.

TRIANDIS, H. C. & GELFLAND , M. J. 1988. Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology,* 74**,** 118-128.

TROCHIM, W. M. 2006. *The research methods knowledge base* [Online]. Available: http://www.socialresearchmethods.net [Accessed 18 August 2014.

TROMPENAARS, F. & HAMPDEN-TUNER 1998. *Riding the Waves of Culture: Understanding Diversity in Global Business,* New York:, McGraw-Hill.

TSAI, J. Y., EGELMAN, S., CRANOR, L. & ACQUISTI, A. 2011. The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study. *Info. Sys. Research,* 22**,** 254-268.

TZU-YU, C. Trust with Social Network Learning in E-Commerce. Communications Workshops (ICC), 2010 IEEE International Conference on, 23-27 May 2010 2010. 1-6.

UANG, S.-T. The Evaluation of the Graphical User Interfaces of Four B2C E-commerce Websites in Taiwan. Tenth International Conference on Human-Computer Interaction, 2003. 1333-1337.

VINZI, V. E., TRINCHERA, L. & AMATO, S. 2010. PLS Path Modeling: From Foundations to Recent Developments and Open Issues for Model Assessment and Improvement. *In:* HANDBOOKS, S. (ed.) *Handbook of Partial Least Squares: Concepts, Methods and Applications.*

VOGT, W. P. 2010. Quantitative research methods for professionals.: Pearson Education.

W3C. 2008. *Web Content Accessibility Guidelines (WCAG) 2.0* [Online]. Web Accessibility Initiative (WAI). Available: http://www.w3.org/TR/WCAG20/ [Accessed August 2013.

WANG, Q. Usability research of interaction design for e-commerce Website. E -Business and E -Government (ICEE), 2011 International Conference on, 6-8 May 2011 2011. 1-4.

WANG, Y. D. & EMURIAN, H. H. 2005. An overview of online trust: Concepts, elements, and implications. *Computers in Human Behavior,* 21**,** 105-125.

WANG, Z., ZHANG, Z. & ZHANG, Y. 2006. Towards Enhancing Trust on Chinese E-Commerce. *In:* ZHOU, X., LI, J., SHEN, H., KITSUREGAWA, M. & ZHANG, Y. (eds.) *Frontiers of WWW Research and Development - APWeb 2006.* Springer Berlin Heidelberg.

WDI. 2013. World Development Indicators, Internet users. Available: http://www.indexmundi.com/facts/indicators/IT.NET.USER/compare?country=pk.

WEIJUN, W. & LIN, L. Research on social commerce in Web2.0 environment. E -Business and E -Government (ICEE), 2011 International Conference on, 6-8 May 2011 2011. 1-4.

WETZELS, M., ODEKERKEN-SCHRÖDER, G. & OPPEN, C. V. 2009. Using PLS path modeling for assessing hierarchical construct models: guidelines and empirical illustration. *MIS Quarterly,* 33**,** 177-195.

WILLIAMS, J. D., HAN, S.-L. & QUALLS, W. J. 1998. A Conceptual Model and Study of Cross-Cultural Business Relationships. *Journal of Business Research,* 42**,** 135-143.

WOLFINBARGERA, M. & GILLY, M. C. 2003. eTailQ: dimensionalizing, measuring and predicting etail quality. *Journal of Retailing,* 79**,** 183-198.

WOLVERTON, M. 2009. Research design, hypothesis testing, and sampling. *Appraisal Journal,* 77**,** 370-382.

YALIN, S. & XIAOPING, Y. The Influence of Discussions in Virtual Communities on Consumers' Purchasing Behaviors in E-commerce: Implications for Trust

Sources, Trust Building, and Consumer Purchase Intention. Computer Sciences and Convergence Information Technology, 2009. ICCIT '09. Fourth International Conference on, 24-26 Nov. 2009 2009. 1553-1558.

YANG, Y., HU, Y. & CHEN, J. 2005. A web trust-inducing model for e-commerce and empirical research. *Proceedings of the 7th international conference on Electronic commerce.* Xi'an, China: ACM.

YASIR, M. 2011. Internet users in Pakistan cross 20 million mark. 28 October 2011 ed. Pakistan: Tribune.

YAYLA, A. & HU, Q. User Acceptance of E-Commerce Technology: A Meta-Analytic Comparison of Competing Models. European Conference on Information Systems (ECIS), 2007. AIS, 179-190.

YING, Z., QI, Z. & XULIN, Z. 2007. Improving the Usability of E-Commerce Applications using Business Processes. *Software Engineering, IEEE Transactions on,* 33**,** 837-855.

YOON, C. 2009. The effects of national culture values on consumer acceptance of e-commerce: Online shoppers in China. *Inf. Manage.,* 46**,** 294-301.

YOUSAF, U., ALTAF, M., SARWAR, N. & SHAH, S. A. H. 2012. Hesitancy towards online shopping, a study of pakistani consumers. *Management&Marketing,* X**,** 274-284.

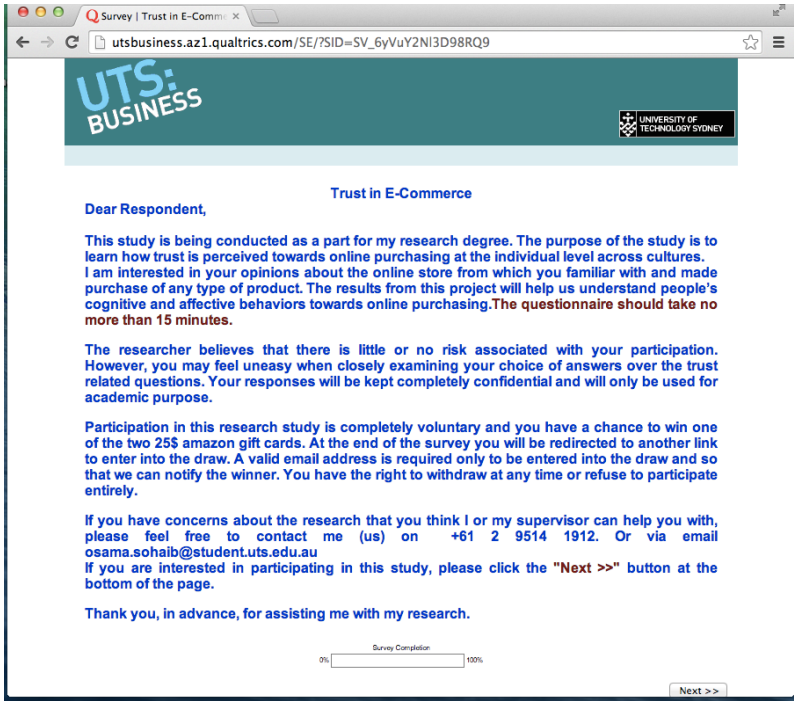
ZAINUL, N., OSMAN, F. & MAZLAN, S. H. 2004. E-Commerce from an Islamic perspective. *Electronic Commerce Research and Applications,* 3**,** 280-293.

ZHANG, Y. & FENG, Y.-Q. Factors that Influence a Buyer's Decision Process of Shopping Online: The Effects of Tradition and Virtual Community. Information Technology, Computer Engineering and Management Sciences (ICM), 2011 International Conference on, 24-25 Sept. 2011 2011. 294-297.

ZHU, Y. & GUO, P. Theoretical Framework of Empirical Study on Consumer Behavior in Web-Based Commerce. The Fourth International Conference on Electronic Business, 2004.

APPENDIX: Measurement Instrument

The screen shot of survey homepage



1. **Gender,** Male/Female

2. **What is your Age group:** 18-25**,** 26-35, 36-45, Above 45

3. **Current level of Education:** Bachelor's Degree, Master's Degree, PhD

4. **What is your Religious affiliation:** Muslim, Christianity, Other_____, prefer not to answer

5. For how many years you have been using the Internet: 1-3 years, 4-6 years, 7 years or more

6. For how many years you have been shopping over the Internet: less than 6 months, 6-12 months, 1 – 3 years, 4-6 years, above 7, Never (you don't need to complete the survey, click to exit).

The questions below were answered on a seven point Likert-type scale.

		Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
Security								
SEC1	This website implements security measures to protect my transaction.	❍	❍	❍	❍	❍	❍	❍
SEC2	This website has sufficient technical capacity to ensure that the data I send will not be intercepted by hackers.	❍	❍	❍	❍	❍	❍	❍
SEC3	I feel secure about the electronic payment system of this website.	❍	❍	❍	❍	❍	❍	❍
Privacy								
PRV1	I think this website shows concern for my privacy.	❍	❍	❍	❍	❍	❍	❍
PRV2	I think that this website will not provide my personal information to other companies without my consent.	❍	❍	❍	❍	❍	❍	❍
PRV3	I feel safe when I send personal information to this website.	❍	❍	❍	❍	❍	❍	❍
PRV4	I think this website only collects user personal data that are necessary for its activity.	❍	❍	❍	❍	❍	❍	❍
Web Accessibility								
WA1	The structure and contents of this website are easy to understand.	❍	❍	❍	❍	❍	❍	❍
WA2	Learning to operate this website is easy.	❍	❍	❍	❍	❍	❍	❍
WA3	When I am navigating this website, I feel that I am in control of what I can do.	❍	❍	❍	❍	❍	❍	❍
WA4	This website responds quickly.	❍	❍	❍	❍	❍	❍	❍
WA5	This website helps me correct the errors I made.	❍	❍	❍	❍	❍	❍	❍
WA6	My interaction with the website is clear and understandable.	❍	❍	❍	❍	❍	❍	❍
Color								
COL1	The colors used in the website are emotionally appealing.	❍	❍	❍	❍	❍	❍	❍
COL2	The color use on this website is attractive overall.	❍	❍	❍	❍	❍	❍	❍
COL3	The brightness of pages on this website is adequate.	❍	❍	❍	❍	❍	❍	❍
Images								
IMG1	This website has eye-catching images on the home page.	❍	❍	❍	❍	❍	❍	❍
IMG2	Zooming and 3D images is helpful in buying what I want through this website.	❍	❍	❍	❍	❍	❍	❍
IMG3	Overall, the screen design (i.e. colors, images, layout etc.) is attractive.	❍	❍	❍	❍	❍	❍	❍

Social Networking Services								
SNS1	This website clearly shows how I can contact the company.	❍	❍	❍	❍	❍	❍	❍
SNS2	I believe using social networks services (YouTube/Facebook/twitter/Google+) would help me in decision making to purchase online.	❍	❍	❍	❍	❍	❍	❍
SNS3	I believe using the other support services (such as, FAQs, ranking, online help, and contact details) would help me to buy product I really want	❍	❍	❍	❍	❍	❍	❍
SNS4	Reviews and rating of goods in this website would help me to make a better decision to purchase online.	❍	❍	❍	❍	❍	❍	❍
Religiosity								
REL1	Religion is especially important to me because it answers many questions about the meaning of life.	❍	❍	❍	❍	❍	❍	❍
REL2	Religious beliefs influence all my dealings in life.	❍	❍	❍	❍	❍	❍	❍
REL3	It is important to me to spend a period of time in private religious thought and prayer.	❍	❍	❍	❍	❍	❍	❍
REL4	The use of religious symbols and images in this websites does not affect my online purchasing (new item).	❍	❍	❍	❍	❍	❍	❍
REL5	I don't prefer using credit cards to buy online because I don't want to pay interests (new item).	❍	❍	❍	❍	❍	❍	❍
REL6	Although I believe in my religion, many other things are more important in life.	❍	❍	❍	❍	❍	❍	❍
Joy								
JOY1	The website is visually pleasing.	❍	❍	❍	❍	❍	❍	❍
JOY2	My interaction with this website was enjoyable.	❍	❍	❍	❍	❍	❍	❍
JOY3	I feel happy with the overall online shopping experience on this website.	❍	❍	❍	❍	❍	❍	❍
Fear								
FEAR1	I feel frightened during the interaction with this website.	❍	❍	❍	❍	❍	❍	❍
FEAR2	My interaction with this website was disgusting.	❍	❍	❍	❍	❍	❍	❍
FEAR3	I feel anxiety before making a transaction on this website.	❍	❍	❍	❍	❍	❍	❍
Cognitive-based Trust			❍	❍	❍	❍	❍	❍
CTRUST1	I feel comfortable using this website to achieve my goals.	❍	❍	❍	❍	❍	❍	❍
CTRUST2	Promises made by this website are likely to be reliable.	❍	❍	❍	❍	❍	❍	❍

CTRUS T3	I feel that I would be able to trust this website completely.	❍	❍	❍	❍	❍	❍	❍
Affect-based Trust								
ATRUS T1	I expect that this retailer website is ready to assist and support me.	❍	❍	❍	❍	❍	❍	❍
ATRUS T2	Visiting this retailer website is pleasant and enjoyable.	❍	❍	❍	❍	❍	❍	❍
ATRUS T3	This retailer website is trustworthy and honest.	❍	❍	❍	❍	❍	❍	❍
Purchase Intention								
PINT1	I am likely to purchase the product(s) from from this retailer website.	❍	❍	❍	❍	❍	❍	❍
PINT2	Given the opportunity, I intend to place a purchase from this retailer website.	❍	❍	❍	❍	❍	❍	❍
PINT3	It is likely that I will actually purchase products from this retailer website in the near future.	❍	❍	❍	❍	❍	❍	❍
Individualism-Collectivism								
IDV1	Group success is more important than individual success in online shopping.	❍	❍	❍	❍	❍	❍	❍
IDV2	Having autonomy and independence is more important than being accepted as a member of a group.	❍	❍	❍	❍	❍	❍	❍
IDV3	Individual's rewards are more important than group benefits.	❍	❍	❍	❍	❍	❍	❍
Uncertainty Avoidance								
UA1	I prefer to avoid making changes while online shopping because things could get worse.	❍	❍	❍	❍	❍	❍	❍
UA2	Rules and regulations of the online stores are important to me because they inform buyers what the online store do.	❍	❍	❍	❍	❍	❍	❍
UA3	Standard operating procedures of an online store are helpful to me for the purchase decisions.	❍	❍	❍	❍	❍	❍	❍