

The influence of website characteristics on trust in online travel portals in India: The moderating role of demographic and psychographic variables

Tourism Recreation Research

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The influence of website characteristics on trust in online travel portals in India: The moderating role of demographic and psychographic variables

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ABSTRACT

Lack of trust in online transactions has been cited, by past scholars, as the main reason for the dislike of online shopping. The objective of this paper is to develop a framework for studying the influence of website characteristics on Trust in online travel portals and empirically validate it. In the first phase, a causal model is developed in which the relative importance attached to the different website characteristics, to generate trust in online travel portals, are identified. In the next phase, a set of models have been proposed, that focus on the customers' personal variables i.e. demographic and psychographic—that moderate the relationship between these antecedents of trust and trust. Our empirical model offers insights to the relative importance of the website characteristics contributing to trust in travel portals across customers of varying psychographic and demographic values in India.

Keywords: trust, travel portals, moderators, demographics, psychographics, website characteristics.

1.0 Introduction

Over the years the evolution of the Internet as a marketing medium has become a global phenomenon. The penetration of e-commerce over the last decade is a global phenomenon. The rise in the number of households possessing computers and the ease of Internet access has led to this widespread acceptance of ecommerce. According to Jupiter corp e-commerce in US is to reach \$144 Billion by 2010. The penetration of e-commerce is quite high in developing economies of Asia too. According to a report of Euromonitor International, India will be the fastest growing market for online travel retail by 2010. They further predict that online travel retail sales generated in India will exceed US\$2 billion in 2010 alone. However, according to an I-cube survey report even in 2008 the percentage of Internet users who use the Internet for ecommerce is only 7 %. According to Tan and Guo (2005) the Internet is viewed by the customers as a world of chaos. Purchase is made only if benefits are more than the risks. Aithyaman (2002) found that most of the customers have a more positive attitude towards purchasing air tickets from

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travel agents than from online portals. He further argued that the customers could be motivated to purchase air tickets online if it is communicated to them that by purchasing tickets online they can save time and money. According to Grabner-Krauter and Kaluscha (2003) lack of trust is cited as the main reason for not doing online shopping. Trust contributes positively towards the success of online transactions. Clemons et al (1999) in their study of online travel agents observed that travel agents differentiate themselves from each other in terms of information that they provide and the website design. So, online travel portals that have superior websites attract more customers. So, in this paper the factors generate trust in the online travel companies have been investigated and how the importance attached to these factors vary across customers having different demographic and psychographic characteristics have been studied.

The paper is divided into four parts. After the introductory first section, the relevant literature related to online trust is reviewed in section 2 and a conceptual model depicting the major website factors as antecedents of online trust in travel portals has been proposed. Following the discussion, a number of research hypotheses have been proposed, that hypothesize how the demographic and psychographic values of customers would moderate the relationship between trust and its antecedents and also between trust and its consequences. In the third section, the methodology used in the study and the findings have been presented. In the last concluding section the managerial and research implications of the results have been discussed and suggestions for future research directions have been provided.

2.0 Theoretical Frameworks for online shopping behaviour

2.1 Trust in online shopping

Trust has been defined in different ways by various authors. In this study the boundary was limited to the domain of B2C online shopping. Online Trust is a multidimensional construct. Several authors such as Lee and Turban (2001), Yoon (2002) had noted that there is no agreement among the authors on the definition of online trust. Trust is, according to Bhattacharya (2002), an expectancy of positive outcomes that can

be received from another party. Trust can be based on the expected actions within an interaction characterized by uncertainty. Chellapa (2005) conceptualized three dimensions of trust - safety, reliability, and transparency of transactions. A much detailed study on online trust, carried out by Tan and Sutherland (2004), had conceptualized online trust to be a multidimensional construct consisting of institutional trust, dispositional trust and interpersonal trust. Institutional trust comes from the Internet and the concerns related to the medium of online shopping. Dispositional trust deals with the individuals' openness, agreeableness, neuroticism, conscientiousness, and extroversion. Tan and Sutherland (2004) explained personality through openness, agreeableness, neuroticism, conscientiousness, and extroversion. . It is more of a personality trait and is formed over the lifetime of the individual through her experiences. Interpersonal trust deals with the trust between the two parties doing business. In the context of B2C online shopping the two participating parties in the business are the customer and the online vendor. So, the trust between these two parties would fall under the category of interpersonal trust. Interpersonal trust consists of predictability, integrity, credibility, and benevolence. Predictability is concerned with the vendor's reputation of providing a good service. Integrity is the belief that the online vendor shall be honest and follow standards. According to Stephens (2004), the credibility of the seller is established by the documentation during the business relationship whereas benevolence is the concern and sympathy of one of the parties (online company) for the other party (online customer). Mcknight and Chervany (2002) had argued that predictability and integrity are similar. It is further believed that as predictability and integrity deals with honesty and consistency they give rise to credibility of the online vendor. So, in this study online trust is conceptualized as the perceived credibility and benevolence of online service provider in the eyes of consumer. Further, this definition has been used in the domain of online shopping by some authors like Stephens (2004), Dash and Saji (2007). According to Ganesan (1994), credibility refers to the buyer's belief in the seller's expertise to do the job effectively, while benevolence is based on the buyer's belief in the positive intention of the seller.

2.2 Theories on online shopping

The theory of reasoned action (TRA) is one of the theories referred in developing the conceptual framework for the study and for identification of factors that have a direct influence on consumers' online purchase behaviour. According to Pavlou (2002), the extensive use of technology, the impersonal nature of online business, the vulnerability of information furnished by different parties, and the uncertainty of using a new medium increase consumer uneasiness about online transactions. Njite and Parsa (2005) posited that the development of trust depended on whether consumers perceived that online merchants would perform their activities because the consumers could not control the retailers' actions. Njite and Parsa (2005) further argued that inclusion of trust in e-business transactions was important, theoretically and practically. From the theoretical perspective, trust relates to the role of personality traits in consumer trust and online shopping behavior. From the practical perspective, identifying the personality traits related to trust is essential for effective marketing and business communication.

The Technology Acceptance Model (TAM) is an adaptation of the Theory of Reasoned Action in the field of IS research. The attitude measures of the TRA model were replaced in the TAM model by the constructs 'ease of use' and 'usefulness'.

According to Wixom and Todd (2005) there have been several attempts made by researchers to augment the TAM model. Augmentation has been achieved by using any one of the three methods: a) introducing factors from related models. Scholars such as Cyr et al (2007) followed this method as they added constructs such as social presence, which is derived from visual rhetoric theory, to the TAM model. b) by introducing additional or alternative belief factors. This method has been used by scholars such as Vijaysarathy (2004) where he added privacy, security, compatibility, normative beliefs and self efficacy as predictor of attitude to the base model. Besides, Porter and Donthu (2006), in their work to study the attitude towards Internet usage used the additional construct 'access barrier' along with ease of use and usefulness. and c) by examining the antecedents and moderators of perceived usefulness and perceived ease of use. This has been done by Srite and Karhanna (2006) where they have used cultural variables as moderators.

In this paper the third method to augment the TAM model has been used since the moderator effects of customer demographics and psychographics on the relationship between the website factors and trust has been studied.

2.3 Website Factors as the antecedents of Trust in online transactions of online travel portals

There have been attempts made by scholars to classify factors that generate online trust although there is no consensus among them. Teo and Liu (2007) had classified the factors that generate online trust into two major groups i.e. customer characteristics and vendor characteristics. Shankar et al (2002) conceptualized the antecedents of online trust to be website factors, user factors and others such as online medium etc. In this paper we focus our attention on the website factors as antecedents of online trust.

Several authors such as Karvonen (2000), Cyr (2008), Yoon (2002) etc have looked at website characteristics that generate online trust. However, in the context of online travel portals there have been limited scholarly work. Only some authors such as Clemons et al (1999), Aithyaman (2002), Marks (2004) have partially addressed this issue. In this study we focus on those website characteristics which are most frequently found in the literature. This includes Information design, navigation design, visual design, privacy, security, communication and social presence of the website. Following sections elaborate more on the effect of key website factors on trust in online travel portal.

Social Presence

The social presence in the Internet domain speaks of how human warmth and sociability can be integrated through the web-interface in order to positively influence consumer attitudes towards online shopping. Social presence of websites speaks of human touch in the website, (Gefen and Straub, 2004), possibility of interaction in the website, (Finin et al, 2005), friendliness and belongingness to the web store, (Brock, 1998). Social Presence is the online buyers' sense of awareness of the presence of the interaction partner and a higher degree of social presence should lead to better perception

about the online store. In fact Gefen and Straub (2004), Hassnein and Head (2006) have shown empirically that social presence can positively affect the trust with the website. Thus we propose :

H1: Higher perception of social presence of the website results in higher customer trust with the online travel portal.

Privacy

Privacy over the Internet is the ability to control what information one reveals about oneself over the Internet, and to control who can access that information. Web site privacy talks about the concern of the consumer that the company is gathering personal information, negative attitude towards company that asks for personal information, hesitation in sharing personal information, statement on how information will be used, (Ranganathan and Ganapathy, 2002). According to Miyazaki and Fernandez (2001), gathering, sharing personal information by placing cookies on the computer and contacting the consumer without his consent, reduces privacy and we believe that it reduces the perceived benevolence and credibility of the online vendor thereby reducing trust. Several past researchers such as Chellapa (2005), Suh and Han (2003) have shown that website privacy is an antecedent to trust. So we propose:

H2: Higher perception of privacy in the website of the online vendor results in higher customer trust with the online travel portal.

Security

According to the Computer Security Institute three of the major areas of security are: confidentiality, integrity, and authentication or availability. Confidentiality means that information cannot be accessed by unauthorized parties. Integrity means that information supplied by the user cannot be tampered by unauthorized parties. Authentication means that no one should be able to impersonate others when they are using the Internet. Krishnamurthy (2001) pointed out that the online store should also be certified by 3rd party assurance to improve security. Ranganathan and Ganapathy (2002) emphasize the use of secure modes by online companies for transaction. Several studies such as, Koufaris and Hampton-Sosa (2004), Chellapa (2005), Chen and Barns (2007) have shown that improvement in security results in increase in trust with the online vendor. Thus we propose:

H3: Higher perception of security in the website of the online vendor results in higher customer trust with the online travel portal.

Two Way Communication

Two way communication with vendor deals with options to communicate with the online store, presence of online sales person, timely feedback to the online store. These interactions with the online store facilitate this information exchange between online store and buyer in a purely virtual world. According to Korgaonkar et al (2006) proper information services with the vendor includes features like option to communicate with the salesperson, reviews from other shoppers, third party evaluation and information exchange with online vendor is an antecedent to purchase intention. Ribbink et al (2004) argued that communication is part of e-quality and is an antecedent to satisfaction. Similarly, Mukherjee and Nath (2003) have argued that timely communication generates trust by resolving disputes and ambiguities. So we propose the following:

H4: Higher perception of communication with the travel portal results in higher customer trust with the online travel portal.

Online shopping Self Efficacy

Self-efficacy is an impression that one is capable of performing in a certain manner or attaining certain goals. It is a belief that one has the capabilities to execute the course of actions required to manage prospective situations. People generally avoid tasks when their self efficacy is low, but engage in tasks when their self efficacy is high. If a person becomes anxious and tense before purchasing something on the Internet, and if the person has low self efficacy, then this may be taken as a sign of his own inability, and subsequently decrease his efficacy further. Chan and Lu (2004) argue that self efficacy on the Internet is generated when the user is confident about his online shopping if clear instructions are provided, when there is no one around the online consumer to help him and if the online store has help functions in the website. Dash and Saji (2007), Kim and Kim (2005) have shown empirically that self-efficacy plays an important role in generating trust with the online store. Thus we propose,

H5: Higher perception of online shopping self efficacy results in higher customer trust.

We present the model derived from the above hypotheses in Figure 1.

Please Insert Figure 1 about here

2.4 The moderating effect of customer demographics and psychographics

Personal variables of the customers include psychographic and demographic variables. The psychographic variables are based on lifestyle of the customers and are concerned with the attitude, interest and opinion of the customers. These variables have been used by firms in communicating with the customer for the purposes of audience profile development, psychographic segmentation etc. It was pointed out by Lastovicka (1982) that cultural values lead to lifestyle traits. But it is up to the individual to filter out values that suits him. So, the psychographic variables are more individualistic than cultural variables. There have been a plethora of studies including the seminal works of Ziff (1971), Tauber (1972) that indicated that psychographics affect shopping behavior and the customer market can be segmented on psychographic variables. Dutta-Bergman (2002) observed that customer personal variables such as age and psychographic variables do affect internet usage of users. In the context of online shopping several scholars such as Donthu and Garcia (1999), Lee and Turban (2001), Allred (2006), Chen and Barns (2007), Wu (2003) studied the impact of psychographics variables computer liking, disposition to trust, price consciousness on online shopping behavior.

Li et al (1999) found that men shop from the online stores more than women do. Smith and Whitlark (2001) carried out segmentation of the male and female users and identified their underlying characteristics. Van Slyke et al (2002) also argued that gender affects web based shopping behavior. Dholakia and Chiung (2003) investigated the role of gender in the differences in attitude towards online shopping. Black (2005) identified how age, income, gender, education, cost of living, crime index affect purchase intention. Venkatesh and Agarwal (2006) in their seminal work identified how age and gender affect website usability.

Taking cue from the above works in this study age and gender were considered to be influencing in the relationship between trust and its antecedents and also between trust and its consequences.

Enjoyment of online shopping and its moderating effects on the relationship between trust and website characteristics

Online recreational shoppers love to socialize while shopping. Shopping for them is more of an enjoyable experience. Wolfinbarger and Gilly (2001) had found that recreational shoppers would like to have more interaction with other customers and also with online store. Similarly, Brown et al (2003) had pointed out that recreational shoppers need chat rooms and notice boards on the website so that they can have more communication with the online store. So these shoppers shall give more emphasis to communication exchange with the online store to generate trust.

Donthu and Garcia (1999) pointed out that recreational online shoppers lose track of time and become highly involved in what they are doing. They feel more present in the interactive environment than in their immediate physical surrounding. Brown et al (2003), Wolfinbarger and Gilly (2001), had pointed out that the enjoyers of online shopping need more socializing in the website and to enjoy shopping. The website can provide them with this interactive environment by improving its social presence which deals with the physical presence of the online store.

It has been noted by Wu (2003) that students who like computers had a more positive attitude towards online shopping and were more likely to purchase online than the students who did not like computers. Besides, Allred et al (2006) noted that e-shoppers are more computer savvy than the non shoppers and they do not fear using the Internet for shopping. We believe that customers who enjoy online shopping are computer savvy and therefore have a higher liking for computers and would have higher self efficacy to carry out on line transactions. However, customers who do not like computers are less 'computer savvy' and would not enjoy shopping online. They would have less online shopping self efficacy for generating trust towards online shopping. Therefore, e-shoppers who are low on online shopping enjoyment value would require more online shopping self efficacy to generate trust towards online shopping compared to the customers who are high on online shopping enjoyment value.

Thus, we propose the following:

H6: Enjoyment of online shopping value positively moderates the relationship between communication exchange and trust with the online travel portal.

H7: Enjoyment of online shopping value positively moderates the relationship between social presence of the website and trust on the online travel portal.

H8: Enjoyment of online shopping value negatively moderates the relationship between self efficacy of the website and trust on the online travel portal.

Trust Propensity and its moderating effects on the relationship between trust and website characteristics

McKnight (2002) argued that individuals who are low on propensity to trust will be more critical about an unknown object. We believe that in the domain of Internet, where one fails to physically see the vendor and the shopping medium, privacy shall be a major concern for individuals who do not readily trust others. Further, Lee and Turban (2001) in their study found trust propensity of an individual moderates the relationship between the shopping medium and trust. This could be because of the fact that the online shopping medium cannot be physically felt and the customers are apprehensive about the information they are sending. So we believe that persons who are low on trust propensity shall place more importance on privacy to generate positive opinion about the vendor.

Lee and Turban (2001) have noted that individuals high on trust propensity can easily trust a person; they trust unknown persons as well with relative ease. McKnight et al (1998), McKnight et al (2002), had conceptualized that disposition to trust eventually leads to trust in e-business, they argued that individuals who are low on propensity to trust will be more critical about an object and would perceive the website quality to be poor. Besides, Kim and Kim (2005), Chen and Barns (2007), Hampton Sosa and Koufaris (2005), Koufaris and Hampton-Sosa (2004), had empirically found that individuals who are high on trust propensity, trust the online vendor more than the individuals who are low on trust propensity. So we believe that persons who are low on trust propensity shall place more importance on interpersonal norms in order to generate positive opinion about the vendor. Thus, we propose the following

H9: Trust Propensity value negatively moderates the relationship between privacy and trust on the online travel portal.

H10: Trust Propensity value negatively moderates the relationship between security and trust on the online travel portal.

We present the model derived from the above hypotheses in Figure 2.

Please Insert Figure 2 about here

Age and its moderating effects on the relationship between trust and website characteristics

There have been a number of studies that have pointed out age as a factor that governs Internet use. Dutta-Bergmann (2002) found the people of younger age group use the Internet more than the older ones. Igbaria and Parasuraman (1989) found from their study that older managers' attitudes towards computer technology were more unfavourable than their younger counterparts. Further, Gattiker and Kelly (1995) found that older people feel that they may get affected by Internet viruses if they use the Internet, however no such feeling was found among younger people. So, we believe that consumers from older age groups would give more emphasis on security to generate trust and to remove these ambiguities and fear.

Besides, Morris and Venkatesh (2000) argued that the older workers have unfavourable attitude towards new technology. We believe that older customers shall have less favorable attitude towards online shopping as it is relatively new in India. So, the older customers would need more self efficacy to generate trust. Further, we believe that the older customers would give more emphasis to the reputability of the online travel portal for clearing the ambiguity that he may have about online ticket booking.

So, we frame the following proposals

H11: Customers of older age group shall pay more importance to security of the website to generate trust with the online travel portal as compared to customers of younger age group.

H12: The customers of older age group shall pay more importance to self efficacy of the website to generate trust with the online travel portal compared to the customers of younger age group.

Gender and its moderating effects on the relationship between trust and website characteristics

It has been empirically found by Smith and Whitlark (2001) that women customers are more likely to use the Internet for social reasons. Venkatesh and Agarwal (2006) had argued that women give more importance to emotional appeal such as community building activities in the online store. Besides, Van Slyke (2002) had noted that unlike men, women view shopping as a social activity. So we believe that the female customers shall give more importance to the social presence and communication with the website to generate trust with the online travel portal.

It has been argued by several researchers like Venkatesh and Morris (2000) that women have less favorable attitude towards computers than men. Brunner and Bennett (1998) noted that in general women are less favorable towards adaptation of new technology. So, women would be more concerned with the privacy of the information that they would give out on the website.

H13: The female customers shall pay more importance to social presence of the website to generate trust with the online travel portal compared to the male customers.

H14: The female customers shall pay more importance to communication exchange with the online travel portal to generate trust with the online stores compared to the male customers.

H15: The female Customers shall pay more importance to privacy to generate trust with the online travel portal, compared to the male customers.

We present the model derived from the above hypotheses in Figure 3.

Please Insert Figure 3 about here

3.0 Methodology

A questionnaire was designed to measure Trust and website characteristics. The sample consisted of 216 students chosen randomly from various premier B-schools in India. The student sample was primarily chosen because most of the online shoppers in India are from younger age groups and heavy users of the Internet. The students from the premier B-schools of India have continuous Internet access from their Institutes and hence served our purpose. The scales to measure antecedent variables were taken from existing literature in the domain of ecommerce. The scale for measuring ‘communication’ was taken from Nath and Mukherjee (2003), social presence from Gefen and Straub

(2004), security from Koufaris and Hampton-Sosa (2004), privacy from Chen and Barns (2007) and self efficacy from Dash and Saji (2007). Trust was measured by the scales used by Chellapa (2005) and Suh and Han (2003). The scale for measuring the psychographic variable ‘trust propensity’ was adapted from the tested scale of Chen and Barns (2007). For enjoyment of online shopping we adapted the tested scale of Hassnein and Head (2006). All the variables were measured on a 5-point Likert scale from “strongly disagree (1) to strongly agree (5)”. There were two demographic variables used in the study i.e. age and gender. Each of the demographic variables had two categories i.e. High and low age groups for age and male and female for gender. The variable age was converted to dummy variables ‘0’ for lower age group and ‘1’ for high age group, similarly for gender ‘0’ was used to code male and ‘1’ for female. Confirmatory factor analysis was used to test for the discriminant and convergent validity of the questionnaire items. The sample characteristics are presented in table 1.

Table 1: The sample characteristics

Sites used	Online travel sites like www.makemytrip.com , www.yatra.com , sites of Airlines.
Sample size (N)	216
Male	177
Female	39
Years of Internet experience	8.34 years
Average age	26.8 years
Average Number of transactions with the portal in the last year	9.4

3.1 Results and Findings

To test the base model we followed a two stage procedure prescribed by Anderson and Gerbing (1988). The two–stage approach emphasizes the analysis of two conceptually distinct latent variable models: the measurement model and the structural model. The measurement model provides an assessment of convergent and discriminant

validity should be estimated before the structural model which provides an assessment of predictive validity and testing of research hypotheses.

3.1.1 The Measurement Model

Confirmatory factor analysis was done to check the validity and reliability of the constructs. The results are presented in table 2. Convergent validity is achieved if the loading of each of the individual items on a construct is greater than 0.5. The fit of the six-factor measurement model consisting of online shopping constructs on a correlation matrix of 27 measures was acceptable $\chi^2(309) = 579.262$ ($p < .001$); CFI=.90; IFI =.90; RMSEA=.06. Although the χ^2 statistics is significant ($p < .001$) the ratio of χ^2/DF was 1.87 which is below the recommended criteria of 2.0. Besides, the other goodness-of-fit indices also indicated a good fit. The CFI and IFI values of close to .90 satisfied the recommended cut-off criterion. The RMSEA for the model is below the cut-off criterion of .08. Convergent validity is achieved if the loading of each of the individual items on a construct is greater than 0.5. With the exception of 1 item from communication all other items displayed high convergent validity with factor loading greater than 0.5. Hence convergent validity was achieved. The item with factor loading less than 0.5 was deleted from model. The fit of the two-factor measurement model of the psychographic variables on a correlation matrix of 6 measures was also acceptable $\chi^2(8) = 7.216$ ($p < .001$); CFI=.99; IFI =.99; RMSEA=.001. Although the χ^2 statistics is significant ($p < .001$) the ratio of χ^2/DF was .92 which is below the recommended cut-off of 2.0.

The assessment of discriminant validity was conducted for all the correlated constructs. A stringent criterion for testing discriminant validity, suggested by Bagozzi and Phillips (1982) is to fix the correlation between two constructs as 1.0 and then employ a difference test for the constrained and unconstrained models. A significantly lower value for the model in which construct correlations are not constrained to unity would indicate that the constructs are not perfectly correlated and discriminant validity is achieved. Our results indicated that with an additional degree of freedom there was an increase in value ranging from 36.834 (with Privacy-Security constrained) to 204.551

(with Social Presence-Self Efficacy constrained). So our model demonstrated improved model fits when the constructs were separated and hence discriminant validity was achieved. In a similar vein the correlation between the two psychographic constructs was set to unity and the χ^2 value was found to be 118.869. This increase of 111.653 for 1 degree increase of freedom was significant. Thus discriminant validity for the psychographic constructs was achieved.

In assessing measurement reliability, Fornell and Larcker (1981) stressed the importance of reliability of each measure (individual item), and the internal consistency of composite reliability of each construct. Composite reliability is calculated as the squared sum of the individual item loadings divided by the squared sum of loadings plus the sum of error variances for the measures. The composite reliability of each construct should be more than 0.6 for measurement reliability. The results in table 2 and table 3 indicate that reliability of the measurement scales for the predictor, criteria and psychographic variables was achieved.

Path analysis using AMOS 4.0 was performed with Trust as the dependent variable and Privacy, Security, Social Presence and Communication as the independent variables. The results from path analysis (shown in Table 4) indicate that Social Presence, Communication, Privacy, Security and Self Efficacy are significant predictors of trust in travel portals. Security ($\beta=.387$) and Privacy ($\beta=.234$) were found to be the most significant predictors of trust followed by, communication ($\beta=.143$), self efficacy ($\beta=.160$). Thus H2, H3, H4 and H5 were supported and H1 was rejected.

To test the moderator effect of the psychographic variables, hierarchical moderator regression analysis (HMRA) was performed as prescribed by Sharma et al (1981). In the first step, the significant predictor variables that were identified during path analysis were taken into account. In the second step all the moderator variables were entered. In the subsequent steps the interaction effect of the predictor and moderator variables were entered. The moderator regression analysis results presented in Table 5 provided empirical evidence that trust propensity value negatively moderates the relationship between security and trust thus supporting H10.

In order to test the moderator effect of the demographic variables (age and gender) the demographic variables were converted to dummy variables and subsequently the

categorical moderator regression analysis as prescribed by Gujarati (2004) was carried out. The results of the Moderator Regression Analysis with categorical demographic variables as moderators are presented in Table 6. Age and gender were used as categorical moderators in the model. The results of the categorical moderator analysis are presented in table 5. As per expectation, privacy and communication were given more importance by female customers thus supporting H14 and H15. However, self efficacy was given less importance by the customers of higher age groups this was contrary to our expectation. We believe that our arguments were based on the fact that people from much higher age groups did not have access to computers during their youth and hence would require more self efficacy. However as we have taken a student sample from premier B-schools where the higher age group consists of students with some prior work experience, mostly in IT companies, our results have been counter intuitive.

4.0 Limitations and Conclusions

One of the drawbacks of the paper lies in the use of student sample. The results could have been more generalised had the student sample not been used. However, the student sample was chosen by keeping the age group of the Internet users in mind. We identified that the issue of website trust is one of the key obstacles of online transactions. Companies that have carved a niche in the Internet marketplace are those, which do effectively manage the complex, multidimensional process of building trust online. Trust has been accepted as one of the key attributes in business to customer (B2C) electronic commerce due to the fact that online transactions are characterized as a process that involves higher perceived risk by customers. The effect of measures to build and maintain trust in online travel portal is subject to customer-centric behavioral factors, which cannot be easily determined by a business firm. The present study conducted in the Indian context explores the key antecedents of consumer trust in online travel portals. In order to come up with a successful e-business, online travel companies need to have a deeper understanding on how trust is nurtured and developed and in the online travel portal. The empirical phase of the study has resulted in several meaningful conclusions as discussed below.

In this study we reviewed the past literature and empirically shown the drivers of trust that contribute to online purchase decision. With the increase of travellers with time constraint, more and more of travellers are procuring several travel related services from online portals. This includes purchase of rail and air tickets, online hotel booking etc. We found from our study that Indian customers give most importance to security, privacy communication and self efficacy to generate trust. The online-travel business in India is in a nascent stage compared to several western countries. This coupled with burgeoning cyber laws could be a major reason for customers giving more stress to privacy and security of the website. Perceived privacy of consumer information can be improved by ensuring that at no point of time customer should not be asked to reveal irrelevant personal information during transaction. The travel portal should ensure that they do not collect information without consent, do not place cookies on the user's computer without her knowledge. The online travel portals can improve the perceived security by displaying 3rd part seals like verisign etc. and also by exhibiting its past reputation so as to enable the users to get more faith on the website. By infusing a significant motivational factor like self efficacy in online portal through facilitating clarity of online instructions, user friendly online buying environment, real time online buying experience, and exposure to past online buying experience, the online service providers can expect to win the self confidence of the online customers. This could be made feasible through creative website design and maintenance, specifically by resorting to online promotion mechanisms like testimonial advertising, and demonstrations via video presentations and Internet kiosks. Indian customers also desire faster personalized communication from travel portal service provider. Online travel portals can provide more web-enabled communication through online message boards and e-mail etc. Communication can be further improvised by sending personalized messages to customers and responding to customer queries more rapidly.

The travel portals will increasingly deal with the situation of selling different categories of products and services to a varied range of customers. Online travel portals have to be more versatile in terms of website features while dealing with its wide range of customers. For example, it was found from the study that privacy was given more

importance by women. This is in accordance with prior arguments of prior researcher like Smith and Whitlark (2001), Venkatesh and Morris (2000) who argued that women are more reluctant to use new technology than men. So, the online travel portals that cater to women only can come up with a website that would stress on the protection of privacy of information that is provided to the site and emphasize on its privacy policy. This shows that the travel portal should be able to customize the website according to the preferences of the customers' demographic value. Similarly travel portals can customize their sites based on the psychographic orientation of its customers. From the findings it is clear that the customers who are low on trust propensity give more stress on security of the website in order to generate trust with the travel portals selling tickets/doing hotel booking etc.

In conclusion, the paper has shown how the customers' psychographics and demographics influence the antecedents of trust in e-ticket and hotel booking. However, studies by Singh (2002), Cyr (2008), have shown that the culture influences the factors that generate purchase intention. Expanding the analysis to include cultural dimensions would provide managers and researchers more incisive insights into the dynamics occurring between the customers and the online travel portal. Further, only website characteristics as antecedents of trust have been examined in the study. We believe that future studies should review the effect of 'other' antecedents of trust such as vendor repute, subjective norms etc on online trust. This would be a possible extension for future research.

Reference

1. Aithyaman, A. (2002). Internet users' intention to purchase air travel online: an empirical investigation. *Marketing Intelligence and Planning* 20 (4): 234-242.
2. Bhattacharjee, A., (2002). Individual trust in online firms: scale development and initial trust. *Journal of Management Information Systems* 19 (1): 213–243.
3. Brock, S. (1998), Buyer-Seller Relationships: Bonds, Relationship Management, and Sex-Type. *Canadian Journal of Administrative Science* 15(1):76-92.
4. Brown, I. and Buys, M. (2005). A Cross-Cultural Investigation into Customer Satisfaction with Internet Banking Security. *Proceedings of SAICSIT*. 200 – 207

5. Brown, M., Pope, N. and Voges, K. (2003). Buying or browsing? An exploration of shopping orientations and online purchase intention. *European Journal of Marketing* 37(11/12):1666-1684.
6. Burnett, J.J. and Palmer, B.A. (1984). Examining Life Insurance Ownership through Demographic and Psychographic Characteristics. *Journal of risk and insurance* 51(3): 453-468.
7. Chellappa, R. K. (2005). Consumers' Trust in Electronic Commerce Transactions: The Role of Perceived Privacy and Perceived Security. :1-46
8. Chen Y.H. and Barns S. (2007). "Initial Trust and Online Behaviour". *Industrial Management and Data Systems*, Vol 107, No.1, pp 21-36.
9. Clemons, E., Hann, I. and Hitt, L.M. (1999). The nature of competition in electronic markets: An empirical investigation in online travel agent offerings. Working paper, Wharton School, University of Pennsylvania.
10. Cyr, D., Hassanein, K., Head M. and Ivanov A (2007). The role of social presence in establishing loyalty in e-service environment. *Interacting with computers* 19 (1): 43-56.
11. Cyr D. (2008). Modelling Website Design across Cultures: Relationships to Trust, Satisfaction and E-loyalty. *Journal of Management Information Systems* 24(4): 47-72
12. Cyr D., Kindra G. and Dash S.B. (2008). Website Design, Trust, Satisfaction and e-Loyalty: The Indian Experience. *Online Information Review*, 32(6): 773-790
13. Dash S.B. and Saji K.B. (2006). "Role of effective Website-Design in online shopping: A large scale empirical study in the Indian Context". NASMEI International conference on 'Marketing in the new global order' Dec 18-20, IIM Indore.
14. Dash S.B. and Saji K.B. (2007). Role of Self-Efficacy and Website Social-Presence in Customers' Adoption of B2C Online Shopping: An Empirical Study in the Indian Context. *Journal of International Consumer Marketing* 20(2) 33-48.
15. Dholakia R.R. and Chiang K.P. (2003). "Shoppers in cyber space: are they from Venus or Mars and does it matter". *Journal of consumer psychology*. 13(1-2): 171-176.

16. Dholakia, R.R., Dholakia, N. and Kshetri, N. (2003). Gender and Internet usage. In Hossein Bidgoli (ed.) *The Internet Encyclopedia*. New York: Wiley.
17. Donthu, N. and Garcia, A. (1999). The Internet shopper. *Journal of Advertising Research*. 39(3): 52-58.
18. Donthu, N. and Yoo, B. (1998). Cultural Influences on service quality expectations. *Journal of Service Research* 1(2):178-186.
19. Dutta-Bergman, M.J. (2002). Beyond demographic variables: Using psychographic research to narrate the story of Internet users. *Studies in Media & Information Literacy Education* 2(3): 1-10.
20. Euromonitor International Report
http://www.euromonitor.com/India_leads_growth_in_online_travel_sales_in_Asia
 assessed on July 20, 2009
21. Finin, T; Ding, L; and Zhou, L; and Joshi, A. (2005); Social Networking on the Semantic Web. *The Learning Organization*. 12(5): 418-435.
22. Fulk, J, Schmitz, J., and Power, G.J. (1987). A Social Information Processing Model of Media Use in Organizations. *Communication Research* 14(5):520-552.
23. Furrer, O., Liu, B.S.C. and Sudarshan, D. (2000). The Relationships between Culture and Service Quality Perceptions. *Journal of Service Research* 2(4): 355-371.
24. Ganesan S. (1994). Determinants of long-term orientation in buyer-seller relationship, *Journal of Marketing*. 58(2):1-19.
25. Garret, J.J. (2003). *The elements of user experience: User centered design for the web*. Indiana: New Rider's Publication.
26. Gattiker, U.E., & Kelley, H. (1995). Morality and technology, or is it wrong to create and let loose a computer virus. In J. F. Nunamaker, Jr. & R. H. Sprague (eds.), *Proceedings of the 28th Annual Hawaii International Conference on System Sciences* 1995:563-572. Las Alamitos, CA: IEEE Computer Society Press.
27. Gefen D. (2000). E-commerce: the role of familiarity and trust. *The International Journal of Management Science* 28: 725-737.

28. Gefen D. and Straub D. (2000). The relative importance of Perceived ease of use in IS Adoption: A study of e-commerce adoption. *Journal of Association of Information System* 1(8): 1-30.
29. Gefen, D., Karahanna, E. and Straub, D.W. (2003) Trust and TAM in online shopping: An Integrated Model. *MIS Quarterly* 27(1):51-90.
30. Gefen, D., and Straub, D.W. (2004). Consumer Trust in B2C Online Shopping and the Importance of Social Presence: Experiments in e-Products and e-Services. *Omega: The International Journal of Management Science* 32(6): 407-424.
31. Grabner-Krauter, S. and Kaluscha, E.A. (2003). Empirical research in online trust: a review and critical assessment. *International Journal of Human studies* 58(6): 783-812.
32. Gujarati D. (2004). *Basic Econometrics*. Tata McGraw Hill Companies 4th edition, India : 316-319.
33. Harridge-March, S. (2006). Can the building of trust overcome consumer perceived risk online? *Marketing Intelligence & Planning* 24 (7): 746-761
34. Hassanein K. S. and Head M. (2004). The Influence of Product Type on Online Trust. *Proceedings of the 17th Bled Electronic Commerce Conference eGlobal*, Bled, Slovenia, June 21 – 23.
35. Hassanein K. S. and Head M. (2004). Building online trust through socially rich web interfaces. *Proceedings of the 2nd Annual Conference on Privacy, Security and Trust*, Fredericton, New Brunswick, Canada:15-22.
36. Hassanein, K. S. and Head, M. (2006). The Impact of Infusing Social Presence in the Web Interface: An Investigation across Different Product. *International Journal of Electronic Commerce* 10(2):31-55.
37. IAMAI Report (2008). www.iamai.in/Upload/Research/I-Cube_2008_Summary_Report_30.pdf accessed on July 15, 2009.
38. Igarria, M. and Parasuraman, S. (1989), A path analytic study of individual characteristics, computer anxiety and attitudes toward microcomputers. *Journal of Management* 15(3): 373-388.

39. Jarvenpaa, S.L. and Tractinsky, N. (1999). Consumer trust in an internet store: a cross-cultural validation. *Journal of Computer-Mediated Communication*. 5(2):1–35.
40. Jupiter Corp Report. <http://www.e-commerce-guide.com/news/trends/article.php/3580126> accessed on July 18, 2009.
41. Karvonen, K. (2000). The beauty of simplicity. *ACM Proceedings on the Conference on Universal Usability*: 85–90.
42. Koufaris, M. and Hampton-Sosa, W (2004). The development of initial trust in an online company by new customers. *Information and Management* 41: 377-397.
43. Krishnamurthy S. (2001). An empirical study of the causal antecedents of consumer confidence in e-tailers. *First Monday* 6(1). Electronic publication. URL: http://www.firstmonday.dk/issues/issue6_1/krishnamurthy/index.html, last access: 31 October 2002.
44. Lastovicka, J.L. (1982). “On the validation of lifestyle traits: a review and illustration”. *Journal of Marketing research*. 12: 126-138.
45. Lee, M.K.O. and Turban, E. (2001). A Trust Model for Consumer Internet Shopping. *International Journal of Electronic Commerce* 6(1):75-91.
46. Li, H., Kuo, C. and Russel, M.G. (1999). The Impact of Perceived Channel Utilities, Shopping Orientations, and Demographics on the Consumer’s Online Buying Behavior. *Journal of Computer Mediated Communication*. 5(2).
47. Marks, A. (2004), Now’s a good time to fly, unless you’re a major airline. *The Seattle Times*. Available at: <http://web.lexis-nexis.com>
48. Mithas, S., Ramasubbu, N., Krishnan, M.S., and Fornell, C. (2007). Designing websites for customer loyalty across business domains: A multilevel analysis. *Journal of Management Information Systems*. 23(3): 97-127.
49. Miyazaki, A. D. and Fernandez, A. (2001). Consumer Perceptions of Privacy and Security Risks for Online Shopping. *The Journal of Consumer Affairs*, 35(1).
50. Morris, M.G. and Venkatesh, V (2000). Age differences in technology adoption decisions: implications for a changing work force. *Personnel Psychology*. 53(2): 375-403.

51. Mukherjee, A. and Nath, P. (2003). A model of trust in online relationship banking. *International Journal of Bank marketing* 1 (21): 5-15.
52. Newman, K.L. and Nollen, S.D. (1996). Culture and congruence: the fit between management practices and national culture. *Journal of International Business* 27(4): 753-779.
53. Peterson, R.A. Balasubramanian, S. and Bronnenburg, B.J. (1997). Exploring the implications of the Internet for consumer marketing. *Journal of the Academy of Marketing Science* 25(4): 329-346.
54. Phau, I and Poon, S.M. (2000). Factors influencing the types of products and services purchased over the Internet. *Internet Research: Electronic Networking Applications and Policy* 10(2): 102-113.
55. Ranganathan, C. and Ganapathy, S (2002). Key dimensions of business-to-consumer websites. *Information and Management*. 39(6): 457-465.
56. Ribbink, D., Allard, C.R., Liljander, V. V., and Treukens, S. (2004). Comfort your online customer: quality, trust and loyalty on the internet. *Managing* 14(6): 446-456.
57. Salam, A.F., Iyer, L., Palvia, P. and Singh, R. (2005). Trust in e-commerce. *Communications of the ACM*, 48(2).
58. Sharma, S., Durand, R.M. and Gur-Arie, O. (1981). Identification and Analysis of Moderator Variables. *Journal of Marketing Research*, 18(3): 291-300.
59. Singh N. (2002), Analyzing Cultural Sensitivity of Web Sites. *Journal of Practical Global Business*. April: 32-53.
60. Smith S.M. and Whitlark D.B. (2001). Men and women online: what makes them click? *Marketing Research* 13(2): 20-25.
61. Stephens R.T. (2004). A Framework for the Identification of Electronic Commerce Design Elements that Enable Trust within the Small Hotel Industry. *ACMSE '04*, April 2-3, Huntsville, Alabama, USA.
62. Suh, B. and Han, I. (2003). The impact of customer trust and perception of security control on acceptance of electronic commerce. *International Journal of electronic commerce* 7(3):135-164.

63. Sultan, F., Urban, G.L., Shankar, V. and Bart, I.Y. (2002). Determinants and Role of Trust in E-commerce: A large scale empirical study. Working Paper, Sloan School of Management, MIT, Cambridge, MA.
64. Tan, H. and Guo. J (2005). Some Methods to Depress the Risks of the Online Transactions. ICEC'05, August 15–17, 2005, Xi'an, China.
65. Tan, F.B., Yan, L. and Urquhart, C. (2007). The effect of cultural differences on Attitude, Peer influence, External influence and Self-efficacy in actual online shopping behavior. *Journal of Information Science and Technology* 4(1): 3-23.
66. Tauber, E. M. (1972). Why do people shop? *Journal of Marketing*. 36(4): 46-59.
67. Teo, T.S.H. and Liu, J. (2007). Consumer trust in e-commerce in the United States, Singapore and China. *Omega* 35(1): 22-28.
68. Van Slyke C., Comunale C.L. and Belanger F. (2002). Gender differences in perceptions of web based shopping. *Communications of the ACM*. 45(7): 82-86.
69. Venkatesh, V. and Morris, M.G. (2000). Why don't men ever stop to ask for directions? gender, social influence, and their role in technology acceptance and usage behavior. *MIS Quarterly*. 24(1): 115-139.
70. Venkatesh, V. and Agarwal, R. (2006). Turning Visitors into Customers: A Usability-Centric Perspective on Purchase Behavior in Electronic Channels. *Management Science* 52(3): 367-382.
71. Vijaysarathy, L.R. (2002). Product characteristics and Internet shopping intentions. *Internet Research: Electronic Networking Applications and Policy*. 12 (5): 411-426.
72. Von Hippel E (1998). Economics of product development by users: the impact of “sticky” local information. *Management Science*. 44(5): 629–44.
73. Wolfinbarger M. and Gilly M.C. (2001). Shopping online for freedom, control and fun. *California Management Review* 43(2):34-55.
74. Wu S. (2003). The relationship between consumer characteristics and attitude toward online shopping. *Marketing Intelligence and Planning*. 21(1): 37-44.
75. Yoon, S.-J. (2002). The antecedents and consequences of trust in online purchase decisions. *Journal of Interactive Marketing* 16(2): 47-63.

76. Zhao W., Massey, B.L., Murphy, J. and Fang, L. (2003). Cultural Dimensions of Website Design and Content. *Prometheus* 21(1): 75-84.

Appendix A

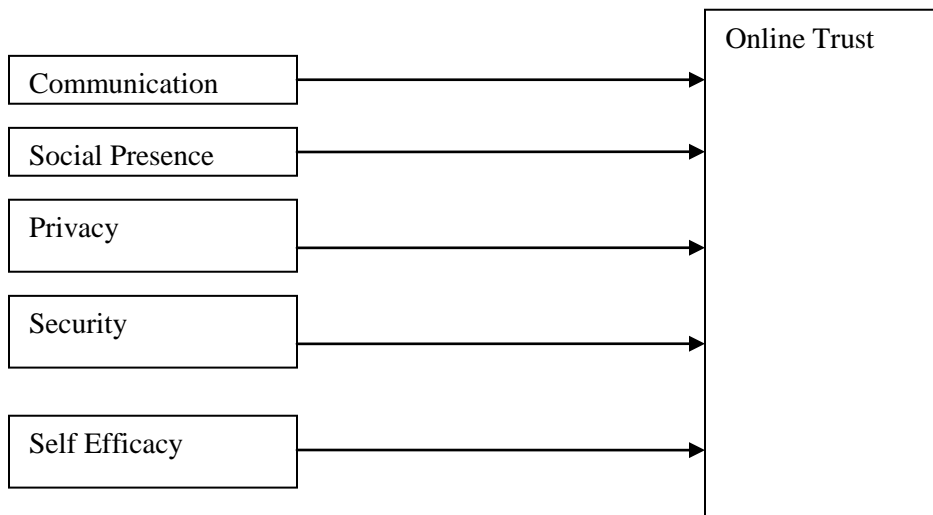


Figure 1: The various antecedents and consequences of trust in online travel portals

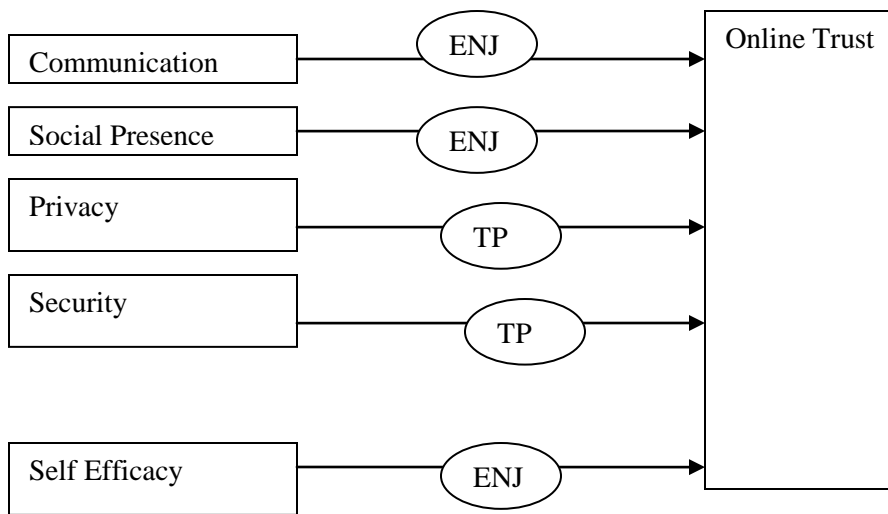


Figure 2: The various antecedents and consequences of trust and the moderating effect of customer psychographics in online travel portals.

Notes, ENJ is Enjoyment and TP is Trust Propensity

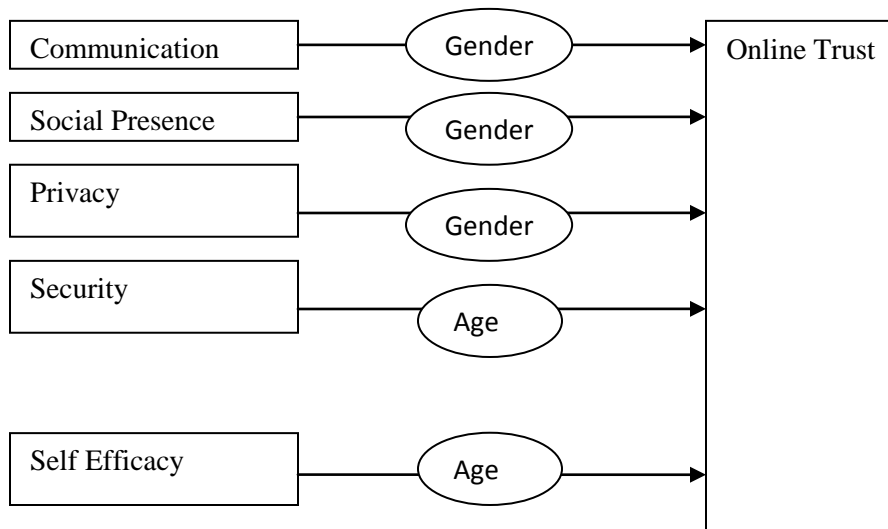


Figure 3: The antecedents and consequences of trust and the moderating effect of customer demographics in online travel portals.

Table 2: Results of confirmatory Factor Analysis for the predictor and criteria variables

Construct	Measurement Item	Factor Loading	Mean (SD)	CR
Social Presence	SP1	.75	2.54 (1.00)	.84

	SP2	.79	2.69 (1.02)	
	SP3	.87	2.61 (.93)	
	SP4	.50	2.34 (1.1)	
	SP5	.62	3.01 (.87)	
Communication	COM1	.70	3.29 (1.06)	.63
	COM2	.66	3.17 (1.15)	
Privacy	PRV1	.69	3.59 (.930)	.75
	PRV2	.81	3.86 (.873)	
	PRV3	.52	3.74 (.903)	
	PRV4	.60	3.76 (1.001)	
Security	SEC1	.74	3.76 (.937)	.84
	SEC2	.82	3.85 (.905)	
	SEC3	.67	3.78 (.866)	
	SEC4	.79	3.84 (.903)	
Self Efficacy	SE1	.57	4.34 (0.76)	.78
	SE2	.73	4.14 (0.83)	
	SE3	.62	3.67 (0.91)	
	SE4	.68	3.83 (0.89)	
	SE5	.64	3.78 (0.91)	
Trust	T1	.63	3.83 (.813)	.84
	T2	.66	3.84 (.785)	
	T3	.60	3.58 (.922)	
	T4	.500	3.74 (.747)	
	T5	.67	3.81 (.71)	
	T6	.73	3.59 (.802)	

	T7	.79	3.89 (.743)	
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Table 3: Results of confirmatory Factor Analysis for the psychographic variables

Construct	Measurement Item	Factor Loading	Mean (SD)	CR
Trust Propensity	TP1	.84	3.19 (1.05)	.77
	TP2	.69	2.78 (0.98)	
	TP3	.65	3.23 (0.93)	
Enjoyment	ENJ1	.55	3.97 (0.80)	.65
	ENJ2	.62	3.58 (0.84)	
	ENJ3	.69	3.66 (0.75)	

Table 4: The standardized path coefficients of the independent variables

Path	Standardized Coefficient (Beta)
Social Presence->Trust	.000 (NS)
Privacy->Trust	.234***
Security->Trust	.387***
Communication Exchange->Trust	.143***
Self Efficacy->Trust	.160***

*p <.05, ** p <.01 and ***p<.001 level, NS indicates not significant

Table 5: Results of Hierarchical Moderator Regression Analysis with trust as dependent variable and the interaction effects of the psychographic moderators

Independent Variable	R ²	R ² change	F Change	Standardized Coefficient
Communication Exchange, Privacy, Security, Self Efficacy.	.531	-	59.633***	.143***, .234***, .387***, .160***
Enjoyment, Trust Propensity	.546	.015	3.515**	.119**, -.072
Communication*Enjoyment	.551	.005	2.336	-.550
Self Efficacy*Enjoyment	.552	.001	.706	-.354
Privacy*Trust Propensity	.553	.001	.216	.134

Security*Trust Propensity	.560	.007	3.136*	-.933*
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* p <.1, ** p <.05 and ***p<.01 level

Table 6: Results of Hierarchical Moderator Regression Analysis with trust as dependent variable and the interaction effects of the demographic moderators.

Independent Variable	R ²	R ² change	F Change	Standardized Coefficient
Communication Exchange, Privacy, Security, Self Efficacy.	.531	-	59.633***	.143***, .234***, .387***, .160***
Gender Group, Age Group	.533	.001	.569	-.051, .006
Communication* Gender	.542	.009	4.186**	.314**
Self Efficacy*Age	.556	.014	6.561**	-1.021**
Privacy*Gender	.563	.007	3.297*	.458*
Security*Age	.563	.000	.003	-.015

* p <.1, ** p <.05 and *** p<.01 level