Factors Influencing Iranian Consumers' Trust in Internet Shopping

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Abstract

Lack of trust in online companies is a primary reason why many web users do not shop online. This study examines consumers' perceptions of the Internet merchant, general perceptions of privacy and security of the Web, perceptions of the risks and benefits of online shopping in the Iran, and how these perceptions affect Iranian consumers' trust in Internet shopping. It also examined the effect of individual characteristics on consumers' decision to buy online and the factors that predict trust in online shopping. A sample of 625 individuals was surveyed using a previously validated measurement instrument that focused on a number of key constructs identified in the literature as potential trust predictors. The results show that the perceived risks have the strongest predictive value in terms of the formation of Iranian consumers' trust in online shopping. Similarly, perceived security protection and perceived reputation are also important predictors of Iranian consumer trust in internet shopping. Propensity to trust have a moderating effect on the relationship between trust in Internet shopping and the respondents' perceptions of the antecedents to trust. The findings of this research are of potential benefit to online vendors of all types who seek to engender consumer trust in their web sites.

Keywords: Consumer Behavior, Internet Shopping, Trust, Iran

1. Introduction

Strictly speaking, e-commerce is "the purchasing and selling of goods or services on the Internet" (Reddy & Lyer 2002, p.518). Electronic commerce, especially conducted via the Internet and World Wide Web, is growing at a phenomenal rate. Everyday thousand of internet users and shoppers are joining the ranks of the digitally connected business world.

The Internet has changed how business is conducted and how producers and Consumers interact. "As a business medium, the Internet is unique in permitting firms to create interactive online environments that allow consumers to gather and evaluate information, assess purchase intentions, and directly buy products at their own convenience" (Ranganathan & Sanjeev, 2007, p. 48).

Since the advent of e-commerce in the early 1990s, "Web based retailing has become a global phenomenon with steady increase in sales across the globe" (Ranganathan & Sanjeev, 2007, p. 48). Based on the estimates of the Industrial Development Corporation, by 2008, the average spending for online buyers will be $800 per person (Shayo et al., 2007). "It is estimated e-commerce will have worldwide sales of $700 US-billion by 2009 while online sales grow at 25% a year" (Shaw, 2007, p. FP8). growth in online shopping has been motivated by convenience (free of any salesperson pressure

and shopping within a comfortable home setting), ease of information search/information gathering, ability to compare prices, wider selection of products and services, time-saving, original services, and personal motivation among other factors (Horrigan, 2008; chen et al., 2002; Ranganathan & Sanjeev, 2007; Zhou et al., 2008). Despite the optimistic outlook on online shopping, revenues from online shopping are still meager compared to traditional retailing. "Although rapid growth has been witnessed in this area, online sales volume still remains relatively low compared to alternative retailing form" (Chen & Tan, 2004, p. 74). According to Lee and Turban (2001), there is an enormous potential in the use of Internet for the purchase of goods and services but many users are reluctant to make purchases on the Internet. Compared to traditional shopping, the risks involved in online shopping are greater; Consumers rely upon limited information because of the inability to examine the physical goods and must rely solely on pictures shown on the computer screen. Another reason why people don't shop online is shopping is viewed as a form of socialization (Chen et al., 2002). Another reason concerns the use of the technology. "Since this shopping medium is relatively new and most people have only little experience with it, shopping on the Internet provides a challenge to many consumers" (Monsuwe et al., 2004, p. 114). There are other serious issues that dissuade consumers from shopping online. Research revealed that fear of fraud, lack of standard technologies for secure payment, privacy concerns, and lack of trust in e-commerce were the major reasons consumers opt out of engaging in an online marketplace (Chen et al., 2002; Grewal, et al. 2004; Lee & Turban, 2001; Ranganathan & Sanjeev, 2007). Hoffman et al. (1999) assert that the "primary barriers to consumers' providing demographic data to the Web sites are related to trust and the nature of the exchange relationship" (p. 82). Lee et al.(2007) mentioned that there is a unidirectional and significant imbalance in the relationship between producers and consumers in terms of access to and control of information. The lack of trust in e-commerce transactions seems to stem from two consumer feelings: (a) they do not have control over the access that Web merchants have to their personal information, and (b) they do not have control over secondary use of information for other purposes. Consumers are concerned that Web providers will sell their personal information to third parties without their knowledge or permission (Lee et al., 2007).

The key purpose of this paper is to determine the factors that influence on the formation of Iranian consumers' trust in internet shopping. This will be examined by identifying four factors that influence the development of online trust: perceptions about the Internet merchant (reputation, size, trustworthiness), general perceptions about privacy and security protection, perceptions about the risks and benefits involved in online shopping, and individual propensity to trust. This paper will also examine whether propensity to trust directly influence consumer trust in Internet shopping or whether they moderate the relationship between other trust antecedents and consumer trust in Internet shopping.

2. Trust in Online Shopping

Trust is a complex issue that has been studied in various disciplines. In the marketing area, studies of trust have been highly focused on relationship marketing, which includes marketing activities for creating and maintaining successful relational exchange (Morgan & Hunt, 1994). The concept of trust in e-commerce has been examined in recent years; there is little doubt that trust plays a key role in customers' online purchasing decisions (Jarvenpaa & Tractinsky, 1999; Koufaris & Hamoton-Sosa, 2004; Riegelsberger et al., 2005; Salo & Karjaluoto, 2007; Kim & Jones, 2009).

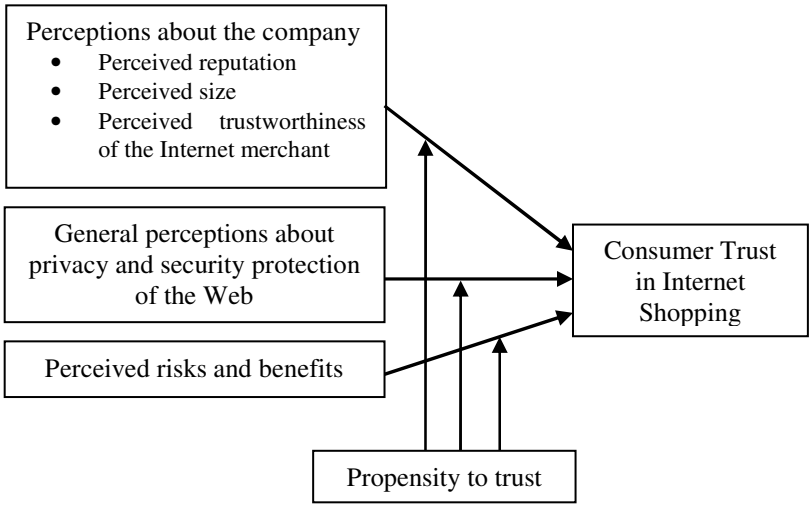
Engendering trust in consumers is one of the challenges faced by Internet merchants because when consumers are scattered around the world, sources of trust are not readily available for the merchants to harness (Jarvenpaa & Tractinksy, 1999). "The most salient source of trust in a retail setting is the salesperson, where consumer trust is dependent on the salesperson's expertise, likeability, and similarity to the customer" (Monsuwe et al., 2004, p. 114). In online shopping, the salesperson is replaced by a help button on the home page of the Web shopping site (Lohse & Spiller, 1998). Developing trust in online transaction, is substantially more difficult that in traditional business. An

online exchange environment requires trust as an important component because of "uncertainty, anonymity, lake of control, and potential opportunism" (Shankar et al., 2002). Lee and Turban (2001) defined consumer trust in internet shopping (CTIS) as "the willingness of a consumer to be vulnerable to the actions of an Internet merchant in an Internet shopping transaction, based on the expectation that the Internet merchant will behave in certain agreeable ways, irrespective of the ability of the consumer to monitor or control the Internet merchant" (p. 79). Research has shown that online trust or CTIS is dependent on many factors. These factors include but are not limited to: perceived reputation, perceived size, multichannel integration, system assurance, store trustworthiness, Web site quality, perceived risk, perceived privacy and security protection, perceived benefit/usefulness, familiarity with the Web site, consumers' propensity to trust, consumers' attitude towards using a virtual store, consumers' experience and knowledge, and Web-shopping risk attitudes (Elliot & Fowell, 2000; Grewal et al., 2004; Lee & Turban, 2001: Jarvenpaa & Tractinsky, 1999; Riegelsberger et al., 2005; Van der Heijden et al., 2003).

Figure 1 presents the research model for this study. The model was patterned after Lee and Turban's (2001) proposed model for Consumers' Trust in Internet Shopping (CTIS) but was modified to accommodate other antecedents of trust.

The model suggests that trust in Internet shopping is directly affected by the perceptions of the Internet merchant (perceived company reputation, perceived size, and perceived trustworthiness of the Internet merchant), perceptions about privacy and security protection, and perceptions of the risks and benefits involved in Internet shopping. The consumer's propensity to trust could have a direct effect on trust in Internet shopping or an indirect effect, which means that this variable moderate the relationship between Consumer Trust in Internet Shopping and the trust antecedents.

Figure 1: Modified model of consumer trust in Internet shopping



Source: Lee & Turban (2001)

Perceptions of the Internet merchant is an important factor to study because it has been noted that reputation and size "have been most frequently suggested as factors that contribute to consumer trust in a seller organization" and that these "provide assurances of the other party's ability, integrity, and goodwill" (Jarvenpaa & Tractinsky, 1999). Perceptions about privacy and security protection are emphasized in the current study because online transactions pose a threat to people's privacy since consumers are required to divulge personal information which, in many cases, are retained by retailers. Lee and Turban (2001) pointed out that security and privacy impact CTIS. Elliot and Fowell (2000) also noted that "consumers raising privacy as a concern invariably mentioned security as well" (p. 333). It is also important to address the consumers' perceptions of risks and benefits involved in

Internet shopping because "perceptions of risks and benefits have an effect on privacy concerns" (Lee et al., 2007, p. 266).

2.1. Perceptions about the Internet Merchant

2.1.1. Perceived Reputation

Reputation of a company is also crucial in online business, as after analyzing reputation a client can predict how the company could behave. On the other hand, the client may not have any prior interaction with a company. Therefore, there is no way to know about the company except other client's opinion(feedback) about that company. A company's reputation is often expressed by publishing stories and customer testimonials on a Web site. Doney and Cannon (1997)(as cited in Jarvenpaa & Tractinsky, 1999) defined reputation as "the extent to which buyers believe that the selling organization is honest and concerned about its customers"(p.37). Previous studies revealed that perceived reputation affects trust in an Internet store (Gould, 2007; Koufaris, 2004; Jarvenpaa et al., 2000; Riegelsberger et al., 2005; Van der Heijden et al., 2003). When the company's reputation is perceived positively, consumers exhibit greater trust in that company. "The better the seller's reputation, the more the seller has presumably committed resources to build that reputation, the higher the penalty from violating the consumer's trust, and hence the more trustworthy the seller is perceived to be" (Jarvenpaa & Tractinsky, 1999, section 3, para. 2).

H1: The store's perceived reputation is positively related to consumer trust in an internet store.

2.1.2. Perceived Size

A company's size is often expressed by means of investing in Web-page banners boasting of its size (Jarvenpaa & Tractinsky, 1999). For instance, eBay.com's banner says that it is "The World's Online Marketplace" (www.eBay.com). Size of a store is one of the bases used by Consumers to form their impressions regarding the store's trustworthiness (Koufaris, 2004; Jarvenpaa et al., 2000; Van der Heijden et al., 2003). "What matters in forming those impressions is the consumer's perception of the store's size, rather than the store's actual size" (Jarvenpaa et al., 2000, p. 48). Jarvenpaa and Tractinsky (1999) noted that "a perception of a large organization size implies that the merchant has significant resources invested in business and has much to lose by acting in an untrustworthy way. Hence, the larger the firm, the more it is perceived by customers that it is in the firm's best interest to fulfill its promises to the consumer" (section 3, para. 2). In the same note, Koufaris (2004) believes that consumers' trust is increased when the size of the company is perceived to be large.

Consumers apparently assume that a large company will provide the services and support that customers need and that the company will be able to compensate them in case of product failure.

H2: The store's perceived size is positively related to consumer trust in an Internet store.

2.1.3. Perceived Trustworthiness of Internet Merchant

"Trust can only exist if the consumer believes that the seller has both the ability and the motivation to deliver goods and services of the quality expected by the consumer" (Jarvenpaa & Tractinsky, 1999, section 2, para. 5). Attributes that constitute the main elements of trustworthiness are: ability, benevolence, and integrity (Lee & Turban, 2001; Salam et al., 2005).

Ability comprises the skills and competencies enabling a party to have influence within some specific domain. As such, ability is domain specific. In the present context, it relates to the competence of a company in the Internet shopping business. Benevolence is the extent to which the trusting party believes that the trusted party wants to do good things rather than just maximize profit. Integrity is the trusting party's perception that the trusted party will be honest and adhere to an acceptable set of principles. The three trustworthiness attributes include the concept of reputation (Lee & Turban, 2001, p. 77-78).

H3: Perceived trustworthiness of Internet Merchant is positively related to consumer trust in an Internet store.

2.2. Perceived Privacy and Security Protection

Security and privacy problems have existed on the Internet since its inception, but have gotten much worse in recent years, largely due to the growth of the Internet. When a consumer shopped on the internet, there were many threats to personal security (Salisbury et al., 2001). These threats have major impacts on end users, websites, businesses, and even Internet service providers. Many online security problems exist because users are not given the best tools to adequately understand risk. Another aspect of this problem is that users often have different mental models of how computers operate (Hardee et al., 2006). Despite the threats to users and the fact that many claim to value security, users are often willing to give up security in exchange for other benefits. According to Bierhoff and Vornefeld (2004), "although the Internet is a technical system with strict, built-in security measures, it is managed, maintained, and used by humans and therefore will never be able as a system to guarantee perfect security" (p. 48). The fact that consumers cannot monitor the safety and security of sending sensitive and personal information over the Internet involves some level of risk in the transaction (Monsuwe et al., 2004).

Privacy is often cited as a top concern among Internet users (Ackerman et al., 1999). Most consumers are concerned about companies collecting their personal information because of the risk that companies might share their personal information inappropriately (Brustoloni & Villamarin, 2007). In response to consumer privacy concerns, many corporations have posted privacy policies (Jackson et al., 2007). But these policies rarely help because they often go unread, or do not address the most common consumer concerns (Schechter et al., 2007).

Privacy and security concerns of online transactions affect consumers' purchasing behavior (Elliot & Fowell, 2000; Van der Heijden et al., 2003). "A high level of security and privacy in the online shopping experience has a positive effect on consumer trust, owing to the lowered risk involved with exchanging information. Violation of consumers' trust in online shopping, in terms of privacy invasion or misuse of personal information negatively influences attitude towards online shopping" (Monsuwe et al., 2004, p. 115). In addition, when computer errors occur, trust in a computer system declines (Grewal et al., 2003).

H4: The perceived security of the internet is positively related to CTIS.

H5: The perceived privacy of the internet is positively related to CTIS.

2.3. Perceived Risks and Benefits

Online shopping, like traditional shopping, involves risks as well as benefits. As mentioned earlier, consumers have several concerns which keep them from engaging in financial transactions online. Ko et al. (2004) defined perceived risk "as the potential for loss in pursuing a desired outcome when engaged in online shopping" (section 1, para. 3). "The consumers' perception of risk associated with the nature and amount of uncertainty perceived by consumers in considering a particular purchase decision (Cox & Rich, 1964). Liang and Huang (1998) described two kinds of uncertainty in Internet shopping: product uncertainty and process uncertainty. Product uncertainty, which occurs when the product received, does not meet the customer's expectations. Process uncertainty occurs when the customer may not have complete confidence in the transaction process. The aggregate effect of these two types of uncertainties may influence Internet shopping acceptance (Liang & Huang, 1998).

If there are people who stay away from Internet shopping because of the risks, there are also people who engage in it because of the benefits obtained. Kim et al. (2008) defined perceived benefits as "a consumer's belief about the extent to which he or she will become better off from the online transaction with a certain Web site" (p.547). Elliot and Fowell (2000) found that Internet purchasers who had satisfactory experiences considered the major benefits of Internet shopping to be a) increased customization (e.g., capability to treat customers as individuals), b) convenience in purchasing anytime, from anywhere, and to anywhere, c) responsiveness in product delivery (e.g., instantaneous distribution of products and services), d) finding information about a product within a short time frame

and e) cost savings through lower prices (e.g., site aims at providing lower costs and latest information). However, the Internet provides various types of stores, numerous product assortments, and "live" communication with a sales associate through chat functions. Chen et al. (2002) wrote that consumers willingly adapt to Internet shopping when they are aware of its benefits and risks. Studies have shown that the less perceived risks associated with online buying, the more willingly consumers disclose personal information, and the more trust a person has in the online store (Jarvenpaa et al., 2000; Kim et al., 2008; Olivero & Lunt, 2004; Salam et al., 2003; Teo & Liu, 2007; Van der Heijden et al., 2003). Salam et al. (2003) asserted that despite the presence of risk, Internet users still provide financial information and engage in economic transactions online.

H6: The greater the consumer's perceived risk associated with buying from an Internet store, the less trust they have in Internet shopping.

H7: The greater the consumer's perceived benefits associated with buying from an Internet store, the more trust they have in Internet shopping.

2.4. Other Factors that Affect Consumers' Trust in Internet Shopping

Mayer et al. (1995) defined propensity to trust as the willingness to trust a business. Relying on emotions rather than cognition, propensity to trust varies with the varying personalities and cultural background of individuals (Mayer et al., 1995). People also differ in their disposition to trust. "Some consumers exhibit a greater disposition to trust anything and anybody and are more likely to trust a Web vendor despite having only a limited set of information. Others require more information to form trusting beliefs" (Salam et al., 2005, p. 75). People with high propensity to trust demonstrate positive relationships with online merchants even if they sustain ambiguous feelings toward online purchasing. Lee and Turban (2001) noted that an individual's propensity to trust influences the impact of the trust antecedents: "the propensity to trust is a personality trait that moderates the effect of trustworthiness attributes on the formation of trust" (p. 82).

H8: The relationship between the antecedents to trust and CTIS is different for people with high propensity to trust and people with low propensity to trust.

3. Research Method

To assess the research model in figure 1, we used an experiential survey approach to collect data from a group of MBA undergraduate students from four universities in Iran. It consisted of 625 participants. In total 418 respondents completed and returned the questionnaire. The demographic profile of the participants and the sample's Internet experience is summarized in table 1. To gather the necessary information, survey questions were adopted from previous research and modified for this study. The constructs utilized in the study were measured using multi-item scales. The items were written as statements with which the respondents were to agree or disagree using a seven-point Likert scale. The data collected was input into Statistical Package for the Social Sciences. Checks for the internal reliability of each construct were made using Cronbach's Alpha values and factor analysis. The factor analysis results indicated a strong association between items and constructs. All the constructs of this study except perceived size report Cronbach's Alpha over 0.7, reaching high reliability standards, which indicates that the measurement design is highly credible. Despite the low reliability obtained for perceived size, the construct was included in further analysis. Table 2 shows the detailed data. Meanwhile, content validity refers to the fitness of the contents of the measurement tool. The verification of content validity in social sciences depends on the professional knowledge of researchers. The development of measurement tools in this paper is based on generalization of literature reviews. All the sources are referenced in relevant empirical literature. The questions are modified after interviews with experts. Therefore, the questionnaire in this paper should carry a certain degree of content validity. In this paper, for each research hypothesis, the multiple regression analysis

and Pearson correlation coefficients were used to explore the relationships among these four independent factors and CTIS.

Table 1: Demographic Profile and the Internet Experience of the Participants

Sample characteristics	Frequency	%
Gender		
Male	313	74.9
Female	105	25.1
Age		
18-20	59	14.11
21-23	205	49.05
24-26	143	34.21
27-29	9	0.49
30 and above	2	
Frequency of Internet use		
Everyday	376	89.99
Once a week	4	0.95
A few times a week	37	8.83
A few times a month	1	0.23
Once a month	0	0
A few a month	0	0
A few times a year	0	0
Online shopping experience		
Shops online	390	93.3
Do not shop online	28	6.7
Frequency of Internet purchases 5 last years		
None	28	6.7
1 – 5 times	363	86.85
More than 5 times	27	6.45

Table 2: Summary of Constructs Reliability

Construct	No. of Items	Cronboch's α
perceived reputation	6	0.81
perceived size	5	0.37
Perceived trustworthiness of the Internet merchant	6	0.78
perceived privacy protection	5	0.83
perceived security protection	5	0.87
perceived risks	6	0.84
perceived benefits	5	0.88
propensity to trust	4	0.78
Consumer Trust in Internet Shopping	4	0.84

4. Findings

Table 3 indicates the relationship between the independent variables and dependent variable (CTIS). This table shows that the independent variables perceived reputation ($\beta = 0.512$, $p < 0.01$), and perceived security protection ($\beta = 0.573$, $p < 0.01$) have a moderate positive relationship with CTIS, therefore H1 and H4 was supported. Also the correlation coefficient showed a strong negative correlation between CTIS and perceived risks in Internet shopping ($\beta = -0.744$, $p < 0.01$). Respondents' trust in Internet shopping is significantly related to perceived risks. Thus H6 was supported. The independent variables Perceived trustworthiness of the Internet merchant ($\beta = 0.345$, $p < 0.01$), perceived privacy ($\beta = 0.330$, $p < 0.01$), and perceived benefits ($\beta = 0.293$, $p < 0.01$) have a weak

positive relationship with CTIS, therefore H3, H5, and H7 was supported. But at the level of statistical significance 0.01 there is not a significant correlation between perceived size and CTIS, so H2 was rejected.

Table 3: Pearson Correlations between CTIS and Independent Variables

Independent Variable	β	N	Sig.(2-tailed)
perceived reputation	0.512	418	0.001
perceived size	0.145	418	0.142
Perceived trustworthiness of the Internet merchant	0.345	418	0.001
perceived privacy protection	0.330	418	0.002
perceived security protection	0.573	418	0.002
perceived risks	-0 .744	418	0.008
perceived benefits	0.293	418	0.001

The results of hierarchical regression analysis show that the independent variables explain 78.8 percent of the variation in consumer trust in online shopping (see table 4). More specifically, the results (Pearson correlation tests and hierarchical regression analysis) provide evidence that the variable perceived risks exert the strongest effect on the dependent variable and thus is the variable with the strongest explanatory power and the main predictor of consumer trust in internet shopping.

Table 4: Hierarchical Regression Analysis between CTIS and Independent Variables

Independent Variable	R-square	R-square change	Beta	Sig.
Perceived risks	0.569	0.569	-0.744	0.001
perceived security protection	0.653	0.084	0.173	0.004
perceived reputation	0.705	0.052	0.225	0.001
Perceived trustworthiness of the Internet merchant	0.740	0.035	0.199	0.002
perceived privacy protection	0.766	0.026	0.147	0.006
Perceived benefits	0.788	0.022	0.152	0.001

The next most significant variable is perceived security protection. Although, while the findings show that the perceived reputation have some predictive significance, this is less influential than perceived security protection. These two factors are other predictors of CTIS.

To identify respondents with high or low propensity to trust the respondent's scores for six questions propensity to trust were added together. Results showed a mean of 15.22 and median of 15.00 for the respondents' attitude propensity to trust. To classify respondents as reporting a high or low propensity to trust, a median split was utilized. Scores higher than the median (i.e. 16-25) indicate high propensity to trust and scores lower than the median (i.e. 4-14) indicate low propensity to trust. Respondents with Scores equal to the median were excluded from the analysis. 18 respondents were excluded in the analysis on propensity to trust. To test the relationship between the antecedents to trust and CTIS for respondents with high propensity to trust and low propensity to trust, tow Hierarchical regression analyses were conducted using CTIS as the criterion variable and the seven antecedents to trust as the predictor variables. For respondents with high propensity to trust, respondents with scores higher than 15 were selected and then a Hierarchical regression analysis was conducted. Another Hierarchical regression analysis was conducted for respondents with scores lower than 15 for the respondents with low propensity to trust. The Hierarchical regression analysis conducted for each group (high propensity to trust and low propensity to trust) show that respondents' propensity to trust

influence the strength of relationship between the antecedents to trust and CTIS (see Table 5). The hierarchical regression analysis shows that for respondents with high propensity to trust, perceived risks and perceived reputation are the significant predictors of CTIS (R^2 = 0.597). Perceived risks accounts for 52.3% (R^2 = 0.523) of the variance in CTIS while an additional 4.7% of the variance in CTIS is accounted for with perceived reputation. The beta weights indicates that perceived risks has a strong negative relationship to CTIS (ß = -0.633, p < 0.01) and perceived reputation has a weak Positive relationship with CTIS (ß = 0.286, p < 0.01). Unlike high propensity respondents, all three factors significantly affected CTIS in the case of respondents with a low propensity to trust. These factors include perceived risks, perceived security protection, and perceived reputation. The Hierarchical regression shows that among the three factors, perceived risks is the strongest predictor of CTIS (R^2 = 0.653) (see Table 5).

Table 5: Hierarchical Regression Analysis between CTIS and Propensity to Trust

Personal Characteristics	R-square	R-square change	Beta	Sig.
Propensity to trust				
High				
Perceived risks	0.523	0.523	-0.633	0.001
Perceived reputation	0.597	0.047	0.286	0.001
LOW				
Perceived risks	0.653	0.653	-0.684	0.001
Perceived security protection	0.675	0.022	0.193	0.027
Perceived reputation	0.698	0.023	0.244	0.003

An additional 2.2% of the variance in CTIS is contributed by perceived security protection, perceived reputation contributed another 2.3% of the variance in CTIS. The final regression model shows an R-square of 0.698 (R^2 = 0.698) so that 69.8% of the variance in CTIS is accounted for by these three factors. An examination of the beta weights indicates that for respondents with low propensity to trust, CTIS has a strong negative relationship to perceived risks CTIS (ß = -0.648, p < 0.01), a weak positive relationship to perceived security protection (ß =0 .193, p < 0.05), a weak positive relationship to perceived reputation (ß = 0.244, p < 0.01). Based on the results obtained, hypothesis eight partially supports. For both groups the main predictor of CTIS was the perception of risks associated with online shopping. Both groups also reported that perceived reputation significantly increases CTIS. But for respondents with low propensity to trust, perceived security protection is also predictors of CTIS in addition to the two factors mentioned earlier. Apparently, low propensity to trust respondents utilize a more complex cognitive map when deciding to shop online than do respondents with a high propensity to trust.

5. Conclusion

The proposed theoretical framework hypothesized that seven factors affect respondents' trust in Internet shopping. The results of the hierarchical multiple regression analysis conducted among all respondents showed that of the seven antecedents to trust, only perceived risks, perceived security protection, and perceived reputation were significant predictors of CTIS. This study also showed that there is no relationship between CTIS and perceived size of internet merchant. This inconsistency may be due to the inability of the respondents to gauge the size of the Internet merchant since no specific merchant was used in the study. The absence of a specific merchant to base the respondents' perceptions may have also contributed to the low reliability of the instrument that measured perceived size. Also, Teo and Liu (2007) reported that the lack of support for the positive relationship between trust and perceived size could be that size per se does not have as strong an influence in e-commerce compared to traditional stores. For all respondents, the main predictor of CTIS was perceived risks (R^2

= 0.569). As Salam et al. (2003) pointed out, consumers' perception of risk will predominate their decision to engage in online transaction. Perceived security protection is the next significant predictor of CTIS (R^2 = 0.653 when combined with perceived risks). As noted by Monsuwe et al. (2004), "a high level of security in the online shopping experience has a positive effect on consumer trust, owing to the lowered risk involved with exchanging information" (p. 115). The current study showed an R-square of 0.705 (R^2 = 0.705) when perceived reputation was added in the equation. This result reinforces previous findings that perceived reputation has a strong effect on trust in all countries and that Internet merchant's reputation has a significant positive relationship with CTIS (Jarvenpaa & Tractinsky, 1999; Kim et al., 2008; Teo & Liu, 2007). When consumers' perceive that the Internet merchant has a good reputation, trust in online shopping increases.

The current study also showed that individual characteristics (i.e. propensity to trust) influence the strength of relationship between the antecedents to trust and consumer trust in Internet shopping. Results showed Respondents with high propensity to trust consider perceived risks and perceived reputation as the significant predictors of their trust in online shopping while perceived risks, perceived Security protection and perceived reputation were the factors considered by respondents with low propensity to trust. The findings of this study are consistent with previous findings that propensity to Trust positively influences trust towards an Internet vendor (Barbonis & Laspita, 2005; Lee & Turban, 2001).

This study has both practical and theoretical value. It provides increased insight into the nature of the trust construct as observed in the behavior of users and potential users of online shopping. By providing a more refined understanding of the predictors and moderators of trust it makes a useful contribution not only to IS research, but also to the overall body of marketing, trust and diffusion research. This study clearly distinguishes between trust and trust antecedents – distinction that has been missing in much trust research to date. It builds on conceptualizations of trust accepted by researchers and applied a validated measurement instrument that has previously been used by a trust researcher in another country and increases our knowledge of the factors that predict the online consumer's trust response. Nonetheless, when interpreting the results of this study, several limitations must be taken into account. First, selected sample may have affected the results obtained. Moreover, considering that the respondents were all students, it is possible that the sample might be similar in their orientations towards online shopping. Future studies should consider the diversity of the population by recruiting participants from all walks of life in various locations. Another limitation is that this study did not take into consideration the online shopping experiences of the respondents. A study comparing online shoppers and nononline shoppers may produce a different result as participants exhibit different trust behaviors. Further investigation on this aspect is recommended. Since the study focused on online merchants in general, it may be difficult for the respondents to accurately report their feelings for Internet merchants considering that there are merchants that they trust and others that they don't. Trust is necessarily local and specific to persons, activities, and contexts. This may also be the reason for the low reliability results obtained from the questions that measured perceived size (Cronbach's Alpha = 0.37). Without a specific Internet merchant to base their judgment on or to use as reference, the respondents' responses were probably affected. Finally, the antecedents of trust examined in this study, although identified as significant by the literature, do not purport to represent the totality of trust antecedents. Other antecedents, particularly attitudinal factors, subjective norms, and motivational factors may exert an equally significant influence on the online consumer's trust response and thus are equally deserving of researchers' attention. Future research is needed to progress towards a full understanding of the factors that influence consumer trust in on-line shopping at a general level.

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