

Factors Influencing Trust in On-Line Shopping: A Case of Saudi Arabian Consumer Behavior

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Abstract

The purpose of this paper is to investigate the existence and importance of specific factors that are thought to predict the development of consumer trust in internet shopping in Saudi Arabia. A survey was conducted by using a previously validated measurement instrument that focused on a number of key constructs identified in the literature as potential trust predictors. The results provide evidence that Saudi consumers' trust in internet shopping is the result of specific factors, the first of which relates to the consumer's third party recognition, and the second of which relates to the legal framework. Although this study is based on a study done by Regina Connolly and Frank Bannister (2008) titled "Factors Influencing Irish Consumers' Trust in Internet Shopping" however, in Saudi Arabia no research work is done in this area, This research, therefore makes a valuable contribution to information system (IS) owners and marketers in Saudi Arabia as well as to information system, trust and diffusion research. The findings of this research are beneficial to online vendors who want to penetrate in markets such as Saudi Arabia.

Keywords: consumer trust, internet shopping, information system, third party recognition.

INTRODUCTION

Trust is considered to have critical importance for the success of on-line consumer shopping. In literature, the trust construct, its nature, antecedents and consequents, are widely recognized. Sociologists, psychologists, organizational behavior scientists, as well as economists, anthropologists, and political scientists have created a wide body of knowledge on this topic. In the Information Systems (IS) field, researchers have widely discussed how trust contributes towards the success of many types of online environments. Although IS researchers' interest in this topic is expanding, to date studies on the trust construct provide a limited view of the phenomenon in developing countries such as Saudi Arabia. Although there has been a significant increase in the number of Saudi internet users over the past decade, only a small fraction of those users have made purchases over the internet. It is conceivable that the reason for consumers' hesitancy to purchase online is referred to their lack of trust in online vendors.

One reason to create mistrust is caused by online supplementary materials that is available through the Internet vendors. The primary objective of this research was to examine whether, and to what extent, factors proposed in the literature influence consumer trust in online shopping in Saudi Arabia. A secondary

objective is to examine whether the trust measurement instrument proposed by Cheung and Lee (2000) is culture independent, hence useful with reference to Saudi Arabian environment.

LITERATURE REVIEW

Trusting beliefs, as has been demonstrated, positively influence online consumers' purchase intentions. Therefore, understanding the factors that influence the generation of trusting beliefs in an online market has created considerable interest to researchers (Cimino, 2001). Evidence was provided by literature that several factors have strong predictive importance and are therefore deserving of consideration in any examination of the construct. These factors include the characteristics of the online vendor, situational factors, third party certification, the individual's propensity to trust and the influence of perceived risk. "The relationship between consumer characteristics and attitude toward online shopping" study has used Fishbein (1980) model shown in the figure 1. The study supported that consumer purchases are influenced by four area: consumer demographics, consumer purchase preference, consumer benefit perception, and consumer lifestyle.

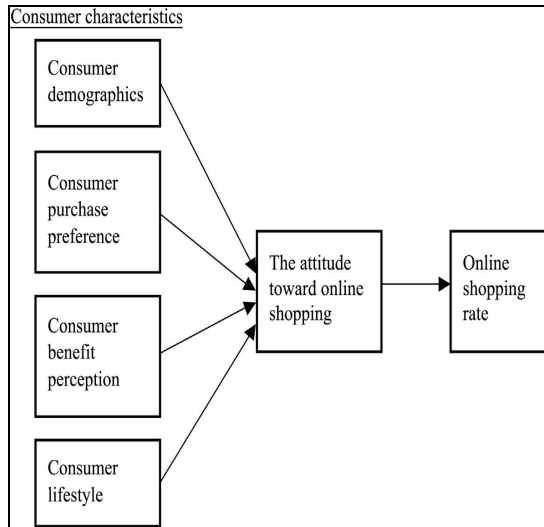


Figure 1: Consumer characteristics, attitude and online shopping by Fishbein (1980)

Na Li and Ping Zhang (2002) developed a taxonomy based on their own research work. Their analysis included trust factor as part of the taxonomy. They built a conceptual model of their own on online shopping as well. One another study carried out by Hassline, A Hodzic, S. and Claudio Opazo (2007) discussed the trust factor along with price and convenience. However, they regard price as the most significant factor in consumer behavior on online shopping. They also identified three segments namely high spenders, price easiers, and bargain hunters. A similar other empirical study was conducted by Grabner-Kranter and Kaluscha, (2003). They have focused on the conceptual model that affected consumers' persuasion. They also have examined the model how the e-marketers could influence the outcome of behavior through virtual interaction in the buying process. The factors they have analyzed were such trust antecedents, intractability, psychological, aesthetic and marketing mix) etc.

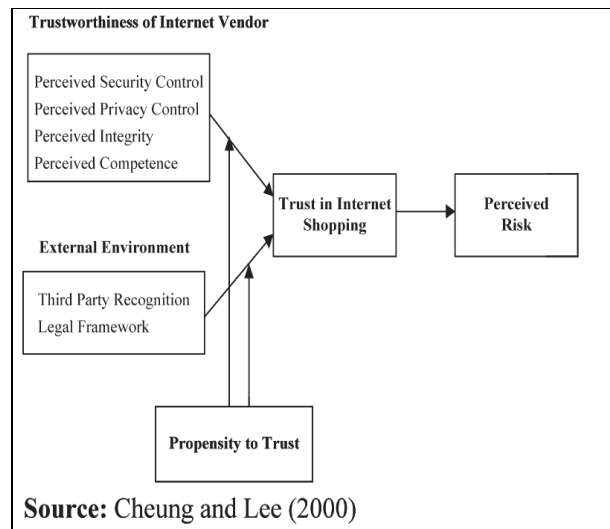
The Cheung and Lee study (2000) was conducted a study in Hong Kong on Chinese consumers. They used a model that captured the most significant set of trust antecedents, derived from different lines of previous research, and presents them as an integrated entity that can provide direction for empirical testing. It also tests them in the focused way necessary for this research. The subset of Cheung and Lee's hypotheses proposes a positive relationship exists between the factors that convey vendor trustworthiness and consumer trust in internet shopping. The Cheung and Lee (2000) model obtained a strong set of positive results.

The Cheung and Lee model that attracted our attention with reference to Saudi Arabian context was the one proposed by Cheung and Lee (2000). This

model is suitable in our case because it captures the most significant set of trust antecedents, derived from different lines of previous research, and presents them as an integrated entity that can provide direction for empirical testing. Our measurement instrument contains 30 items measuring trust antecedents such as perceived security controls, perceived privacy controls, the vendor's perceived integrity, the vendor's perceived competence, personality, cultural environment, experience, third party recognition, legal framework, and perceived risk.

In their model (Figure 2) Cheung and Lee claim that consumer trust in on-line shopping is predicted by two sets of antecedents: 1) factors that create a sense of vendor trustworthiness and 2) factors related to the external environment.

The first relate to the vendor's perceived integrity, competence, the vendor's security, and privacy controls. The second encompass third party recognition (e.g. seals of approval) and the legal framework. The model shows that the effect of both sets of factors on the consumer's trust beliefs is moderated by the consumer's propensity to trust (consumer personality and experience). It also acknowledges the relationship between perceived risk and the online consumer's trust response.



Source: Cheung and Lee (2000)

Figure 2: A conceptual model of trust in internet shopping by Cheung and Lee (2000)

One another study also used the Cheung and Lee measurement instrument, consisted of a sample of 118 students in the United States (Borchers, 2001). In concluding his study, Borchers stated that future studies using this measurement instrument should have larger samples than were used in his research and ideally should be derived from one culture only. The Cheung and Lee (2000) model however, has attracted our attention with reference to Saudi Arabian context in this research.

METHODOLOGY

Only one sample was used in this research. The participants were all selected randomly, but all were above the age of 20. Their participation was requested via email, or personally. The majority of the respondents were male. About 90% of the respondents had a bachelor degree or higher, and 94.5% of them were employees.

The data collected was input into SPSS. Checks for internal reliability of each construct were made using Cronbach’s Alpha values. All constructs had values more than 0.65 except Cultural environment which was 0.617(Table 1).

Table 1: Reliability statistics

Construct	Cronbach's Alpha
Perceived security control	.865
Perceived privacy controls	.758
Perceived integrity	.843
Perceived competence	.867
Personality	.819
Cultural environment	.617
Experience	.808
Third party recognition	.724
Legal framework	.858
Trust in internet shopping	.879
Perceived risk	.840

Checks for correlation of variables were made using direct and partial correlation analysis (table 2)

Table 2: Reliability statistics

Variable	Controlling for: personality	Controlling for: experience	Controlling for both: Personality & experience	Direct correlation coefficients
Perceived security control	0.379	0.366	0.368	0.374
Perceived integrity	0.336	0.323	0.323	0.337
Perceived competence	0.411	0.379	0.378	0.411
Third party recognition	0.457	0.444	0.446	0.453
Legal framework	0.409	0.444	0.450	0.403

Demographics

The demographics of the respondents were 75.82% male and 24.18 female. The age statistics comprised 16 to 20 years 2.20% from the ages of 16 to 20 years, 48.35% from 21 to 29 years, 45.05% from 30 to 45 years and 4.40% from 46 and over. The respondents were 85.71% Saudis and 14.29% non-Saudis. The marital status was 85.84% male and 35.16% female. Some 71.43% respondents held bachelor’s degrees, 18.68% master’s degrees, 7.69% graduate diplomas and 2.20% high school certificates. The occupation percentage of the respondents were 94.51% employed and the rest 5.49% non-employed. The monthly income statistics of the respondents consisted of 14.29% less than SR 5,000, 27.47% from SR 5,001 to SR 10,000, 40.66% from SR10,001 to SR15,000, and 17.58% from SR 15,000 and over.

Results and Analysis

Construct 1: Perceived Security Control

In construct #1, questions 1 and 2 were about perceived security control combined (where 1 is ‘strongly disagree’ and 5 strongly agree’). The results indicated how the majority (mean= 3.58) of the respondents believed in the security measures implemented in Internet vendors.

Construct 2: Perceived Privacy Control

In construct #2, questions 3, 4 and 5, were about perceived privacy control combined (where 1 is ‘strongly disagree’ and 5 is ‘strongly agree’). The results indicated how the majority (mean=3.14) were

neutral about believing that internet vendors will respect their privacy.

Construct 3: Perceived Integrity

In construct #3, questions 6 and 7 were about perceived integrity combined (where 1 is ‘strongly disagree’ and 5 ‘strongly agree’). The results indicated how the majority (mean=3.2) of the respondents believed in internet vendors’ integrity.

Construct 4: Perceived Competence

In construct #4, questions 8, 9 and 10 were about perceived competence combined (where 1 is ‘strongly disagree’ and 5 is ‘strongly agree’). The results indicated how the majority (mean=3.57) of the respondents believed in internet vendors’ competence. However, there was still a number of those who disagreed.

Construct 5: Personality Trust

In construct #5, questions 11 to 14 were about personality combined (where 1 is ‘strongly disagree’ and 5 is ‘strongly agree’). The results indicated how the majority (mean=2.71) of the respondents disagreed with the easiness and tendency to trust person and the environment.

Construct 6: Cultural Environment

In construct #6, questions 15 and 16 were about cultural environment combined (where 1 is ‘strongly disagree’ and 5 is ‘strongly agree’). The results showed how the majority (mean= 3.44) of the

respondents claimed they were living in a trusted cultural environment.

Construct 7: Experience with the Internet

In construct #7, the questions 17, 18 and 19 were about experience combined (where 1 is 'strongly disagree' and 5 is 'strongly agree'). The results indicated how the majority (mean= 4.18) of the respondents has good experience with the Internet.

Construct 8: Third Party Recognition (Questions 20, 21 & 22)

In construct #8, the questions 20, 21 and 22 were about third party recognition (where 1 is 'strongly disagree' and 5 is 'strongly agree'). The results indicated the majority (mean= 3.39) of the respondents believed third party were available for assuring trust worthiness, and protecting the shoppers.

Construct 9: Legal Framework (Questions 23 and 24)

In construct #9, the questions 23 and 24 were about legal framework (where 1 is 'strongly disagree' and 5 is 'strongly agree'). The results indicated the majority (mean=2.66) of the respondents disagreed towards the sufficiency of existing law and legal framework in protecting shoppers interest.

Construct 10: Trust in Internet Shopping (Questions 25, 26 & 27)

In construct #10, the questions 25, 26 and 27 were about the trust in internet shopping (where 1 is 'strongly disagree' and 5 is 'strongly agree'). The results indicated how the majority (mean= 3.18) of the respondents were slightly agreeable towards the reliability and trust in internet shopping.

Construct 11: Perceived Risk (Questions 28, 29 & 30)

In construct #11, the questions 28, 29 and 30 were about the perceived risk (where 1 is 'strongly disagree' and 5 is 'strongly agree'). The results

indicated how the majority of the respondents (mean=3.18) were slightly agreeable towards the perceiving risk in internet shopping.

Regression Analysis

According to the tables below, the independent variables explain 40.7% of the variation in consumer trust in online shopping. The two variables: the third

Table 4: ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	307.244	8	38.406	6.791	.000 ^a
	Residual	446.744	79	5.655		
	Total	753.989	87			

a. Predictors: (Constant), Age, legal framework, experience, personality, perceived integrity, third party recognition, perceived competence, perceived security control

b. Dependent Variable: rust in internet shop

party recognition and the Legal framework exert the strongest effect on the dependent variable and thus are the variables with strongest explanatory power. The two have significant effect (sig. degree < 0.05) in consumer's trust in internet shopping. The Perceived competence is the next strongest explanatory power but with less significant (sig. degree >0.05)

Table 3: Model Summary of Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.638 ^a	.407	.347	2.37802

a. Predictors: (Constant), Age, legal framework, experience, personality, perceived integrity, third party recognition, perceived competence, perceived security control

The statistics given below relate to the group as a whole. It reveals the independent t-test which assesses the means of the Bachelor and higher education level and Diploma and lower education level.

Table 5: Group Statistics (t-test)

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
perceived security control	1.941	.167	1.401	88	.165	.4568	.3260	-.1911	1.1047
Perceived integrity	.000	.993	2.233	89	.028	.71883	.32192	-.07919	1.35848
Perceived competence	1.044	.310	1.645	89	.103	.50678	.30800	-.10522	1.11877
Experience	.048	.827	1.150	87	.253	.27824	.24186	-.20249	.75897
third party recognition	4.735	.032	1.039	89	.302	.26649	.25649	-.24315	.77612
Legal framework	7.783	.006	.824	88	.412	.29630	.35948	-.41809	1.01068
Trust in internet shopping	4.641	.034	1.564	89	.121	.52800	.33758	-.14275	1.19876

The above two tables show the independent t-test (which assessed the means of the Bachelor and higher education level(≥ 3), and Diploma and lower education level(< 3) were statistically different from each other) show differences exist between them in term of their perception of the online integrity. The construct was significant at 0.028. The means and standard deviation for perceived security, integrity, competence, experience, third party recognition, legal framework, and trust are shown in the table below.

DISCUSSION

According to this study, two factors influence Saudi consumers trust in Internet shopping the most; third party recognition, and Legal framework. Both of these factors are somehow within the control of internet vendors. Consumers must be provided with sufficient protection of internet shopping. The existing of a good legal framework encourages consumers to use online shopping. People must believe in the competence of internet websites that offer internet shopping services. Unfortunately, since most Saudis use Arabic websites, and since those websites are poorly designed, consumers do not get the impression that they are dealing with a competent company. Therefore, this might affect users trust in those websites and make them refrain from buying anything online. In addition, most of the Saudi companies that offer online shopping services are not really reputable. For those companies to succeed in selling online, they need advertise their services focusing on showing how competent and reliable there are.

The other factor is third party recognition. Most people in Saudi Arabia do not know how internet transactions are done. They therefore do not know about the existence of third party companies that insure the security of the money transfer in online transaction, and issue trust certificates. This lack of recognition could again make customers refrain from buying online. Even if companies are secure, reputable and competent, consumers would have higher incentive to buy if they realize that their transactions are somehow monitored by third party trust-worthy companies. Therefore, if online sellers want to expand their market in Saudi Arabia, they should educate their consumers about the role of third party companies in ensuring the security of online transactions.

The most influencing factors found in this study are different from those found in the base study regarding Irish consumers. The reason is obviously the cultural difference between the two countries. For example, Saudis, according to this study's findings, tend to believe in companies integrity, unlike maybe Irish consumers.

Due to some limitations in this study among other reasons, future research is needed to progress toward

a full understanding of the factors that influence consumer trust in online shopping at a general level.

LIMITATIONS OF THE RESEARCH

There is, nonetheless, a number of limitations inherent to the design and implementation of the study that suggest further research opportunities. Firstly, the sample size was small. A much larger sample size could have improved the generalizability of the results even more. Second, the base research focused on separating the samples to technical and non-technical groups. This was not possible considering the requirements of this study. 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, such as attitudinal factors, subjective norms, and motivational factors may exert an equally deserving of researchers' attention. Future research is needed to progress towards a full understanding of the factors that influence consumer trust in online shopping at a general level.

CONCLUSION

The study has both practical and theoretical value. It provides more insight into the nature of the trust construct as observed in the behavior of users and potential users of online shopping in Saudi Arabia. By providing a more refined understanding of the predictors and moderators of trust it makes a useful contribution to IS research and to the overall body of marketing, trust and diffusion research. The study gives ideas to companies that want to start or improve their online shopping services to increase their consumers trust in online shopping in general and in their services in particular. Online shopping service providers must prove and impress consumers by their competence, recognized third party, and an adequate legal framework in offering a reliable and secure online shopping service. They also must give awareness to the roles of their parties.

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