Observation on Trust Factor toward E-Commerce Acceptance

Mohd Sazili bin Shahibi, Zaharuddin bin Ibrahim, Zaitun binti Abu Bakar

Faculty of Information Management, Universiti Teknologi Mara, Shah Alam, Selangor
Faculty of Computer Science and Information Technology, Universiti Malaya, Kuala Lumpur
E-mail: mohdsazili@hotmail.com

ABSTRACT

This paper will present the finding of study on trust in e-commerce acceptance by young Malay generation. The paper starts with the introduction to e-commerce and trust definition include barrier factor toward e-commerce acceptance. Next, the paper dwells on the finding of the previous study about barrier and informational content on commercial websites in creating trust among Internet user to accept e-commerce transaction. Afterward the paper presents a suggestion trust model framework to prove by the survey managed by the researchers. Furthermore the paper presents finding from survey. The finding found the respondents accept positively all trust factors such as security, familiarity, privacy, and informational content, ease of use as most important factor in trust building. Lastly, we have proposed a verified trust framework model, which is taken care result from the survey.

1.0 INTRODUCTION

E-commerce has been one of the most exciting applications of information technology in this decade. The Internet is one of the most popular e-commerce applications because it enables business transaction to occur regardless of distance and time. The Internet is not just another medium or a distribution channel to reach customer. It is an important medium to find new customer and continue relationships with current customer. It is almost impossible for businesses and consumers to ignore this new technology. They are people from all age groups in many part of the world using Internet everyday in their life (Fahri Farakaya, 2001). However, lack of trust has been repeatedly identified as one of the most formidable barriers to people for engaging in e-commerce, involving transactions in which financial and personal information is submitted to merchants via the Internet. The future of e-commerce is tenuous without a general climate of online trust.

In this paper we attempt to find out the human factor and technical factor in commercial websites that able to contribute to the trust building on E-Commerce business transaction. This paper has organized as follows; first the paper will present some literature about trust as a barrier to e-commerce development issues in E-Commerce. We then describe about e-commerce trust and revealed the finding from the survey. Finally we verified the framework model that we have suggested earlier.

2.0 TRUST AS A BARRIER TO E-COMMERCE DEVELOPMENT

Trust is defined as "the willingness of a party to be vulnerable to the action of another party based on the expectation that the other will perform a particular action important to the trustee, irrespective of the agility to monitor or control that other party" (Mayer et. al, 1995).

Trust is a concept that has received attention in several different areas of social science, literature, psychology, sociology, and political science, economic, anthology, history and sociobiology. Increase in trust decrease transaction cost and vice versa for declining trust relationship because individual have to engage in self-protective actions and prepare for the possibility of others opportunistic behavior. Therefore trust enables people to take risk. Trust consists of two components and they are.

Concern of how we feel about being trusted and to be trusted, which mean you are capable of managing resources that other people value. In other words you have the power over the others (Pauline 1998).

Concern of how we feel about having to trust other person, which is a bothersome activity and sometime can bring about feeling of deterrence, anger and anxiety.

There is a lot of trust involved in business online transaction. People do not just trust the quality of the products and services but they have to trust the server administrator when revealed the credit card number before enter into commercial transaction. This lack of trust is thought to have many causes, and most literature has centered on perceived lack of security in the Internet transaction, and the fear of lost privacy. Establishing trust online is more difficult than in traditional marketplaces for various reasons. A major reason is that the Internet is a virtual space, giving few cues for customer's instinct to go on. Peoples establish trust by dealing with each other on a reciprocal basis, getting to know others identities, behavior, reliability, honesty and ability to perform certain specifications. This is difficult to purvey on the Internet. Also, customers know that they can be tracked on the Internet, and this lead to suspicion (McGovern, 1999).

With the advent of electronic commerce, trust becomes an essential prerequisite for customer relationship building (Panagiota et al. 2001). Given that the benefits for the consumer are considerable, it seems curious that business-to-customer in e-commerce has yet not begun to reach its potential.

The hesitancy of consumers to participate in e-commerce is disappointing to retailer and has prompted much research in an attempt to identify and address the causes. Trust was found to be one of the major factors influencing adoption of the World Wide Web in an early study, the others being perceived ease of navigation, perceived lack of effort and perceived usefulness. Trust is treated as the prime possible variable to explain the low level of Internet electronic purchases (Essler, 2000), and is considered the greatest long-term barrier to e-commerce (Javernpaa and Tractinsky 1999).

According to the findings of a survey done by Furnell et al. (1999) on security implications of electronic commerce, there is a lack of awareness or understanding of the security technologies that are available and they suggested that overcoming this problem would help to establish a wider foundation of trust in the new technology.

The e-Trust Internet Study conducted by the Boston Consulting group found that more than 70% of the people surveyed were concerned about sending private information over the Internet. It demonstrated that most of the users do not trust the Internet s a medium for conducting business (Scott 1997).

Pew Internet and American life Project/ PIP (2002) reported in their survey of 1220 internet user that only 28% purchased holiday gifts online, and this projects to approximately 30 million purchasers Taken together, the results from these several surveys suggest that consumer distrust regarding transactions on the Internet may hinder the future valuation of even the leading ''dotcoms'' (The Economist, 2001), and online merchants presently face a difficult challenge – to build consumer trust to make purchases on the Internet.

Analytical study by Fogg and Tseng (1999) mentioned that there is closed relation between computer credibility, expertise and trustworthiness. They argued that user evaluation of computer trustworthiness and credibility is a function of system design features and also psychological factors such as an individual's perception of a particular brand or product. Whereas, study conducted by Kim and Moon (1998) to the Korean Internet user, find that graphic design elements were most likely to communicate trust in online banking interface.

Adapted from Anil work (1998), trust very hard to develop in e-commerce situation because Internet is open system architecture and they do not designed earlier for commercial environment. Users are exposed to the any possibility of risk.

Since trust has treated as a main factor to determine the successful of the E-Commerce acceptance, we have identified few factors, which is closed link toward trust building; -.

2.1 Security

Security is a main issue influencing the purchase of products on the Web. Security threats exist for both e-consumer and e-business. This is because businesses and consumer are constantly sending confidential information to clients and vendor over the Internet. The threats involve stolen transaction information and misuse of personal Information. There are two major security threats to e-commerce. They are transaction security and storage security. A survey of companies in Malaysia interested in e-business found that 70 percent believed that security was the most important barrier to e-commerce development (Mukti 2001). Others surveys also shown that people are still reluctant to give information on their credit cards over the Internet. There is the fear that as the information travels over cyberspace it might be intercepted by hackers and used to perpetrate fraud. Many people feel the Internet is not secure because it is a public network.

2.2 Privacy

The ability to shop online – anytime, anywhere - is drastically changing the way consumers shop and has added more dimensions to privacy (Jatinder 2002). Privacy is the protection of the individual's right to nondisclosure (Gary P. 2001). Privacy also refers to controlling the dissemination and use of data, including information that is knowingly disclosed as well as data, which is unintentionally revealed, or a by-product of the information technology itself (Cate 1997). If consumer cannot trust that their personal information is safe and secure, the Internet will never reach its economic potential (Anthony Ferraro, 1998)

Last time consumers worried about their personal data concerned government infringement on their rights. Now this has been eclipsed by electronic business (Godwin 2001). Turban (2000), points out that, by using sophisticated software, it is possible to track individual movements on the Internet. A program such as 'cookies' was raised a range of privacy concerns. The programs can be stored in your PC, organized by web site, and then accessed every time you go back to that site.

2.3 Familiarity

Another factor that may delay e-commerce adoption is the lack of familiarity and awareness of electronic commerce and the benefits it may bring. This results in a lack of interest in electronic commerce and consumer preference to shop in person. When a new product or an innovative technology is introduced in the market, consumers learn about it, decide whether to buy it and whether to repeat purchasing it in the future. In other words, they decide whether to adopt it or not. Adoption implies that consumers have accepted the product or technology innovation and use it on a regular basis. Innovations are diffused in the market as individual consumers make their decisions to adopt them, at different time intervals

(Adam 2001). The level of adoption involves a readiness to change from traditional to 'unconventional' business transactions. Low-level adoption usually faces resistance to change. According to Turban (2000), electronic commerce can result in a fundamental and radical change in the manner in which business is done. Therefore, resistance to change from employers and employees as well as vendors and customers may develop.

3.0 THE MODEL OF TRUST IN E-COMMERCE

This paper expected to present an e-commerce trust acceptance model framework from Malaysian perspective. The model designed based on integration of trust e-commerce issues in literature review presented above and trust model that developed by Florian Egger (2000) called MOTEC.

Egger (2000) attempted to build a theoretical model of trust in e-commerce by analyzing the trust literature from a variety of fields. Egger's model serves as a guide for system designers by providing a checklist with all the facts off trust identified in the model, and also by providing a framework with which to analyze the input from user trials. This was refined by an empirical refinement study, where subjects had to rate the relevance of statements about trust and e-commerce (Egger 2000). The refinement model identifies four aspects of trust in e-commerce.

- Pre-Interactional Filter – Individuals differ as to their general propensity to trust. People's foreknowledge and expectations wit respect to a certain industry or company may be very different. This can be due to reputation caused by the strength of a brand, previous positive interaction online or offline, or report from trusted third parties.
- Interface Properties - An individual first impression of a commercial system strongly effect the development of trust. We can view these aspects into three sub categories. They are appeal, overview and usability. An appeal is governed by the graphic design and layout. Overview reflects the extent to which the site's commercial offering and resources are made explicit to the end user. Usability refers to the system's reliability, ease of use and familiarity.
- Informational content – Information about products and services should be complete, relevant and structured in a way that reduces user costs. The company should also communicate the merchant's history, value and commitment. Information about security, privacy, financial risk and guarantees should be presented in a complete and understandable manner.
- Relationship Management – in order to convince the consumer to engage in a commercial relationship with an online merchant again, a high level trust must be gained from the first

interaction (the points listen above) and the follow up to this transaction must also be of sufficient standard. This includes post-purchase communication delivery and customer services.

4.0 DEVELOPING E-COMMERCE TRUST ACCEPTANCE MODEL

Integrating the literature review and MOTEC, researchers have designed a proposed model for e-commerce trust acceptance from Malaysian perspective. The model was designed the consisting of four main elements in e-commerce studies. They are;-

Ease of use

Familiarity Privacy   elements are taken from
                           literature review

Security

Informational content   element is taken of
                           MOTEC

We have conducted a survey with objective to prove that theoretical model framework is reliable. The questionnaire was delivered to 408 respondents. The final semester undergraduate students from public and private universities within Shah Alam have chosen as sample of the study. They were chosen on consideration as highly skill Internet user and will easy to understand the requirements of questions in the questionnaire. Respondents were asked detailed questions about the most significant factors relating to their trust on electronic commerce usage. The factors were:

- The Internet usage.
- Security factors to trust shop online.
- Privacy factors to trust to shop online.
- Familiarity factors to trust to shop online.
- Ease of use factors on websites commerce to trust online transaction.
- Informational contents on websites commerce to create trust toward online transaction.

60 question were designed in the questionnaire with using liked scale form; 1 = Strongly Agree, 2 = Agree, 3 = Neutral, 4 = Disagree, 5 = strongly Disagree. Result of the survey was analyzed by using SPSS software.

5.0 FINDING

Responses were received from 210 respondents representing about 51.0 percent response rate. Since female student are the majority in any universities in Malaysia, this research found that majority of the respondents about 56.7 percent were female and the other were male about 43.3 percent. In this paper the researchers have decided to analyze the data by using Mean and T-Test. Value Mean less than 3.000 is significant and more than that is insignificant. T-Test

Value less than 0.05 is significant beside is insignificant.

Most of the respondents put gained information for their studies as a priority compared performs electronic transaction. After gain information for their studies the priority has given for read email, gain information about product or service and perform Internet baking facilities.

Table 3.32: Overall the Internet Usage

Question	Mean
Read Email	1.6952
Gained information for my studies	1.4429
Gained information for office work	2.4190
Get information about products/services	2.1476
Performs Internet banking transaction	2.7238
Buy product or service online	3.0810
Total Average Mean	2.252

Overall Internet usage by the respondents can be summarized as above by using value mean 3.0. Table 3.32 obviously stated that the gap between mean for gain information for their studies about 1.4429 beside more 3.0 values mean for buy product or service online.

Responses by the respondents about security factors toward Trust building in E-Commerce acceptance have been summarized in Table 4.1. By value mean 3.00 all of the respondents agreed with all the security factors were asked to them. It was proved by overall mean value 2.3886 and T-Test 0.000. Return policy on the websites was found as a most important factor for trust building. The priorities then followed by confidentiality of personal information and the existence of special body for complain if anything goes wrong and security to made payment online. The last priority to them is the protection virus transmission while performing transaction online. The respondents overall accept positively security as a significant element contributes to the trust building in e-commerce acceptance.

Table 4.1: Overall Security Factor

Question	Mean	T-Test
Confidentiality of my information is guaranteed	2.3810	0.000
Return policy is clear stated	2.3000	0.000
Payment can be made safely online	2.5095	0.000
There is protection virus transmission while performing transaction online	2.4143	0.000
There is official body to complain if transaction goes wrong	2.3381	0.000
Total Average Mean	2.3886	0.000

Most of the respondents agree privacy of the information as a trust factor to them to perform online transaction. It was proved when all of them responses to the all question positively in Table 4.2 The respondents choose don't want to be bothered by unsolicited/junk email as main factor to trust online transaction. They also won't their personal information sold to others. Then followed by factor they do not want their transaction resulted to abuse of their personal information and message interrupted .

Table 4.2: Overall Responses on Privacy of information

Question	Mean	T-Test
There is no abuse of my personal information by the Internet merchant	2.3238	0.000
My personal information will be sold to other people	2.2143	0.000
I don't want to be bothered by unsolicited/junk email later on.	2.1714	0.000
No third party interrupts my message	2.2286	0.000
Total Average Mean	2.235	0.000

Overall responds on trust factor about familiarity to trust to shop online found that the respondents positively accept all factor were asked to them important. Well-known web commerce sites came as a most important thing reason to trust and shop online compared than other factors. Priority then given to others factor ending with the factor products or services that had enjoyed before (refer Table 4.3).

Table 4.3: Familiarity

Question	Mean	T-Test
Well known merchant	2.1333	0.000
Well known web commerce sites	2.0429	0.000

	Mean	T-Test
The web commerce sites give me enjoy free facility such as free email	2.1905	0.000
Previous interaction with the merchants off line and online	2.3095	0.000
Products or services that I had enjoyed before	2.3143	0.000
Others people's experience	2.2190	0.000
Total Average Mean	2.202	0.000

Then the respondents were asked about ease of use websites elements role to get familiarity in order to create trust among the respondents to perform electronic transaction. According to Table 4.4, overall respondent agreed that ease of use able to give a significant contribution. Clear and easy to understand is a priority put by the respondents as a ease of use element. Next priorities are time taken to download the information and less mental usage to control the navigation, followed by navigation easy to start. It was proved by value mean 2.269 and T-Test value 0.000.

Table 4.4: Ease of Use

Question	Mean	T-Test
The web commerce is clear and understandable	2.1429	0.000
The web commerce does not require a lot of mental effort	2.4095	0.000
No longer time taken to download information	2.2810	0.000
Navigation easy to start	2.2429	0.000
Total Average Mean	2.269	0.000

Finally the respondents were asked about role of informational content on commercial website in creating trust toward adoption electronic transaction. Table 4.3 revealed that overall respondents accept positively the role of the informational content on afford to create trust among the Internet user. Most of the respondents have given easy access to information on commercial website as a most important thing compared than other factor. Availability of video element on commercial websites was considered by the respondents as a less significant role in order creating trust among the internet user

Table 4.3: Overall Responses on Informational Content

| Question	Mean	T-Test
Easy access to information	1.8381	0.000
If the websites I use were more user friendly	1.9048	0.000
Websites updated frequently.	1.9476	0.000
Sufficient information about product	2.0000	0.000
Detail information about merchant	2.0810	0.000
Merchant's brand name clearly stated	2.0619	0.000
Merchant's logo clearly stated	2.2238	0.000
Enable two way communications	2.0476	0.000
Less Graphical	2.6571	0.000
Less Animation	2.7048	0.000
Ability to personalize user contents	2.3048	0.000
Trust Seal	2.2667	0.000
Testimonial	2.3905	0.000
Search capability	2.0905	0.000
Comfortable navigation button	2.1095	0.000
Simple sentence to assure the site is safe and secure.	2.1619	0.000
Clearly stated return policy	2.1143	0.000
More picture than text	2.3381	0.000
Availability of audio element	2.3000	0.000
Availability of video element	2.3190	0.000
Total Average Mean	2.195	0.000

6.0 CONCLUSION

Finally in this paper we propose a framework model to overcome trust problem in e-commerce environment. Analysis of the finding has proven that the model was proposed earlier are reliable in afford creating trust among the Internet users or consumers. The model outlined trust in e-commerce environment by the society based on factor such as ease of use, familiarity, security, privacy and informational content.

Ease of use in a commercial websites is an important factor for consumer to get use with the electronic transaction. When they have felt easy to use indirectly sense of familiarity will exist. Familiarities

will develop people's trust and encourage them to use the facility provided by a websites. Familiarity factor deals with the consideration level of convenience provide by technology and purpose of usage e-commerce application by consumers; using technology, the Internet usage, awareness on what available on the Internet and online experience. The privacy element stress about consumers believe on e-commerce applications to guarantee their personal information protected from the third party when performed business transactions; Personal information protection. Whereas the security element, emphasized the technology and legislation role as a tool to create secure environment to consumers to perform online transaction. Overall security guaranteed, confident with virtual space and clear return policy. Informational content factor will look into information design in commercial a web site to increase people trust to use online transaction.
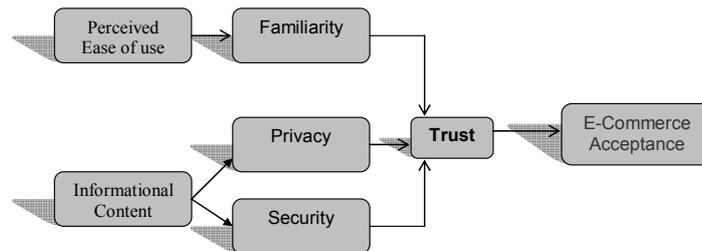
Trust Model for E-Commerce Acceptance Framework E-Commerce

Overall conclusion based on the finding has delivered indicator that E-commerce trusts are issues deal with the factor human and non-human. Human factor deals with the people's belief and non-human involves system and technology factor such as websites. Both factors are very important in afford creating trust in the societies to develop e-commerce acceptance. Due to the lack of acceptance in e-commerce has resulted the lack of fully explore the conveniences offered by the technology that support the e-commerce. Therefore, there is a need for a specific framework to assist the achievement of fully acceptance of e-commerce nature in the society based on trust in their self.

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