CURRENT IMPLEMENTATION OF THIRD PARTY CERTIFICATION IN MALAYSIAN ECOMMERCE WEBSITES

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ABSTRACT

Trust is an increasingly important concept on the Internet, especially for the eCommerce environment. Creating initial trust from buyer to seller is one of the problem that eCommerce need to address immediately since without this initial trust, buyers will be reluctant to commit any transaction through digital medium offered by eCommerce. This can be achieved by having Third Party Certification (TPC) displayed on their digital storefront as being point out by researches done in US and Europe. This paper presents the investigation result of the current implementation of TPC in Malaysian eCommerce websites. Information on how many sample Malaysian eCommerce website have TPC in the digital storefront, what are the TPC being used and what are the service provided by the TPC endorser, in order to understand the current trend of TPC in Malaysia. The output of this study can give an important background on the current implementation of TPC and be used as a basis of initial evaluation for business opportunity as a service provider for this kind of certification in Malaysia.

KEYWORDS

eCommerce; trust; Third Party Certification

1. INTRODUCTION

E-Commerce is a new business channel where the environment is created in the virtual world through connection of electronic devices. This unique setting of E-Commerce has open up the world of business into a single digital market where buyer and seller are no longer restricted to physical boundaries such as geographical or time differences (Guo and Sun, 2004). E-Commerce is expecting to have major influences in shaping the future of business to consumer segment (Schmitz and Latzer, 2002).

Despite a promising statistic for each year, E-Commerce has been haunted by many problems. The issues of trust for example, have been identified as one of the major hurdles that need to be overcome by this new business setting in order to flourish in the future. Many researches have been carried out and many suggestions have been made, which lead to many improvements in the area of technology, management as well as marketing. And of the suggestions that get a lot of attention from researcher as well as practitioner is in the area of creating initial trust through implementation of Third Party Certification (TPC).

This paper will investigate the implementation of TPC in Malaysian B2C E-Commerce website and focused on non-digital and non-service product. It will cover the literature review, objectives, methodology, result and discussion. It will also give the future direction of this research.

2.   BACKGROUND LITERATURE

2.1   Trust In E-Commerce

Trust is a fundamental element in business relationship regardless of its method of interaction (Papadopoulou et al., 2001; Cheung and Lee, 2000). In current business setting, trust is mainly created through physical activities in a physical brick and mortar environment, the seller and the buyer has the opportunity to examine the trustworthiness of each elements that will involved in the transaction. The buyer and the seller can use their physical sense to evaluate the trustworthiness of each other. Inspection of product and instrument of payment can be verified to reduce the risk and increase the trustworthiness toward the completion of transaction.

Meanwhile, in the E-Commerce setting, establishing trust becomes more difficult. Since E-Commerce exist in a virtual marketplace, it requires different kind of trust environment compared to traditional physical environment. The difficulty to prove someone's physical presence and establish a direct relationship between two parties involved in the transaction caused this difference to exist.. The inability of the participants to use physical gesture such as body language, eye contact and personal proximity to evaluate trustworthiness of each other make the problem of establishing trust between them in cyber world even more difficult compared to brick and mortar world (Ratnasingam, 1998).

In addition, the low barrier level for both parties to enter and leave the digital market space has prompted the two parties to assess the level of risk involved before trusting each other in an E-Commerce transaction. Since consumers are the one who usually initiates E-Commerce transaction, trust creation from consumer to merchant or merchant trust will be very important (Kasiran and Meziane, 2002). A closer look at E-Commerce transaction cycle shows that consumers are in a disadvantaged position especially if the product is non-digital and non-service product. Consumers are expected to fulfill their obligation first by committing their financial and information resources in the transaction before the merchants are able to proceed with their obligation. Therefore the requirement for establishing merchant trust will be a very important factor in an E-Commerce market place setting (AICPA 1997; Hoffman et al., 1999).

Knowing the basic property of trust is important in order to understand how trust is formulated and cultivated before it can be exploited on certain environment. The basic property of trust that is relevant to this research is that trust is not generally transitive but can be conditionally transitive especially at the early stage of trust relation development. According to Abdul Rahman (cited from McCullagh, 1998), this condition will allow certain form of trust to be transferred from one party to another. He suggests that the development of trust usually starts from recommended trust before transforms to direct trust. Recommended trust is a trust between two parties who have no experience dealing with each other and they rely on other parties' recommendation to develop the relationship. Meanwhile, direct trust is a trust relationship between two parties and the relationship is based on their experience dealing with each other in the past. Ideally, the best form of trust is one that is being created through direct relationship between trustee and trustor. Both of them would have first hand experience dealing with each other and learn how to trust the other parties over time (Cheskin Research /Studio Archetype, 1999). However, this situation is too ideal in a huge faceless E-Commerce community on the Internet. Creation of trust especially at the early stage of relationship will be more effective through indirect trust or recommended trust. Since, both parties have no experience in dealing with each other and in the stage of calculus-based-trust or trust based on calculated risk, information from other trusted third party is important to support trust creation

2.2   E-Commerce In Malaysia

E-Commerce had grown into a potential business in Malaysia. In 2003, Malaysian secretary of International Trade and Industry Ministry Datuk Fu Ah Kiow announced that the E-Commerce grant scheme will be increased to US$ 5.26 million to enhance information and communications technology (ICT) usage among small and medium enterprises (SMEs) (World IT, 2003).

Despite the bright prospect of E-Commerce in Malaysia, however, according to the Taylor Nelson Sofres survey, only 3% of Malaysian Internet users shopped online in 2002, compared to 4% in 2001. Thirty-eight percent of Malaysians felt that it is safer buying goods or services in a store and 36% of them do not want to disclose their credit card details (Kaur, 2005). Security-related issues were cited as the main reason for not shopping online. The Malaysian consumer's lack of confidence and trust in E-Commerce transactions is further accentuated by the fact that the Consumer Protection Act specifically excludes protection in electronic transactions (Kaur, 2005).

2.3   Third Party Certification (TPC)

Several studies on TPC endorsement have been conducted in the past by several researchers such as Anna Noteberg (1999), Noteberg, Christiaanse and Wallage (2000), Cheskin Research and Studio Archtype (1999) and Cheskin Research (2000) in United states and Europe. All of these researches conclude that TPC endorsement has some impact on influencing consumers to proceed with the digital transaction. The influences of TPC endorsement in creating trust toward merchant become more significant, especially to unknown merchants where the perceived risk is higher than well-known merchant like Amazon.com (Noteberg, Christiaanse and Wallage, 2000). In addition, TPC can also be very useful especially if they involve endorsement on expertise and skill.

TPC endorsement providers may come from government or private base organizations and offer a wide range of assurances such as quality assurance, code of conduct, code of practice, rating service, privacy etc. Some of these providers require fee from merchants for using their assurance seals in the merchant's website but some of them provide the service without any charges.

Among major services that are being offered by the third party assurances are:
  i.   verifying the legitimacy of the company (existence).
  ii.   ensuring certain standard of network security has been put in place by the business organisation (performance).
  iii. acting as protector to the consumer if something goes wrong in the transaction (policy/procedure).

Verisign, Bizrate, and BBB are the most commonly used endorsement by the E-Commerce merchants (Kasiran and Meziane, 2004). These 3 endorser provide different kinds of endorsement. Verisign verify the merchant and the security technology used as SSL implementation. Bizrate provide the evaluation on merchants reputation through its independence space for consumer comment and feedback. Meanwhile, BBB provides store verification and customer dispute resolution.

3.   OBJECTIVES

The overall objective of this research is to investigate the current implementation of TPC in the Malaysian B2C E-Commerce web sites. It can be achieved by answering several questions as follows:

  i.   How many of the sample websites have TPC in digital storefront?
  ii.   What type of TPC that being used in this digital storefront?
  iii. What are the services that being offered by the endorser?

4.   METHODOLOGY

Content analysis was used as a methodology for this research (Refer figure 1).

4.1   Sampling

The overall method of choosing the potential respondent of websites will be done through convenience sampling since the unavailability of a list for all Malaysian websites. The sampling list is created by using two major search engines on several keywords that might hit on the Malaysian based websites. The two major search engines are Yahoo and Google. Meanwhile, the phrase that being used to search the potential websites are "online shopping in Malaysia", "online shopping", "halaman dari Malaysia", "buy online Malaysia" and "online flourist + halaman dari Malaysia". First 40 potential Malaysian B2C E-Commerce website were selected. Out of this 40 websites, 7 of them were no longer available during the course of the research. The reason why they were no longer available was beyond the research scope. Therefore, the total website that had been used in this research was 33.

4.2   Data Collection

The selected websites were closely monitored to determine it there was any presence of TPC on their websites. The link of the TPC providers were followed in order to answer the research questions as mentioned before. The data set were collected at two different point of time. The first data set was collected in December, 2005 and the second was collected in April, 2006. The reason why the data set were collected at two different times is to see whether or not the same number of TPC seals was used by the e-commerce merchant.

Figure 1: Content Analysis Method
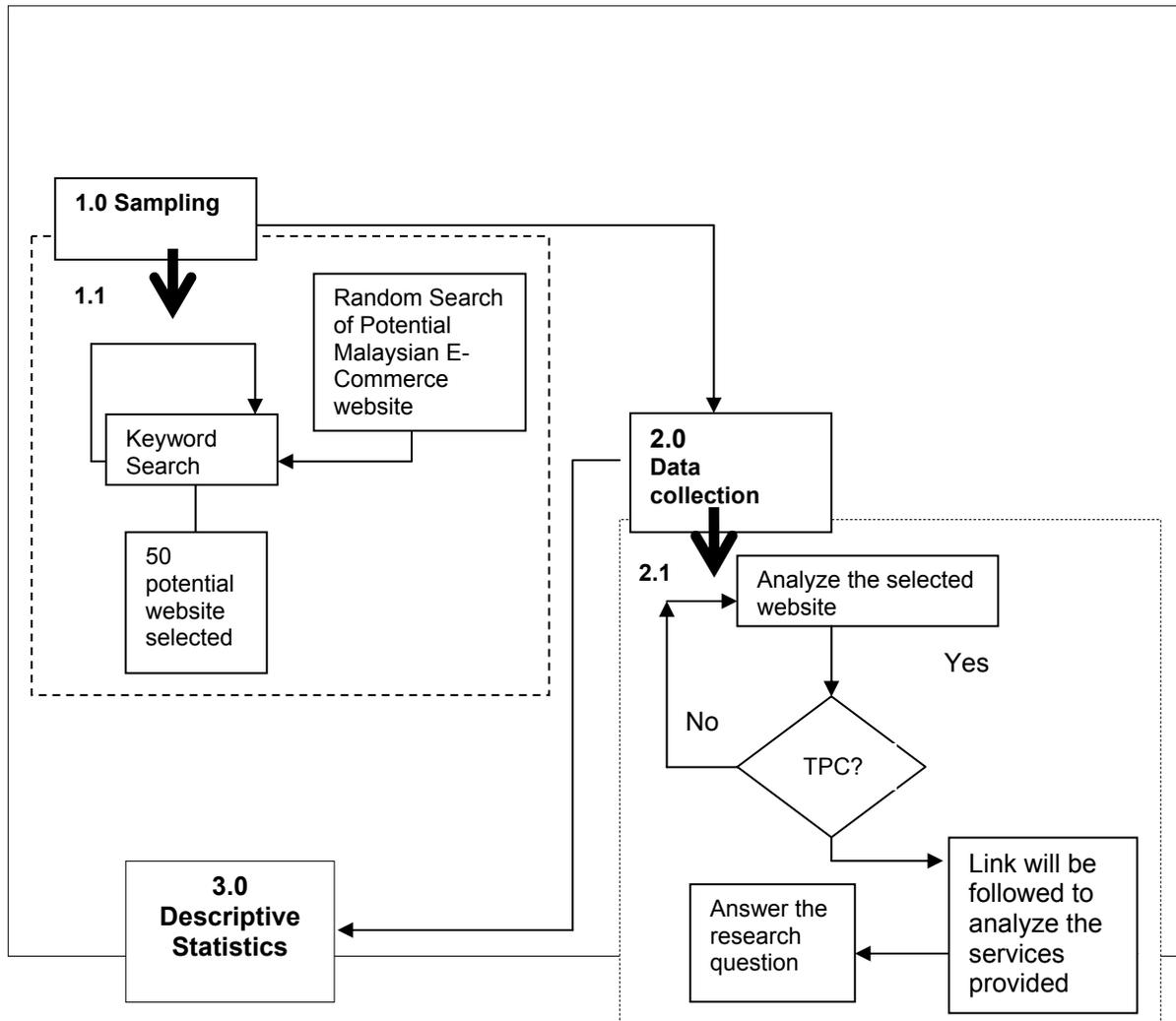
5.   RESULT AND DISCUSSION

i.   How many of the sample websites have TPC in digital storefront?

Institutional based trust has a very influential role in triggering consumer transaction in e-commerce (Kasiran & Mezianne, 2004). The present of third party endorsement has prompted a convincing environment to customer towards completing online transaction. However, due to some reasons, the similar situation is not exploited in Malaysian B2C E-commerce website. Data was taken two times to compare the usage of TPC in two different times. Based on the first and second data set, out of 33 websites (n=33), only 13 websites (39.4%) had placed third party seals

on their websites. Out of these 13 websites, 9 websites (69.2%) used the seals illegally or used unverified seals. Only 4 websites (30.8%) had a legal and verified seals.

The number of endorsement on each website was different ranging from one to five seals. All of the 4 websites had more than one endorsement on their website from both data sets. There are several reasons for one website to have more than one seals. According to Kasiran & Meziane (2004), third party seals carry different type of endorsement such as privacy adopted technology usage or child protection. Therefore, in order to get the maximum effect of using third party endorsement, the websites are using more than one third party endorsement. Clearly, the possibility for a consumer to trust a website that has more than one third party endorsement is higher.

ii. What type of TPC that being used in this digital storefront?

There are few numbers of endorser in the Malaysian e-commerce website. The first number in bracket indicates the number of endorser for the first data set and the second number is for the second data set. Among endorser that were found in the websites are Bizrate (1,1), Verisign (1,1), Scan Alert (1,1), Truste (1,1), Thawte (2,1), PublicEye (1,1), Mastercard SecureCode (8,8), Verified by Visa (8,8), Paypall (3,2), Commerce Payment (1,1), HackerSafe (1,1), Amex Fraud Protection (3,3), WorldPay (1,1), Netrust (1,1), Trust SG (1,1), and Consumer Trust (1,1).
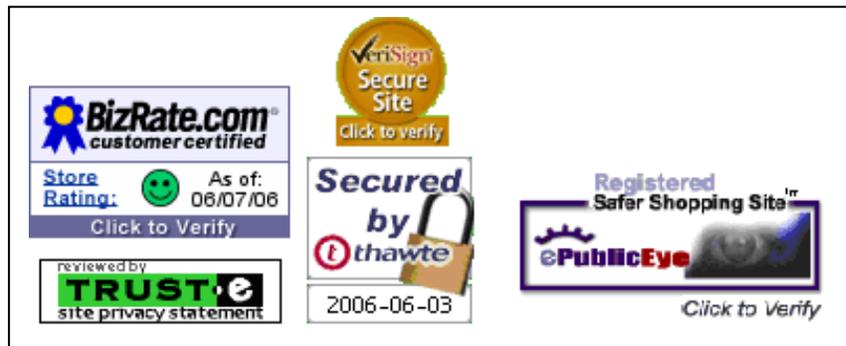
Figure 2: Example of several seals that available in E-commerce website used in this research.

Based on the statistics, Mastercard SecureCode (8,8) and Verified by Visa (8,8) is the most commonly used endorsement by the Malaysian B2C E-commerce merchant.

Both Mastercard Code and Verified by Visa provide similar kinds of endorsement. Both provide security payment to E-Commerce website. According to Mastercard (2006), 70% of consumers surveyed by MasterCard say they are concerned with security and fraud issues. MasterCard SecureCode raises cardholder confidence when shopping online. Most Malaysian B2C E-Commerce website are using Mastercard and Visa seals most probably because compared to another endorser, Mastercard and Visa are the most familiar to Malaysian who used credit card.

iii. What are the services that being offered by the endorser?

There are different ranges of services that being provided by these third party endorsements. Provider like Verisign provides merchant verification in terms of identity and site authentication while endorser like TrustE have examined the privacy policy of the merchant and verified as meeting their standard of privacy protection.

Verisign (secure site) and Thawte verify the security technology used such as SSL or PKI implementation. Bizrate provides independent space for maintaining feedback and complain about the merchant. The endorsement is based on feedbacks provided by the consumers about the store. Meanwhile, endorser like PublicEye carries different endorsement such as reliability, privacy and consumer satisfaction endorsement.

Figure 3: Among the services provided by the endorser (source: www.thawte .com)

Different endorser provides different method for the consumer to verify the validity of the seals used in the website. There is a few sample website used in this research had several endorsement which cannot be verified. Having endorsement that cannot be verified can give negative effect to the side and it also can cause an integrity problem on the seals itself since seal can be copied by unauthorized merchant on their website.

There are different levels of verification provided by the endorser. One of the verification levels is where the seals provide the mechanism to check the validity of the seals used on the website. The seal provider will provide a verification of its seals through its secured server when consumers click on the seals that are available on the merchant's website. For example, Verisign and Thawte will show an online certificate that shows whether the seals are valid, revoked or expired.

Meanwhile, seals like Bizrate, depends on feedbacks and comments linked on their seals. They only provide the independent and non-bias publication of these feedbacks and comments linked to their seals.

6.   FUTURE WORKS AND CONCLUSION

The concept of trusted services forms a key issue for any kind of electronic services. Based on the literature, third party endorsement has been used as one of the methods to instill consumers' trust. Creating initial trust through implementation of TPC is very important because the consumer has a tendency to trust brand names.

Since none of this kind of research has been carried out in Malaysian environment, this research is intent to fill the gap. Even though, this is only a preliminary study, the output of this study can give an important background on the current implementation of TPC and be used as a basis of initial evaluation for business opportunity as a service provider for this kind of certification in Malaysia.

Looking closely at the implementation of the third party certification can reveals that the merchant didn't realize the potential since not more than 40% of the sample have third party endorsement on their website. There are many problems related to the implementation of these seals. Problems like the awareness of merchants on the important of third party seals to their business, unverifiable endorsement, misleading link, unauthorized use of logos and no endorsement at all are still there in Malaysian environment. The consumers need to understand the protection that being offered by the seals and the integrity level of the seals.

An extension of work based on this paper is being carried out by the authors. Since the third party certificate is related to security issues, the future works will study on how far the implementation of third party certification is complied with X.509 certification standard.

REFERENCES

American Institute of Certified Public Accountants (AICPA) (2001). *Electronic commerce assurance: attitudes toward CPA Webtrust* from http://www.aicpa.org/webtrust/yankel.htm

Cheskin Research (2001). *Trust in the wired Americas* from http://cheskin.com/p/ar.asp?mlid=7&arid=12&art=0

Cheskin Research and Studio Archtype/Sapient (2001). E-Commerce Trust Study (1999). from http://www.studioarchetype.com/cheskin/assets/images/etrust.pdf

Cheung, C.M.K., Lee, M.K.O., (2001). Trust in internet shopping: instrument development andvalidation through classical and modern approaches. *Journal of Global Information Management* 9 (3), 23–46

Hoffman et al. (1999). "Building Consumer Trust in Online *Communications of the ACM*, 42 (4), 50-56.

Kaur, Kiranjit (2005). Consumer Protection in E-Commerce in Malaysia : An Overview in *UNEAC Asia Papers* No 10.

MasterCard (2006). What You Can Do To Protect Yourself As a Merchant from: http://www.mastercard.com/us/merchant/security/what_can_do/SecureCode/index.html

Mohd Khairudin Kasiran & Farid Meziane (2004). The Usage of Third Party Seals in e-Commerce websites: Current Implementation in *Work with Computing System*, 794-798.

Mohd Khairudin Kasiran & Farid Meziane (2002). An Information Model for a Merchant Trust Agent in Electronic Commerce. IDEAL 2002: 243-248

Noteberg, A.,Christiaanse, E., & Wallage, P. (2001). *Consumer trust in electronic commerce: the impact of electronic commerce assurance on consumers' purchasing likelihood and EC risk perception* from http:/imwww.fee.uva.nl/~anna/pub.htm

Noteberg, A.,Christiaanse, E., & Wallage, P. (1999). *The role of trust and assurance services in electronic channels: an exploratory study*. In proceeding of the International Conference on Information Systems, December 1999, Charlotte, North Carolina

Papadopoulou, P., et al. (2001). Trust and relationship building in electronic commerce. *Internet Research: Electronic Networking Applications and Policy* 11 (4),322–332

Ratnasingam. P. "The Importance of Trust in Electronic Commerce," *Internet Research: Electronic Networking Applications and Policy,* v. 8, no. 4, 313-321

WorldIT (2003). Malaysian Government Increases E-Commerce Grant. From http://findarticles.com/p/articles/mi_qn4175/is_20030409/ai_n12923801#continue

Webopedia (2006). X.509 from http://www.webopedia.com/TERM/X/X_509.html

Yinan Yang (1998). Security Mechanism in Electronic Commerce from http://www.cs.adfa.edu.au/~yany97/secure-payment.html

www.thawte .com