The implementation of Third party Endorsement as Knowledge Repository Agent for Creating Trust in Malaysian’s Electronic Banking Industries.

Mohd. Khairuddin Kasiran
Faudziah Ahmad
Farid Meziane

Fakulti Teknologi Maklumat 1,2
Universiti Utara Malaysia, UUM Sintok, Kedah
School of Computing, Science and Engineering 3
Salford University, Manchester,
United Kingdom

mkasiran@uum.edu.my
fudzi@e-web.uum.edu.my, fudzahm@yahoo.com
f.meziane@salford.ac.uk

Abstract: Internet banking is a faceless banking arrangement where trust is still a major problem. This problem has been addressed through the implementation of third party endorsement on the bank’s websites. This endorsement acts as a knowledge repository on several issues about the bank’s websites. This paper intends to look on the current implementation of third party certification in Malaysian bank websites. Among the basic issues that will be discussed in this paper are the number of websites that has these endorsement, purpose of the endorsement, parties that provide the endorsement and the credibility of the endorsement.

I. INTRODUCTION
Sustaining business in a competitive environment has lead many Malaysian banks to be more creative in delivering their services to their customer. Currently, the strategy of bringing the banking service closer to consumers is becoming a niche such that the banks in Malaysia would need to pay more attention [1]. The adoption of technology in order to facilitate consumer banking has a long successful history. Beginning with the introduction of Automatic Teller Machine (ATM), the consumer has enjoyed the convenience of time and place in selected transaction with the bank. However, a limited number of ATM available is still limiting the full deployment of this technology. With the proliferation of Internet technology, there exist more opportunities for the banking industries to provide value-added services. The new technology adopted in the banking industries thus, initiated the setup of the trust requirement for banking transaction. In the early day, saving book has been used to create the trust needed since it keeps and maintain all transaction record between the customer and the bank. Any dispute regarding their transactions can always be referred back to this passbook. However, with the introduction of ATM, the role of passbook as a tool to maintain this trust started to fade. Transactions using ATM are no longer recorded in the passbook instantaneously. Any dispute should be referred to the bank record, which required consumers to trust their banker. Now with the introduction of Internet banking, trust requirement is getting more important. The bank must provide a system and procedure that will verify and authenticate all transactions through their websites.

Motivation
Based on Malaysian Central bank’s (Bank Negara) websites, out of 23 commercial banks only 13 of them have offered e-banking to their retail consumer (2005). E-banking or Internet banking in a retail banking segment has offer consumers a more control on managing their account activities [2]. They can access their account detail from their computer via Internet...
connection to the bank’s server. The services offered by the banks through this channel vary. Starting with basic service for controlling the e-banking account such as checking balance, transfer money and paying bills, the banks now have started to offer other service such as uploading mobile phone credit or applying initial issues of shares from stock market. Since e-banking is still new in the banking industry in Malaysia, study on how Malaysian banking use third party endorsement as knowledge repository agent for creating trust will highlight the current strategy adopted in this industry.

[3] has classified Internet banking as product electronic and process innovation which allow consumers to handle their banking requirements without physical attendance in the bank. Even though it is still considerably new in Malaysian banking industry, it has the required momentum to be pursued in the future. The acceptance of e-banking usually depends on two types of trust that is technology and procedural trust. Technology trust refers to the trust that the bank is able to provide a reliable technology to handle electronic transactions. The technology used must be able to protect the consumer from problems such as hacking, “phishing”, crossing and stealing any information during a particular ongoing transaction. Procedural trust, on the other hand, refers to the procedure that governs the electronic transactions. A well define procedure should give a clear indication as to whether certain transaction is completed or not. A complete transaction should affect the account permanently and the incomplete transaction should never change anything from the account. Procedural trust also refers to the establishment of a clear procedure.

One of the questions that is being asked is “how can the banking industry create these two type of trust?” According to [4] and [5], third party can play an important role in acknowledging and endorsing the technology and procedural used in Internet banking. These third parties can offer their endorsement on the banks’ websites stating that these banks are committed to their alleged promises as published in their websites. How far this strategy has been adopted by Malaysian banking and what are the current implementation of these third party endorsement by Malaysian banking will be the main motivation for this paper.

II. RESEARCH OBJECTIVES

This paper will answer several specific questions:

- How many commercial banks in Malaysia offer Internet Banking services?
- How many of these Internet Banking websites have third party endorsement?
- What are the endorsements being used?
- What are the services that are being offered by the endorsers?
- Who are the providers?
- Is there any method for the consumer to verify the validity of the endorsement used?

III. THIRD PARTY CERTIFICATION AS KNOWLEDGE REPOSITORY FOR CREATING TRUST.

Historically, banking industries in Malaysia has enjoyed a positive trust relationship with their customers in the area of technology adoption in order to create a competitive advantage for delivering a better banking service to consumer. Starting with the implementation of automatic teller machine (ATM), then self service counter banking and the latest is electronic banking, the banking industries always in the lead position in exploiting technological advancement to improve their service. The cited example of technological usage has played very important role in changing the relationship between the bank and their consumer. Starting with the direct relationship, where the consumer has to be physically exist in the bank in order to do their business, the introduction of technology in banking industry slowly break this direct relationship. Started with the usage of ATM machine, where the consumer can carry out their transaction with the machine setup up by bank in a designated location, they can now do their transaction via Internet through the machine owned by consumer at any place and at any time around the world. This indirect relationship requires element of trust to be created by the banking industries more than before.

One way to create the indirect trust is through the implementation of Third Party Certification
in the banker’s websites. Third party certification (TPC) is created based on the theory of recommended trust. According to [4] trust is not generally transitive but can be conditionally transitive where certain form of trust can be transferred from one party to another. And this transference of trust can be very important if the endorsement involves acknowledgements of expertise and skills [5]. Several literature that discuss about the role of third party certification and its implication on trust formation especially for virtual transaction is available from authors such as [5], [6] and [7], [8], and [9]. Based on these past researches, the role of third party certification in influencing the consumer to involved in a digital transaction is undeniable. The level of influences are getting higher if the risk involved uncertainty in technology and procedures in that transaction.

Among major service that are being offered behind the deployments of third party certification especially for the banking industries are:

- Verifying the legitimacy of the websites.
- Ensuring certain standard of network security has been put in place by the banking industries
- Acting as a protector to the consumer is something goes wrong in the Internet banking transaction.
- Educating consumer in term of their role and their right in utilizing certain banking service such as credit card.

Third party certification service can come from private organization for profit and non-profit orientation as well as from government agencies, which are more inclined toward social responsibility and promoting online transactions.

IV. METHODOLOGY

The list of all commercial banks totaling to 23 banks was obtained from [10] and is shown in Table 1.

<table>
<thead>
<tr>
<th>Bank Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABN AMRO Bank Berhad¹</td>
</tr>
<tr>
<td>Affin Bank Berhad²</td>
</tr>
<tr>
<td>Alliance Bank Malaysia Berhad²</td>
</tr>
<tr>
<td>AmBank (M) Berhad¹</td>
</tr>
<tr>
<td>Bangkok Bank Berhad¹</td>
</tr>
<tr>
<td>Bank of America Malaysia Berhad¹</td>
</tr>
<tr>
<td>Bank of China (Malaysia) Berhad¹</td>
</tr>
<tr>
<td>Bank of Tokyo-Mitsubishi (Malaysia) Berhad¹</td>
</tr>
<tr>
<td>Bumiputra-Commerce Bank Berhad¹</td>
</tr>
<tr>
<td>Citibank Berhad³</td>
</tr>
<tr>
<td>Deutsche Bank (Malaysia) Berhad¹</td>
</tr>
<tr>
<td>EON Bank Berhad²</td>
</tr>
<tr>
<td>Hong Leong Bank Berhad²</td>
</tr>
<tr>
<td>HSBC Bank Malaysia Berhad¹</td>
</tr>
<tr>
<td>J.P. Morgan Chase Bank Berhad¹</td>
</tr>
<tr>
<td>Malayan Banking Berhad¹</td>
</tr>
<tr>
<td>OCBC Bank (Malaysia) Berhad¹</td>
</tr>
<tr>
<td>Public Bank Berhad²</td>
</tr>
<tr>
<td>RHB Bank Berhad²</td>
</tr>
<tr>
<td>Southern Bank Berhad²</td>
</tr>
<tr>
<td>Standard Chartered Bank Malaysia Berhad¹</td>
</tr>
<tr>
<td>The Bank of Nova Scotia Berhad¹</td>
</tr>
<tr>
<td>United Overseas Bank (Malaysia) Berhad.¹</td>
</tr>
</tbody>
</table>

Out of these 23 banks, 13 are owned by foreigners and 10 are locals. In term of websites, 18 of them have websites but only 13 provide Internet banking to their customers. These 13 websites are then examined to determine the existence of any third party endorsement. If it is available, then the the link from the endorsement will be checked. These links usually provide information on the purpose of the endorsement, the provider of the endorsement and sometimes the certificate to verify the endorsement.

The process of analysis is conducted using the content-analysis approach. Figure 1 illustrated the whole process.

![Fig. 1. Content-Analysis Process](image-url)
V. RESULT AND DISCUSSION

1. How many commercial banks in Malaysia offer Internet Banking services and how many has third party endorsement?

Eventhough, past literatures highlighted that third party endorsement has an important impact on trust creation; results from the analysis showed that the banks had not fully exploit this in their strategy for promoting their Internet banking. Out of 23 banks operating in Malaysia, only 18 have websites for their banks. Out of these 18 banks, only 13 offer Internet banking and unfortunately only four banks have third party certification on their websites. The four banks are Citibank Berhad, Duetsch Bank, Malayan Banking and Public Bank. In term of ownership, two of these four banks are local banks and the other two are foreign owned banks. The reason why this trend of adoption is so low is beyond the scope of this paper.

2. What are the endorsement being used?

Based on these four banks’ websites, it was found that only four types of third party endorsement are available. They are Verisign Secure Site (Duetsch Bank, Malayan Banking), KPMG Web Trust (Malayan Banking), Security Alert (Citibank Berhad), and Varified By Mastercard/Visa (Public Bank)

3. What are the services that are being offered by the endorsers?

Based on the four types of endorsements available in Malaysian banking websites, it was found that all of them offers different type of service. Verisign Secure Site provides a security service that verifies the accessed bank’s website is true or false. True means that the bank’s website comes from the bank itself. False shows that the bank’s website is not from the bank but published by other party. This particular service is important to ensure that the consumer do not fall into a trap in providing their financial information to clone website which will expose the consumer to many financial frauds. Several banks have detected this type of fraud recently. The victims use a link to the bank websites provided through email and end up being linked to a clone bank’s websites.

KPMG’s third party certification provides an assertion that an audit check has been carried out on privacy features of the bank websites. The third party certification provider had made an audit on the practice of security and privacy protection and the control of consumer personal information. The report of the audit is available to be access by consumer through the link provided by the third party certification logo.

Security alert provides an educational and reminder service to the bank customers toward any fraudulent email. Such education is very important to avoid consumer from being linked to any clone bank websites.

Verified by MasterCard/Visa provides an extra assurance to the consumer by providing and extra security measure through implementation of Personal Identification Number (PIN) system. The consumer of this bank can use their cards more comfortably since the bank will verify any cards transaction with the corresponding PIN number and will not accept credit card numbers that have not been verified.

4. Who are the providers?

All third party certifications available in Malaysian websites are provided by private organizations. Such providers are usually profit oriented. However, there is no information available on the cost of having this third party certification from their link websites.

5. Is there any method for the consumer to verify the validity of the endorsement used?

Out of these four third party endorsements, only Verisign Secure Site provides a method of verifying the authentication of the endorsement by linking to its certificate. The certificate acknowledges the name of the company being certified, time period for validity of the certificate and the reference number of that certification. In addition, the certificate also states the web address of the original certification. Other endorsements only provide certifications that have explanations about endorsement but without information on the validity of the certificate.
VI. CONCLUSION

Results obtained from this study showed that Malaysia’s commercial banks are still lacking of concerns for the third party endorsement. Online transactions carry significant risks of fraud and banks have to be precautious and offer reliable service by having third party endorsement to enhance consumers’ confidence. Government have to come up with strategies to improve Malaysian online banking services so that banks are willing to invest more in ensuring a secured service and in cases where banks violates their agreement, there must be a legislation that can protect consumers.

REFERENCES


