

INTEGRATING CONSUMER TRUST IN BUILDING AN E-COMMERCE  
WEBSITE

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To my father, *Hj.Othman bin Ayub* and my mother, *Hjh. Fatimah bte Sheriff*  
thanks for the support and encouragement.

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and lastly,

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## **ABSTRACT**

Trust is a vital element to the success of e-commerce. The research on the concept of trust has emerged rapidly due to the need of understanding it in order to improve current and future e-commerce implementation. The lack of consumer trust is one of the focused issues today as the world moves toward advanced information and technology era. This research aims to find a practical solution on how to integrate trust during the design and development process of an e-commerce website. The research examines consumers' trust and behavior by understanding the concept of trust, reviewing several trust related models, mechanisms and technologies proposed and recommended by other scholars. The research also proposed a model that shows how consumer trust is developed and communicated between two parties. It is found that there are six categories of trust mechanisms and technologies that web merchants can utilize in order to integrate trust in their website. It is also found that consumer characteristics have direct influenced on consumer purchasing intentions while web merchants should have trustworthiness characteristics such as ability, integrity and benevolence for consumer to evaluate and decide. This research provides guidelines for web merchants to understand more about consumer trust in order for them to build a secured and trusted e-commerce website.

## **ABSTRAK**

Kepercayaan merupakan satu element penting terhadap kejayaan sesebuah laman web e-dagang. Kajian terhadap konsep kepercayaan ini telah berkembang dengan drastik disebabkan lahirnya keperluan untuk memahaminya sebagai penyelesaian untuk meningkatkan mutu implementasi laman web e-dagang pada masa kini dan masa hadapan. Kurangnya kepercayaan pengguna merupakan salah satu isu yang diberi tumpuan pada masa kini setelah dunia bergerak ke arah era kemajuan teknologi maklumat. Kajian ini bertujuan untuk mencari satu penyelesaian yang praktikal tentang bagaimana untuk menggabungkan kepercayaan semasa proses perancangan dan pembangunan sebuah laman web e-dagang. Kajian ini memeriksa kepercayaan dan kelakuan pengguna melalui pemahaman terhadap konsep kepercayaan, meneliti beberapa model kepercayaan, mekanisma kepercayaan dan teknologi yang dicadangkan oleh para sarjana. Kajian ini juga mencadangkan satu model yang menggambarkan bagaimana kepercayaan pengguna dibina dan berinteraksi antara dua pihak iaitu pihak pengguna dan pihak pengusaha laman web e-dagang. Kajian ini mendapati bahawa terdapat enam kategori mekanisma kepercayaan dan teknologi dimana pengusaha laman web e-dagang boleh guna untuk digabungkan ke dalam laman web mereka. Kajian ini juga mendapati bahawa karakteristik pengguna mempunyai pengaruh terus terhadap keinginan pengguna untuk membeli manakala pengusaha laman web perlu mempunyai karakteristik keboleh-percayaan seperti kemampuan, integriti dan niat yang baik dalam menjalankan perniagaan yang dapat menguntungkan kedua-dua pihak. Kajian ini memberi beberapa garis panduan untuk pengusaha laman web e-dagang memahami tentang kepercayaan pengguna dalam rangka untuk mereka membina sebuah laman web e-dagang yang boleh dipercayai dan selamat.

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

Internet has been a commonly accepted means of technology to conduct daily activities. The growth of the Internet since the starting of a new millennium has been extraordinary. Recent statistic developed by Miniwatts Marketing Group (2007) indicates that the Internet users in Asia region alone has exceeded to about 450 million. In Malaysia, the Internet penetration over the total population has increased from 15 % in 2000 to 47.8 % in 2007. This is due to the increasing number of Internet subscribers as Malaysia moved towards advance information, communication and multimedia services.

The true potential of Internet technology is now being exploited at a higher rate as a medium of selling and purchasing goods (Lee & Turban, 2001). It is widely agreed that e-commerce can only become a broad success if the general public trusts the virtual environment (Tan & Thoen, 2000). Most scholars in the field of e-business have agreed that the lack of trust in e-commerce is the main factor that contributed to the decreasing number of consumer engaging in e-commerce (Tan & Thoen 2000; Lee & Turban 2001; Reigelsberger et al. 2003; Patton & Josang 2004; Pennanen 2005). Consumer trust may be even more important in electronic, “cyber” transaction than it is in traditional, “real world” transactions (Kim et al, 2008). This is because in real world environment, consumer can experience the item physically and

if they are satisfied, then they will purchase the item. Apart from that, an electronic transaction has numerous disadvantages and it involved a lot of risk rather than normal or traditional transaction.

Several studies have focused on various aspect of trust to understand more about the concept of consumer trust in an online environment. These studies include proposing different kind of models and framework (Tan and Thoen, 2000; Lee and Turban, 2001; McKnight and Chevany, 2001; Delone and McLean, 2004; Corritore *et al*, 2003; Pennanen, 2005), discussing the issue on consumer behavior and intentions when engaging in e-commerce activities (Schiffman and Kanuk, 1994; Holt, 1995; Koufaris *et al*, 2001; Kotler and Armstrong, 2002; Turban and King, 2003; Sheth and Mittal, 2004; Solomon *et al*, 2006; Chen and Barnes, 2007), looking into the trustworthiness of e-commerce website (Mayer *et al*, 1995; Belanger *et al*, 2002; Nielsen *et al*, 2000; Che Hussin *et al*, 2003), arguing about trust and web design (Yang *et al*, 2005; Lumsden and MacKay, 2006; Corritore *et al*, 2001; Friedman *et al*, 1999), and also provide an understandable guideline on how trust can be integrate during web development process (Nah and Davis, 2002; Yang *et al*, 2005).

Yet, there are no researches conducted that focuses on constructing and testing a functional e-commerce website that incorporated consumer trust in its development process. Thus, this study focuses on how consumer trust can be integrated when developing an e-commerce website and also proposing a trust model that takes into accounts the user behavior aspects.

## **1.2 Problem Background**

Building an e-commerce website has grown to be a trend for entrepreneurs and inventors to market their product and services in cyberspace. When dealing with an untouched and unseen environment, users or consumers tend to question the trustworthiness of this electronic environment. This will trigger their trust feeling towards it. Although there are some studies that discussed about trustworthiness of

an e-commerce website such as site attributes (Belanger et al. 2002 ; Che Hussin et al 2003) yet there is still issues related to trust and trustworthiness that exist today. Different approach and method have been discussed for the past few years on understanding the trust issue but there is no clear or direct solution.

As discussed, many studies have been conducted regarding this issue that focused more on understanding consumer's trust when he or she visits an e-commerce website. Many of the result from these various studies have come out with different sorts of models, frameworks or approaches on how to understand consumers' experience and feeling (mostly about trust) or react when they engaged in e-commerce activities. All of them gave a much clearer approach on how to understand consumer trust and how it is formed but none of them did a study on the development processes of e-commerce website itself besides focusing on the characteristics of the websites.

If an e-commerce website can be build based on all the models and frameworks related to trust, the author would assume that this would furthermore increase the level of trust among consumer. Thus, this study is about integrating consumer trust when building or developing an e-commerce website. A part from that, this study also proposed a model that studies the aspect of user or consumer behavior associated with trust that can be utilize when constructing the e-commerce website.

Nowadays, newly established companies are experimenting and marketing their services related to technologies for building trust. Trust seal programs, digital certificates, socket secure layer and etc. are among the most famous technologies that emerged due to the decreasing number of consumer engaging in e-commerce because of trust and security reasons. Few studies have been conducted regarding the effectiveness of these technologies to improve consumer trust (Head and Hassanein, 2002; Patton and Jøsang, 2004).

### **1.3 Problem Statement**

The main question that requires an answer is “How to build an e-commerce website that take into account issues that is associated with consumer trust?”

### **1.4 Project Objectives**

The objectives of this project are as follow:

- i) To identify trust indicators in an e-commerce website and to study the different kind of trust models.
- ii) To propose a consumer trust model that take into account user behavior aspect.
- iii) To develop an e-commerce prototype that supports the research findings.

### **1.5 Project Scope**

- i) This study will only focus on trust issue although there are other issues associated with e-commerce.
- ii) The prototype will not operate as a complete e-commerce website but consumer trust will be the main priority in the development process.
- iii) This study is focused on business to consumer (B2C) concept in e-commerce
- iv) E-commerce websites in Malaysia

## **1.6 The project importance**

Trust will always exist no matter how perfect the security is or how small the risk is in e-commerce environment. Finding a clearer solution to this matter will encourage more researchers in this field to uncover the weaknesses and find a better solution. If trust can be level down, a brighter prospect awaits for e-commerce. This study hopes to reveal the benefits when integrating trust in constructing an e-commerce website and provide few guidelines for incorporating trusts elements in the website. The model and website prototype developed will hope to guide developer and business oriented individuals or organizations to build a trusted and customer oriented e-commerce website. It is also hopes to give a better understanding about trust related technologies and general knowledge on how these technologies can be adopt in an e-commerce website to increase the level of trust and the intention to purchase.

## **1.7 Summary**

This chapter discussed the overview of this study where a brief introduction was explained concerning the trust issues that are related to e-commerce. The problem of this study and why it is initiated are discussed in the problem background section. Problem statement is the main question that needs to be answered after the completion of this project. There are three main objectives of this project that require a complete understanding if they're to be achieved successfully. It is hope that this project will contribute some knowledge in the study field.