CHAPTER 1 - INTRODUCTION

1.1 Background

There is a growing level of interest in e-commerce in Malaysia. In the era of globalisation, e-commerce has been recognised as an important business agenda by the Malaysian government. In the 7th Malaysian Economy Plan for 1996-2000, ICT was recognised as a strategic tool to support the growth of the economy and in the 8th Malaysian Economic Plan for 2001-2005, e-commerce was specifically mentioned for the first time (Ching, 2002). This plan targeted the development of ICT and promoted its extensive application to the public sector. Malaysia sees e-commerce as the new way to do business through the digital network. E-commerce enables Malaysian businesses to create new values, raise the level of productivity, increase competitiveness in export markets and facilitate new types of business processes for reaching customers worldwide. The rapid growth of e-commerce in Malaysia relies heavily on vigorous government support. Although the Malaysian leadership keeps changing, the government maintains its support in the use of ICT as a tool for development. This is evident when the fifth Malaysian Prime Minister, Abdullah Ahmad Badawi in debating the 9th Malaysia Economy Plan for 2006-2010 in Parliament emphasised the need to maintain the development of ICT infrastructure and to reduce the digital gap between rural and urban areas. The government has also developed new ICT fields such as local digital content industry and bio-informatics. Specific attention was given to promote the widespread use of ‘e-dagang’ (Abdullah, 2006). In addition, the establishment of the E-Commerce Act 2006 on 10 July 2006 is further proof of the Malaysian government’s commitment (Utusan Malaysia, 11 July 2006). This act was established to boost the e-commerce and recognise it as a valid business transaction medium in Malaysia. Besides that, the act also aims to protect e-
commerce transaction from being victimised by irresponsible party in the virtual commerce environment.

The usage of e-commerce application in Malaysia is still in its infancy (Koh and Le, 2003). E-commerce in Malaysia presently is more concerned with business-to-business rather than business-to-customer initiatives. People are not familiar with purchasing online or conducting shopping online. Although quite a number of local companies have developed their websites, most of them do not use these websites to sell their products. The websites are mainly used to deliver information about the company profiles and describing products. According to Koh and Le (2003) again, although many incentives have been given to business entities to transform their manual business transaction electronically, efforts to encourage people or customers to conduct online purchases via interesting reward schemes are still limited.

It is becoming increasingly difficult to ignore that trust has became a main factor in e-commerce usage. Trust is an important consideration in the development and fostering of e-commerce (Btyant and Barbara, 2002). This research examines the trust element in using e-commerce application in the Malaysian society. The focus of the research is on Public Information System Personnel in the state of Selangor, which provides the platform to investigate the trust factor in e-commerce in Malaysia

1.2 Trust

Users’ trust on Internet continues to be a key issue impeding the proliferation of e-commerce usage. Trust is important in people’s daily life and is needed in all personal and social contexts. Trust is vital to facilitate decision making, cooperation and
business, civil and political actions among people. According to Luhman (1979), trust can be viewed as a cognitive and social device and is able to reduce complexity hence enabling people to cope with the different levels of uncertainty and sometimes the risks that permeate our life, in different degrees. Without trust, an individual would freeze in uncertainty and be indecisive when faced with the impossibility of calculating all possible outcomes of a situation. Engaging trust automatically can reduce the number of decision nodes that are being analysed and facilitate the decision making processes. Trust is the psychological status of involved parties who are willing to pursue further interaction to achieve a planned goal (Turban et al., 2002).

Trust plays an important role in the success of e-commerce usage. Trust in e-commerce simply refers to faceless trust in a virtual environment. Trust is defined as an individual’s belief about the extent to which a target is likely to behave in a way that is “benevolent, competent, honest, or predictable in a situation (Mcknight et al., 1998). Corbitt and Thansankit (2002) defined trust in e-commerce as “the expectation that other parties will behave in accordance with commitments, negotiate honestly, and not take advantage, even when opportunity arises”. Whereas Urban et al., (2000) state that the most important trust element is fulfilment. They also see trust building progressively among Internet users as their commitments are met. This leads to the confidence in Internet users that the vendors will deliver larger, more critical expectations.
The particular need for trust in e-commerce was also identified by Hoffman et al. (1999), Jones et al. (2000), and Shneiderman (2000). Some reasons why trust is required in e-commerce include the following:

- The absence of face-to-face contact between buyer and seller
- Lack of opportunity to examine directly the merchandise or the seller’s premises
- Goods cannot be collected immediately upon payment

Lack of user trust in e-commerce merchants, e-commerce technology, and the social, financial and legal infrastructures of the e-commerce environment, poses a major challenge to the large-scale uptake of business to consumer e-commerce (Patton and Josang, 2004). If individuals do not trust electronically-mediated interaction, the online world will lack business transactions, information exchange, dealings and creative works. An incredibly powerful business resource could remain underutilised.

1.3 E-Commerce

E-commerce revolution has started in Malaysia since the 1970’s in the banking sector (Pang, 1995). The usage is obvious in 1981 when Malaysians were introduced to Automated Teller Machines (ATM) by banks (Suganthi at al., 2002). E-commerce continually evolved after the Malaysia government introduced Multimedia Super Corridor (MSC) in 1996. MSC is a national initiative by the Malaysian government to encourage people to utilise ICT in order to prepare themselves toward a knowledge-economy era.
E-commerce can be defined as doing business electronically. Turban et al., (2006), defined e-commerce as a process of buying, selling, transferring, or exchanging products, service, and/or information via computer network, including the Internet. He also defines in detail e-commerce from various perspectives, as listed below:

- **Communication** – From a communication perspective, e-commerce is the delivery of goods, service, information, or payment over computer network or by any other electronic means.

- **Commercial (trading)** – From a commercial perspective, e-commerce provides the capability of buying and selling product, services, and information over the Internet via online services.

- **Business process** – From a business process perspective, e-commerce is doing business electronically by completing business process over electronic network, thereby substituting the information of physical business process.

- **Service** – From a service perspective, e-commerce is a tool that addresses the desires of governments, firm, Internet users, and the management to cut service cost while improving the quality of customer service and increasing the speed of service delivery.

- **Learning** – From a learning perspective, e-commerce is an enabler for online training and education in schools, universities, and other organisations, including businesses.

- **Collaborative** – From a collaborative perspective, e-commerce is the framework for inter and intra-organisational collaboration.

- **Community** - From a community perspective, e-commerce provides a gathering place for community members to learn, transact and collaborate.
According to Schneider and Perry (2001), e-commerce means that when people conduct business activities online, they are participating in e-commerce. E-commerce involves business over the Internet which includes online shopping and online purchasing (Rosen, 2000). Online shopping relates to providing information and knowledge to customers about products. Online purchasing is the infrastructure that allows customers to purchase products over the Internet.

However, the definition of e-commerce can vary, depending on which perspective is considered. E-commerce exists as a result of the technological changes that affect conducting business in the world today. In adopting the above definitions, this study considers e-commerce as a non-linear interaction, without the involvement of face-to-face communication between Internet users and companies (Internet sellers). E-commerce is achieved via computer networks, which facilitate types of commercial transactions (for e.g. browsing or purchasing products or services) easier, faster and cheaper, beyond traditional geographical boundaries.

1.4 Motivation of the Study

There has been no specific study on trust in e-commerce interaction amongst Internet users in Malaysia. However, from the researcher’s observation the awareness to use the Internet has increased but the usage of e-commerce is still low. E-commerce provides both flexibility and convenience to Internet users by facilitating online shopping. However, trust has been posited as the most important element of successful e-commerce (Corrotoore et al., 2001). People’s trust to perform electronic transaction over the Internet significantly contributes to the success of the overall development of e-commerce. Lack of trust among Internet users has been identified
as the main obstacle in e-commerce application. Trust is an important factor in e-commerce and it is vital to ensure that the true benefits of e-commerce can be realised. Trust is essential in ensuring that optimal performance benefits are obtained from the system as well as the users. Even though the infrastructure for facilitating e-commerce is now in place, customers’ trust must be developed to ensure its utilisation. Understanding the development of trust factor and its elements is very important, as an early step to overcome the lack of e-commerce application usage. It is a need to overcome the problem of trust among Internet users so that e-commerce can be a bustling online market and achieve a higher success level than what it is now.

1.5 Problem Statement

E-commerce is a business transaction that takes place over the Internet. E-Commerce is a faceless interaction between the Internet users and online merchants. The Internet users’ lack of trust in e-commerce is often assumed to be one of the main reasons for the disappointing development of Business to Customer (B2C) in e-commerce (Reichheld and Schefter, 2000). Lack of trust is seen as a resistance among Internet users in Malaysia to perform business transactions using e-commerce applications. According to Shariffadeen (2001), the tendency of not using the Internet to perform any business transaction in Malaysia is very high. This lack of trust is thought to have many causes, and most literature has centred on a perceived lack of security in Internet transaction, and the fear of lost of privacy. Establishing online trust is more difficult than in traditional marketplaces for various reasons. One major reason is that the Internet is a virtual space, giving few cues for customers’ instinct to go online. People establish trust by dealing with each other on a reciprocal basis, getting to know each other’ identities, behaviours, reliabilities, honesty and ability to perform certain
specifications. This situation is difficult to purvey on the Internet because it is an open network. Also, Internet users know that they can be tracked on the Internet and this leads to suspicion that their personal information will go to the wrong hands and their privacy of information will be violated.

In Malaysia, the lack of trust is obviously proven by the low percentage of Malaysian Internet users who have conducted Internet shopping. Bernama (2006) reported in a research done by the Malaysia Communication and Multimedia Commission in 2006, that only 11.4 percent of 2,473,000 Malaysian household Internet users have conducted online shopping for that year. Each household Internet account is shared by 2.51 users on average.

Security and data protection are the main reasons why Internet users are avoiding e-commerce applications (Mohsen and Ilja, 1999). Being concerned about security is the main factor why Internet users in Malaysia are reluctant to shop online. In a survey conducted by Radio Televisyen Malaysia (RTM) on 15 October 2006, it was found that 64 percent of the respondents disagree that the security of Internet banking is safe although the Central Bank of Malaysia has introduced digital certificate to overcome the security issues.

In order to encourage the growth of e-commerce, the Malaysian government has developed and implemented a specific set of guideline standards for e-commerce interactions. These guidelines serve to protect and reassure the safe transaction of e-commerce to Internet users and to encourage them to participate in e-commerce activities. It is believed that Internet users would be more willing to disclose personal
information if there is a policy or procedure that can be used as a guideline to guarantee their privacy, and explain why the information is being collected (Kobsa, 2007).

This research attempts to investigate factors that will enable the development of trust in e-commerce usage amongst the Internet users.

1.6 Research Objectives and Research Questions

This research is conducted to investigate the trust factor and readiness of Malaysian Internet users to do business electronically. This includes the study on the prospect of e-commerce application usage in online shopping in Malaysia. The specific objectives and research questions are as follows:

Objective 1

To identify the key factors that make people trust e-commerce

It is very important to examine and understand factors that contribute towards the Internet user’s trust in e-commerce. After the factors have been identified, a trust model in e-commerce from the Malaysian perspective is developed. This model contributes to the academic research and knowledge in the area of e-commerce.

Research Questions

1. Is security a trust factor that makes people trust e-commerce usage?

2. Is privacy a trust factor that makes people trust e-commerce usage?
Objective 2

To examine elements of information on e-commerce websites that are able to promote initial trust in the Internet users.

The second objective is to understand the role of information elements in an e-commerce website that create and promote trust among Internet users. Understanding what creates trust in e-commerce will lead the researcher to develop an informational element guideline for trust in e-commerce website design.

Research Questions

4 What are the elements of the information in a web design that can create trust in an e-commerce website among Internet users?

1.7 Research Scope

The scope of this research is limited to the Information System Personnel located in Selangor. The place was chosen as a research unit because Selangor is the centre for e-commerce in Malaysia. Selangor is also the base for the Multimedia Super Corridor (MSC). Internet user rate in the researched area is 27.2% and this is considered as the highest amongst the states in Malaysia (Malaysia Communication and Multimedia Commission, 2008). Most of the Information System Personnel in Malaysia are attached to companies with MSC status and are mostly located in Selangor.
Due to the constraints of cost and time, this research focuses only on investigating trust factors affecting Information System Personnel (ISP) government employees attached to the state of Selangor. The focus of this research does not cover Information System Personnel working in the private sector. ISP is an individual that is responsible for the usage of ICT/hardware and software in the organisation. They are usually placed in Information System department. The ISP’s job is to assist operational staff to carry out their daily tasks in Information Technology utilisation.

The scope of this research will focus on investigating trust factors that contribute to the trust of Internet user’s in Malaysia on e-commerce usage. As described in Figure 1.1 the researcher examines the trust factors that influence Internet users in e-commerce usage.

![Figure 1.1 – Consumers’ Trust Factor](image)

As illustrated in Figure 1.2, the researcher also focuses on examining the important elements of information on e-commerce websites that contribute to building trust in e-commerce usage.
1.8 Research Design

This research encompasses six phases in order to accomplish the stated objectives in section 1.6. Figure 1.3 describes the research design in detail. The first phase is the theoretical study, where the researcher built the knowledge of the concept of e-commerce and trust in e-commerce. Within this phase, the researcher conducted literature reviews and analysed past studies in the area of trust in e-commerce.

In the second phase, the researcher conducted a survey among ISPs in the government sector to gain information about the Internet and e-commerce usage. The survey was conducted with the purpose of obtaining the respondents’ opinions and perceptions about trust factor in e-commerce usage.
Upon completing the survey, the researcher went to the third phase which is the analysis of the data collected. Upon completion of the third phase, the first objective of the research was achieved.

In the fourth phase, a prototype of an e-commerce website is developed. This prototype is then tested by ISP. Interviews are then conducted with the aim of examining whether the elements of information in the prototype website are able to create trust in e-commerce interaction when users viewed it.

The interview procedure is the fifth phase of the research design. Only the ISP level managers are interviewed. They were chosen to be interviewed because they were well experienced as a senior ISP and exposed to the ICT requirement for a long time. Before the interview was conducted, all respondents were asked to view and familiarise themselves with the prototype website.

In the final phase, the researcher analysed the data from the interviews conducted with the ISP managers. The interviews were conducted with the intention to examine and verify the trust elements of information provided in the prototype e-commerce website. This assisted the researcher to fulfil the second objective.
1.9 Expected Research Outcome

When data were collected and analysed, the research questions were answered, and a each on the survey and interview were produced.

- **Survey report** – The report delivered the results of the survey conducted by the researcher. The purpose of this report is to disclose factors that create trust in e-commerce among Internet users in Malaysia.
• **Interview report** – The report described results of the interviews conducted by the researcher. The intention of this report is to examine the elements of information provided in the e-commerce website that are able to create trust among the Internet users toward e-commerce transactions.

1.10 **Organisation of Thesis**

The dissertation consists of seven chapters. Chapter one presents the overview of this research. It also presents the introduction of the research and description of the background of the research conducted in detail.

Chapter two delivers the literature review of this research. The discussion within this chapter concentrates on the trust concept in e-commerce and trust factors involved in e-commerce interaction. In addition, this chapter also includes a discussion on trust issues in e-commerce discovered from past research.

Chapter three describes the methodology employed to conduct this research. It covers a wide discussion on the advantages and disadvantages of research methodologies used by other researchers. This chapter also explains sampling used by the researcher and the questionnaire structure designed for data collection. Chapter four delivered the data analysis results and findings of the survey done after analysed with the use of the SPSS software statistical analysis.

Chapter five outlines the discussion about the development of e-commerce website prototype by incorporating the trust elements. Chapter six reveals the results of the interview conducted with ISP managers on the elements of Information e-commerce
provided on website. The interviews were conducted after the respondents were given sufficient time to test the prototype of the e-commerce website developed in chapter five.

Chapter seven presents the discussions and conclusion of this research. The discussion covers the results obtained from the analysis of the data collected. Trust factors discovered from the data analysis are discussed extensively. Further, this chapter also presents an e-commerce trust framework and information guidelines to develop trusted e-commerce websites from a Malaysian perspective.

1.11 Significance of the Research

This research contributes towards the body of existing knowledge by:

- Producing an e-commerce trust model framework from a Malaysian Internet users’ perspective in order to encourage Malaysian users’ trust in e-commerce applications. This model provides suggestions how to enhance the use of e-commerce among Malaysian Internet users. This model can be used to formulate suitable policies and regulations according to the Malaysian Internet user’s requirement. Reliable policy and regulations are very important in order to boost e-commerce application usage amongst Malaysian Internet users.

- This research also produces an informational content guideline for an e-commerce trust website design from the perspective of Malaysian Internet user. Information System Designers in Malaysia can use the guideline to develop websites that would gain the confidence of internet users. It is hoped
that the outcome of this research can promote and encourage Malaysia e-commerce development, implementation and use further.

1.12 Conclusion

In conclusion, this chapter has presented an overview of the research. The research was carried out with the intention to tackle trust issues in e-commerce interaction. Trust was identified as an influential factor in e-commerce development (Ansari and Nezam 2008). Understanding the trust factors is important in order to solve problems due to the lack of trust on e-commerce interaction amongst the Internet users. Therefore, this research is conducted with the aim of investigating the trust factors affecting e-commerce interaction. Chapter two provides the literature review, which describe in detail about trust issues on e-commerce and earlier studies done in e-commerce trust.