A MODEL OF TRUST IN INTERNET BANKING

– THE CASE OF PENANG

by

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ABSTRAK

Kebangkitan pembankan Internet di Malaysia telah mengubahkan cara pelanggan bank membuat transaksi bank mereka. Dari model perniagaan pembankan tradisional, bank-bank di Malaysia sudah berubah secara perlahan-lahan ke model perniagaan "clicks-and-mortar", kerana bank-bank di Malaysia percaya bahawa perubahan ini boleh menambah nilai kepada pelanggan-pelanggan mereka. Oleh kerana, pembankan Internet masih baru di Malaysia, elemen kepercayaan masih tidak diketahui dengan baiknya. Oleh itu, kajian ini bertujuan untuk membentuk dan mengesah model kepercayaan pembankan Internet di Malaysia. Dalam kajian ini, "Theory of Reasoned Actions (TRA)" telah digunakan sebagai model asas untuk membentuk model kepercayaan, dengan menambahkan elemen kepercayaan dan penentunya dalam model tersebut. Dalam kajian ini, maklum balas daripada 163 para pelanggan pembankan Internet telah dikumpul dan dianalisis. Hasil kajian telah menunjukkan bahawa elemen kepercayaan adalah faktor utama yang boleh menpengaruhi sikap para pelanggan ke atas penggunaan pembankan Internet. "Theory of Reasoned Actions (TRA)" juga disahkan bahawa ia boleh digunakan dalam situasi pembankan Internet di Malaysia, di mana sikap para pelanggan ada pengaruh ketara ke atas niat pelanggan membuat transaksi pembankan internet. Seterusnya, ia boleh mempengaruhi penggunaan sebenar dalam pembankan Internet. Antara penentu elemen kepercayaan pembankan Internet, hanya persepsi kekuatan kejituan dalam pembankan internet telah didapati mempunyai kesan positif ke atas kepercayaan pembankan internet di kalangan pelanggan pembankan Internet

ABSTRACTS

The emergence of Internet banking in Malaysia has started to shift the way the Malaysia banks' customers in performing their banking transactions. From traditional banking business model, banks in Malaysia have gradually migrated to hybrid "clicks-and mortar" business model, whereby they believe that this new business model would add more value to their customers. Due to Internet banking is still relatively new in Malaysia, the element of trust in Internet banking is indeed not well understood. Therefore, this study aims to formulate and validate the model of trust in Internet Banking in Malaysia. In this study, Theory of Reasoned Actions (TRA) was adapted as fundamental model in formulating the trust model by expanding the element of trust and its antecedents. The total of 163 respondents were responded to this survey via self-administered questionnaire. The results of this study indicated that trust was a valid and significant factor that positively influenced the attitude of customers toward using Internet banking. TRA was validated applicable in Internet banking environment in Malaysia, whereby the attitude of customers has significant impact on behavioral intention, which in turn triggered the actual usage of Internet banking. In term of antecedents of trust, only perceived strength of online integrity was proven has positive impact on customers' trust in Internet banking.

Chapter 1

Introduction

1.1 Introduction

The emergence of advanced Internet technology in recent years has changed the global market environment. Today, the global market has become borderless, companies are now able to expand their business to any corner of the world without setting up a physical company at the targeted location. The Internet technology also helps business to extend its business hours to 24 hours in almost 365 days a year.

E-commerce, E-business, and Internet banking are among the business innovation, which has emerged in recent years. Financial sector especially banks have identified Internet banking as one of the most significant success factors in the banking industry. Many banks had rapidly deployed Internet banking, as they perceive that the delay in the Internet banking deployment would be translated to great losses, and would reduce competitiveness in terms of service quality and availability.

The current landscape of local banking business was been very much impacted by the Internet technology. The external forces from the global bankers have forced banks in Malaysia to re-strategize the banking services by venturing into Internet banking services. The Malaysia Central Bank also plays an important role in helping the local banks in Internet banking deployment. There are few important guidelines that has been set up to protect local banks from early market penetration of foreign banks in term of Internet banking services. Foreign banks were restricted from deploying Internet banking services until 1st of January 2002.

As of today, many banks in Malaysia are offering banking services via Internet banking, such as bank accounts' summary, fund transfer, opening of new account, credit card / loan payment, professional consultation, promotion and rewards redemptions. Maybank was the first local bank to have engaged in Internet banking. On June 1, 2000, Maybank officially launched its first Internet banking portal that offered full range of online banking transactions and services. Other banks in Malaysia that has also deployed Internet banking after Maybank were Citibank, HSBC bank, OCBC bank, Southern Bank, Public Bank, and etc.

In Malaysia, we could see the tremendous growth in the total number of Internet users. As shown in the table 1.1, the total number of actual Internet users has grown from 3.70 millions in year 2000 to 9.51 millions in year 2005.

Table 1.1
Malaysia's Internet Usage

Malaysia's population (2005)	Internet Users (Year 2000)	Internet Users (Year 2005)	Internet Users Growth (2000 – 2005)	Penetration (% population)
26,500,699	3,700,000	9,513,000	157.10%	35.90%

Source: Internet World Statistics

In other word, the rate of growth in this period has achieved 157.10 %. From the Malaysia population perspective, the total Internet users in 2005 were 35.90 % of the total population of Malaysia.

The statistics that has just been highlighted has somehow translated into some important insights for businesses in Malaysia, especially the banking industry. From the sales and marketing perspective, those numbers mean opportunity. Opportunity that banks in Malaysia can use to extend their products and services to every corner of Malaysia with even lower costs and capability to operate 24 hours a day and 365 days

in a year basis. An empirical investigation by Suganthi, Balachandher, and Balachandran (2000), to explore the Internet banking patronage in Malaysia found that the accessibility to computers and the Internet was significantly high for the non-Internet bank users compared to Internet bank users. This implied that there are many potential customers who have access to the Internet but who are not using Internet banking services.

There is no statistic about Internet banking usage growth in Malaysia has been found so far. However, we could get some insights about the level of Internet banking usage in Malaysia from some of the local researches in Internet banking for the past few years. Suganthi et al. (2000) found that 20 percent of the sample respondents in their research of Internet banking patronage in Malaysia had already adopted Internet banking services. This fact was encouraging considering the fact that Internet banking was only slightly six months old in Malaysia, and it was also an indicative of a bright future for Internet banking in Malaysia. However, the research done by Ramayah, Muhamad, Nasser, Koay, and Razli (2003) in three years later to investigate the receptiveness of Internet banking in Malaysia shown that even though the awareness level among the respondents was high, but it has not translated to actual usage, which only 23 percent of the respondents has adopted Internet banking. In short, we did not have any evident of fast speed growth in Internet banking usage in Malaysia between that three years period from our local researches.

There are many possible reasons could hamper the growth of Internet banking in Malaysia. However, there are number of prominent factors could be identified, like awareness, security of Internet bank transactions, and cost of computers. Generally, the awareness of use of Internet banking services to replace traditional banking transactions is relatively low in Malaysia, especially among the non-IT savvy bank

customers. However, banks in Malaysia can create or enhance the awareness of their Internet banking products and services among its customers via promotion and advertising. Security of Internet bank transactions is another issues that hampering the Internet banking growth. The security issue here is more on bank customers' subjective belief or perception of Internet banking, as they do not really have adequate understanding of the actual implementation of security features and functionalities. Besides, cost of computers is also another factor that affects the adoption of Internet banking in Malaysia, especially those low-income groups. However, Malaysia government has implemented two important policies to increase the ownership of personal computer in our country in order to enhance the Information Technology knowledge and skill among Malaysian citizens. Firstly, individuals are allowed to withdraw RM3500 from Account II of their Employee Provision Fund (EPF) contributions to purchase a personal computer. Secondly, the purchase of the personal computer for home use is entitled for RM500 tax deduction from the annual net payable income tax.

In order to make sure the Internet baking's business model works well in the Malaysia environment. The banks should better understand the customers' acceptance of Internet banking and all of its external factors that influence the customers to use the services. Without that knowledge, banks will not be able to design, implement, and maintain a successful Internet banking services to the public in Malaysia.

1.2 Problem Statement

The number of Internet users in Malaysia has increased dramatically in recent years, however, many are still reluctant to leverage on Internet banking in their banking transactions. Trust has been identified as one of the critical factor that influenced the

adoption of Internet banking. In other words, lack of trust is one the reason that hampers the Internet banking transactions. Generally, bank customers would feel insecure to provide their personal and financial information to the Internet banking site, as they do not trust the site is secure enough to perform banking transactions. Thus, it is very important to understand how trust influences the adoption of Internet banking among banks' customers, and what actually nurture trust in customers.

Trust was one of the most frequently cited reasons for consumers in performing banking transaction via Internet banking web site in foreign researches. The key activities like initiating, building, maintaining the trust between bank and consumer are key success factors for Internet banking strategy. And it had well recognized in academic research and banking industry. However, there is no research so far to investigate the role of trust in Internet banking in Malaysia.

In the context of Internet banking in Malaysia, we are still do not understand the roles of trust, its antecedents, and its effects on the consumer's adoption of Internet banking.

1.3 Research Objectives

There is number of research objectives have been identified to be achieved in this study:

I. To understand the role of trust in the context of Internet banking adoption in Malaysia.
II. To investigate the antecedents of trust in the context of Internet banking in Malaysia.
III. To help Malaysia's bank managers to better understand the online concerns of the Internet banking users.

IV. To help Malaysia's bank managers to establish better security and control policies in the Internet banking environment, in order to strengthen the customers' trust and ultimate acceptance of Internet banking.

1.4 Research Questions

Based on the statement of the problem, this study attempts to answer the following research questions:

1) Is trust an important factor in the adoption of Internet banking in Malaysia?
2) What are the antecedents that influence the level of trust toward Internet banking in Malaysia?
3) How would trust impact the users' attitude toward Internet banking, which in turn affect the adoption of Internet banking?
4) How would trust impact users' behavioral intention, which in turn affect the adoption of Internet banking?

1.5 Significance of Study

It is hoped that the results of this study will create a better understanding of the impact of trust, which in turn influences the adoption of Internet banking in Malaysia.

The results will also value add to bank managers in establishing better and more practical security and control policies that would strengthen the area of Internet banking's limitations that customers concern the most. This is also helps the bank IT team identifies the critical areas in the system enhancement.

Ultimately, the most critical outcome that we would expect out of this study is to attract more customers to use Internet banking by building a reliable and safe Internet banking system.

1.6 Definition of Key Term

1) Trust

Trust is an assessment by the online consumer in regards to the trustworthiness of the electronic vendor (Felix & Paul, 2004).

2) Authentication

Authentication is the way whereby system uses to make sure that the trading parties in an electronic transaction or communication are who they claim they to be (Bomil & Ingoo, 2003).

3) Nonrepudiation

Nonrepudiation means that neither of the trading parties should be able to deny having participated in a transaction after the fact (Bomil & Ingoo, 2003). Pauline (1998) defined nonrepudiation as a mechanism to ensure that if a party to some transaction or communication later denies that it has ever happened, some mechanism is in place to facilitate dispute resolution.

4) Confidentiality

Confidentiality has been defined as the act of warranting that data are only revealed to parties who have a legitimate need to know it or have access to it (Pauline, 1998).

5) Privacy Protection

Privacy protection ensures that personal information about customers collected from their electronic transactions is protecting from disclosure without permission (Bomil & Ingoo, 2003).

6) Data Integrity

Data integrity means that data in transmission are not created, intercepted, modified, or deleted illicitly (Bomil & Ingoo, 2003).

7) Attitude toward a behavior

Attitude toward a behavior means an individual's positive or negative feelings about performing the behavior (Davis, 1986).

8) Behavioral Intention

Behavioral Intention is a measure of the strength of one's intention to perform a specified behavior (Bomil & Ingoo, 2003).

9) Actual Use

Actual use refers to an individual's actual direct usage of the given system (Bomil & Ingoo, 2003).

Chapter 2

LITERATURE REVIEW

2.1 Internet and World Wide Web

Internet is perhaps the most well known, and the largest, implementation of internet-working, linking hundreds of thousands of individual networks all over the world. The Internet has a range of capabilities that organizations are using to exchange information internally or to communicate externally with other organization. Internet technology provides the primary infrastructure of electronic commerce, electronic business, and the emerging digital firm. The most important Internet services from business include e-email, Usenet newsgroups, LISTSERVs, chatting, Telnet, FTP, and the World Wide Web. They can be used to retrieve and offer information (Kenneth & Jane, 2004). According to this author, the World Wide Web is at the heart of the explosion in the business use of the Internet. The Web is a system with universally accepted standard for storing, retrieving, formatting, and displaying information using client/server architecture.

2.2 Traditional and Internet Business Model

A traditional business model describes how the enterprise produces, delivers, and sells a product or service, showing how the enterprise delivers value to customers and how it creates wealth (Magretta, 2002). The Internet business model enable companies create and capture profit in new ways by adding extra value to existing products and services or by providing the foundation for new products and services. Firstly, this model will be able to provide the customers with a new product or service. Secondly,

this model also provide additional information or service along with a traditional product or service. Last but not least, this model provides a product or service at much lower cost than traditional means. (Kenneth & Jane, 2004).

2.3 E-Commerce and Internet Banking

According to Kenneth and Jane (2004), E-Commerce is the process of buying and selling goods and services electronically involving transactions using the Internet, networks, and other digital technologies. Generally, E-Commerce can be categorized into three types, namely, Business-to-consumer (B2C), Business-to-business (B2B), and Consumer-to-consumer (C2C). In present study, we just look into B2C type of E-Commerce. B2C is an electronic retailing of products and services directly to individual consumers.

Internet banking is one of the examples of B2C type of E-Commerce, which breakthrough the traditional business model by extending traditional brick-and-mortar banking business with utilizing the web technology.

2.4 Theory of Reasoned Action (TRA)

Since 1862 psychologists began developing theories showing how attitude impacted behavior. Social psychologists continued to study attitudes and behaviors between 1918 and 1925 saw many new theories emerging. Having their emphasis on attitude and behavior, it can be postulated that this theory grew out of the 19th century when the field of psychology began to look at the term "attitude". Those theories suggested, "Attitudes could explain human actions". They assumed that individuals are usually quite rational and make systematic use of information available to them. People

consider the implications of their actions before they decide to engage or not engage in a given behavior" (Ajzen & Fishbein, 1980).

The Theory of Reasoned Action (TRA), when applied to explain use or adoption behavior, embraces four general concepts - behavioral attitude, subjective norm, intention to use and actual use (Shih & Fang, 2004). According to Ajzen and Madden (1986), attitude has significant influence on behavioral intention, which in turn triggered the actual behavior.

Attitude toward a behavior means an individual's positive or negative feelings about performing the behavior. Behavioral intention is a measure of the strength of one's intention to perform a specified behavior. Actual use refers to an individual's actual direct usage of the given system (Davis, 1989).

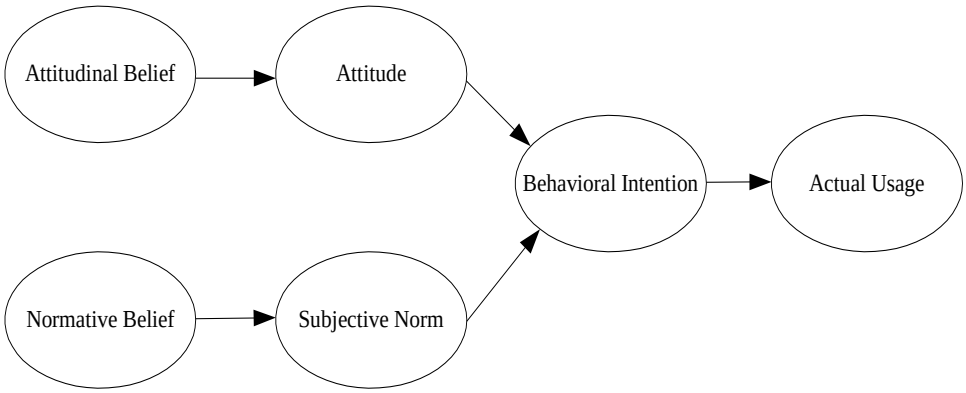

Figure 2.1. Theory of reasoned action model

In addition, the inclusion of the subjective norm in the TRA represents an important addition. With this addition, the TRA takes account of the elements of social influence that are found in social explanations of the use of the media. In the TRA, attitude is equated with the attitudinal belief that affecting a particular form of behavior leads to a particular outcome, weighted by an evaluation of the desirability of that outcome. A subjective norm represents an individual's normative belief

concerning a particular referent (Shih & Fang, 2004). Figure 2.1 illustrated the model of theory of reasoned action.

Davis, Bagozzi, & Warshaw (1989) as cited in Tero, Kari, Heikki, & Seppo (2004) claimed that from the information systems perspective one relevant element of TRA is its assertion that any other factor that influences behavior for example systems design variables, user characteristics, task characteristics, political influences and organizational structure do so only indirectly by influencing attitude toward behavior, subjective norm or their relative weights.

2.5 **Technology Acceptance Model (TAM)**

Basically, Technology Acceptance Model (TAM) is an extension of Theory of Reasoned Action (TRA), which explains the adoption behavior of information technology. Nowadays, many researchers have used this model in explaining the users' acceptance of information technology.

Technology Acceptance Model (TAM) was indeed developed based on the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980). According to Davis (1989), Technology Acceptance Model (TAM) postulated that user usage and acceptance is actually determined by the attitude and intention to use the technology. TAM basically explains that actual use of information system is determined by the intentional behavioral to use it, which also in turn influenced by the perceived ease of use and perceived usefulness of the system studied.

Dishaw and Strong (1999) claimed that TAM is the extension of well-developed social psychology theory (TRA), which explains the adoption of Information Technology. Basyir (2000) claimed that the acceptance of Internet shopping in Malaysia was indeed significantly influenced by the perceived usefulness

and ease of use. Ndubisi, Jantan, Richardson (2001) found that the acceptance of Information Technology among Malaysian Entrepreneurs was also influenced by the perceived ease of use and the perceived usefulness. Ramayah, Siron, Dahlan and Mohamad (2002) has claimed that the level of usage of technology among owners / managers of SMEs were indeed driven by the perceived ease of use and the perceived usefulness. Research by Tham (2002) had extended new constructs in TAM application to the web-based online transaction intent in Malaysia. The results confirmed that hypotheses for the impact of perceived web security, usefulness, ease of use, and privacy on the intention to perform web-based online transactions. Koay (2002) postulated that the receptiveness of the Internet banking in Malaysia was impacted by the perceived usefulness and ease of use of Internet banking.

Technology Acceptance Model (TAM) was further extended to include the dimension of perceived credibility besides the original dimension. In the study, all these three dimensions (perceived ease of use, perceived usefulness and perceived credibility) were proven to have positive effect on the behavioral intention to use the Internet banking system (Wang, Wang, Hsin, & Tang, 2003). In the research by Ramayah et al. (2003) had adopted TAM to Internet banking receptiveness by consumers in Malaysia. In their finding, perceive ease of use and perceived usefulness have been found to be significantly related to intention to use the Internet banking.

Recent research by Yulihasri (2004) had further extended the TRA and TAM application to the Internet retailing usage among students in a public institution of higher learning. In his findings, attitude toward online shopping was influenced by compatibility, usefulness, ease of use, and security, but privacy factor was not. In

addition, intention to use online shopping was strongly influenced by attitude towards online shopping.

Previous studies on adoption of E-commerce were also looking into the antecedents that influence the dimensions of the study. According to Suganthi et al.(2000), Internet accessibility, awareness, attitude towards change, computer and Internet access costs, trust in one's bank, security concerns, ease of use and convenience are the major factors affecting the adoption of Internet banking services in Malaysia. In particular, the level of awareness of Internet banking in Malaysia was higher among the Internet bank users compared to non-users. This implies opportunities for banks to improve the adoption of Internet banking among the consumers by creating greater awareness of their Internet banking products and services. In addition, Internet bank users' attitude towards change appears to be significantly more favorable compare to non-Internet bank users.

Basyir (2003) claimed that direct shopping preferences, prior web experiences had proven to have significant influence on the perceived usefulness and perceived ease of use of Internet shopping. Computer self-efficacy is one of the valid antecedents that correlated with the ease of use and usefulness of the Internet banking (Wang et al., 2003).

Another study conducted in Malaysia found that prior experiences, external pressure and volume of transactions have significant influence on the perceived usefulness of Internet banking. However, perceived ease of use of Internet banking was only impacted by prior experience (Koay, 2002). According to Ramayah et al. (2003) prior experience and external pressure has been found as significant external factors that influenced the behavioral intention to use the Internet banking.

2.6 **Definition of Trust**

Trust is not a new area of study in any discipline. It had been studied in human affair, personality psychology, social psychology, economic, marketing, finance, management, and information technology. However, the definition of trust is vary and quite different among the researches from different discipline of studies.

Shapiro, Sheppard, and Cheraskin (1992) as cited in Pauline (1998) proposed a developmental model of trust in a business context. There are three forms of trust, and one form of trust leads to another form of trust. Deterrence-based trust is relates to the threat of punishment and is seen as a negative factor, whereas in calculus-based trust the reward to be received from a relationship because of fulfilling the actions is seen as a positive facto. Knowledge-based trust is linked to knowledge of the other trading partner (that is the trustee), which allows the trustor to understand and predict the behavior of the trustee. The key factor at this level of trust is the information derived out of a relationship over time that allows one trading partner to predict the behavior of another trading partner. Identification-based trust is based on empathy and common values with the other trading partner's desires and intentions to the point that one trading partner is able to act on or as an agent for the other with the evolution of time.

Lewicki and Bunker (1996) later extended the work of Shapiro et al. (1992), and argued that the development of trust occurs in stages with deterrence-based being the first and identification-based as the last stages having the highest trust. Further the development of trust is the same for all type of relationships be it romantic, manager-employee, or among peers, and trading partner engaged in electronic commerce.

There is another stream of literature review suggested that trust could also be categorized into three characteristics, namely competence, benevolence, and integrity.

Competence has defined that one (truster) believes other (trustee) has ability to do for him/her (truster) what he/she (truster) need to accomplish (McKnight & Chervany, 2001-2003). Benevolence means that one (truster) believes that other (trustee) wants to do good for him/her (truster), aside from any egocentric profit motive (Mayer, Davis, & Schoorman, 1995). Integrity means that one believes (truster) that other (trustee) makes good faith agreements, tell the truth, acts ethically, and fulfills promises (McKnight & Chervany, 2001-2003). These three key elements of trust dimension had been further adopted by Bomil and Ingoo (2003) for their study of customer trust and perception of security control in electronic commerce.

2.7 Source of Trust

Generally, trust has been defined in many different ways. However, across discipline there is agreement that trust only exists in an uncertain and risky environment. Mayer et al. (1995) as cited in Sonja and Ewald (2003) explained that trust would not be needed if actions could be undertaken with complete certainty and no risk. One important reason for the importance of trust in e-ecommerce is the fact that in a virtual environment the degree of uncertainty of economic transactions is higher than in traditional setting. Internet-based commercial transactions can bring about several risks that either are caused by the implicit uncertainty of using open technological infrastructures for the exchange of information (system-dependent uncertainty) or can be explained by the conduct of actor who are involved in the on-line transaction (transaction-specific uncertainty).

Mayer et al (1995) has also postulated that trust would be better understood by the willingness of a party to be vulnerable to the action of another party based on the expectation that the other party will perform a particular action important to the

trustor, irrespective of the ability to monitor or control that other party. The trustor whom is normally place him or herself in a vulnerable situation, the trustee is actually the party in whom trust is placed and who has the opportunity to take advantage of the trustor's vulnerability.

In addition, Rousseau, Sitkin, Burt, and Comerer (1998) had extended this central idea of risks and vulnerability, claimed that trust is a psychological state comprising the intention to accept vulnerability based upon positive expectation of the intentions or behavior of another.

Risks, therefore plays a central role in the fostering of trust and is a prerequisite for trust to arise as an issue. If there is no risk, then the consumer is not forced to make an assessment of trustworthiness (Felix and Paul, 2004). In identifying risk and vulnerability as the central situational feature of trust, we can see the important this holds in the electronic commerce setting. This vulnerability is magnified in the online situation due to the nature of the Internet as compared to the traditional setting.

2.8 Conceptual Trust Model in E-Commerce

According to Felix and Paul (2004), online consumer trust can be looked at as three-dimensional constructs that encompass the consumer (dispositional trust), the vendor (interpersonal trust) and the Internet (institutional trust). These dimensions help explain the forces at work in electronic commerce, thereby illustrating that the consumer, the Internet and the vendor all bring their own issues into the overall assessment of trust.

2.8.1 Dispositional Trust

Dispositional trust refers to an individual's ability and willingness to form trust in general. This dimension is driven by the field of psychology, which describes dispositional trust as a personality trait that is formed through an individual's lifetime (Felix & Paul, 2004). This most accepted five-factor trait theory could describe the individual's personality through five factors, namely, extraversion, neuroticism, agreeableness, conscientiousness and the openness to experience.

Disposition to trust is the extent to which a person displays a tendency to be willing to depend on others across a broad spectrum of situations and persons. We use two subcontracts of disposition of trust, namely Faith in humanity and trusting stance. Faith in humanity means one assumes others are usually upright, well meaning, and dependable. Trusting stance means that, regardless of what one believes about peoples' attributes, one assumes better outcomes result from dealing with people as though they are well meaning and reliable (McKnight, Choudhury & Kacmar, 2002). Faith in humanity was extended and decomposed with idea of trusting belief that contains sub-constructs like competence, benevolence, and integrity.

Rotter (1967) as cited in Sonja and Ewald (2003) postulated that dispositional trust have their roots in personality psychology and recognized that people develop, over the course of their lives, generalized expectations about the trustworthiness of other people.

Moreover, dispositional trust is proposed to be a stable within-party factor that will affect the likelihood a person will trust other individuals or groups of individual. Thus Internet vendors cannot influence dispositional trust by applying certain trust building strategies or measures. However, indicators for dispositional trust should be

included in empirical studies either as moderating variable or as antecedent of trusting beliefs, intentions and behaviors (McKnight et al., 2002).

2.8.2 Institutional Trust

Institutional trust takes into account the sociology viewpoint that trust is a social structure that is situational constructed. This dimension draws on the idea of forming trust in the Internet as a whole, and therefore trusting the technology. If consumer hold a fear of technology or the Internet, they are likely to not look towards the Internet as a shopping medium. It is therefore necessary to consider this viewpoint if we want to understand trust. If the individual is familiar with the Internet and has used it on a regular basis, he is likely to hold a higher level of institutional trust in the medium than a person who has never used the Internet before (Felix & Paul, 2004).

It is at this institutional level that the individual's perception of regulatory, legal and technical environment comes to fruition. If individual do not believe the Internet offers adequate regulatory, legal or technical protection, they are unlikely to hold a high level of institutional trust in the Internet as shopping medium (McKnight & Chervany, 2001-2002).

Zucker (1986) as cited in Sojan and Ewald (2003) claimed that institutionally based trust production, in which formal mechanisms are used to provide trust that does not rest on personal characteristics or on past history of exchange, helps to reduce both system-dependent and transaction specific uncertainty.

Two dimensions of institution-based trust are defined as structural assurance and situational normality. Structural assurance means one believes that structures like guarantees, regulations, promises, legal resource, other procedures are in place to promote success. Situational normality means one believes that the environment is in

proper order and success is likely because the situation is normal or favorable (McKnight et al., 2002).

2.8.3 Interpersonal Trust

According to Felix and Paul (2004), interpersonal trust focuses on the trust formed in another specific party. In this case, it is the assessment by the consumer in regards to the trustworthiness of the electronic vendor. From Interpersonal trust perspective, there is few attributes has been found to be cornerstone of developing trust in another party, namely, competence, predictability, benevolence, and integrity. In addressing competence, consumers assess whether vendors have the appropriate abilities, skills and expertise to satisfy their needs. Predictability takes into account the vendor's perceived reputation for providing a consistent service. Integrity is the belief that the Internet vendor will act in an honest fashion and adhere to a set of principles or standards. When looking at benevolence, the consumer makes a judgment on whether the vendor is focused on making a fast profit or as the customer's best interests in mind.

Each of these attributes of interpersonal trust is measured by the consumer's impression of the Internet vendor, drawn from previous experience or gathered from outside sources of information (Felix & Paul, 2004).

By evaluating other trust model in literature review, there is another term of "trust" that equivalent to the Interpersonal trust, which is trusting belief. According to Bomil and Ingoo (2003), trusting belief refers to the belief that one can rely upon a promise made by another and that the other, in unforeseen circumstances, will act toward oneself with goodwill and in a benign fashion. McKnight and Chervany (2002) claimed that trusting beliefs means the confident truster perception that the

trustee – in this context, specific web-based vendor- has attributes that are beneficial to the truster. Bomil and Ingoo (2003) found that trust belief also encompasses three characteristics, namely, competence (ability of the trustee to do what the truster needs), benevolence (trustee caring and motivation to act in the truster's interests), and integrity (trustee honesty and promise keeping).

2.9 The Role of Interpersonal Trust in E-Commerce

In the present study, the term of " trust" is used in the term of Interpersonal trust. Therefore, closer look on the previous researches is needed to reveal the relationship between interpersonal trust, its antecedents and consequents.

Jarvenpaa, Tractinsky, Saarinen and Vitale (1999, 2000) postulated in their studies that trust indeed had significant impact on attitude toward the online store and willingness to buy from the online store. They also posited that perceived size of Internet store and perceived reputation of the Internet store had the significant effect on the trust in Internet store, particularly in online travel site and online book store.

Gefen (2000) presented a comprehensive model to investigate on how familiarity with an e-commerce vendor promotes the trust in e-commerce. The results confirmed that the influence of familiarity on trust was significant. Subsequently, the trust construct was also confirmed to have significant impact on the intention to inquire a product and intention to purchase a product from the e-commerce. In their study Gefen and Straub (2000) again indicated that trust has significant impact on purchase intention in e-service provider. In addition, social presence on the web-site was found as new antecedent that strongly influenced the trust in e-service provider.

Perceived integrity was found as a significant predictor of the consumers' trust in Internet shopping (Lee & Turban, 2001). Pavlou and Chellappa (2001) place their

research in finding more critical attributes that would impact the adoption of e-commerce transaction. In their findings, they have confirmed that perceived privacy and perceived security were the two important antecedents of trust in e-commerce environment.

In the research by Bhattacherjee's (2002) had investigated the relationship between trust, its antecedent, and consequents. In his findings, familiarity with electronic commerce was found significantly influenced the trust of individual in online firm. This result was consistent with the earlier findings by Gefen (2000). Besides, trust in online firm also has highly significant positive impact on willingness to transact with online firm (Bhattacherjee's, 2002).

Perceived usefulness and perceived ease of use were found to have significant influence on trust in online e-commerce company, which in turn also confirmed to have impact on the consumers' intention to return to the online e-commerce company and consumers' intention to purchase from the online e-commerce company (Koufaris & Hampton-Sosa, 2002).

Research by Pavlou (2003) had further investigated the TAM application to the acceptance of e-commerce retailing. In the findings, trust was proven that to have significant impact on perceived risk, perceived usefulness, and perceived ease of use, which in turn has influenced the behavioral intention to transact with e-commerce retailer. Besides, behavioral intention also confirmed to have significant impact on the actual usage of e-commerce retailing.

Research by Kim, Xu and Koh (2004) had explored the differences of online trust building between potential customers and repeat customers in E-Commerce. In their findings, structural assurance and system quality are found to be significant to trust for potential customers. For repeat customers, reputation, information quality,

and customer satisfaction are found to be significant to trust. There is no evident to prove that there is any difference in strength in the effects of those antecedents on trust building between potential and repeat customers.

Slyke, Belanger, and Comunale (2004) placed their study in the field of Web-based shopping. The study reported that trust in Web merchant is indeed significantly related to purchase intention via the Web.

The research model developed by Koufaris and Hampton-Sosa (2004) explained how new customers of a web-based company develop initial trust in the company after their first visit. In their findings, perceived company reputation, perceived willingness to customize products and services, perceived web site usefulness, perceived ease of use and perceived security control were found significantly influence initial trust of the new customers. However, the result also indicates that there is no support for the hypothesized effect of individual customer trust propensity on initial trust.

2.10 The Outcomes of Trust in Internet Banking

Previous research by Kim and Prabhakar (2002) had explored the relationship between initial trust, perceived risk and the adoption of Internet banking. In their findings, the consumers' initial trust in the Internet banking channel as banking medium was found positively related to the adoption of Internet banking.

According to Avinandan and Prithwiraj (2003), online trust is an issue that affecting customers' relationship commitment to banks and willingness to engage in online banking transactions. This study also has pointed out the concerns how trust is developed and sustained over different levels of customer relationship in online banking. The future commitment of the customers to online banking depends on

perceived trust. The issue of trust is therefore increasingly recognized as a critical success factor in the emerging retail "bankspace".

Bomil and Ingoo (2003) used the TAM model to validate the relationship between elements of trust with the acceptance of Internet banking. In their findings, they had found that there is significant casual relationship between trust and attitude towards using Internet banking. This indicates that e-commerce users regard trust as a belief that influences their acceptance of Internet banking. The users of Internet banking, which manipulates extremely sensitive information, depend on trust in Web sites because they cannot see and control their trading partner's activities. Subsequently, the impact of attitude on behavioral intention to use Internet banking is also found significant. And, the impact of behavioral intention on the actual use of Internet banking is significant, too.

2.11 The Antecedents of Trust in Internet Banking

There are many different types of antecedents that had been claimed as valid external influences to the level of trust in customers toward Internet banking. They are indeed critical to be understood by bank managers, so the better system solution can be designed or modified to attract more online customers.

Past researches had identified some of the antecedents of trust in the context of Internet banking. Research by Kim and Prabhakar (2002) has confirmed that propensity-to-trust, institutional characteristics and word-of-mouth referrals are the valid antecedents on the initial trust in the Internet banking channel as banking medium.

Shared value, communication and opportunistic behavior had been postulated as antecedents of trust (Avinandan & Prithwiraj, 2003) in online banking. Their