Chapter 1

Introduction

1.1 Overview

The World Wide Web (WWW or The web) has become a popular channel to which many businesses have migrated in order to provide electronic services to their customers. Many businesses use the web channel to provide better services to their customers. In the view of many customers, web sites provide them better accessibility to needed information (Evan and Wurster 1997). Electronic services can use the web channel to provide support to customers and to make online business transactions (Greaves et al. 1999; Ng et al. 1998). In addition, customers can gain more control and experience through this channel because it allows them to navigate websites and to compare information before making purchase decisions (Klein and Quelch 1997; Novak et al. 1999).

Despite the impressive benefits of the web, customers still hesitate to conduct financial transactions via this channel. In contrast to traditional commerce, electronic service via the web channel has some notable barriers. For instance, customers still hesitate to make transactions via the web because they mistrust the system's security (Rotchanakitumnuai and Speece 2004; Sathye 1999). The role of trust is an important factor influencing the success of electronic commerce (e.g. Dwyer et al. 1987; Hoffman et al. 1995; Morgan and Hunt 1994). Service via the web sometimes cannot deliver on the promises and does not build customer trust, for example when there are reliability problems with the system (Gattiker et al. 2000; Jones et al. 2000). This could bring a lowered level of electronic service acceptance via the web channel.

The securities trading sector, one of the most information intensive and risk prone sectors, is an interesting case for service innovation toward using the Internet for securities trading.

The Stock Exchange of Thailand (SET) has responded to the increasing potential for the Internet by implementing Internet securities trading, believing that the Internet securities trading channel can provide substantial benefits to investors, e.g. save time and lower transaction costs. Empirical studies of the Technology Acceptance Model (TAM) have found that information technology usage depends on two beliefs: perceived ease of use and perceived usefulness of the system (Davis 1989, Davis et al. 1992; Mathieson 1991). In this model, perceived ease of use has a positive impact on perceived usefulness, which has a direct impact on attitude toward usage. Further, behavioral intention to use is determined by attitudes toward usage and by perceived usefulness.

The TAM has been applied to explain an individual's adoption and usage of computer tools and systems such as text editing tools and spreadsheet applications (Chau 1996; Igbaria et al.1995; Mathieson 1991). This model has not been validated for explaining electronic service acceptance, although there are some studies that have supported the use of TAM in the WWW context (Gefen et al. 2003; Hsu and Chiu 2004; Lederer et al. 2000; Suh and Han 2002). Extending the model to electronic service acceptance constitutes an important research issue due to the characteristics of electronic service (e.g. web design and interface, information format and presentation).

The acceptance of information systems in the web environment is quite different from the traditional information systems acceptance. One critical element to use the web channel to conduct transaction is trust. Web user's trust in using the web channel for financial purposes has a strong impact on adoption (Rotchanakitumnuai and Speece 2004). Many users do not perceive the web environment secure and reliable enough to transact with electronic service providers (Mcknight et al. 2002). Therefore it is essential to be concerned with the antecedents of trust in the electronic service. Furthermore, the psychological impacts of flow on users' experience when involved in web activities are

important and can help electronic service providers understanding user's feelings toward the services (Koufaris 2002; Novak et al. 2000).

The implementation success of Internet securities trading depends on investors' acceptance of the electronic service system. Understanding the antecedents of electronic service acceptance is important because of their major roles in determining users' usage in the uncertain and risky environment of using the Internet for financial purposes. The empirical studies of user acceptance of electronic services for the high risk securities trading sector are relatively rare. The first purpose of this research is to examine factors influencing electronic service acceptance in the Internet securities trading system. These factors are perception about ease of use, usefulness, and trust attributes specific to this context, which can provide managerial implications for electronic service providers and developers. The second purpose is to validate the TAM with investors' perception of electronic service.

1.2 The need for better understanding of electronic service acceptance

Electronic service providers consider using the Internet channel with the expectation of providing better service to their customers. It is important for them to analyze carefully whether the web technology truly provides the expected benefits to customers or not.

This research aims to investigate securities investors' perception of Internet-based service delivery provided either by the SET or by the brokerage firms. The study will investigate securities investors' perceived ease of use and perceived usefulness of the electronic service via the Internet channel. Further, this study intends to illuminate the causes and consequences of trust in the Internet securities trading system. This research also investigates whether perceived ease of use and perceived usefulness can increase the attitude toward usage, as well as show the impact of attitude toward usage on behavioral intention to use. Finally, stronger intention to use should increase actual usage. The

context of this study is the acceptance of Internet securities trading services measured through Thai securities investors.

1.3 The key managerial issues

Many firms aiming to deliver their service on the web have not done thorough business analysis and planning, which is necessary for a successful implementation and customer acceptance. According to some observers (e.g., Tan 1999; Walsh and Godfrey 2000), the consequence of this lack of attention to customer views may cause many problems to organizations, such as:

- Most research claims that electronic service technology will enhance productivity. Without careful planning to recognize acceptance and trying to overcome barriers, firms cannot acquire full potential of the Internet as an efficient information technology;
- Thus, without concerning themselves with how electronic service technology elements impact on customers, firms may face the failure of electronic service implementation. They cannot create stronger acceptance, trust, and actual usage therefore failing to enhance customers' service usage through the Internet channel;
- As a result, the service provider that implements electronic service technology without a good business plan will not obtain much business value to the service provider, and will fail to achieve competitive advantage in terms of creating customer retention to use the electronic service in the long run.

1.4 Objectives of the study

The researcher hopes to provide a general framework addressing the factors impacting on electronic service acceptance in order to profitably influence such factors. The purpose of this study is to examine whether investment in Internet securities trading technology has

resulted in acceptance among Thai investors, in terms of creating effective ease of use, usefulness and trust. In order for Internet securities trading to be adopted and used effectively by investors, the elements of perceived usefulness, trust, and associated perceived ease of use factors that encourage its use must be investigated and analyzed, so that customer value can be maximized.

In addition, this study also examines investors' perception of the trust which the Internet securities trading system may be able to build. The study aims to explore the consequence of perceived ease of use, perceived usefulness and trust on attitude toward usages, and the impact of perceived usefulness, attitude toward usage and trust on behavioral intention to use the electronic service which has the direct influence on actual usage or adoption.

Hence, the study aims to study investors' perception toward Internet securities trading. The study's objectives are the following (see Figure 1.1):

- To identify the antecedents of perceived usefulness of Internet securities trading;
- To identify the antecedents of perceived ease of use of Internet securities trading and its impact on perceived usefulness;
- To identify the elements of trust in Internet securities trading and its impact on perceived usefulness;
- To investigate the impact of perceived ease of use, perceived usefulness, and trust on attitude toward usage;
- To assess the influence of perceived usefulness, trust, and attitude toward usage on behavioral intention to use and the impact of behavioral intention to use on actual usage.

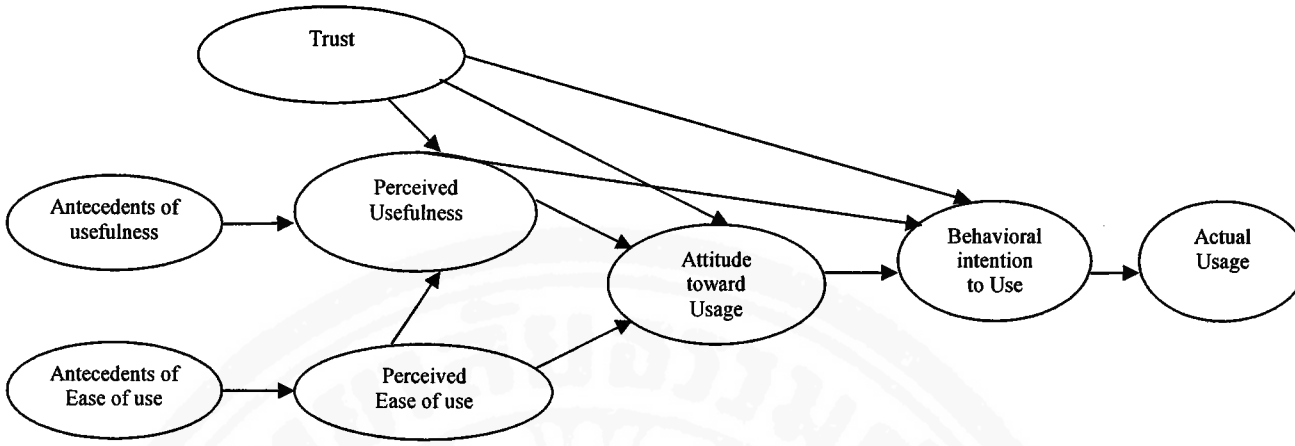

Figure 1.1: General Research Framework

1.5 Scope of the study

This study focuses on the securities trading service sector. The reason is that securities trading services are perceived as highly risky by most of the customers. The SET and the brokerage firms have an intensive investment in an Internet-based system which provides better services to their clients, to decrease the reliance on human service in transactions, and with the hope to reduce costs in the long run. They expect to reduce operating costs and attempt to make higher long-term profit. However, Internet securities trading has not caught on as quickly as some had expected, and is not yet making major contributions to Thai brokerage firms.

In addition, the focus respondents are Thai securities investors. Electronic service technology is one of the recently introduced service delivery channels that allow securities trading customers to interact with brokerage firms via the Internet channel. This offer, however, has not been seriously studied to assess its success in terms of customer acceptance. This group of respondents, therefore, will be an excellent opportunity for this study to investigate Thai investors' evaluation of online service offerings via the Internet

early in the development of such services, and to examine whether there are actual gains in customer acceptance and trust.

The target population for this study is composed by the Internet securities trading users and non-users. They would have the capability and the volume which would make it feasible to be Internet securities trading if they chose to do so. Therefore, they would have perceptions about the Internet usage and the traditional interpersonal service provided by brokerage firms. For instance, the non-user respondents should join the Internet securities trading training course or they have experience in using Internet channel to search securities trading information. Data collection is conducted among Thai securities investors in Bangkok.

1.6 Contribution of the study

The study aims to contribute the following academic and managerial issues:

1. To develop the electronic service acceptance model specific to Internet securities trading service.
2. To validate the extended Technology Acceptance Model applied to electronic service acceptance, basing upon prior TAM research.
3. To propose the managerial implications and suggestions to the electronic service provider in order to reveal some barriers, such as distrust, and to help setting the priorities for future improvements.

1.7 Structure of the report

This report is divided into five chapters:

Chapter 1 is the introduction to the study, it presents and describes the study's background, objectives, scope and structure. Furthermore, the need for a better understanding of the web impact, some problem statements and key managerial issues are pointed out.

Chapter 2, the literature review, is divided into four sections, which cover following issues: electronic service and the background of Thai Internet securities trading, a review of the main concepts, relationships of the constructs being studied, and the research's conceptual model.

Chapter 3 details the research methodology. The description of the development of the instrument for the quantitative research is a later part of this chapter.

Chapter 4 presents the analysis of findings resulting from the survey and discusses in these results in detail, including some development of reasons behind the finding. The overall summary result are presented, validity and reliability are assessed, followed by testing the hypotheses for this study.

Finally, chapter 5 proposes conclusions, limitations of this study, contributions and managerial recommendations, and future research.