

CHAPTER 1

INTRODUCTION

1.1. Background

Technology has always fascinated mankind. Throughout history, a wide number of inventions have been made in order to satisfy human's curiosity to create and discover something new; from radio to television, ships to shuttle ships, spear to firearms, computers, and of course, the *internet*. Started privately in the 1960s, it became popular in the 1990s when it went public. The radio and the television took 38 and 13 years respectively to reach 50 million users; it took only 4 years for the internet [1]. The internet is a very powerful tool that allows people to interact across the globe through vast interconnected networks. It is a worldwide research network which uses the TCP/IP software protocol to transfer data between hosts, and it has a common addressing scheme [2]. Because of the internet, humanity has made great progresses by creating plenty of technological possibilities which were thought to be impossible decades ago, such as the use of a Global Positioning System, communicating in live with someone who is at the other side of the globe through e-mail or online chat, and many other features. From December 31st, 2000 up to June 30th, 2010, internet users have been growing dramatically with an outstanding 444.8% of growth worldwide [3]. At the present time, Asia contributed around 42% of the total world user which is 1,966,514,816. Going into a smaller scope, of the whole Asian internet users of

114,304,000 individuals, 3.6% of them are Indonesian, with an average of 17.2 hours online per visitor [4]. The percentage indicates that the country has a considerable amount of Internet users in the world hence resulting in a good potential for Internet Banking implementation.

Being a developing country who is experiencing an increase in Information and Communication Technology development [5]; Indonesia has implemented various banking technologies to facilitate their customers. One of these various technological implementations is the *Electronic Banking* or *E-Banking*. Since early 2000, e-banking has been implemented by several banks in Indonesia [6]. Support it with internet capabilities, and e-banking becomes an even more powerful asset for many banks by creating new services such as *Internet Banking*. Many countries nowadays consider multi-channel as a necessity to remain in competitive advantage [7,8]. Take the Automated Teller Machine (ATM) for example, with the use of internet, ATM is no longer a machine only used to retrieve or store money, but also a multipurpose tool allowing users to do other things such as paying phone bills, electricity bills, buying phone vouchers, etc. Aside from ATM, internet also enables the use of Internet Banking where customers can interact with the bank and use its services through the web creating a feel of “anytime, anywhere” banking experience. Not to mention the fact that, by using the internet capability, a bank can greatly reduce its cost.

Despite its versatility, Internet Banking faces a great number of challenges including the consumers’ adoption or reception to such technology. Even in a technologically advanced country like the US, its growth was an issue. A study indicates that most Americans prefer not to use the internet for banking activities, mostly because of security reasons [9]. A survey made by Ernst and Young in Jersey and Guernsey for

example, indicates that security is the main issue consumers worry about in electronic transactions [10]. Other studies on technology acceptance indicate that culture plays a role in consumer acceptance to new technology [11]. Depending on where do individuals came from; their reaction to technology may differ from person to person.

This study will be conducted based on the Unified Theory of Acceptance and Use of Technology (UTAUT) formulated by [12]; a research model used to study consumer intentions regarding the use of information system technology. It is actually a consolidated theory derived from eight other earlier theories that studied the same field, which is human behavior to the usage of information systems. So far, it has been applied to various researches such as the use of mobile services in Finland [13], information technology adoption in Germany [14], adoption of social media in the US [15], and a study of frequency on computer usage in Belgium [16]. Indonesia is the target of this research since studies about Internet Banking using UTAUT within developing countries is still quite scarce, only two studies have been found; one studied Internet Banking but used TAM, while the other uses UTAUT but it did not target Internet Banking [17,18]. The objective of this study is to determine which factors, based on UTAUT, influence the most on Internet Banking usage in Indonesia.

1.2. Scope

The research will mainly focus on Internet Banking, being a form of E-Banking, some of its other forms will be explained briefly. Referring to the fact that the study is to find *what* are the factors influencing Internet Banking acceptance, it will not provide a specific, detailed solution on *how* to solve the issues that are found. Since the topic of

this study is about Internet Banking in Indonesia, obviously the target of this study will be the population of Indonesia.

UTAUT will also be explained as well because the research itself will be conducted with it as a basis. The scope of the questions found in the questionnaire that will be handed out is derived from the theory and the individuals surveyed will be mostly the ones found in Indonesia's main capital, Jakarta. Also, the research will not specifically focus on some particular individuals that may belong to a certain group in the society, or in other words, a random sampling.

1.3. Benefits

Banks already implemented or to be implemented with Internet Banking will be able to find useful information in this research. The findings will enlighten them as to what factors contribute most in attracting their customers to use this service. By obtaining that knowledge, the banking industry will hopefully gain the opportunity to further enhance their services in this area, gaining an increase to customer satisfaction and attracting more while retaining their loyalty. Improved Internet Banking means improved banking service which in turn improves the country general economy.

1.4. Hypotheses

The primary objective of this research is to identify the most determining factor in Internet Banking usage through the use of the Unified Theory of Acceptance and Use of Technology (UTAUT). Four key constructs alongside with four other sub-keys (moderators) will be hypothesized whether each group has any subsequent impact on Use Behavior or Usage. Each hypothesis represents the relation of each key construct

with usage of Internet Banking while taking into account the moderators involved. The basis theory, which is UTAUT, used for the hypothesis formulation can be found in Chapter 2.

1. H0a: PE, moderated by Age, does not influence the Usage of Internet Banking.
H1a: PE, moderated by Age, influences the Usage of Internet Banking.
2. H0b: PE, moderated by Gender, does not influence the Usage of Internet Banking.
H1b: PE, moderated by Gender, influences the Usage of Internet Banking.
3. H0c: EE, moderated by Age, does not influence the Usage of Internet Banking.
H1c: EE, moderated by Age, influences the Usage of Internet Banking.
4. H0d: EE, moderated by Gender, does not influence the Usage of Internet Banking.
H1d: EE, moderated by Gender, influences the Usage of Internet Banking.
5. H0e: EE, moderated by Experience, does not influence the Usage of Internet Banking.
H1e: EE, moderated by Experience, influences the Usage of Internet Banking.

6. H0f: SI, moderated by Age, does not influence the Usage of Internet Banking.

H1f: SI, moderated by Age, influences the Usage of Internet Banking.

7. H0g: SI, moderated by Gender, does not influence the Usage of Internet Banking.

H1g: SI, moderated by Gender, influences the Usage of Internet Banking.

8. H0h: SI, moderated by Experience, does not influence the Usage of Internet Banking.

H1h: SI, moderated by Experience, influences the Usage of Internet Banking.

9. H0i: SI, moderated by Voluntariness of Use, does not influence the Usage of Internet Banking.

H1i: SI, moderated by Voluntariness of Use, influences the Usage of Internet Banking.

10. H0j: FC, moderated by Age, does not influence the Usage of Internet Banking.

H1j: FC, moderated by Age, influences the Usage of Internet Banking.

11. H0k: FC, moderated by Experience, does not influence the Usage of Internet Banking.

H1k: FC, moderated by Experience, influences the Usage of Internet Banking.

1.5. Structures

The thesis is composed of 5 chapters.

Chapter 1 – Introduction

The first chapter of this thesis, it contains the background of the research which introduces the reader with Internet and its involvement with Internet Banking. Scope serves as a regulator, keeping the topic consistent by indicating on which area the research will focus on. Hypotheses contain the summarized assumptions based on the theoretical analysis in Chapter 2; while structures provide a brief description about each section of the thesis.

Chapter 2 – Theoretical Foundation

This chapter provides all the necessary information of the major elements involved in this thesis, including E-Banking, with its various forms, in which Internet Banking is one of it, its history in Indonesia, and the Unified Theory of Acceptance and Use of Technology, or abbreviated as UTAUT. Eight variables from the UTAUT will be used and each will be explained. Each Hypotheses formulation can be found then from each variable explanation.

Chapter 3 – Research Methodology

The third chapter of this thesis describes on how the research will be carried out. The research objective is explained, the sampling design (i.e. how samples will be collected) is stated, and the process on how the research is carried out is also mentioned. Time Dimension and Study Setting which mentions the duration of the research and the target place respectively can also be found in this chapter.

Chapter 4 – Research Findings and Analysis

The chapter four contains the results and findings of the research using the methods mentioned in chapter three. Data gathered from the survey is processed into two forms of statistics; the first section in form of charts while the latter uses SPSS to calculate the correlation of each variable found based on UTAUT.

Chapter 5 – Discussions

This section of the thesis is basically the summary of the findings found in chapter four. Since there are two form of statistical technique used, this section is also divided into two categories as it was done in the previous chapter. The summary of each category is then linked to various theoretical references mostly found in chapter one and chapter two to check their validity.

Chapter 6 – Conclusion and Recommendations

Chapter six marks the final chapter of the thesis. It summarizes the whole study and assumes a conclusion based on the findings and discussions of this research along with limitations and recommendations for further studies.