FACTORS DETERMINING CUSTOMERS’ ADOPTION OF
INTERNET BANKING

A Quantitative Study of Swedish Customers

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Acknowledgement

“In The name of Allah, The Most Beneficent, The Most Merciful”

We express our greatest gratitude to the Almighty ALLAH for the completion of our Master Thesis.

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Finally, we profusely appreciate the support of our parents. Due to their moral and financial support, our dream of “Master studies in Sweden” materialized.

Authors,

Faisal Qayyum

Haider Ali
Abstract

Date: June 29, 2012
Course: Master Thesis in IT Management (EIK034)
Tutor: Magnus Linderström
Authors: Faisal Qayyum, Haider Ali
Title: Factors determining customers’ adoption of internet banking
Research Question: Which factors are important for Swedish customers in the adoption of internet banking?
Purpose: The purpose of this study is to identify and analyze the most important factors that can influence the adoption of internet banking by Swedish customers. We focus on the adoption of internet banking by taking into account customer point of view.
Methodology: This study employs qualitative as well as quantitative research methods. The qualitative research is conducted by collecting secondary data from full text databases of Mälardalen University, whereas quantitative research is conducted using survey research method. Moreover, this study is based on the deductive approach as conclusions are drawn from theories.
Questionnaire Survey: For this study, authors have designed a pre-coded questionnaire and distributed in three cities i.e. Västerås, Eskilstuna and Växjö. Total 420 responses were collected, out of which 402 were found to be complete and therefore used for the purpose of analysis.
Target Group: Target readers of this research are academic and professional readers as well as banks.
Conclusion: There are numerous factors which are important for the adoption of internet banking by customers. However, the literature and survey results indicate that web usability, security, information quality, trust, service quality, convenience and privacy are the most important factors in the adoption of internet banking.
Keywords: Internet banking, e-banking, B2C E-Commerce, technology adoption, TAM.
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1. Introduction

This chapter provides the background and general introduction of the research area, purpose of the study, the research question and justification of the study.

The advent of Internet has modified the way organizations communicate, how they share information with business partners, and how they buy and sell (Damanpour, 2001). In an era of networked economy, new firms and new business models are emerging and threatening well-established firms, primarily through the use of the internet. Moreover several new terms and concepts have been created by networked economy. One of the more hyped and used terms is e-business (Hedman and Kalling, 2003, p. 221). Over the last few years, e-commerce has demonstrated remarkable growth (Ramanathan, 2010). The ways of doing business, how companies interact with one another i.e. business-to-business (B2B) and with consumers, business-to-consumer (B2C) has been significantly changed with the recent developments and rapid advancements in the Internet related technologies (Parasuraman and Zinkhan, 2002).

The activity in which customers buy products or services by using the Internet medium is called Business-to-consumer (B2C) e-commerce (Pavlou & Fygenson, 2006 quoted in Brown and Jayakody, 2009). Since the Internet’s commercialization in early 1990s, there has been an extraordinary growth in business-to-consumer (B2C) electronic commerce. The vast coverage of internet i.e. its global connectivity and various interactive characteristics have made it significant marketing and trading channel for many firms (Ranganathan and Ganapathy, 2002). When customers adopt e-commerce, they have increased expectations about services and support which could enable them to shop online (Singh, 2002). According to Singh et al. (2001), a company can create value, win customer loyalty and patronage, if it responds to the needs of customers, entertains their requests quickly and supports their purchasing decisions. Customers are the most important entities for the success of any business including e-business; therefore in order to get their satisfaction and to build strong customer relationship, effective measures should be taken by the firms. Online services, for instance, easy search of products and services, provision of product details that reduce communication costs, updated product delivery information, secure electronic payment systems to perform transactions and quick responses to the queries of customers are important to win online customers and to make them keep visiting back to the website for further purchases (Turban et al., 2000 quoted in Singh, 2002).

During the last ten years, Electronic business has been constantly emerging as a new industry (Van Hoeck, 2001 quoted in Yang and Ahmed, 2009). The banking industry has been leading this trend in recent years and now all banking transactions carried out through internet are called Internet-banking (Yang and Ahmed, 2009). The influence of e-commerce has enabled banks to offer an inexpensive and direct way of exchanging information (Sohail and Shanmugham, 2003).

Conventionally, banks have been in the leading position for using technology to improve their products and services. For delivering a wide range of value added products and services, banks have over the time been using electronic and telecommunication networks. The products and services provided by different banks vary greatly both in their contents and sophistication. (Yang
1.1 Problem Discussion and justification of the study

Internet banking has number of benefits as mentioned above but in spite of number of potential benefits, many problems need to be dealt with before internet banking can become extensively adopted by customers. Some of the issues concerning internet banking according to different studies (Miranda et al., 2006; Loonam and O’Loughlin, 2008; Hertzum et al., 2004; Yousafzai et al., 2003; Shah and Siddiqui, 2006; Poon, 2008; Yang et al., 2009; Gurau, 2002) are as follow:

Web Usability Issues- Many people are not aware of the usage of internet banking or don’t like to use internet banking, as they prefer conventional (physical banking). Some people find internet banking websites difficult to operate.

Security and Privacy Issues- Customers have concerns regarding security of internet banking; they fear loss of money due to hacking and virus attacks etc. Some think that their information can easily be shared with third parties on internet.

Information Quality Issue- Customers are not able to understand information available on internet banking websites.

Trust Issue- Customers don’t rely on internet banking because of threats associated with it.

Service Quality Issue- Many customers expect that banks should provide all services via website or offer real time integration of distributed resources which is a biggest challenge for banks.

Accessibility Issue- Customers face problems when the server or system of the bank has to be closed for upgrading or maintenance purposes. Moreover, customers expect 24/7 support and services from banks.

Other Issues- Such as bank guarantees, planning new IT infrastructure etc

Since in the modern era, customers demand a lot from the banking services especially from the internet banking, so in order to create and maintain internet banking customers or to stay competitive, it is vital to provide them the best services by understanding their needs. In this regard, banks need to reconsider their IT strategies concerning banking services (Tan and Teo, 2000). For this purpose, it is important for banks to know the factors that are of more importance for the adoption of internet banking from a customer point of view. By understanding these factors, banks can make their policies and improve their services accordingly that would eventually help them in attracting customers.

Keeping in view the above discussion, authors’ focus is to conduct a research study in which the most important factors that can influence the adoption of internet banking will be identified and
analyzed. In order to narrow down the research, focus of study will be on Swedish customers i.e. their point of view regarding internet banking adoption will be taken into account.

1.2 Purpose of the study

The purpose of this study is to identify and analyze the most important factors that can influence the adoption of internet banking by Swedish customers. We focus on the adoption of internet banking by taking into account customer point of view.

1.3 Research question

Which factors are important for Swedish customers in the adoption of internet banking?

1.4 Delimitations of the Study

Since our study is focusing on internet banking adoption factors, therefore authors’ aim is to identify several factors in the literature, which are important for internet banking adoption. But, due to time constraint, only factors which are most frequently cited by different authors will be analyzed with the help of questionnaire. Within a limited time, it is not possible to analyze factors which are less frequently cited, though they would have provided broader perspective concerning internet banking adoption. A separate research study needs to be conducted for analyzing other factors.

1.5 Target Group

Target readers of this research are academic and professional readers as well as banks. This study can help banks in understanding customer needs regarding internet banking adoption and continued use. For students, this research can be helpful in conducting further research in related study areas.
2. Methodology

This chapter includes work flow of thesis, choice of topic, choice of theories, research process, and methods used for collecting and analyzing data.

2.1 Work Flow

The figure below shows the processes for conducting the research for our thesis.

Authors start their work with topic selection; the chosen topic is “Factors determining customers’ adoption of internet banking”. Authors want to find out the factors that can influence the adoption of internet-banking from a customer point of view. Therefore, in the next step authors have formulated a research question by keeping in view chosen topic. Then, in the literature review chapter authors will discuss main concepts and will use some established theoretical
models to provide the theoretical bases for this research. In the next step authors will collect primary data in the form questionnaire using pre-coded survey oriented approach. Further, authors will analyze their empirical findings on the basis of selected model and compare it with the literature review performed in the above step. At the end authors will draw the conclusion and will present recommendations for further research.

2.2 Choice of topic

According to Colin Fisher (2007, p. 31) the topic of thesis should be interesting, relevant and durable to sustain the motivation and there should be enough literature available on that. We believe that our topic is quite interesting, relevant and is of high importance in the current and future era.

E-commerce has been evolving rapidly with the passage of time and more and more customers are getting interested in online services and to shop online. Since our topic internet banking is also type of E-commerce, so identifying factors regarding internet banking adoption will be interesting and useful for banks as well as researchers. By answering the research question, we can present our understandings about the factors that are most important for the customers’ adoption of internet banking in Sweden.

Furthermore, Fisher (2007, p. 32) states that the research question should not be too broad and the topic should not be too big to spend time and energy on the project. We think that our research question is not broad rather it is more specific.

Fisher (2007, p. 33) also states it is important to consider that there are enough resources available in terms of literature, IT, software and skills. We believe that there is enough literature available on our topic as it is very vital area these days in business especially in the banking sector. And we are able to have an easy access to relevant literature.

2.3 Choice of theories

In order to provide theoretical framework to the study, authors have used some established e-business models that have direct connection with the research question of this thesis. Authors wanted to know the most important factors that can influence the adoption of internet banking from the customer point of view, and therefore in order to achieve the goal of this paper the theoretical models used in the thesis are Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Technology Acceptance Model (TAM), and Diffusion of Innovation (IDT). Among these models authors have selected TAM for investigating empirical findings because of its close relevance with the research question. On the basis of selected model (TAM), the most important factors regarding internet banking adoption have been investigated. The reason of selecting TAM (as mentioned in the theoretical framework) is that it consists of two major constructs i.e. Perceived Ease of Use (PEOU) and Perceived Usefulness (PU). These two constructs of TAM are important for the adoption of the technology.
2.4 Research Process

2.4.1 Methodological stance -- Realistic

According to Fisher (2007, p. 41) there are several methodological stances for conducting the research i.e. ivory tower, realistic research, interpretive research, action research and critical social research.

The methodological stance for this research is realistic. According to (Fisher 2007, p. 41) realist research identifies and evaluates options for actions. Fisher (2007, p. 42) also states that realist researchers believe that the knowledge gained through research can mirror the reality. Also, realist researchers believe that the knowledge they acquire gives the indication what should be done. Furthermore, realist researchers try to find cause and affect relationships.

Since Fisher (2007) mentions cause and effect relationship as a characteristic of realistic research, so this research investigates the factors that reflect "cause" of internet banking adoption and customers decision to adopt or reject represents "effect".

2.4.2 Research Method – Survey

According to Fisher (2007, p. 153) there are two types of discoverers “Explorers” and “Surveyors”. Explorers try to make the unknown known; therefore, they adopt an open approach because they cannot anticipate what they will find out. Whereas, Surveyors use structures; Surveyors know what they will find out. They measure things; produce maps, and present their findings in tables of statistics (Fisher 2007, pp. 153-154). Since in this research authors want to investigate the factors that can influence internet banking adoption, therefore authors adopt a survey oriented approach and will use questionnaire to collect the primary data.

2.4.3 Qualitative and Quantitative Method

According to Miles and Huberman (1994) qualitative data is in the form of words and not numbers and such data is based on observations, interviews and documents whereas quantitative data is about numbers or statistical tools and methods. In this thesis we will include both qualitative and quantitative data. We will first carry out qualitative research based on the secondary data (existing literature) to identify the factors that are important for the adoption of internet-banking. This will be followed by quantitative research using questionnaire. Findings of questionnaire will be presented in mathematical expressions in the form of bar charts and tables.

2.4.4 Deductive Approach

There are two types of research approaches that can be adopted to carry on the research and then based on the research, conclusions can be drawn. These two types are deductive and inductive.
According to (Fisher, 2007 p. 95), in a deductive approach conclusion can be drawn based on the logic and not by experimentation or experience. This means that data collection process and specific conclusions can be guided by some theories and general concepts. Whereas in the inductive approach, theories can be devised once the data is collected and analyzed. In this approach a conclusion is drawn from past experience and experimentation. It is the process of drawing general conclusions from specific and detailed findings (Fisher, 2007 p. 95).

This study is based on the deducted approach as the conclusion are drawn by relating existing theories (i.e. literature and models) with real life situations.

### 2.5 Data collection

There are several ways of data collection. According to Fisher (2007, p. 61), the most common data collection methods are interviews, questionnaires, panels-including focus groups, observation-including participant observation, documents, and databases. In order to complete this research, authors will use primary data as well as secondary data. Primary data will be collected through questionnaire and secondary data from online databases of Mälardalen University.

#### 2.5.1 Primary Data

Primary data collection is the phase in which the researcher finds out things by doing research and not by discovering it from the existing literature (Fisher 2007, p. 152). Therefore, in order to achieve the goal of this research authors use a survey research method i.e. Primary data is collected in the form of questionnaire.

##### 2.5.1.1 Survey Method

In order to see which factors are important for the adoption of internet banking, it is vital to know the consumers’ experiences and opinions regarding internet-banking. Therefore, authors designed a questionnaire to collect the data.

##### 2.5.1.2 Questionnaire Approach

There are two types of questionnaire; open and pre-coded. Pre-coded questionnaires contain tick boxes and multiple choices whereas open questionnaires have few open questions with a lot of white space for the respondents to give their opinions in their own words (Fisher, 2007, p. 161).

According to Fisher (2007, p. 165) it is best to use a pre-coded approach if you want to quantify the research material and compare the views and experiences of different people. Since we also want to observe views and experiences of different people and compare them with researchers’ standpoint, therefore for this thesis we will use pre-coded form of questionnaire.
### Sample Size

While doing a survey it is difficult to ask from everyone, therefore a sample should be taken that can be considered as the representative of the whole population (Fisher, 2007, p. 189). But the question is how much should be taken as a sample from the whole population? The answer depends on the size of the population and margin of error. Margin of error is the measure of uncertainty of how much should be taken as a sample to be considered as the representative of the whole population (Fisher, 2007, p. 189).

The table below shows the number of completed questionnaires (to be acquired) with regards to the size of the population and margin of error.

<table>
<thead>
<tr>
<th>Margin of error</th>
<th>Population</th>
<th>5%</th>
<th>3%</th>
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<td>384</td>
<td>1,067</td>
<td>2,400</td>
<td>9,595</td>
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</tr>
</tbody>
</table>

**Table 1: Margin of error**


According to The Local ([www.thelocal.se](http://www.thelocal.se)) Sweden’s News in English) Sweden’s population was around 9.42 million at the end of 2010. Since our target population is Sweden, therefore we will consider sample size according to Sweden’s population. Since Sweden’s population size goes beyond 1 million, so according to the above table the number of completed questionnaires required in this case becomes 384 with 5% margin of error.
2.5.1.4 Questionnaire Format

The design of the questionnaire should be attractive with logical and sequential structure for the respondent to see what the questionnaire is about and the questionnaire should be short (Fisher, 2007, p. 192). Our designed questionnaire is of three sides of A4 when printed and we tried to keep structure simple and more logical.

According to Fisher (2007, p. 193) there are different types of questionnaire formats such as; Dichotomous, MCQs, Check lists, Rating scales, Ranking questions, etc. Keeping in view questionnaire formats as mentioned by Fisher, we have included dichotomous questions, multiple choice questions and rating scales in our questionnaire. For the rating scale questions we have used a scale varying from strongly agree to strongly disagree. Dichotomous questions are the questions that offer two options to select from; whereas multiple choice questions have multiple options from which the respondent has to select the relevant/right option. In order to ask respondents to rate or evaluate the service, policy or option, rating scale questions can be used (Fisher, 2007, p. 193).

2.5.1.5 Questionnaire structure

We have designed a questionnaire by keeping in view factors which are most frequently cited and emphasized by authors. In this regard, seven factors are selected which are important for the adoption of internet-banking.

The table below shows the structure of our questionnaire.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1 to question 4</td>
<td>General information about the respondent</td>
</tr>
<tr>
<td>Question 5 and 6</td>
<td>Factor 1: Web Usability</td>
</tr>
<tr>
<td>Question 7 and 8</td>
<td>Factor 2: Security</td>
</tr>
<tr>
<td>Question 9 and 10</td>
<td>Factor 3: Information Quality</td>
</tr>
<tr>
<td>Question 11 to 12</td>
<td>Factor 4: Trust</td>
</tr>
<tr>
<td>Question 13</td>
<td>Factor 5: Service Quality</td>
</tr>
<tr>
<td>Question 14</td>
<td>Factor 6: Convenience</td>
</tr>
<tr>
<td>Question 15</td>
<td>Factor 7: Privacy</td>
</tr>
</tbody>
</table>

Table 2: Questionnaire Structure
Source: Authors

2.5.1.6 Questionnaire Distribution

A pre-coded questionnaire was designed and distributed in three cities i.e. Västerås, Eskilstuna and Växjö. The distribution was carried out at cafes, different shops and train stations of above mentioned cities. Apart from the manual distribution of survey, online questionnaire was emailed to our friends in different cities of Sweden. From the manual and online distribution of survey,
total 420 responses were collected. After carefully considering all responses, 402 responses were found to be complete and therefore used for the purpose of analysis.

2.5.2 Secondary Data

According to Fisher (2007), secondary data is the data collected from books, articles, journals etc. Secondary data will be useful, as analysis will be performed by relating it with primary data so that research question could be answered.

In the course of secondary data collection, we searched through several online full text databases of Mälardalen University to find the literature concerning our research project. After going through extensive literature review, 58 articles have been found and among them 45 articles have been selected and reviewed. From the journal articles authors tried to focus on highly ranked and peer reviewed journal articles. The selected articles are collected from SpringerLink, Emerald, Google Scholar, ACM Digital Library, JSTOR, SAGE Journals Online, Inderscience, ScienceDirect and Wiley Online Library databases. Apart from the articles, some books and authentic internet sources have also been used.

The keywords used during the literature search are internet banking, e-banking, B2C E-Commerce, technology adoption, TAM.

2.6 Validity and reliability of the research

For the validity and reliability of the research, authors have focused on peer reviewed journal articles. Since all selected articles are from Mälardalen University’s online databases, hence considered reliable.

In order to ensure validity of this research, following steps were taken into account:

- Pre-coded form of questionnaire was designed which was based on the literature related to internet banking adoption.

- Since the target area is Sweden, so according to Sweden’s population, accurate sample size with 5% margin of error (i.e. which is 384) was selected by following the table mentioned in Fisher (2007, p. 190). By keeping in view that some of the responses might be incomplete or from non-internet banking users, total 420 questionnaires were distributed. Out of which 402 response were found to be complete. Hence the large sample size shows that survey research has been conducted thoroughly and the results drawn from it can be applied to the whole population.

The questionnaire content (which is based on the literature) and the accurate and large sample size ensure the validity of the research.
3. Literature Review and Theoretical Framework

This chapter comprises main concepts and theories that are collected from the articles in order to provide theoretical structure to our study. Since the chapter includes all the relevant theories concerning our research subject, so it will contribute towards answering our research question.

While the chapter is structured along different themes, so we have discussed different concepts concerning our study stepwise. First off, ‘internet banking’ terminology has been defined by stating its difference from electronic banking. Second, the concept of ‘adoption’ has been explained, followed by mentioning ‘different research studies concerning customers’ adoption of internet banking’. Lastly, different e-business models relevant to our research question have been introduced.

3.1 Internet-Banking

3.1.1 Defining the term 'Internet-banking'

‘Internet banking’ is defined as the “provision of information or services by a bank to its customers, through a computer” (Lymperopoulos and Chaniotakis, 2004). It refers to a system through which customers can access their accounts and general information concerning products and services being offered by a bank without any intervention and hassle of sending letters, original signatures, faxes and telephone confirmations (Thulani et al, 2009; Henry, 2000 quoted in Safeena et al., 2010). In other words, the provision of information about the bank and its products/services through a webpage is called internet banking (Lymperopoulos and Chaniotakis, 2004).

According to Smith (2006), with the help of online-banking systems, customers can carry out banking activities at home or work. A more developed service facilitates customers to access their personal accounts and perform transactions or to purchase products online through internet (Daniel, 1999 quoted in Lymperopoulos and Chaniotakis, 2004).

Lastly, the terms ‘electronic banking’ and ‘internet banking’ are not same. Although it is perceived that both terms have same meaning and often ‘e-banking’ term is used to explain internet banking, but indeed internet banking is type of e-banking. E-banking is a broad term that includes telephone banking, debit cards, credit cards, mobile phone banking, ATM etc and internet banking as well.

3.1.2 Types of Internet-banking

According to Aladwani (2001) in Safeena et al. (2010), there are two forms of online banking: web-based banking and dial-up banking.
**Web-based banking**: In this type of banking, customer can access his or her account through the use of internet.

**Dial-up banking**: In this type of banking, a modem is used by a customer to dial-up to a bank’s server to get access to his or her account information. Dial-up banking has a special type which is called an ‘Extranet’. It is a private network between a bank and its corporate customers.

Thulani et al. (2009), Yibin (2003) and Diniz (1998) in Safeena et al. (2010), describe three types or functional levels of internet banking that are utilized in the market which are: Informational, Communicative and Transactional.

**Informational**: This is the first level of internet banking. Generally, the bank has the marketing information regarding bank’s products and services on a standalone server.

**Communicative/Simple transactional**: This is the second level or type of internet banking. It permits interaction between the bank’s systems and the customers to some extent. The interaction is confined to e-mail, account enquiry, credit application or static file updates (name and address changes). Transfer of funds is not allowed in this type of e-banking.

**Advanced Transactional**: This is the third level of internet banking. It allows bank customers to execute transactions i.e. electronically transfer funds to and from their personal accounts, pay different bills and carry out other banking transactions online.

### 3.1.3 E-banking Systems

E-banking systems are of two types: incumbent bank and direct bank (Xu and Zhao, 2000 quoted in Yang et al., 2009). In ‘incumbent bank’, e-banking is used as an enhancement to traditional banking sector and combines branches, ATM, call centre and online service into a complete system, and e-banking is served as a new channel for the delivery of services. In contrast, ‘direct bank’ which is also called virtual bank doesn’t have branch offices but offer banking services by using internet, telecommunication and wireless networking (Yang et al., 2009).

### 3.1.4 Advantages of Internet-banking

Internet banking has number of advantages. Some of the important advantages of internet banking are explained below:

**Global Connectivity**

In the growth of e-business, banking industry is the most important industry. Banks can deliver their services through internet unlike most other industries that still employ traditional transportation for products (Stoneman, 2000 quoted in Yang et al., 2009). Internet banking removes physical and geographic limitations as well as time limitations of banking service (Yang et al., 2007). It provides global connectivity and is universally accessible from any computer.
connected to internet (Thulani et al, 2009; Perunal and Shanmugan, 2004; Bradley and Stewart, 2003; Rotchanakitumnuai and Speece, 2003 quoted in Safeena et al., 2010).

Inexpensive Delivery of Services

As compared to managing and paying bank employees or buying and servicing ATMs, internet banking systems are reasonably inexpensive (Smith, 2006). Through internet-banking, transaction services can be delivered inexpensively as labor is replaced by machine (computer networks), which is low in cost and available in 24/7 (Wu et al., 2006 quoted in Yang et al., 2009), whereas physical bank branch is rather most expensive method of delivery. Due to inexpensive nature of online banking, it has a vital effect on traditional banking service (Smith, 2006). Since internet-banking services are less expensive and offer improved services to the consumers (Hua, 2009 quoted in Safeena et al., 2010), so with the help of internet-banking, banks can achieve different goals such as increased customer acceptance and satisfaction, higher profitability and enhanced competitive advantages (Shih, 2008 quoted in Yang et al., 2009). On the other end, rich financial information is acquired by the customers through the use of Internet-banking (Yang et al., 2009).

User-Friendliness

User-friendliness and simplicity are also the advantages of online banking, which means any customer having little or no knowledge can access the bank’s website and use it easily (Smith, 2006). Furthermore, internet-banking services are browser-based applications i.e. customers don’t have to load or install a separate program, to use the service.

Real Time Upgradation of Customers’ data

In online banking, information is updated in real time and banks’ systems are updated constantly or daily at specific times. An important characteristic of online banking is that once information is initially entered by a consumer, it does not require to be reentered for the transactions afterwards and future payments can be planned to take place automatically (Smith, 2006).

Easy Verification of Transactions

“The informational, self-service and customized” characteristics of internet-banking play a vital role in attracting and retaining customers (Shi and Lee, 2008 quoted in Yang et al., 2009). Furthermore, greater use of internet-banking may also decrease identity fraud (Yang et al., 2009), because of the reason that different accounts transactions can be checked and verified by the customers more easily and frequently (Herington and Weaven, 2007 quoted in Yang et al., 2009).

24/7 Online Banking Services

Through online banking, all routine transactions can be carried out by customers; for instance, account transfers, bill payments, balance inquiries and stop-payment requests etc (Smith, 2006).
Lastly, Internet-banking 24/7 online service decreases “labor cost, extend the service limit and enhance the efficiency and effectiveness” of a bank to greater extent (González et al., 2008; Smith, 2008 quoted in Yang et al., 2009).

3.1.5 Internet Banking in Sweden

Online banking in Sweden began developing in 1995, when initiative was taken by a small savings bank, “Sparkbanken Finn” to sell banking services via online. The first large bank that started to develop its e-banking services was SEB bank. In December 1996, SEB bank introduced internet banking for private customers, which was followed rapidly by other large banking groups. In the late 90s, all the large banks of Sweden made huge investments to develop their internet banking services. At present, FöreningsSparbanken (FSB) has been leading in the internet banking sector in Sweden, having over 950,000 online banking customers. Apart from the widespread implementation of internet banking across Sweden, all the major Swedish banks have been actively exporting their e-banking knowledge to other regions, such as Nordic and Baltic countries. Among large Swedish banking groups, SEB has been the top notch bank in the export of its e-banking knowledge outside the Nordic countries. An example of SEB’s widespread internet banking operation is that it has almost 160,000 internet banking customers in Germany through its subsidiary BfG (Suominen, 2001). According to the electronic banking survey conducted by the Economist, Sweden is regarded as the World leader in internet banking (Economist, 2000 quoted in Eriksson et al., 2005).

3.2 An Overview of the Factors Important for Information System (IS) Success

Esichaikul and Chavananon (2001) define success factors as, “factors that have been used to recognize information needs, to list and describe elements critical to program and system success and to help define and focus management’s responsibilities and efforts”.

Griffin and Kenneth (1995) quoted in Esichaikul and Chavananon (2001) describe that, “success factors are the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization. They are the few key areas where things must go right for the business to flourish. If results in these areas are not adequate, the organization’s efforts for the period will be less than desired”.

Rockart (1979) quoted in Esichaikul and Chavananon (2001) states that, “success factors are areas of activity that should receive constant and careful attention from management. The current status of performance in each area should be continually measured, and that information should be made available”.

Chen (1999) quoted in Shah and Siddiqui (2006) describes “that if the critical success factors are identified, management can take certain steps to more effectively implement new business models such as e-commerce”.

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3.3 Summarized Table Containing 'Internet-Banking Adoption Factors' and 'Authors'

The table below contains the summary of success factors in the context of Internet-banking adoption. The table has the names of the authors and the year of publication at the left column, and the factors important for Internet-banking adoption at the right column. The articles considered for this summary range from 2002-2009 publications, and the titles of these articles are mentioned in the list of references. There are fifteen articles selected and the ‘success factors for the adoption of Internet-banking’ mentioned in the different articles vary since different authors have different standpoints but some of the factors are common among selected articles.

Furthermore, in the table below some of the factors suggested by some of the authors are arranged into sub- categories so they could be distinguished clearly.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Internet-banking Adoption Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yang et al. (2009)</td>
<td>Planning new IT infrastructure, Enhancing transaction security, Providing value-added content, Delivering differentiated services, Conveying value propositions, Managing customer relationships, The retention and expansion of relationships with relative older and lower IT awareness customers.</td>
</tr>
<tr>
<td>Study</td>
<td>Factors</td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Hertzum et al. (2004)</td>
<td><strong>Usability:</strong> Ease of use, Security.</td>
</tr>
<tr>
<td>Bauer et al. (2005)</td>
<td>Service quality</td>
</tr>
<tr>
<td>Centeno (2004)</td>
<td>Security, Trust, Marketing and communication, Service development, Price incentives, Service quality, Reliability, Availability, Speed, Usability, Multi-channel distribution and the seamless integration of Internet banking services with all the other delivery channels (branch, phone and mobile).</td>
</tr>
<tr>
<td>Shah and Siddiqui (2006)</td>
<td><strong>Strategic factors:</strong> Business integration, Re-engineering processes to web-enable them, Cheaper than alternatives, Integrating different channels, Expanding existing markets, Building trust on brand name, New products and services, Top management support, Treating e-commerce as a business project (not just a technological project), Project team reflecting various related functional areas, Appropriate promotion of the project both internally and externally. <strong>Operational factors:</strong> Good customer services, Simplifying and integrating basic services, More convenient than the competitors, Easier to purchase than the competitors, Understanding customer purchase behavior, Richness of website contents. <strong>Technical factors:</strong> Integration of technology, Systems security, Upgrading existing infrastructure, User-friendly web-interface, Personalisation and customisation capabilities.</td>
</tr>
</tbody>
</table>
According to Rogers and Shoemaker (1971) quoted in Eveland (1979, p.2), adoption is defined as “making full use of a new idea as the best course of action available”. This definition is based upon three assumptions. For the concept of “adoption” to have utility, these assumptions must be valid. These assumptions as defined by Eveland (1979, p.3) are:

1. “There is some definable idea which has much the same meaning to the people who use it, even in different settings”.
2. “The uses to which the idea is put in different settings bear enough resemblance to each other that comparing them is possible”.
3. “Criteria are available for determining that the new idea is in fact the best course of action”.

The use of “adoption” will be very difficult to justify, if the above mentioned assumptions cannot be made. Generalization of analysis is based upon first two assumptions, whereas third assumption represents the value judgment. The value judgment is a factor on which analysis is based.

The concept of adoption has been explained by different researchers in different ways. For example, according to Rogers (1995, p. 20), the innovation decision process is defined as “the process through which an individual or other decision maker unit passes from first knowledge of an innovation, to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation and use of the new idea, and to confirmation of this decision”. The innovation-decision process as explained by Rogers (1995, p. 20) involves five steps, which are:

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith (2006)</td>
<td>Security</td>
</tr>
</tbody>
</table>

Table 3: Summarized Table Containing ‘Internet-Banking Adoption Factors’ and ‘Authors’
Source: Authors

3.4 Adoption
1. Knowledge: At this stage, an individual gets to know about innovation and possesses understanding of how it functions.

2. Persuasion: This stage represents an individual’s formation of an attitude which can be either favorable or unfavorable towards an innovation process.

3. Decision: This stage shows an individual’s involvement in activity which determines his/her choice towards accepting or rejecting an innovation.

4. Implementation: At this stage, an individual makes use of an innovation i.e. puts the innovation into use.

5. Confirmation: At this stage, the results of an innovation-decision already made are evaluated by an individual.

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**Communication Channels**

Prior Conditions:
- 1. Previous Practice
- 2. Felt Needs/Problems
- 3. Innovativeness
- 4. Norms of the Social Systems

Characteristics of the Decision Making Unit:
- 1. Socioeconomics Characteristics
- 2. Personality Variables
- 3. Communication behavior

Perceived Characteristics of the Innovation:
- 1. Relative advantage
- 2. Compatibility
- 3. Complexity
- 4. Trialability
- 5. Observability

---

**Figure 2: Innovation–Decision Process Model**

Source: Rogers (1995)

The five step process model defined by Rogers (1995), explains the decision of potential adopter whether he/she will adopt or reject an innovation. The decision to adopt or reject an innovation is made by potential adopter, when he/she goes through above mentioned five steps. Lastly, even after adopting an innovation, a person may reverse his/her decision, if the results of an adopted innovation are not satisfactory.
As far as the ‘adoption’ of internet banking in Sweden is concerned, Sweden has one of highest internet adoption rates in the world. According to a survey in September 2000, conducted by Swedish Institute for Transport and Communication Analysis, 65 percent of Swedish population had an access to internet at their homes. The high internet penetration or adoption is the prerequisite for the success of internet banking and also the main reason of rapid rise of internet banking in Sweden (Suominen, 2001).

### 3.5 Different Research Studies Concerning Customers' adoption of Internet Banking

The table below shows the research studies conducted by different authors regarding customers’ adoption of internet banking. In this regard, different authors have used different established e-business models to investigate their findings regarding customers’ adoption of internet banking. The table below is structured by keeping in view title of the articles, name of the authors, factors for internet banking adoption and models.

<table>
<thead>
<tr>
<th>Articles</th>
<th>Authors</th>
<th>Factors</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer acceptance of online banking: an extension of technology acceptance model</td>
<td>Pikkarainen et al. (2004)</td>
<td>Perceived usefulness, Perceived ease of use, Perceived enjoyment, Information on online banking, Security and Privacy, Quality of internet connection</td>
<td>Technology Acceptance Model</td>
</tr>
<tr>
<td>Effect of trust on customer acceptance of internet banking</td>
<td>Suh and Han (2002)</td>
<td>Trust, Perceived Usefulness, Ease of use, Attitude, Intention to use</td>
<td>Technology Acceptance Model</td>
</tr>
<tr>
<td>Factors Influencing the adoption of Internet Banking</td>
<td>Tan and Teo (2000)</td>
<td>Relative advantages, Compatibility with values, Internet experiences, Banking needs, Complexity, Trialability, Risk, Self efficacy, Government support, Technology support, Social norms</td>
<td>Theory of Planned Behavior and Diffusion of Innovation</td>
</tr>
<tr>
<td>Determinants of users acceptance of Internet banking</td>
<td>Wang et al. (2003)</td>
<td>Trust/Perceived Credibility, Perceived Usefulness,</td>
<td>Technology Acceptance Model</td>
</tr>
</tbody>
</table>
### Table 4: Different Research Studies Concerning Customers’ adoption of Internet Banking

<table>
<thead>
<tr>
<th>Study</th>
<th>Source</th>
<th>Theoretical Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>The adoption of virtual banking: an empirical study</td>
<td>Liao et al. (1999)</td>
<td>Theory of Planned behavior and Diffusion of Innovation</td>
</tr>
<tr>
<td>Customer acceptance of internet banking in Estonia</td>
<td>Eriksson et al. (2005)</td>
<td>Technology Acceptance Model</td>
</tr>
</tbody>
</table>

### 3.6 Theoretical Framework

#### 3.6.1 Theory of Reasoned Action (TRA)

The theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975 quoted in Belleau et al., 2007) is based on the assumption “that individuals are rational and make systematic use of information available to them”.

According to theory of reasoned action, behavioral intention (BI) of an individual is a measure of the strength of one's intention to perform a specified behavior. BI is determined by two factors: 1) Attitude towards the behavior (Ab), which is a function of beliefs (bi) that performing the behavior possesses certain attributes and the evaluation of those beliefs (ei) 2) Subjective norm (SN), which is the perception of social groups i.e. what specific individuals or groups think that a person should or should not perform (Belleau et al., 2007). “An individual's subjective norm (SN) is determined by a multiplicative function of his or her normative beliefs (nbi), i.e., perceived expectations of specific referent individuals or groups, and his or her motivation to
comply (mci) with these expectations” (Fishbein and Ajzen, 1975, p. 302 quoted in Davis et al., 1989).

Apart from the above mentioned factors, Ajzen and Fishbein (1980) quoted in Belleau et al. (2007) mentioned that some external variables might also have influence on behavioral intention, for instance, demographics, traditional attributes towards targets and personality traits. Some researchers have proposed additional external variables, which could be included in the model for predicting the behavior. Those variables are: past behavior, past experience or involvement (Bagozzi, Wong, Abe, & Bergami, 2000; Bunce & Birdi, 1998; Shim et al., 1989 quoted in Belleau et al., 2007).

According to Fishbein and Ajzen (1975) quoted in Sheppard et al. (1988) “a behavioral intention measure will predict the performance of any voluntary act, unless intent changes prior to performance or unless the intention measure does not correspond to the behavioral criterion in terms of action, target, context, time-frame and/or specificity”.

TRA model predicts consumers’ intention and behavior very well. Armitage and Conner (2001) quoted in Belleau et al. (2007); state that behavior that is comparatively straightforward i.e. under volitional control can be predicted adequately by theory of reasoned action. As it is understood that an intention to buy a product is volitional and few constraints are associated with it, so the usage of theory of reasoned action can lead to valid prediction of purchase intention.

However, there is a constraint associated with the TRA model regarding the distinction between a goal intention and a behavioral intention, which has also been acknowledged by Fishbein and Ajzen. The limitation is that they established their model to cope with behaviors, for example, taking weight loss pill, applying for a loan or purchasing a new car; but not with outcomes that result from behaviors, for example, losing 10 pounds, getting a loan or owning a brand new car. Moreover, only those behaviors are dealt by model that is under an individual’s volitional control. The conditions of the model can’t be fulfilled, whenever the performance of some action needs resources, knowledge, skills or environmental hurdles need to be overcome (Sheppard et al., 1988).

Figure 3: Theory of Reasoned Action (TRA)
Source: Davis et al. (1989)
3.6.2 Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) was introduced by Davis (1986) quoted in Davis et al. (1989). Technology acceptance model is an adaptation of Theory of Reasoned Action (TRA), developed to specifically deal with modeling user acceptance of information systems. As compared to TRA, Technology Acceptance Model is significantly less general. The model was developed to particularly explain the computer usage behavior. But since, TAM includes findings collected from over a decade of Information System (IS) research, so it is particularly well-suited for modeling computer acceptance.

The Technology Acceptance Model (TAM) defines the casual relationship between perceived usefulness, ease of use, system design features, attitude towards using and actual usage behavior. In general, an informative representation of the mechanisms by which design choices influence user acceptance is provided by TAM. Hence, Technology acceptance model is useful in applied contexts for forecasting and evaluating user acceptance of information technology (Davis, 1993).

According to Technology Acceptance Model (TAM), perceived usefulness (PU) and perceived ease of use (PEOU) are two key beliefs that are mainly relevant for computer acceptance behavior. Theory of Reasoned Action (TRA) is used by TAM as a theoretical basis to specify causal association between these two key beliefs i.e. PU and PEOU.

Perceived usefulness (PU) is defined as the degree to which a potential user thinks that using a particular system would increase his/her job performance. The term usefulness is derived from the word ‘useful’, which means the advantage of using particular IS. Whereas, perceived ease of use (PEOU) is defined as the degree to which a potential user thinks that using a particular system would be free of effort. The word ‘ease’ means, freedom from difficulty, hardship or effort. In short, ease of use means ‘user-friendliness’ of IS (Davis, 1989).
3.6.3 Theory of Planned Behavior (TPB)

TPB is developed originally based on the theory of reasoned action (TRA) which explains almost any human behavior. In predicting and explaining human behavior across various application contexts, it has been proven successful. According to TRA, a person’s behavioral intention guides his actual behavior of performing some certain action and where subjective norm and attitude toward the behavior determine the behavioral intention (Liao et al., 2007). According to Ajzen (1991) quoted in Liao et al. (2007, p. 2809), “behavioral intention is a measure of the strength of one’s willingness to try while performing certain behaviors”. As in the original model of TRA, there are some limitations when dealing with behavior for which there is incomplete volitional control of people. Therefore, TPB is proposed to eliminate these limitations; and in fact, TPB differs from TRA because of the addition of perceived behavior control, which potentially effects behavioral intention.

According to Ajzen (1991), the theory of planned behavior proposes three independent determinants of intention which are attitude towards the behavior, subjective norm and perceived behavioral control.

Attitude as defined by Fishbein and Ajzen (1975) quoted in Liao et al. (2007, p. 2809), is “the degree of one’s favorable or unfavorable evaluation of the behavior in question”. The attitudes are developed reasonably from one’s beliefs about object of the attitude. Subjective Norm refers to “the perceived social pressure to perform or not to perform the behavior” (Ajzen, 1991 quoted in Liao et al. 2007, p. 2809). It can be said that it is related to the normative beliefs about other people’s expectations on either to perform or not to perform the behavior.

Perceived behavioral control refers to “people’s perception of ease or difficulty in performing the behavior of interest” (Ajzen, 1991 quoted in Liao et al. 2007, p. 2809) and is assumed to reflect past experiences as well as the predicted difficulties and barriers. The construct of the perceived behavioral control in the TPB is added to cope with the situations in which people may lack the complete volitional control over the behavior of interest. Perceived behavioral Control is directly connected to the beliefs of the control factors that can facilitate or hinder the performance of the behavior (Ajzen, 2002 quoted in Liao et al., 2007). Control factors can be referred to as the internal or external constraints where internal constraints are related to self efficacy and external constraints to the environment (Ajzen, 1991 quoted in Liao et al., 2007).

Generally speaking, the more favorableness and unfavorableness of the attitude, subjective norm and the higher perceived behavior control are directly proportional to the strength of one’s intention to perform the behavior under consideration (Ajzen, 1991).
3.6.4 Diffusion of Innovation

According to Rogers (1995, p. 11), *innovation* is defined “an idea, practice, or object that is perceived as new by an individual or other unit of adoption”, whereas *diffusion* is defined as “the process by which an innovation is communicated through certain channels over time among the members of a social system” (Rogers, 1995, p. 5). Therefore, Innovation Diffusion Theory (IDT) states how new ideas, concepts or technologies spread or become common in a society and adopted by users.

Innovation Diffusion Theory (IDT) includes five characteristics. These characteristics as defined by Rogers (1995, pp. 250-251) are:

**Relative Advantage**: “The degree to which an innovation is perceived to be better than the idea it supersedes”.

**Compatibility**: “The degree to which an innovation is perceived as consistent with the existing values, past experiences and needs of potential adopters”.

**Complexity**: “The degree to which an innovation is perceived as relatively difficult to understand and use”.

---

**Figure 5: Theory of Planned Behavior (TPB)**

Source: Chang (1998)
**Trialability:** “The degree to which an innovation may be experimented with on a limited basis”.

**Observability:** “The degree to which the results of an innovation are visible to others”.

The above mentioned characteristics, defined by Rogers (1995) greatly influence adoption. According to Chen et al. (2000), among five characteristics of IDT, relative advantage, compatibility and complexity are the only attributes, which are consistently related to innovation adoption.

### 3.6.5 Comparison of Selected Models

There are some similarities and differences in the above mentioned models. With regards to the similarities, TRA, TAM and TPB all focus on explaining the actual behavior for technology adoption. TRA basically provides the theoretical basis to both TAM and TPB. TAM uses TRA to specify the causal linkages between two key beliefs: Perceived Usefulness and perceived ease of use. TPB also uses TRA as a theoretical basis for explaining the actual behavior, but it only differs from TRA because of the addition of perceived behavioral control which potentially affects behavioral intention.

Both TRA and TPB models agree that an individual’s behavior is a direct effect of the intention of an individual to perform behavior. However, TAM does not include the subjective norm construct because according to Davis et al. (1989), separating the direct effects of SN on the Behavioral Intention from the indirect effects coming from the attitude construct is complicated.

TAM and IDT both share similarity in terms of their characteristics i.e. Perceived Usefulness (PU) of TAM and Relative Advantage (RA) of IDT are similar to each other.
4. Empirical Findings

In this chapter, findings from our research have been discussed. The survey has been conducted on the basis of most important factors regarding internet banking adoption i.e. factors which are most frequently cited by different authors. In this regard, seven factors are found to be most important factors.

The table below contains the factors and their frequencies; frequencies represent the number of authors who cited and emphasized a particular factor.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Usability</td>
<td>10</td>
</tr>
<tr>
<td>Security</td>
<td>13</td>
</tr>
<tr>
<td>Information Quality</td>
<td>6</td>
</tr>
<tr>
<td>Trust</td>
<td>4</td>
</tr>
<tr>
<td>Service Quality</td>
<td>5</td>
</tr>
<tr>
<td>Convenience</td>
<td>3</td>
</tr>
<tr>
<td>Privacy</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 5: Most Frequently Cited Factors by Authors
Source: Authors

The data collected from the respondents through survey has been presented in the form of tables and graphs using Microsoft Office Excel 2007.

First off, authors will explain questionnaire distribution among different cities. Since authors had residence in different cities i.e. Västerås and Växjö at the time of questionnaire distribution. So survey was conducted in both cities. Survey was also conducted in Eskilstuna, being a neighboring city of Västerås and having an easy access to it made it easy for us to distribute questionnaire there. As many of our friends already reside in Eskilstuna, so with the help of them questionnaire distribution task was also achieved to some extent. Moreover assistance of our friends has also been sought for the other two cities i.e. Västerås and Växjö concerning questionnaire distribution. Apart from it, authors also emailed questionnaire survey to their friends and friends of their friends who live in the above mentioned cities and received some responses that way.
4.1 Respondents' Location

<table>
<thead>
<tr>
<th>Locations</th>
<th>Västerås</th>
<th>Eskilstuna</th>
<th>Växjö</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>160</td>
<td>92</td>
<td>150</td>
<td>402</td>
</tr>
<tr>
<td>Percentage of respondents</td>
<td>39.80</td>
<td>22.89</td>
<td>37.31</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 6: Location of the Respondents
Source: Authors

The above table and figure show the distribution of questionnaire among different locations. Out of 402 respondents, 160 (39.80%) respondents were from Västerås, 150 (37.31%) respondents were from Växjö, whereas 92 (22.89%) respondents were from Eskilstuna.

Among three cities, more responses were collected from Västerås and then Växjö because of authors’ residence at these cities. Since Västerås is a big city as compared to Eskilstuna and Växjö, moreover authors studied at Västerås, so because of familiarity with more people and places in the city, total 160 responses were collected. At 2nd number it’s Växjö, though it is a small city but because of one of authors’ residence at this city, it also became possible to collect 150 responses from here. At 3rd number its Eskilstuna, comparatively less responses were collected from here as every time author had to travel to the city to collect responses and then to come back.
4.2 General Information of the Respondents

In this section, survey findings related to the general information of the respondents have been formulated. The general information includes gender, age and internet banking usage frequency of the respondents.

Gender

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>180</td>
<td>222</td>
<td>402</td>
</tr>
<tr>
<td>Percentage of respondents</td>
<td>44.78</td>
<td>55.22</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 7: Gender of the Respondents
Source: Authors

Our survey starts with the general information of the respondent which includes the gender of the respondent. As shown in the above table and graph, 402 people participated in the survey, out of which 180 (45%) were males and 222 (55%) were females.
The above table and graph demonstrate different age groups of internet banking users. In this regard, more responses were received by authors from younger age groups. Authors believe that the reason of this is the growing interest of young people in the internet and technology. According to the survey findings, 164 (40.80%) respondents were from 18-24 age group, 173 (43.03%) respondents were from 25-34 age group, 45 (11.19%) respondents were from 35-44 age group, 11 (2.74%) respondents were from 45-54 age group and 9 (2.24%) respondents were from 55-64 age group. Hence, the average age of the respondent is 28 years.

Question: Do you use Internet banking services?

Since questionnaire was designed only for internet banking users, so authors have only taken into account responses of internet banking users and discarded responses of non internet banking users. In this regard, 402 responses were collected from internet banking users which were found to be complete and hence will be analyzed in the next section.
4.3 Frequency of Using Internet Banking

*Question:* How frequently do you use Internet banking?

<table>
<thead>
<tr>
<th>Frequency of Usage</th>
<th>Once a week</th>
<th>Once a month</th>
<th>Once in Six month</th>
<th>Once in a year</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>229</td>
<td>37</td>
<td>105</td>
<td>31</td>
<td>402</td>
</tr>
<tr>
<td>Percentage of respondents</td>
<td>56.97</td>
<td>9.2</td>
<td>26.12</td>
<td>7.71</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 9: Respondents’ Internet Banking Usage Frequency  
*Source: Authors*

The above table and graph show the internet banking usage frequency of the respondent. Out of 402 respondents, 229 (56.97%) respondents use the internet banking once in a week, 37 (9.2%) respondents use once in a month, 105 (26.12%) respondents use once in six months, and 31 (7.71%) respondents use once in a year.
### 4.4 Summary of Survey Findings Regarding Most Important Factors

Survey findings of the most important factors have been depicted in the table below:

<table>
<thead>
<tr>
<th>Factors</th>
<th>Percentage(%) of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>Web Usability</td>
<td><strong>Navigation and Aesthetics</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Poor Navigation and Poor Design</strong></td>
</tr>
<tr>
<td>Security</td>
<td><strong>Security Role in Internet Banking</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Security as a Threat</strong></td>
</tr>
<tr>
<td>Information Quality</td>
<td><strong>Clear, Simple and Precise Information</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Lengthy Information</strong></td>
</tr>
<tr>
<td>Trust</td>
<td><strong>Trust on the Bank</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Trust in Internet-Banking Vs Offline Services</strong></td>
</tr>
<tr>
<td>Service Quality</td>
<td><strong>Unique, Integrated and Customized Financial Services</strong></td>
</tr>
<tr>
<td>Convenience</td>
<td><strong>Convenience and Flexibility</strong></td>
</tr>
<tr>
<td>Privacy</td>
<td><strong>Customer-Oriented Privacy Policy</strong></td>
</tr>
</tbody>
</table>

Table 10: Summary of Survey Findings Regarding Most Important Factors  
Source: Authors
5. Analysis

In this chapter, survey findings of the most important factors concerning internet banking adoption have been formulated with the help of tables and graphs and analysis has been performed. Survey findings have been analyzed on the basis of Technology Acceptance Model (TAM) and by relating them with literature explained in the above chapters.

Web Usability

Question 1: Navigation (ease of use) and aesthetics (website design) are important in the adoption of Internet banking?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>211</td>
<td>149</td>
<td>34</td>
<td>8</td>
<td>402</td>
</tr>
<tr>
<td>Percentage of respondents</td>
<td>52.49</td>
<td>37.06</td>
<td>8.46</td>
<td>1.99</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 11: Navigation and Aesthetics
Source: Authors

![Graph 4: Navigation and Aesthetics](image)

According to the data collected from the survey as shown in the above table and graph, 90% of the respondents believe that navigation which is the ease of use of banking website and aesthetics which reflects the website design (color, graphics, text etc) are important in the
adoption of internet banking. Among 90% of the respondents, 53% strongly agreed, while 37% agreed that navigation and aesthetics are important in the adoption of internet banking. However, only 10% of the respondents believed differently. The survey result shows that ease of use and aesthetics are very important and central aspects in the adoption of internet banking (Francis and White, 2001; Aladwani and Palvia, 2002 quoted in Loonam and O’Loughlin, 2008). According to Technology Acceptance Model (TAM), perceived ease of use (PEOU) is a key belief that is important for the customers’ adoption of information systems and this is also proved from the survey results. Therefore internet banking website must be designed by taking into account ease of use aspect, so that customers could use particular site without any effort or hassle. Furthermore website must contain aesthetically appealing color schemes and greater use of graphics, since such website possesses a positive influence on drawing potential customers’ attention and could lead to adoption (Poon, 2008).

*Question 2: I avoid visiting internet-banking sites which have poor navigation such as slow downloading of pages and poor design?*

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>261</td>
<td>121</td>
<td>14</td>
<td>6</td>
<td>402</td>
</tr>
<tr>
<td>Percentage of respondents</td>
<td>64.93</td>
<td>30.10</td>
<td>3.48</td>
<td>1.49</td>
<td>100</td>
</tr>
</tbody>
</table>

*Table 12: Poor Navigation and Poor Design*

*Source: Authors*

![](poornavigationpoordesign.png)

*Graph 5: Poor Navigation and Poor Design*

*Source: Authors’ Own Illustration*
The statistics of the survey as shown in the above table and graph demonstrate that 95% of the respondents believe that internet banking site with poor navigation such as slow downloading of pages and poor design is avoided by them. Among 95% of the respondents, 65% strongly agreed, while 30% agreed that they avoid internet banking sites which have poor navigation and poor design. Whereas, 5% of the respondents believed that they don’t avoid internet banking site having poor navigation or poor design. The survey result proves that time is an important element for everyone and site which takes too long to download or have poor design could result into the rejection, as poor web design leads to a loss of possible sales because users are not able to find what they require, and a loss of possible repeated visits due to negative experience in the beginning (Miranda et al., 2006). Since poor navigation and poor design don’t reflect ease of use. Hence, both factors go against the perceived ease of use (PEOU) belief of Technology Acceptance Model (TAM) which is important for customer’s adoption of IS, so site with poor navigation and poor design is avoided by customers and this is also proved by the survey data.

Security

*Question 1: Security plays a vital role in internet-banking adoption and continued use?*

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>279</td>
<td>111</td>
<td>9</td>
<td>3</td>
<td>402</td>
</tr>
<tr>
<td>Percentage of respondents</td>
<td>69.40</td>
<td>27.61</td>
<td>2.24</td>
<td>0.75</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 13: Security Role in Internet Banking
Source: Authors

![Graph 6: Security Role in Internet Banking](Source: Authors' Own Illustration)
The above table and graph shows the data collected from the survey. According to the survey results, 97% of the respondents believe that security is important in the internet banking adoption and continued use. Among 97% of the respondents, 69% strongly agreed, while 28% of the respondents agreed that security plays vital role in the adoption of internet banking and its continued use. However, 3% of the respondents believed that security doesn’t have influence on the adoption and continued use of internet banking. The agreement of 97% of the respondents clearly shows that security plays a vital role in the internet banking adoption and continued use (Loonam and O’Loughlin, 2008). According to Technology Acceptance Model (TAM), perceived usefulness (PU) is a key belief, which is important for the customers’ adoption of information systems. Security factor is also linked to perceived usefulness (PU) belief, which means, if the safeguard of customers’ personal data and secure transactions (Shah and Siddiqui, 2006) are ensured by the banks, then internet banking will be ‘useful’ for customers, otherwise it will be harmful.

*Question 2: Security is a threat which can prevent data transactions or allow unauthorized access to the accounts through network attacks or hacking etc?*

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>180</td>
<td>161</td>
<td>41</td>
<td>20</td>
<td>402</td>
</tr>
<tr>
<td>Percentage of respondents</td>
<td>44.78</td>
<td>40.05</td>
<td>10.20</td>
<td>4.98</td>
<td>100</td>
</tr>
</tbody>
</table>

*Table 14: Security as a Threat*
*Source: Authors*

*Graph 7: Security as a Threat*
*Source: Authors’ Own Illustration*
According to the survey results as depicted in the above table and graph, 85% of the respondents believe that security is a threat which can prevent data transactions. Among 85% of the respondents, 45% strongly agreed, while 40% agreed that security is a threat which can prevent transactions and allow unauthorized access to the accounts through attacks. Whereas, 15% of the respondents believed that security is not a threat in the usage of internet banking. The survey statistics demonstrate that concerning security, internet banking is an area of high risk with a possibility for substantial economic loss and the high risk makes security a major concern (Hertzum et al., 2004). Because of the security threats, internet banking will not be ‘useful’ for customers, which is also proved from the survey data, as 85% believe, security is a threat. Therefore, security threats associated with internet banking are against the perceived usefulness (PU) belief of Technology acceptance model (TAM) and could result into the rejection of information system. Thus, the biggest challenge to the internet banking sector will be winning the trust of customers concerning privacy and security issues (Furnell and Karweni, 1999; Bestavros, 2000 quoted in Yousafzai et al., 2003). In this regard, online banks need to identify weakest points in their systems and rectification of those points must be done (Smith, 2006).

**Information Quality**

*Question 1: Clear, simple, precise and understandable information helps me to perform internet-banking transactions easily?*

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>264</td>
<td>105</td>
<td>21</td>
<td>12</td>
<td>402</td>
</tr>
<tr>
<td>Percentage of respondents</td>
<td>65.67</td>
<td>26.12</td>
<td>5.22</td>
<td>2.99</td>
<td>100</td>
</tr>
</tbody>
</table>

*Table 15: Clear, Simple and Precise Information*

*Source: Authors*
The above table and graph represent the survey statistics regarding information quality. According to the results, 92% of the respondents believe that clear, simple, precise and understandable information helps them to perform internet banking transactions easily. Among 92% of the respondents, 66% strongly agreed, while 26% agreed that clear, simple, precise and understandable information helps them to perform internet banking transactions easily. However, 8% of the respondents believed differently. The survey results clearly show that clear, simple and understandable information available on the site helps customers to perform internet-banking transactions easily and also helps in the adoption of internet banking (Poon, 2008). According to Technology Acceptance Model (TAM), perceived ease of use (PEOU) and perceived usefulness (PU) are two key beliefs that are mainly relevant for customers’ adoption of Information systems. Because of the clear, simple and understandable information, customers can perform internet banking transactions easily, which is the perceived ease of use (PEOU), as they will not face any difficulty in the usage of IS. Moreover, clear, simple and understandable information will be ‘useful’ for customers as well, which is the perceived usefulness (PU), because such information can help customers in making right financial decisions. Therefore, clear, simple and understandable information is related to both key beliefs of Technology Acceptance Model (TAM) i.e. perceived ease of use (PEOU) as well as perceived usefulness (PU) and can help in the adoption of internet banking.
Question 2: Lengthy information creates difficulty for me and is mostly avoided and not viewed by me?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>191</td>
<td>108</td>
<td>54</td>
<td>49</td>
<td>402</td>
</tr>
<tr>
<td>Percentage of respondents</td>
<td>47.51</td>
<td>26.87</td>
<td>13.43</td>
<td>12.19</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 16: Lengthy Information
Source: Authors

According to the survey results as shown in the above table and graph, 74% of the respondents believe that lengthy information creates difficulty for them and is mostly avoided and not viewed by them. Among 74% of the respondents, 47% strongly agreed, while 27% agreed that lengthy information creates difficulty for them and is mostly avoided. Whereas, 26% of the respondents believed that lengthy information doesn’t create difficulty for them. Since maximum number of respondents i.e. 74% believed that lengthy information creates difficulty for them, whereas only 14% disagreed and 12% strongly disagreed, so in total only 26% believed differently. Therefore, keeping in view survey statistics, it can be inferred that lengthy information creates difficulty for internet banking users and is mostly avoided and not viewed by the consumers (Loonam and O’Loughlin, 2008). According to Technology Acceptance Model (TAM), perceived usefulness (PU) is a key belief, which is important for customers’ adoption of IS. Since lengthy information is time consuming and requires focus and concentration, so it may not prove to be ‘useful’ for
customers because of ‘time wastage’ element. Hence, it is against perceived usefulness (PU) belief and users abstain from such information, which is also proved from the survey results.

**Trust**

*Question 1: Trust on the bank plays an important role in the adoption of internet banking services?*

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>239</td>
<td>137</td>
<td>13</td>
<td>13</td>
<td>402</td>
</tr>
<tr>
<td>Percentage of respondents</td>
<td>59.45</td>
<td>34.08</td>
<td>3.23</td>
<td>3.23</td>
<td>100</td>
</tr>
</tbody>
</table>

**Table 17: Trust on the Bank**
Source: Authors

The above table and graph show the survey results concerning ‘trust’ factor. According to the statistics, 94% of the respondents believe that trust on the bank plays an important role in the adoption of internet banking services. Among 94% of the respondents, 60% strongly agreed, while 34% agreed that trust on the bank plays vital role in the adoption of internet banking services. However, 6% of the respondents believed differently. The survey results explicitly show that customers’ trust on the banks plays a vital role in the adoption of internet banking services. Moreover, regarding adoption of financial services, trust in the banking institutions is anticipated as a fundamental requirement (Centeno, 2004). According to Technology Acceptance Model (TAM), perceived usefulness (PU) is a key belief, which is important for customers’ adoption of information systems. Perceived usefulness (PU) belief is directly dependant on the
trust factor, which means if customers trust internet banking, only then they will use or adopt internet banking and can benefit from it, which is also proved from the survey results. On the contrary, if customers don’t consider internet banking ‘useful’, it means they don’t trust internet banking because of certain concerns.

*Question 2: My trust in internet-banking services is not as strong as compared to trust in offline services provided by the bank?*

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>101</td>
<td>85</td>
<td>135</td>
<td>81</td>
<td>402</td>
</tr>
<tr>
<td>Percentage of respondents</td>
<td>25.12</td>
<td>21.14</td>
<td>33.58</td>
<td>20.15</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 18: Trust in Internet-Banking Vs Offline Services  
Source: Authors

![Graph](image)

According to the survey results as shown in the above table and graph, 46% of the respondents believe that their trust in internet banking services is not as strong as compared to trust in offline service provided by the bank. Among 46% of the respondents, 25% strongly agreed, while 21% agreed that their trust in internet banking services is not as strong as compared to trust in offline service provided by the bank. Whereas, 54% of the respondents believed differently i.e. their trust in internet banking services is also strong. Although, there is not much difference between the respondents who believed that their trust in internet-banking services is not as strong as compared to trust in offline services provided by the bank and the respondents who believed their trust in internet banking is also strong. But the reason that 46% respondents don’t have
much trust in internet banking services is that customers generally have enhanced security expectations because of the nature of financial services and risk related to the internet. Furthermore, customers dislike giving large volumes of personal information online due to fears concerning security and secondary use of the information (Loonam and O’Loughlin, 2008). Since survey is conducted in Sweden and because of its established and trusted internet banking system, maximum number of respondents (54%) believed that they can trust internet banking services as well. Lastly, customers’ trust in the internet banking motivates them to adopt internet banking services and to get benefit from them. So perceived usefulness (PU) belief of Technology Acceptance Model (TAM) can only be achieved, if banks develop customers’ trust by ensuring a secure and reliable service.

**Service Quality**

*Question: Unique, integrated and customized financial services are important in the adoption of internet banking?*

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>177</td>
<td>142</td>
<td>49</td>
<td>34</td>
<td>402</td>
</tr>
<tr>
<td>Percentage of</td>
<td>44.03</td>
<td>35.32</td>
<td>12.19</td>
<td>8.46</td>
<td>100</td>
</tr>
<tr>
<td>respondents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 19: Unique, Integrated and Customized Financial Services  
Source: Authors

**Unique, Integrated and Customized Financial Services**

![Graph 12: Unique, Integrated and Customized Financial Services  
Source: Authors’ Own Illustration](image)
The above table and graph show the survey results regarding service quality factor. According to the survey statistics, 79% of the respondents believe that unique, integrated and customized financial services are important in the adoption of internet banking. Among 79% of the respondents, 44% strongly agreed, while 35% agreed that unique, integrated and customized financial services are important in the adoption of internet banking. However, 21% of the respondents believed differently. Therefore, from the survey results, it can be inferred that unique, integrated and customized services are important in the adoption of internet banking, since maximum number of respondents (79%) believed so. Furthermore, Shah and Siddiqui (2006) have also emphasized on the integration of services in the internet banking. According to Shah and Siddiqui (2006) real-time integration of distributed resources is one of the biggest advantages of internet banking because in this way, consumers do not have to navigate from site to site to keep track of their financial information. Therefore, integrated services are ‘useful’ for customers as customers can keep track of their financial information at one place, moreover they also reflect ‘ease of use’ i.e. customers don’t need to make an effort to navigate from site to site for using internet banking services. Hence, integrated services are related to both key beliefs of Technology Acceptance Model (TAM) i.e. perceived ease of use (PEOU) as well as perceived usefulness (PU), and can help in the adoption of internet banking, which is also proved from the survey results.

Convenience

*Question: Convenience and flexibility in terms of location and time play a vital role in the adoption of internet banking?*

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of respondents</td>
<td>314</td>
<td>85</td>
<td>2</td>
<td>1</td>
<td>402</td>
</tr>
<tr>
<td>Percentage of respondents</td>
<td>78.11</td>
<td>21.14</td>
<td>0.50</td>
<td>0.25</td>
<td>100</td>
</tr>
</tbody>
</table>

*Table 20: Convenience and Flexibility*  
*Source: Authors*
According to the survey statistics, as depicted in the above table and graph, 99% of the respondents believe that convenience and flexibility in terms of location and time play a vital role in the adoption of internet banking. Among 99% of the respondents, 78% strongly agreed, while 21% agreed that convenience and flexibility in terms of location and time play a vital role in the adoption of internet banking. However 1% of the respondents believed differently. The survey results clearly demonstrate that convenience and flexibility play an important role in the adoption of internet banking, since almost 100% respondents believed so. According to Poon (2008), convenience is one of the critical factors that affect the adoption of internet banking. Moreover, time and place flexibility of the system enable transactions to be done in an effective way, since consumers who use internet banking don’t have to stand in queues or wait for their turns at the counters; internet banking can be accessed round the clock from any location as compared to the conventional counter-based banking services. Hence, convenience in terms of time and place reflects ‘ease of use’, because of the fact that internet banking can be used at any time and from any location which doesn’t involve any effort or hassle. Therefore, convenience factor is related to perceived ease of use (PEOU) belief of Technology Acceptance Model (TAM) and can help in the adoption of internet banking, which is also proved from the survey results.
The above table and graph represent the survey data regarding privacy factor. According to the survey statistics, 90% of the respondents believe that customer-oriented privacy policy of the banks leads to the adoption and continued use of internet banking. Among 90% of the respondents, 51% strongly agreed, while 39% agreed that customer-oriented privacy policy of the banks leads to the adoption and continued use of internet banking. However, 10% of respondents believed differently. The survey results clearly indicate that customer-oriented privacy policy of the banks leads to the adoption and continued use of internet banking because a huge percentage of respondents believed so. According to Technology Acceptance Model (TAM), perceived usefulness (PU) is a key belief which is important for customers’ adoption of information systems. Since ‘usefulness’ term is derived from the word ‘useful’ which means the advantage of using particular information system, so internet banking will only be ‘useful’ for customers if banks ensure that customers’ personal financial information will be kept
confidential. Moreover tracking of customers’ financial profile and delivering to third parties without customers’ consent should be strictly prohibited (Poon, 2008). Lastly, banks can importantly ease customers’ privacy concerns and develop a more trusting atmosphere for electronic transactions by displaying the web site’s privacy practices. In this regard, devising a customer-oriented privacy policy by a bank will be beneficial for both customers and banks as it will lead to valuable relationship exchanges (Yousafzai et al., 2005).
6. Conclusion

The research was carried out in order to know about the most important factors in the adoption of internet banking. After reviewing different articles concerning internet banking adoption, we gathered data which shows that different articles and authors consider that there are number of factors critical in the adoption of internet banking. However, among different articles, some of the factors were cited repeatedly by different authors considering them as the most important factors regarding internet banking adoption. These factors are web usability, security, information quality, trust, service quality, convenience and privacy. On the basis of these factors, questionnaire was designed and survey was conducted in Sweden to collect the primary data. In this regard, 402 responses were collected from people of three cities i.e. Västerås, Eskilstuna and Växjö with the help of online distribution of questionnaire. The survey results were investigated on the basis of two beliefs of Technology Acceptance Model (TAM) i.e. perceived ease of use (PEOU) and perceived usefulness (PU), since both beliefs are important in the adoption of information system. The survey results demonstrated that internet banking website should be easy to use and appealing, as it helps in the adoption of internet banking, which is also supported by Loonam and O’Loughlin (2008) and Poon (2008), whereas poor navigation and poor design of a website creates difficulty in the usage of a site, which is against perceived ease of use (PEOU) belief, and is mostly avoided by customers. Miranda et al. (2006) also believe that due to poor web design, users are unable to find what they require, so they avoid visiting such sites that also lead to loss of possible sales. The second most important factor is security, according to the survey results, it is also very important in the adoption of internet banking. Since internet banking site will only be ‘useful’ for customers if it is secure which results into the adoption. Shah and Siddiqui (2006) and Loonam and O’Loughlin (2008) also believe that the safeguard of customers’ personal data and secure transactions could lead to the adoption of internet banking. On the contrary it will be harmful, if threats are associated with it, which is against perceived usefulness (PU) belief. This is also endorsed by Hertzum et al. (2004) that concerning security, internet banking is an area of high risk and could lead to economic loss. The third most important factor is information quality, according to survey results clear, simple and understandable information helps customers to perform internet banking easily. Since with the help of clear, simple and understandable information, customers can perform transactions easily, so it reflects ‘ease of use’. Moreover customers can also make right financial decisions on the basis of such information, which is the ‘usefulness’ of a site. The findings regarding information quality are also supported by Poon (2008) that such information reflects ease of use and also helps in the adoption of internet banking. The fourth most important factor is trust, according to the survey results, most of the people believe that trust on the banks plays a vital role in the adoption of internet banking. Since people will only adopt internet banking and benefit from it, if they trust banks; in other words if banks wish to make customers feel that internet banking is ‘useful’, then they should first develop customers’ trust, which is also endorsed by Centeno (2004) that trust in the banking institutions is a fundamental requirement for the adoption of financial services. An interesting finding worth mentioning is that 46% respondents believe that their trust in internet banking services is not as strong as compared to trust in offline service provided by the bank, that might be because of risks associated with internet. Whereas, a greater percentage (54%) believes that their trust in internet banking is also strong, this is because of Sweden’s established and trusted internet banking system. The fifth most important factor is service quality, according to the survey results; nearly 80% people believe that unique, integrated and customized services
are important in the adoption of internet banking. Because of integrated services, customers can track their financial information at one place, so they reflect ‘usefulness’. Moreover integrated services also reflect ‘ease of use’, as customers don’t have to make an effort to navigate from site to site for using internet banking services. The survey findings regarding service quality are also supported by Shah and Siddiqui (2006), as they believe that one of the biggest advantages of internet banking is the real-time integration of distributed resources because in this way, consumers do not have to navigate from site to site to keep track of their financial information. The sixth most important factor is convenience, according to the survey results, it is very important in the adoption of internet banking. Since internet banking can be used at any time from any location without any effort, so convenience in terms of time and place reflects ‘ease of use’ and plays a vital role in the adoption of internet banking. Poon (2008) believes that convenience is one of the critical factors that affect the adoption of internet banking. The seventh and last factor is privacy, according to the survey results, most of the people believe that customer oriented privacy policy is important in the adoption of internet banking. Since internet banking will only be ‘useful’ for customers, if customers’ privacy concerns are taken into account by banks. Regarding privacy, Yousafzai et al. (2005) believe that customer oriented privacy policy by a bank will be beneficial for both customers and banks as it will lead to valuable relationship exchanges.

The two key beliefs of Technology Acceptance Model (TAM) i.e. perceived ease of use (PEOU) and perceived usefulness (PU) are important in the adoption of information system. Hence, in the customers’ adoption of internet banking, most important factors which are extracted from the literature and analyzed with the help of survey should reflect ‘ease of use and ‘usefulness’. In this regard, banks need to take effective measures by taking into consideration customers’ concerns regarding these factors.
7. Recommendations for Further Research

In this study, the most important factors concerning internet banking adoption were analyzed with the help of survey and TAM model. However, during the research study, we found that there are lots of other factors which are also critical in the adoption of internet banking, such as ‘Bank reputation’, ‘Bank Guarantee’ and ‘the retention and expansion of relationships with relative older and lower IT awareness customers’ etc. So, in order to get deep understanding about internet banking adoption, those factors should also be investigated. Secondly, this research was conducted on the adoption of internet banking by Swedish customers. This study can be extended to corporate customers as well. In this regard, the usage behavior of companies regarding internet banking can also be measured i.e. factors influencing their adoption decisions can be analyzed through interviews, surveys and some established e-business models. Lastly, this research was carried out by taking into account experiences of internet banking users. Further research can be conducted on non internet-banking users; and the factors which could appeal them or motivate them to adopt internet banking can be analyzed, since the study will be helpful for banks to create new customers if they are aware of the adoption intentions of non internet banking users.
References


Books


Web Site

Appendix

Customer’s Perspective Concerning Internet Banking Adoption (Questionnaire)

Thank you very much for your time and patience in completing this questionnaire. This questionnaire is part of our Master’s thesis “Factors determining customers’ adoption of Internet Banking”. We request for 05-10 minutes of your time to fill out this questionnaire. The feedback of the questionnaire will help us in analyzing the factors which are most important for the adoption of internet banking. Please mark the right option.

Part I - General Information of the Respondent

1. Gender
   □ Male  □ Female

2. Age group
   □ 18-24
   □ 25-34
   □ 35-44
   □ 45-54
   □ 55-64

3. Do you use Internet banking services?
   □ Yes  □ No

   If yes;

4. How frequently do you use Internet banking?
   □ Once a week  □ Once a month  □ Once in six months  □ Once in a year

Part II - Factors

Web usability

5. Navigation (ease of use) and aesthetics (website design) are important in the adoption of internet banking?
   □ Strongly Agree  □ Agree  □ Disagree  □ Strongly Disagree
6. I avoid visiting internet banking sites which have poor navigation such as slow downloading of pages and poor design?

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

Security

7. Security plays a vital role in internet banking adoption and continued use?

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

8. Security is a threat which can prevent data transactions or allow unauthorized access to the accounts through network attacks or hacking etc?

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

Information Quality

9. Clear, simple, precise and understandable information helps me to perform internet banking transactions easily?

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

10. Lengthy information creates difficulty for me and is mostly avoided and not viewed by me?

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

Trust

11. Trust on the bank plays an important role in the adoption of internet banking services?

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

12. My trust in internet-banking services is not as strong as compared to trust in offline services provided by the bank?

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

Service Quality

13. Unique, integrated and customized financial services are important in the adoption of internet banking?

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree
Convenience

14. Convenience and flexibility in terms of location and time play a vital role in the adoption of internet banking?

☐ Strongly Agree  ☐ Agree  ☐ Disagree  ☐ Strongly Disagree

Privacy

15. Customer-oriented privacy policy of the banks leads to the adoption and continued use of internet banking?

☐ Strongly Agree  ☐ Agree  ☐ Disagree  ☐ Strongly Disagree