

Antecedents and Consequences of Adoption of Internet Banking: A Study in the Banking Industry

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ABSTRACT

This thesis proposes conceptual model based on theory of internet banking among four Turkish banks in Istanbul, Turkey. According to the study model, security and privacy, perceived usefulness and easiness in internet banking, awareness, level of personal interaction and customer satisfaction of banks services prior to the bank's adoption of internet banking are antecedents which positively effect on acceptance of employees and customers from internet banking usage. Due to the increase in these relationships the bank profitability would increase in the banking industry as it can serve more customers at any time with more clear understanding and individualized services. Internet banking is the new phenomenon attracted and employed with wide range of banks in the market. Banks as the heart of the societies play major role in serving their customers and employees effectively and efficiently.

This thesis used two questionnaires for assessing the perception of both employee and customers. 100 employee questionnaires and 100 customer questionnaires used for analyzing the collected data. In this research, Pearson correlation, regression liner, one-way ANOVA, path analysis and independent sample T-test used to test the hypotheses. Thus, all of seven hypotheses were accepted.

Therefore, easiness and usefulness of internet banking, awareness, level of personal interaction, security and privacy of internet banking increase the adoption rate of internet banking. As well as satisfied customers with prior banks services are more willing to use the online web pages of the banks. All of these variables lead to serving more customers at particular time and bringing more profit to the banks.

Managerial implication and future direction presented at the concluding part of the study.

Keywords: Internet Banking, Customer Satisfaction, Awareness, Security and Privacy, level of Personal Interaction, Profitability, Turkey.

ÖZ

Bu çalışma, İstanbul – Türkiye’deki dört bankayı temel alarak, internet bankacılığıyla ilgili kavramsal bir model önermektedir. Bu çalışma modeline göre, güvenlik ve gizlilik, internet bankacılığının kullanılabilirliği ve kolaylığı, bilinçlilik, kişisel etkileşim seviyesi ve internet bankacılığına geçilmeden bankanın müşteri memnuniyeti, internet bankacılığının müşterilerinin ve personelinin kabulunu olumlu etkileyen faktörler olarak görülmektedir. Bu ilişkilerdeki artış nedeniyle, birçok müşteriye herhangi bir zamanda hizmet sağlanabildiği ve daha anlaşılır ve kişiselleştirilmiş hizmet verebildiği için, bankanın kazançlılığı da artmaktadır. İnternet bankacılığı, piyasada bulunan birçok banka tarafından ilgi gören ve uygulanan yeni bir olgudur. Toplumun kalbi olan bankalar, müşterilerine ve çalışanlarına etkili ve yeterli hizmet sağlamakta büyük rol oynamaktadırlar.

Bu tezde, müşteri ve personel algısını değerlendirebilmek için iki anket kullanılmıştır. Toplanan veriyi analiz etmek için 100 personel anketi, 100 de müşteri anketi kullanılmıştır. Bu çalışmada hipotezleri test edebilmek için Pearson korelasyonu, regresyon doğrusu, tek yönlü ANOVA, yolak çözümlemesi ve bağımsız tek grup t-testi kullanılmıştır. Buna bağlı olarak, yedi hipotez de doğrulanmıştır.

İnternet bankacılığının kolaylığı ve kullanılabilirliği, bilinçli olma, kişisel etkileşim seviyesi, güvenlik ve gizlilik, internet bankacılığının uygulanmasında bir artışa neden olmaktadır. Bankanın önceki hizmetlerinden memnuniyet hisseden müşterilerin, aynı bankaların internet sayfaslarını kullanmak için de daha istekli oldukları görülmüştür.

Tüm bu deęişkenler, bankanın herhangi bir zamanda daha fazla müşteriye hizmet vermeleri ve bankanın daha fazla kazanç elde etmesi ile sonuçlanmaktadır. Yönetimle ilgili sonuçlar ve gelecekte izlenecek yön ile ilgili bilgiler sonuç kısmında verilmiştir.

Anahtar Kelimeler: İnternet Bankacılığı, Müşteri Memnuniyeti, Bilinçlilik, Güvenlik ve Gizlilik, Kişisel Etkileşimin Seviyesi, Kazançlılık, Türkiye.

DEDICATION

I dedicate my dissertation work to my family and many friends. A special feeling of gratitude to my loving parents, Shahla Madanipour and Bahram Nourani whose words of encouragement and pushes for tenacity ring in my ears. My sisters Saghar and her husband Dr. Masoud Torabi have never left my side and are very special.

I dedicate this work and give special thanks to the best persons, for being there for me throughout the entire master program. Both of you have been my best cheerleaders.

To My Family

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I wish to express my love and gratitude to my beloved families especially my parent Shahla Madanipour and Bahram Nourani; for their understanding and endless love, through the duration of my master thesis. Special thanks also to all my graduate friends, especially Homa Choubtarash for sharing their literature and invaluable assistance. Not forgetting to my best friends who always been there.

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Chapter 1

INTRODUCTION

This chapter briefly presented information about the philosophy, purpose and other relevant information of this thesis.

1.1 Philosophy of the Study

The banking sector and credits systems has changed and undergone through a process of reorientation at structural and policy levels. Globalization, organizational changes, reformation of services, new practices and policies are the most important parts of banking sector changes.

The intermediary function of banks and banking industry is important to a country's economic development. Services in banks have changed and evolved from actions of accepting type of deposits, like saving accounts and lending loans to a huge array of advanced loan types and deposit accounts (Aiyar, Calomiris, Hooley, Korniyenko, & Wieladek, 2014). In order to increase their market shares and profit, banks need to improve their service quality. As banks expand on the matters of financial operations, they also moved from traditional commercial services to several other more advance services like insurances, investment management and fund services (Aiyar et al., 2014). Along these developments, technological advancements such as computers, World Wide Web and Internet have been used to facilitate bank's service management.

Opportunities that results in amount wealth and profits Internet provides for financial institutions is becoming a strong strategy which is necessary for managing their processes. Banks are using the Internet as one of their main channels for providing their services to their customers and resulted in growth of their client based satisfaction as many preferred the Internet banking (Mols, 2001). In Turkish banks, Internet banking continues to grow due to easiness use of internet, reduced costs and availability.

1.2 Purpose of the Study

The problematic and goal that is going to be researched and investigated in this thesis is the role of Internet banking as the channel of banking services for benefits of bank. Bank as a financial institution attract their customers' usage in Turkish banking industry. The important aim of every financial manager is maximizing the company's profit.

This thesis aims to discover the growth in online banking and the Internet technology methods which banks can use for offering better, easiness, trusting and successful services to their customers and in return increasing their profits. Achieving the goal of maximizing the profits can be reached by implementing new technologies to attract more customers and clients besides sustaining the previous services and inflow of revenue and profits (Spencer & Klocinski, 2010). The important requirement for increasing the electronic banking is accessing the global currency and credit system along with electronic businesses (Aiyar et al., 2014). Needless presence of clients in the bank and better securing the services makes achieving the E-banking goals fast and easy.

E-banking is the main part of information technology as it enables the customers and clients and other credit institutions to use the banking services within the three levels of transaction, announcement and communication (Ngandu, 2008). E-banking nowadays can be accessed via automated teller machines or ATM, phone bank, fax bank, internet bank, pin pad, and other E-banking branches. In developed and major banks the several sophisticated channels and banking systems are able to gather information and data which improve management and decrease the costs and finally lead to increasing in customer satisfaction and profits which is the main goal of this study by using various theories and data to determine the this status for 4 Turkish banks which are HSBC, ISBANK, AKBANK and Garanti Bank.

1.3 Significance of the Study

In previous studies, Internet banking was the most focused areas of recent empirical researches. The interface of integrated web sites without mentioning the external factors such as customer's side of interaction or bank's strategies outcomes were the main focus in evaluation of Brazil's bank (Diniz, Porto & Adachi, 2005). In other research done by Hazel Kwon and Soo Chon (2009) for evaluating Internet banking in Netherland banks, areas such as customer commitment has been covered plus the web sites interaction was examined. Regarding the new technologies that are being implemented in Internet banking or on the more deeply look into the nature of World Wide Web (WWW) technologies (Hazel Kwon & Soo Chon, 2009); these aspects will be covered thoroughly in this study.

In Papandreou's research in development of Internet banking and evaluation, the study covered mostly the bank's relationship with their customers and perception of customers for interaction with bank's web site. The empirical researches mostly

lacked a model and hypothesis overall. In this thesis, the focused area will be the definition of technology implementation in banking sector and develop a model based on both bank's implementation of Internet banking, strategy and customer's response to those strategies. This study will contribute to future decision for banks and the performance of Internet banking and insights in other studies.

1.4 Methodology of the Study

The research methodology of this study will include the theoretical and empirical analysis, literature review, and questionnaires. Collection of data will be from primary data (questionnaires) and secondary data (publications).

For better understating the problem, data was collected from several ranges of various publications, explaining the research goals. These secondary data are consisting of statistics, online sources, databases, financial information, commercial and research data and international sources and publications. Data will evaluate through several statistical techniques such as SPSS 22.0 for assessing the data, T-test for validity of data, Pearson Correlation for testing the relationship and R Square for reliability of the model and founding.

This thesis used two questionnaires for investigating the perception of both employee and customers. Questionnaires (Q1 and Q2) developed based on different studies through Likert Scale (1- Strongly Disagree to 5- Strongly Agree). Q1 designed for assessing the employee perception with six items for security and privacy from Gluck and Pew (2005) and Shergill and Li (2005); eleven items for perceived usefulness and easiness from Erikson (2005) and Al-Smadi (2012); eight items for awareness from Wan et al. (2005) and five items for level of personal interaction

from Shergill and Li (2005). Thirty Items related to Customer Satisfaction extracted from Jamal and Naser (2002) included in Q2 for assessing the customers emotional perspective.

Questionnaire is set by predetermined questions which are administered by mail, self-administered or collected by interviewers (Berdie, 1986). Items regarding respondents' profile (e.g., age, gender, education) also appear in both of the questionnaires (Q1 and Q2) as control variables. As a part of the research, questionnaires (Appendix A) send to a number of banks operating in Turkey with another set of questionnaire (Appendix B) for their customer satisfaction of internet banking services.

1.5 Thesis Outline

This thesis is divided into six chapters

Chapter one is the introduction which explains a short description of the subject and main theme of study along with goals and methods and how they are presented.

Chapter two is the literature review, presenting the definition of internet and historical description of it. Pros and cons along are giving for highlighting the importance of the Internet. Moreover, the current status of Internet in banks is mentioned and presented. In literature review chapter, the study of recent publications and researches show what is already done and how this study is related. Also identification of several general discoveries and patterns will be mentioned and will serve as main structure of information for discussing this topic.

Chapter three consist of hypothesis development which research the role of Internet banking closely as a tool for providing the banking services along framework for banks and suggestions for developing the internet banking

Chapter four is a detailed description of methodology and questionnaire gather from secondary and primary data and sources and describing the methods for collecting the data.

Chapter five will include the detailed analysis of data and testing hypothesis based on data gathered from Turkish banks and findings.

Chapter Six will conclude the study with explaining the findings and summary of results, objectives, limitations and remarks of the research.

Chapter 2

LITERATURE REVIEW

2.1 Definition of Internet

With the rapid pace of technology and information developing, the power of information technology plays an important role in human life. Domination of technology created and established new methods of communication in recent years. These developments are presented through use of Internet and computers, creating new opportunities.

The physical network of computers which are linking together across the globe is defined as the Internet (Smith & Chaffey, 2005). The Internet is consisting of an infrastructure of several servers which are embedded in links of communications between these routes and used to transfer data and information between servers and clients (Lieb & Bentz, 2005).

2.2 History of the Internet

Internet is referred to a large network of interconnected servers and computers which link people and clients to each other or computers via using the satellites, phone lines or other telecommunication networks and systems that help the information exchange (Ellsworth & Ellsworth, 1995).

Internet by the history was a military project which started as an experiment in beginning of 1970s by US Department of Defense by the name of ARPA net. This

network was created in Advance Research Projects labs to improve the ongoing communications between scientists. The internet usage has been increased gradually during the 90s era and with the World Wide Web (WWW) both has been useful in various applications such as commerce, education or entertainment.

There are several weaknesses and strengths to the Internet as this is crucial phenomenon which affects the human society (Jones, Johnson-Yale, Millermaier, & Perez, 2009). Significant points are:

Strengths:

- Impact on the international scale is great and Internet allows exchange and communication of data 24 hours per day and whole week among all of the people with a universal language.
- Using e-mails are cheap.
- Connection and communication between all computers with different infrastructure.
- Investing in Internet technology leads to strengthen the country's economy.
- Demand for services paves way for more funds to be spent and thus market grows (Jones et al., 2009).

Weaknesses:

- Difficulty of use with older or less educated individuals.
- Slow connections still present in most of areas, leading to frustration of users.
- Weak infrastructure in many regions which ends up in network failure and major economic losses.
- Danger of losing vital information to data pirates.

- Undesirable and illegal material existence through the Internet that causes social concerns (Jones et al., 2009).

2.3 Internet Banking Role in Bank Services and Bank's Profitability

Financial institutions such as banks facilitate the economic growth by performing distribution and intermediation functions. Role of banks as a distribution banking services in both domestic and international levels has changed (Jones et al., 2009). Technology used to fulfill many banking services such as transactions at a low cost and in short time for customers to offer an advantage and decreasing of expenditure (Karjaluo, Mattila, & Pento, 2002). This leads to increase of productivity, strengthen the relations with the customers and growth of business Eriksson, Kerem, Nilsson (2005). Karjaluo et al. (2002) explained the different forms of electronic banking as a construct of several distribution channels and a different delivery platform which works in forms of PC banking, internet banking, TV-based banking, and telephone banking. However many different channels will be used simultaneously by users (Hadden & Whalley, 2002).

Hadden and Whalley (2002) indicate that the main challenge for banks is how to connect with customers. Providing financial services to customers through the correct channels, in the right time is another challenge following the previous one. The challenges in Internet banking are closely related to interaction between the customers and bank in using the offered services. Hadden and Whalley (2002) explain that it is important that the banking business interaction is suited to customer's lifestyle and situation. Therefore it is crucial to give customers freedom of choice to choose the most suited and appropriate channel for themselves. Hiltunen, Laukka, & Luomala (2002) indicated that customers' channel

characteristics may vary between regions because of different customer habits, political reasons and cultural differences (Hiltunen et al., 2002). According to Hiltunen et al. (2002) there are different channels for IB which shown in figure 2.1:

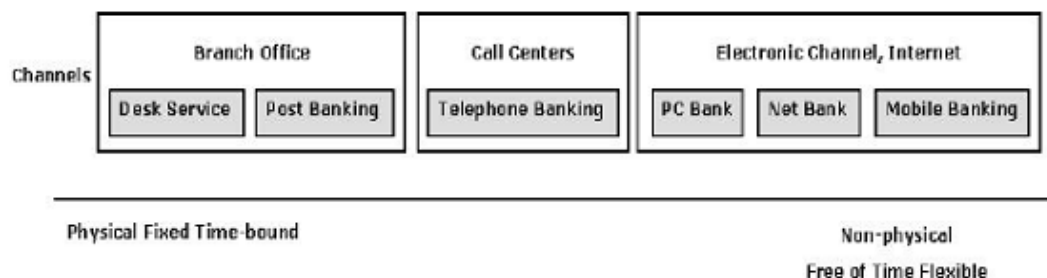


Figure 2.1: Different Banking Channels
Source: Hiltunen et al. (2002)

Figure (2.1) shows the banking channels, where left channels are limited by place and time and channels on the right are free from those limitations (Hiltunen, et al., 2002). The physical interaction between customer and the bank take place in branch offices, which are constraints by location and time. On the other hand Internet banking is the most flexible banking channel that is free from limitations such as place and time (Hiltunen et al., 2002).

2.4 Benefits of Internet Banking on Bank's Profitability and Revenue

According to Gurau (2002), the main factor of IB's benefit is the significant saving time in banking procedures and transactions. The main advantages in increasing bank's revenue are as follows:

- Reduced costs in using and accessing the banking services
- Timesaving and comfort in using the IB without requiring physical present and interactions of customers.
- Fast and quick access to information of bank accounts.

- Better money management and increased efficiency of financial processes as they can manage large amount of cash.

The characteristics of banking services are defined by independence of time and place, individuality, mobility, and flexibility. Because of large competition in banking market, all banks and financial institution researching new methods of service providing to maintain or increase their shares in the market. The most plausible and attractive method is doing it through internet as in offers complicated services and products with cheaper prices and quicker transactions from anywhere in the globe at any time (Shergill & Li, 2005). According to Eurostat web site, most financial institutions use the Internet for their financial and banking services. 72% of corporations across the EU27 use the E-financing to manage their financial transactions and services.



Figure 2.2: Internet Usage by European corporations
Source: epp.eurostat.ec.europa.eu, 2011

In many studies such as Sumra, Mohammad, Momina and Syed (2011), with the increase rate of internet banking adoption of the banks profits on presented services earned through internet banking and their cost has been lower than maintaining

presentation of clients and face to face meetings with customers. In long term the profits was much higher that many manager decided to expand these services.

2.5 Internet Banking Services

Most services and products are in a form of physical interaction or interfaces, financial services and products have a different nature. Financial services are based on non-physical factors that are suited to IB (Internet Banking): information and transaction. Executing online transactions don't involve individuals and bears no additional cost so investors receive significant savings. IB doesn't need special equipment or software to set up and used by customers (McGowan, Durkin, Allen, Dougan, & Nixon, 2001).

Internet use in banks and financial institutions started from four main type of interactions (McGowan et al., 2001), First the presentation of information, services, products and even location by banks and financial institutions by internet. There are also many information brochures exist to guide customers about banks in their web sites. Second, information presentation in a two way communication which customers can request further data and information from bank's websites. The third one is the main interaction of customers and users.

Information is stored within financial institution's servers and exchange of information will take place between users and databases. Requesting loans and viewing the information on interest rates and deposits are types of services which users can take advantage. These processes of data exchange offer high value to the bank's customers. Fourth type is the transaction banking which includes different

financial transactions such as deposit accounts opening and closing, paying different bills, money transfers and security transaction (Britt, 2005).

2.6 Technology Acceptance Model

Technology Acceptance Model (TAM) was first introduced by Davis, Bagozzi, Warshaw (1989). This model is actually an adoption of Theory of Reasoned Action (TRA) which used for modeling the acceptance of information systems by users and customers. The main goal is to provide an answer to accepting the technology of computers and information in general situations. This theory is capable of identify and explaining the users' behavior in interacting with computer technology in wide range of science fields (Davis et al., 1989). This model is also suitable for explanation and prediction so researchers can identify the acceptable and unacceptable systems. The main purpose of Technology Acceptance Model (TAM) is to provide the external factors' impact on users' internal beliefs, intentions and attitudes. This model used in achieving certain goals by identifying a number of variables to determine the impact of computer acceptance. The two primary beliefs and relevance in TAM are Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) and Level of Personal Interaction (LOPI). In this study the extended model of TAM used along security and awareness of banks' customers.

2.7 Internet Banking's Adoption by Customers

The main definition of IB is the process of performing banking transaction and service usage through internet instead of going to local or main branch (Furst, Lang & Nolle, 2002). According to figure 2.2 of US households banking, the growth of IB have accelerated since 2000 as 45 million household used the Internet Banking rather than traditional banking procedures by the end of 2007 (Furst et al., 2002).

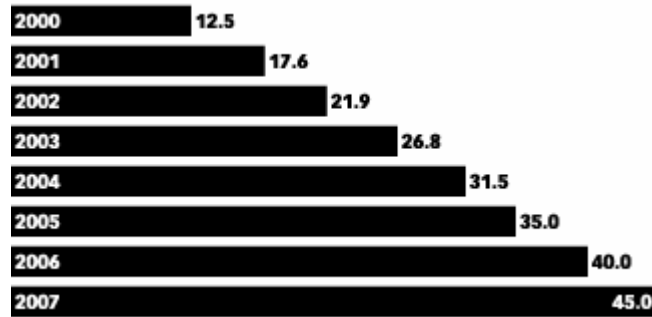


Figure 2.3: US Household Online Banking 2000-2007
Source: www.eMarketer.com

The Forrester research created a survey which defined the various advantages of Internet Banking from 23 European banks which has been shown in figure 2.3.

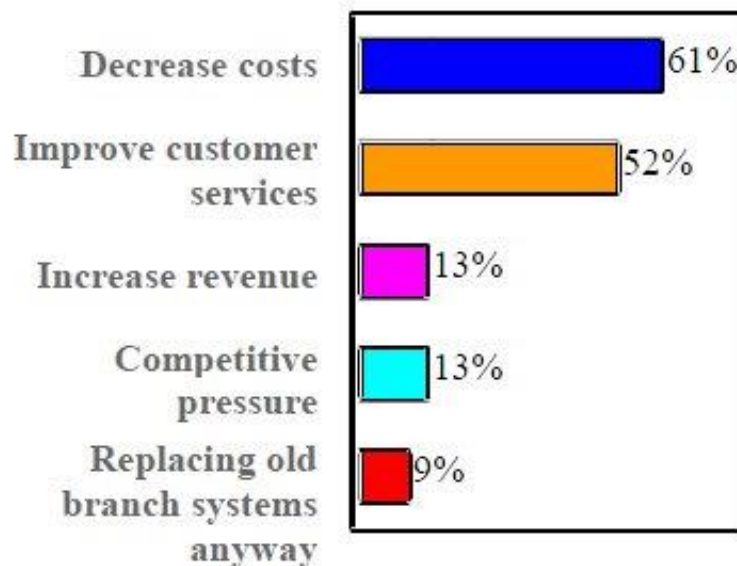


Figure 2.4: Internet Banking Advantages
Source: Xpressways, 2006

Adoption, perception of internet banking by consumers is one of the main topics that examined in e-banking literature. Centeno (2004) explained that speed and pace of internet, the remote access, 7/24 availability and cost effectiveness are the main motivation factors for bank's customers to use internet banking. Durkin et al. (2008) argues that the simplicity of the services banks offered via internet banking is a major factor in the adoption of IB by customers and clients.

Calisir and Gumussoy (2008) compared the consumer perception of internet banking and other banking channels and report that internet banking can substitute all other forms of online banking such as phone banking and ATM. Martinez Guerrero, Ortega Egea, and Román González, (2007) examined the perceptions of internet banking from customers in Finland and their findings showed that level of internet banking adoption has a moderating role in the perception.

Martinez Guerrero et al. (2007) researched the internet banking usage by Europeans and their results showed that ownership of different financial services and products, attitude towards financial services and trust in the internet as a banking services influence customers usage of IB. Sadiq Sohail, and Shanmugham (2003) researched the internet accessibility, awareness of IB are found to be influencing on Malaysian IB usage. security is one of the major factors affecting customer adoption of IB, as well as customer satisfaction of IB services (Polatoglu & Ekin, 2001). Howcroft et al., (2002) indicate the principal characteristics that inhibit online banking adoption are security and privacy.

2.8 Customer Satisfaction and Internet Banking Adoption

The concept of customer satisfaction has been researched since the 1980 (Bailey & Pearson, 1983) and the end customer satisfaction of technology has been studied since the beginning of 1980 (Chin, Diehl, & Norman, 1988). Bailey and Pearson (1983) indicate that several important factors are affecting the customer satisfaction and can be considered as a multi-dimensional attitude. The customer satisfaction can be defined as sum of user's total attitude and feeling toward several factors that affect the customer's situation (Bailey & Pearson, 1983).

Since the last decade, there has been growing interest in customer's experience (Lindgaard & Dudek, 2003; Wilson & Sasse, 2004). It can be seen as much bigger concept. Customer's experience has become a crucial factor in e-business and internet banking as the customer often pays for the majority of new services and products, which indicates that new products characteristics such as perceived usability, usefulness, awareness and security must be matched or exceeded with customer expectations (Wilson & Sasse, 2004). From this perspective, assessing the customer satisfaction and experience is important for internet banking services (Wilson & Sasse, 2004).

Lindgaard and Dudek (2003) argued that customer experience consists of "satisfaction". They explained the customer satisfaction as a subjective total sum of the experience of interaction with services. Tractinsky, Katz, and Ikar (2000) showed that perceived usability and easiness were strongly correlated with each other. They explained that "appeal" or "beauty" is linked to the perceived usefulness, and consequently what is seen as beautiful is also perceived as usable.

Lindgaard and Dudek (2003) argued that expectations, easiness and usability all influence the experience and customer satisfaction, but their significance depends on the current state of services. Also they argue that perceived usefulness is an important factor in interactive web sites. Lindgaard and Dudek (2003) add that HCI researchers should formulate a clear user experience notion, where the relationship between satisfactions, appeal of technology, perceived easiness and usefulness and actual usability would be determined.

Many studies have focused on developing methods to measure customer satisfaction (Rivard & Huff, 1988; Chin et al., 1988), customer satisfaction (Chin & Lee, 2000) and perceived usefulness and easiness (Lin, Choong, & Salvendy, 1997).

Chapter 3

HYPOTHESIS DEVELOPMENT

3.1 Model of the Study

The model of this study (Figure 3.1) is proposed by having a structure of combined variables and factor. This model developed due to the current gaps in internet banking literature. This model states that the characteristics of adoption of the internet banking based on employees' and customers' perception.

This model shows the mediating role of adoption of internet banking in the relationship between Easiness and Usefulness of Internet Service Characteristics, Awareness, Security and Relationship to Internet banking Growth and Acceptance, customer satisfaction and bank profitability (Bruno-Britz, 2006). That is, easiness of using internet banking, its usefulness, security and acceptance of aware employees from internet banking increase the customer willingness to adopt this recent technology. Customers' satisfaction from banks services and usefulness of its services also lead to adoption of internet banking. Increase in adopting the internet systems of the bank lead to serving multiple customers in particular period of time so bank can serve more customer and report increase in their profitability in the market (Bruno-Britz, 2006).

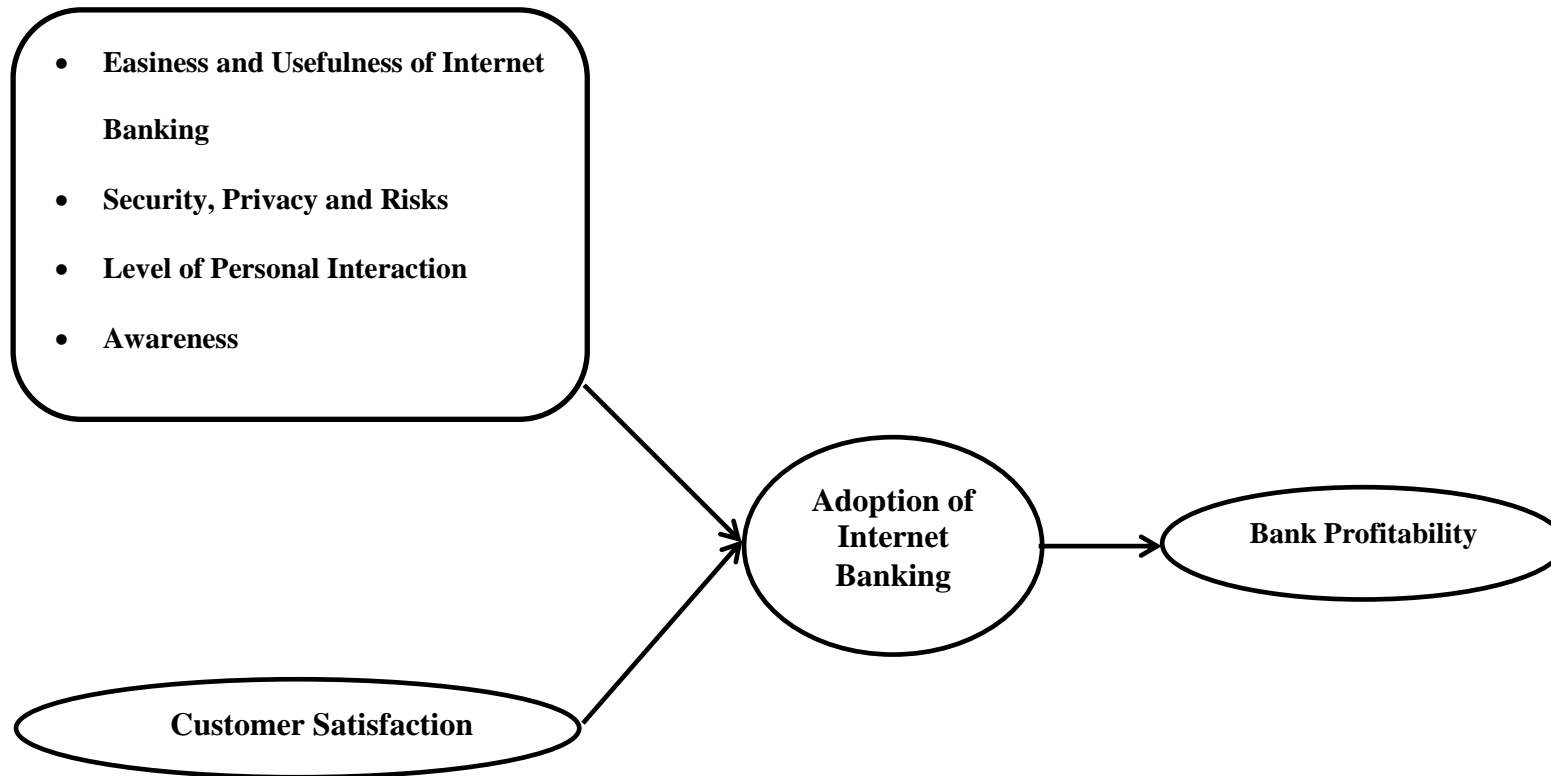


Figure 3.1: Hypothesis Model of the Study

3.2 Antecedents of Adoption of Internet Banking

3.2.1 Easiness and Usefulness of Internet Service Characteristics, Awareness, Security and Relationship to Internet Banking Growth and Acceptance

The easiness of internet use is explained as the belief of using a system will be effort free (Doll et al., 1998). Easiness and its perception can be applied to situation at hand which the will be no more uncertainty (Eriksoon & Sharma, 2003). The main types of perceived easiness and usefulness are unintended and intended reward categories (Lee, 2008). In his research, Lee (2008) defined intended type of rewards as tangible and immediate rewards which clients enjoy using the online internet banking services such as deposit with high rates, lower transaction fees and other opportunities. The unintended type of rewards are the benefits which is hard to measure such as allowing customers to perform online banking procedures anywhere on the planet.

The model which is used by various researches is the Technology Acceptance Model (TAM) which used to test how the technology being used and accepted by clients and customers throughout the years. TAM was originally created in 1989 by Davis et al. (1989) and used to explain how or why a customer decline or accept the technology based on easiness of use and usefulness of that technology (Aldas-Manzano et al., 2009).

In Al-Smadi (2012) study, the TAM model was used and perceived that with correct strategies for easiness and usefulness of internet banking services banks can have a significant impact on client's attitude towards the internet banking services. In Eriksson, Kerem and Nilsson (2005) study, they reached the conclusion that

perceived ease of use in E-banking cannot directly influence the increasing adoption of internet but it will lead to great acceptance of usefulness of internet banking by clients.

In Kerem (2008) study of internet acceptance has reached that not only easiness and usefulness of internet banking is sufficient for adopting but the infrastructure needs to be supportive of this fact. In Gluck and Pew (2005) online client's internet banking service adoption and behavior along with trust, security and privacy of such services were discussed and the significant of those variables has been confirmed.

The studies of Shergill and Li (2005), Ilett (2005), Wan et al., (2005) have researched the awareness and knowledge of internet banking services among clients and levels of internet use plus privacy, security and trust among the customers of banks and reached that these variables are significant to support the internet banking adoption. With these studies as the base of this thesis the following hypothesis are presented:

H1a: Easiness and Usefulness of Internet Service Characteristics has positive effects on Internet banking Growth and Acceptance.

H1b: Security, Privacy and Risks of Internet Service Characteristics Have Positive Effects on Internet Banking Growth and Acceptance.

H1c: High Level of Personal Interaction of Internet Service Characteristics Has Positive Effects on Internet Banking Growth and Acceptance.

H1d: Awareness of Internet Service Characteristics Has Positive Effects on Internet Banking Growth and Acceptance.

3.2.2 Customer Satisfaction

For understanding the importance of customer satisfaction and links to internet banking adoption by clients different studies were reviewed such as Nimako et al., (2013) study of customer satisfaction and service quality of internet banking understand the importance of customer satisfaction influence on accepting and growing the will of using internet banking among the clients of the banks.

Musiime and Ramadhan (2011) focused on measuring the customer satisfaction and by the end of study the significant of influence has been identified. Musiime and Ramadhan (2011) have gone through model framework of Raman et al. (2008) and Qureshi et al. (2008) models to determine the customer satisfaction factor influence on accepting and adopting the internet banking by clients and reach the conclusion which customer satisfaction plays a major role in the growth of internet banking acceptance. The following hypothesis is presented based on previous studies:

H2: Customer Satisfaction has Positive Effects on Internet banking Growth and Acceptance.

3.3 Internet Banking and Bank Profitability

The study of Sumra et al., (2011), managed to research the role of growing internet banking in increasing the profit of the banks. In that study the over growing use of internet by clients were investigated and reached the conclusion that with the increase rate of internet banking adoption the banks earned profits on presented services through internet banking and their cost has been lower than maintaining presentation of clients and face to face meetings with customers. In long term the profits was much higher that many manager decided to expand these services.

In the study of Meihami et al., (2013), the significant role of internet banking acceptance has been cleared as quality of services increased the limitation such as time and place has been removed and with those advantages, the effective relationship between increasing banks profit and accepting internet banking services by customers and client has been confirmed (Bruno, 2002). The following hypothesis is presented:

H3: Internet banking increases the Bank profitability.

3.5 Mediator Role of Adoption of Internet Banking

According to investigation done by Chan and Lu (2004), both subjective norm and computer self-efficacy indirectly play crucial roles on perceived ease of use through the intention to adopt Internet Banking as the mediator.

With the following studies regarding the understanding of internet banking adoption and factors and variables influencing it and with the understanding the role of internet banking adoption in increasing the bank's profit, this study proposed the following hypothesis based on internet banking adoption as a mediator role and factor between the easiness and usefulness, security, privacy and risks, high level of personal interaction, and Awareness of Internet Service Characteristics and increasing the bank's profit (Karjaluoto et al., 2002). According to this information following hypothesis proposed as:

H4: Easiness and Usefulness, Security, Privacy and Risks, High level of personal interaction, and Awareness of Internet Service Characteristics improve bank profitability through mediating role of Internet Banking.

Following the result of previous studies, customer satisfaction has positive relationship with adoption of internet banking (Rotchanakitumnuai & Speece, (2003). Satisfied customers with the bank services will easily adopt the internet banking so they can work and interact more with the bank in compare to the past (Ramesh, 2014); this will increase bank profitability (Rauf & Qiang, 2014). The following hypothesis proposed which this one includes the new method which has been never used in any study in this form before:

H5: Customer Satisfaction increase bank Profitability via Mediating Role of Adoption of Internet banking.

Chapter 4

METHODOLOGY

This chapter describes methods, strategy, approaches, and collection of data and research methods along with validity and reliability of research used by this study.

4.1 Research Method

There are two different types of research methods: Qualitative and Quantitative research with a highlighted difference between them.

4.1.1 Qualitative Method

This method was developed primarily in social science field to enable researches to study the depth of problems by gathering systematic arrays of information regarding their case studies (Myers & Avison, 2002).

4.1.2 Quantitative Method

This method was used to study and investigate natural science in addition to developing those studies. In these research methods, experiments, surveys are used (Benbasat et al., 1987). In this study qualitative and quantitative methods were used to reach the objectives. The goal is to have an understanding of research problem and question deeply. In order to assess the data, questionnaires were given to customers and employees to fill in particular period of time. The research will analyze the component of Internet banking relevant to both customers and Internet banking adoption by banks (strategies, security) plus deductive approach to perform empirical analysis of the study. The conclusion will be made after the conducting empirical section and achieving results based on specific and general principles.

4.2 Deductive Approach

This study use the deductive approach and reasoning process to acknowledge whether the theory implied and matched the study approach (Hyde, 2000). In this approach constructs are very important. Based on the constructs deductions will extract and analyze based on the theory. After analyzing the deduction from the constructs, the support or lack of support for deduction will achieve.

Customer satisfaction, easiness and usefulness, security and privacy, awareness, level of personal interaction, adoption of internet banking, and bank profitability are the study constructs. Hypotheses are the study deductions according to the constructs. For developing hypothesis, the theoretical framework and empirical evidence of Internet banking and the success of implemented strategy will be linked to customer perceived usage, employee perception from customers' perspectives from adoption of internet banking and increase in bank profitability.

4.3 Sample of the Study

This study uses a sample of four Turkish banks' employees and customers from Turkey. Data was collected through questionnaires given to employees and customers in addition to other materials gathered from articles, news, statistical results of bank's performance, web sites and indirect observations among 100 employee and 100 customers of four Banks in Istanbul, Turkey. The process of data collection last for twenty days.

Questionnaires distributed through cross-sectional method which is evaluating the simultaneous effects of all study constructs at the particular period of the time on each other.

4.4 Data Collection

There are six source of information for gathering the qualitative data for required case study (Yin, 2003):

- Interviews
- Records
- Documents
- Direct observations
- Artifacts
- Participation observations

This study used various methods such as questionnaires, observations and using records of banks. A total number of 260 self-administrated questionnaires given to both bank employees and customers in cross-sectional method to achieve all required variables in a single timeframe, and at the end 200 questionnaires were collected (100 for Employee and 100 for Customers). Due to the request of banks' managers, name of their employee and their bank remain confidential. Anonymity of customers was also guaranteed.

4.5 Questionnaire Structure and Reliability of the Study

For this study, two different questionnaires were designed; Questionnaire in Appendix A is for banks employees who work in the bank and active day to day in banking operations. Questionnaire set A is derived from Lichtenstein and Williamson (2006) study on staff experiences with bank customers to measure the internet banking adoption and effects on bank's revenues. Questionnaire set B derived from Redlinghuis and Rensleigh (2010) study on customer acceptance of internet banking and effects on performance of the banks.

Second questionnaire in Appendix B designed for bank's customer who are involve themselves in internet services provided by bank itself. For validity and reliability of acquired data are done by trustworthy human resources who have responsible position and working in banks. Questionnaire and items are supported in literature review material and are translated through Back-Translation method into native language to ensure the evasion and avoidance of mistake and misunderstandings. In order to minimize the bias error in measurements and results, simple words and language are used in questionnaire and are based clearly on study's theories and problems. The reliability is ensured that will produce the same results if a different researcher investigates the same case study the generated data will be the same. The pilot studies of five questionnaires were also used and respondent didn't report any problems regarding the meaning of questions.

Chapter 5

DATA ANALYSIS

In this section, the data gathered by the questionnaire will be described using descriptive statistics and inferential statistics. Then it will divide into two parts. Descriptive statistics for demographic characteristics of the respondents in the first part of the research will be evaluated.

The goal of data analysis is to understand the impact of easiness and usefulness, security, privacy and risks, high level of personal interaction, and awareness of internet service characteristics and customer satisfaction on bank profitability via mediating role of internet banking. In this research, Pearson correlation, regression liner, one-way ANOVA, path analysis and independent sample T-test used to test the hypotheses in SPSS version 22 software. Analysis of variance (ANOVA) is a collection of statistical models used to analyze the differences between group means and their associated procedures.

5.1. Respondent Classification

5.1.1 Demography of Bank Customers

According to the table (5.2), of the total number of 100 respondents, 81% of respondents were male and 19 percent were female. 37% of respondent's ages were 25-34, and they had the highest frequency. The lowest rate was 5% of the respondent's ages were above 55. 46% of respondents stated that their degree of education was BA and they have the most frequency in all respondents. The lowest

frequency was 6 that belong of respondents which their degree was diploma.

Table (5.1) (Appendix B) shows the desired items in the fifth hypothesis of the study, the highest mean, is question of 19 (*Are they providing skilled IT professionals?*), and the lowest is the seventh question (*Feel unsecure using electronic banking*). Also this table shows that over 71% of respondents about the impact of customer satisfaction on internet banking were agree and strongly agree .17.6% of the respondents had no comment and over 10% were opposed and quite the opposite.

5.1.2 Employees of Banks

According to the next table (Table 5.1), of the total number of 100 respondents, 58% of respondents were male and 42 percent were female. 63% of respondents stated that their degree of education was master and they had the most frequency in all respondents. The lowest frequency was 16 that belong of respondents which their degree was BA. Employees had the most frequency among respondents, which was 42%. The rest of the respondents assign their certain percentage that you can see in the table above. 36 % of respondents stated that their years of experience were between 6-10 years. While 4% of the respondents had 20 years and more experience. 48 % of respondents announced that on average age of customers are coming to bank on daily basis is between 30 and 39 and they had the most frequency in all respondents. Only 4 percent of respondents said that the average is under20. 50 % of respondents announced that on average number of transactions performed by the customers per month is 11-40 transactions and they had the most frequency in all respondents. It should be noted, that anybody of respondents, did not mentioned to first option which was 0 transactions.

Table 5.1: Profile of Bank Staff

	Frequency	%
Work Position		
Senior Vice President	4	4
Assistant Vice President	4	4
Branch Manager	36	36
Operation Manager	4	4
IT Specialist	10	10
Clerk	42	42
Total	100	100
Gender		
Male	58	81
Female	42	42
Total	100	100
Education		
Bachelor	16	16
Master	61	61
PhD	23	23
Total	100	100
Work Experience		
Less than 5 years	24	24
6-10 years	36	36
11-15 years	26	26
16-19 years	10	10
20 years and more	4	4
Total	100	100

Table 5.2: Demographic Profile of Customers

	Frequency	%
Age		
18-24	25	25.0
25-34	37	37.0
35-44	24	24.0
48-57	9	9.0
55+	5	5.0
Total	100	100
Gender		
Male	81	81
Female	19	19
Education		
No Formal Education	11	11
Diploma	6	6
Bachelor	46	46
Master	37	37

5.2 Security and Privacy

Table (5.2) (Appendix B) shows the desired items in the second hypothesis of the study, the highest mean, is sixth question (*Is the bank provides basic view for the customers using electronic banking with low speed internet connection?*), and the lowest is the second question (*Is the customer concerned about the security policy?*). Also this table shows that over 88 % of respondents about the impact of security, privacy and risks of internet service characteristics on internet banking growth and acceptance were agree and strongly agree .7.01% of the respondents had no comment and over 4% were opposed and quite the opposite.

5.3 Perceived Usefulness and Easiness in Internet Banking

Table (5.3) (Appendix B) shows the desired items in the first hypothesis of the study, the highest mean, is ninth question (*Are the services adapted to disable peoples or elder peoples who are lacking computer experience?*), and the lowest is the second

question (*Do they intend to use electronic banking facility in future?*). Also this table shows that over 77 % of respondents about the impact of easiness and usefulness of internet service characteristics on internet banking growth and acceptance were agree and strongly agree .14.5% of the respondents had no comment and over 8% were opposed and quite the opposite.

5.4 Awareness

Table (5.4) (Appendix B) shows the desired items in the fourth hypothesis of the Study, the highest mean, is third question (*According to customers, the bank is providing the guidelines on the website to use electronic banking facility*), and the lowest is the sixth question (*Information provided to customer is accurate*). Also this table shows that 81.62 %of respondents about the impact of awareness of internet service characteristics on internet banking growth and acceptance were agree and strongly agree 11.1% of the respondents had no comment and over 7% were opposed and quite the opposite.

5.5 Level of Personal Interaction

Table (5.5) (Appendix B) shows the desired items in the third hypothesis of the study, the highest mean, is fifth question (*Is the bank adopted the latest technology and standards for the banking?*), and the lowest is the fourth question (*Customer do not trust the technology provided by the banks*). Also this table shows that over 62% of respondents about the impact of high level of personal interaction of internet service characteristics on internet banking growth and acceptance were agree and strongly agree. 11% of the respondents had no comment and over 26% were opposed and quite the opposite.

5.6 Bank Profitability

Table (5-16) (Appendix B) shows the desired items in the sixth hypothesis of the study, the highest mean, is second item (*Internet Banking increase customer monetary interaction*), and the lowest is the first item (*Internet Banking increase number of customer*). Also this table shows that over 86% of respondents about the impact of internet banking on bank profitability were agree and strongly agree .7% of the respondents had no comment and over 6% were opposed and quite the opposite.

5.7 Test of Hypothesis

5.7.1 Hypothesis 1

The first hypotheses: "*Easiness and Usefulness of Internet Service Characteristics has positive effects on Internet banking Growth and Acceptance.*" To investigate this hypothesis, Pearson correlation is used. According to the results of this test are shown in below table. Note that the significance level of the test is less than 0.05, so there is a significant relationship between these two variables. Thus the null hypothesis of the research, rejected and the research hypothesis is accepted. It can be concluded that, easiness and usefulness of internet service characteristics has positive effects on internet banking growth and acceptance.

Table 5.3: Hypothesis 1 Correlation Results

	PUE	PIB
Usefulness and Easiness of Internet Banking Pearson Correlation 2-Tailed	1 100	.266** .007
Internet Banking Pearson Correlation 2-Tailed	.256** .0067	1 100

*Correlation is significant at the 0.01 level

5.7.2 Hypothesis 2

The second hypotheses: "*Security, Privacy and Risks of Internet Service Characteristics have positive effects on Internet banking Growth and Acceptance.*"

To investigate this hypothesis, Pearson correlation is used. According to the results of this test are shown in below table.

Note that the significance level of the test is less than 0.05, so there is a significant relationship between these two variables. Thus the null hypothesis of the research, rejected and the research hypothesis is accepted. It can be concluded that, security, privacy and risks of internet service characteristics have positive effects on internet banking growth and acceptance.

Table 5.4: Hypothesis 2 Correlation Results

	SP	PIB
Security and Privacy Pearson Correlation 2- Tailed	1 100	.25* .012
Internet Banking Pearson Correlation 2-Tailed	.25* .012	1 100

*Correlation is significant at the 0.05 level

5.7.3 Hypothesis 3

The third hypotheses: "*High level of personal interaction of internet service characteristics has positive effects on internet banking growth and acceptance.*" To

investigate this hypothesis, Pearson correlation is used. According to the results of this test are shown in below table.

Note that the significance level of the test is less than 0.05, so there is a significant relationship between these two variables. Thus the null hypothesis of the research,

rejected and the research hypothesis is accepted. It can be concluded that, high level of personal interaction of internet service characteristics has positive effects on internet banking growth and acceptance.

Table 5.5: Hypothesis 3 Correlation Analysis

	LPI	PBI
Level of Personal Interaction Pearson Correlation 2-Tailed	1 100	.281** .005
Internet Banking Pearson Correlation 2-Tailed	.281** .005	1 100

*Correlation is significant at the 0.01 level

5.7.4. Hypothesis 4

The fourth hypotheses: "*Awareness of internet service characteristics has positive effects on internet banking growth and acceptance.*"

To investigate this hypothesis, Pearson correlation is used. According to the results of this test are shown in below table. Note that the significance level of the test is less than 0.05, so there is a significant relationship between these two variables. Thus the null hypothesis of the research, rejected and the research hypothesis is accepted. It can be concluded that, awareness of internet service characteristics has positive effects on internet banking growth and acceptance.

Table 5.6: Hypothesis 4 Correlation Analysis

	Awareness	PIB
Awerness Pearson Correlation 2-Tailed	1 100	.272** .006
Internet Banking Pearson Correlation 2-Tailed	.272** .006	1 100

*Correlation is significant at the 0.01 level

5.7.5 Hypothesis 5

The fifth hypotheses: "*Customer satisfaction has positive effects on internet banking growth and acceptance*". To investigate this hypothesis, Pearson correlation is used. According to the results of this test are shown in below table. Note that the significance level of the test is less than 0.05, so there is a significant relationship between these two variables. Thus the null hypothesis of the research, rejected and the research hypothesis is accepted. It can be concluded that, customer satisfaction has positive effects on internet banking growth and acceptance.

Table 5.7: Hypothesis 5 Correlation Analysis

	PIB	BP
Internet Banking Pearson	1	.234
Correlation 2-Tailed	100	.014
Bank Profitability Pearson	.234	1
Correlation 2-Tailed	.014	100

*Correlation is significant at the 0.01 level

5.7.6 Hypothesis 6

The sixth hypotheses: "*Internet banking increases the bank profitability.*" To investigate this hypothesis, Pearson correlation is used. According to the results of this test are shown in below table.

Note that the significance level of the test is less than 0.05, so there is a significant relationship between these two variables. Thus the null hypothesis of the research, rejected and the research hypothesis is accepted. It can be concluded that, internet banking increases the bank profitability.

Table 5.8: Hypothesis 6 Correlation Analysis

	PIB	BP
Internet Banking Pearson	1	.242
Correlation 2-Tailed	100	.024
Bank Profitability Pearson	.242	1
Correlation 2-Tailed	.024	100

*Correlation is significant at the 0.01 level

5.7.7 Hypothesis 7

The seventh hypotheses: “Easiness and usefulness, security, privacy and risks, high level of personal interaction, and awareness of internet service characteristics improve bank profitability via mediating role of Internet banking.” To investigate this hypothesis, regression analyze is used. According to the results of this test are shown in below table.

Table 5.9: Hypothesis 7 Correlation Analysis

	PH	BP
All Hypothesis Pearson	1	.265
Correlation 2-Tailed	100	.005
Bank Profitability Pearson	.265	1
Correlation 2-Tailed	.005	100

*Correlation is significant at the 0.01 level

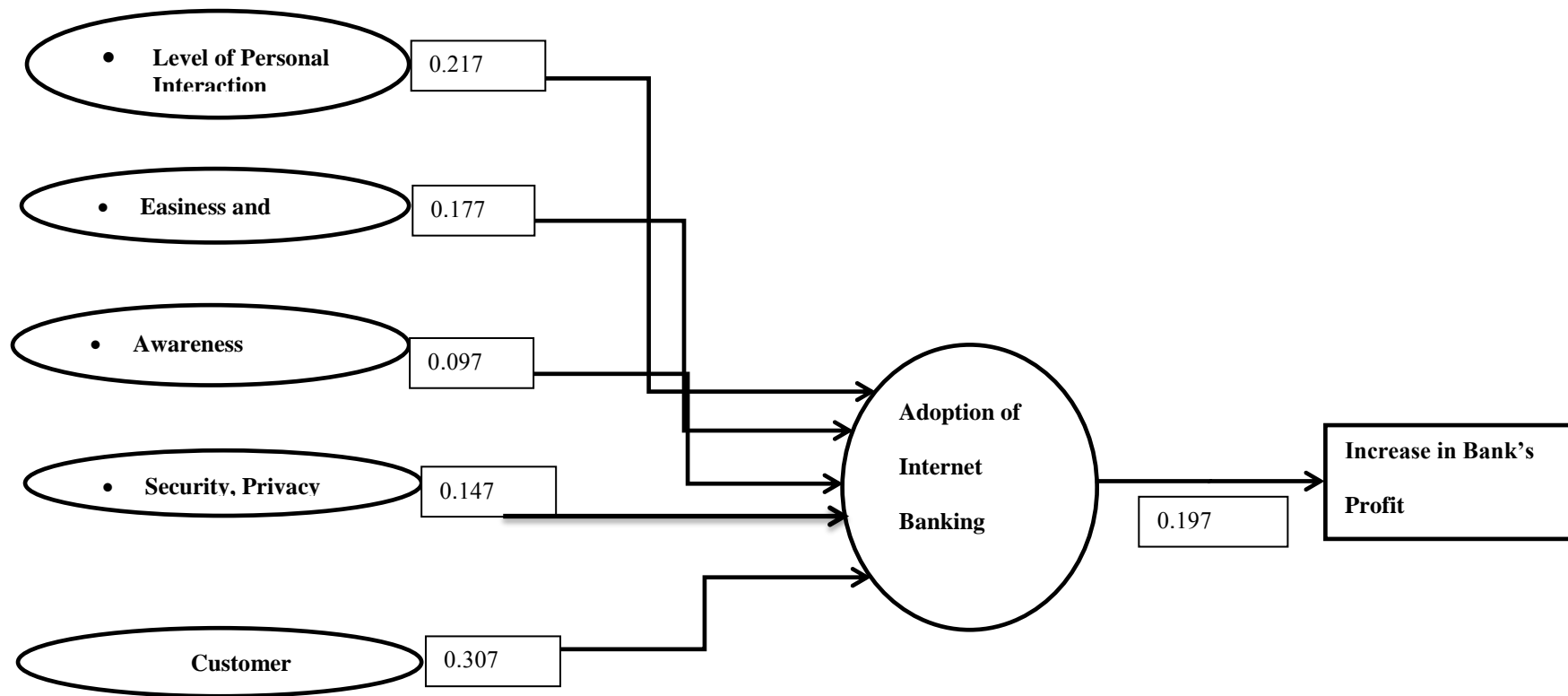


Figure 5.1: Hypothesis Relationships of the Study

Regression model from previous page (Figure 5.1) shows that between independent variables (Easiness and usefulness, security, privacy and risks, high level of personal interaction, awareness and customer satisfaction) with the dependent variable (Internet banking), in the model there is a significant relationship. And also between the intermediate variable (Internet banking) with the dependent variable (Bank's profit) there is a significant relationship. So we can conclude that the independent variables with affecting on intermediate variables, impact on the final dependent variable (Bank's profit). Thus the null hypothesis of the research, rejected and the research hypothesis is accepted.

5.8 Demographics

"The Gender of customer has positive effects on Internet banking and its constructs."

To investigate, independent samples T-test is used. According to the results of this test are shown in below table. Given the significant level of t-test is less than 0.05, so we can say that the use of internet banking is different in men and women. Thus the null hypothesis of the research, rejected and the research hypothesis is accepted. So we can say that men more than women surveyed in this study use the internet bank.

"The age of customer has positive effects on Internet banking and its constructs." To investigate, one-way ANOVA is used. According to the results of this test are shown in below table. Given the significant level is more than 0.05, so we can say that there is no difference between the use of the Internet and age. Thus the null hypothesis of the research, accepted and the research hypothesis is rejected.

"The education of customer has positive effects on Internet banking and its constructs." To investigate, one-way ANOVA table is used. According to the results of this test are shown in table 5.14 in the appendix section

Given the significant level is more than 0.05, so we can say that there is no difference between the use of the Internet and education of costumer. Thus the null hypothesis of the research, accepted and the research hypothesis is rejected.

5.9 Findings

From all indications, it is safe to say that most important banks in Turkey have realized the important role of Internet banking for developing alternative distribution channels of banking services. This is supported by the fact that there is a change in their distribution channel structure through an increase in the number of banks setting up a good internet banking service can contribute a lot. The Internet is becoming an important distribution channel for the banks through the last decades offering an extensive range of services and it can help customers execute and monitor their transactions cost-effectively. In addition, the methodology used in the course of this research work (literature review and questionnaire) have all contributed immensely to support the belief that Internet banking in Turkey has a strategic importance for the banks and the development of the financial services industry. The results of the questionnaire showed that more and more banks are becoming aware of the strategic potentials of the Internet Banking. The majority of the respondents agreed that it is indeed an effective new medium for marketing financial products and services as well as a strategic tool for expanding market base.

What can be understood from the questionnaire results is that Internet banking in Turkey has been more of a success than a failure and it is concluded that online transactions will continue to grow and expand while the Turkey financial services market matures. There are constant developments in the areas of security, protocols and Net marketing techniques that will strengthen the case for the internet banking. Banks see the Internet as the latest cheap, fast and convenient way of selling and distributing their products. They view it as a supporting tool to increase value-added service. All of the presented hypotheses are supported (Table 5.8).

Table 5.10: Final Results of the Study

Hypothesized relationships	Status
H1a: Easiness and Usefulness of Internet Service Characteristics has positive effects on Internet banking Growth and Acceptance.	Supported
H1b: Security, Privacy and Risks of Internet Service Characteristics Have Positive Effects on Internet Banking Growth and Acceptance.	Supported
H1c: High Level of Personal Interaction of Internet Service Characteristics Has Positive Effects on Internet Banking Growth and Acceptance.	Supported
H1d: Awareness of Internet Service Characteristics Has Positive Effects on Internet Banking Growth and Acceptance.	Supported
H2: Customer Satisfaction has Positive Effects on Internet banking Growth and Acceptance.	Supported
H3: Internet banking increases the Bank profitability.	Supported
H4: Easiness and Usefulness, Security, Privacy and Risks, High level of personal interaction, and Awareness of Internet Service Characteristics improve bank profitability via mediating role of Internet Banking.	Supported
H5: Customer Satisfaction increase bank Profitability via Mediating Role of Adoption of Internet banking.	Supported

Chapter 6

DISCUSSION AND CONCLUSION

6.1 Discussion

In this chapter the consistency of this study and brief information about outcome of hypotheses will be presented. The model of the study has derived from several other studies mainly from TAM (Technology Acceptance Model) of Davis et al. (1989) which used to explain the customer level of technology adoption in this case internet banking based on different factors of easiness of use and usefulness which then expanded by Aldas-Manzano et al. (2009) and Al-Smadi (2012) into form of internet banking adoption with security, awareness and level of personal interaction in the base of the study.

In analyzing the first set of hypothesis's result it can be understood that there is a significant positive relationship between easiness and usefulness of internet banking and the adoption and acceptance of internet banking which is consistent with the results of Eriksson, Kerem and Nilsson (2005) and Al-Smadi (2012) studies.

In second hypothesis, the relationship between security and privacy with growth in accepting the online banking has been significantly positive and is consistent with studies of Gluck and Pew (2005) and Shergill and Li (2005), although few empirical significant studies has been done on understanding this relationship.

The third hypothesis the level of personal interaction and its relationship with growth of internet banking acceptance has been significantly positive and is consistent with studies of Shergill and Li (2005), Ilett (2005) and Wan et al., (2005).

The fourth hypothesis the level of awareness between clients and relationship with internet acceptance growth has been found significantly positive and along with results of Wan et al., (2005), Hassan (2011) and Nasri (2011).

The second hypothesis of the study is the relationship of customer satisfaction and internet banking adoption which the results shows that it is positively significant following the consistency with studies of Sadeghi and Farokhian (2010), Musiime and Ramadhan (2011) and Ahmad, Rustam and Dent (2011).

The third hypotheses the relationship between the growth in internet banking adoption and increase in profits of the banks and increase in profit of the banks has been considered positively significant and it is consistent with studies of Sumra et al., (2011) and Meihami et al., (2013) results.

The fourth hypothesis of the study is the mediating role of growth in adoption of internet banking between characteristics of internet banking and increase in profits of the bank and by using the previous studies of Aldas-Manzano et al. (2009), Al-Smadi (2012), Eriksson, Kerem and Nilsson (2005), Al-Smadi (2012) on internet banking adoption and studies on effects of internet banking acceptance, Sumra et al., (2011) and Meihami et al., (2013) this studies own original hypothesis has been positively significant as no other studies used that combination of hypothesis.

The final hypothesized element of the study which is mediating role of growth in internet banking acceptance in relationship of customer satisfaction and increase in bank's profit using the studies of Sadeghi and Farokhian (2010), Musiime and Ramadhan (2011) and Ahmad, Rustam and Dent (2011) on customer satisfaction and, Sumra et al., (2011) and Meihami et al., (2013) on increasing bank's profit has been proposed and found that there is a significant relationship exist. So far this study is the only research which combined mediating role of internet banking adoption.

6.2 Conclusion

The main aim and scope of this study was to measure the level of internet banking adoption by bank's client and customers and also the success of this asset in increasing the bank's profit in Turkish banks. The research gave new insights on how major Turkish banks has been successful as their banking environment changed drastically after the last decade as people adopt the new online services to replace the lengthy procedures of presenting at the bank itself.

The total of 100 questionnaires for bank's staff has been distributed and then collected between 4 major Turkish banks and 160 questionnaires has been collected and analyzed from bank's customers on measuring the customer satisfaction of the bank and their intention to adopt the internet banking. With the ongoing services of internet banking the efficiency increased in the banks and many costs such as labor plus the required personnel has been decreased. With substituting the staff with computers the human errors decreased and procedures are reliable and fast, and in return saves time, costs and efforts.

Also, increasing in satisfaction of customers and motivating them to increase the use of online service made a lot of profit and revenues for the banks. Moving from traditional banking to more electronic based one has not affected the Turkish banks in any negative way as clients; also seeking these E-banking services increased their loyalty towards the banks (Mäenpää et al., 2008).

6.3 Managerial Implications

For bank managers the following implications are proposed that pursuing E-banking expansion and new strategies will first lead to cost of maintenance and buying new electronic assets, but in long run the profits will increase for the bank (Datamonitor, 2005). Also it is recommended to search for making the online banking services more appealing for clients and more user friendly to increase both adopting the internet banking and increasing their satisfaction (Vrechopoulos et al., 2004).

The following factors should be further developed to increase bank's adoption and profitability; the security and safety of the online banking system must be enhanced. All banks should educate their customers to increase their awareness of systems and services provided by them (Datamonitor, 2005). Turkey is one of largest users of cell phones and IB so promotion of news and services must be done correctly through media or different public activities. Conditions of ATM machines must be strengthened.

6.3.1 Recommendation

Profitability has continued to be a key performance indicator for many companies and an importance reference point for shareholders. The market is also keen on the profitability of organizations. Any ethical and responsible attempt to improve profitability of a company will be appreciated not only by the shareholders but also

the government in view of the tax that accrues from profits from corporations. Commercial banks should therefore continue to adopt new technologies which will improve their margins and hence their profitability.

6.4 Limitation and Directions for Future Studies

This study expanded upon many researches on internet banking adoption and customer satisfaction along with new implementation of these methods for understanding their role in increasing bank profitability. This research has some limitations. First, as the main focus was the four Turkish banks and their clients in Turkey. This study is new and there is a lot of room and space to increase the spread of variables and factors can be taken into consideration in future studies. Then, future studies can duplicate the study model in new developing countries as people getting ready for adopting the online banking services in their country for testing the generality of result.

The framework for consumer internet banking adoption can be explored by conducting further interpretive studies and may help in developing hypotheses for a survey of other banks consumers. It would be valuable also to conduct an interpretive study of financial institutions to better understand their concerns and capabilities regarding the issues raised in this paper. Studies in other countries would be useful as well to identify any differences in the adoption framework and in the recommendations for banks.

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APPENDICES

Appendix A: Questionnaires

Questionnaire 1

A) Background Information

1. Background Information:

Gender: Male [] Female []

2. Education

Undergraduate [] Graduate []

3. Job Title

Senior Vice President [] Assistant Vice President [] Branch Manager []

Operation Manager [] IT Specialist [] Clerk []

5. Years of Experience

Less than 5 years [] 6 – 10 years [] 11 – 15 years []

16 – 19 years [] 20 years and more []

6. On Average what age of customers are coming to bank on daily basis?

Under 20 [] 21 – 29 [] 30 – 39 [] 40 – 49 [] Over 50 []

7. On Average Number of transactions performed by the customers per month

0 transactions [] 1-10 transactions [] 11-40 transactions [] 41 and above []

Please select the scale from:

1. Strongly disagree
2. Disagree
3. Neutral or undecided
4. Agree
5. Strongly agree

a) Security and Privacy

Questions	1	2	3	4	5
Are they concerned about their private information?					
Is the customer concerned about the security policy?					
Is the User privacy policy is mentioned on the website to strengthen the trust of customer?					
Did they encounter any problems in electronic banking regarding internet?					
Are the customers satisfied with the speed of internet provided by the Internet service providers to use electronic banking?					
Is the bank provides basic view for the customers using electronic banking with low speed internet connection?					

b) Perceived Usefulness and Easiness in Internet Banking

Questions	1	2	3	4	5
Are the customers aware of usefulness of the electronic banking?					
Do they intend to use electronic banking facility in future?					
Do they think that using electronic banking facility saves their time?					
Is there any feedback form in the electronic banking section of the website in order to get feedback from customer about the quality of e-banking?					
Do bank provides online technical assistance or 24 helpline to the customer?					
According to customers electronic banking is easy to use					
According to customers learning of electronic banking is easy					
According to customers the instructions on the website to use e-banking services is not fuzzy					
Are the services adapted to disable peoples or elder peoples who are lacking					

computer experience?					
Are they providing help assistance on their website to use electronic banking for the novice user?					

c) Awareness

Questions	1	2	3	4	5
Do you enthusiastically work to influence customers to use electronic banking?					
Is the bank provides training awareness programs for the customers to use electronic banking?					
According to customers the bank is providing the guidelines on the website to use electronic banking facility					
Is the bank provides demo tour for electronic banking on the website?					
Are the customers fully aware of electronic banking?					
Information provided to customer is accurate					
Did they have enough information about online banking service?					
Do they know that how to pay utility bills electronically?					

d) Level of Personal Interaction

Questions	1	2	3	4	5
Customer has know-how of computer and internet					
Customer has access to the personal computer					
Customer has internet connection					
Customer do not trust the technology provided by the banks					
Is the bank adopted the latest technology and standards for the banking?					

e) Purpose of Internet Banking

Questions	1	2	3	4	5
Paying Utility Bills					
Checking the Account Balance					
Transferring money online					
Investment purpose					
Online payment					
Applying for loans					

Bank's Profitability

Questions	1	2	3	4	5
Your bank uses the Web as an information delivery tool.					
Your bank uses the Web as a tool to improve customer relationship.					
Your bank gives information to encourage contact with customers in physical branches.					
Your bank uses the Internet as an important business tool for marketing and communication.					
Your bank uses the Internet as a cost-effective distribution channel.					
Internet contributes to the increase of your bank's profits.					
Your operating and maintenance cost has been reduced since you introduced Internet banking.					
The number of your clients has increased since you introduced Internet banking.					
The productivity of your bank has increased since you introduced Internet banking.					
Internet banking can help you offer more complex products of an equivalent quality with lower costs to more potential customers.					

Questionnaire 2

Customer Questionnaire

Background Information:

Gender: Male []

Female []

Education

Undergraduate [] Graduate []

Age

- a) 18-24
- b) 25-34
- c) 45-54
- d) 35-44
- e) 55+

Please select the scale from:

- 6. Strongly disagree
- 7. Disagree
- 8. Neutral or undecided
- 9. Agree
- 10. Strongly agree

Questions	1	2	3	4	5
Electronic banking gives more control over accounts					
Electronic banking make easier to perform secure transactions					
Using electronic banking avoid to interact with bank employees					
Electronic bank cannot do everything for me as employees can do					
More trust on the bank employees with communication than electronic banking					
No risk involved to use electronic banking					
Feel unsecure using electronic banking					
Do you think that banks are highly influenced by political parties?					
Are you satisfied by the IT policy for the e-banking in commercial banks?					
Do you think that good infrastructure can provide better facilities for e-banking?					
Are you satisfied with the current infrastructure provided by the banks?					
Do you think that websites providing e-banking should be available in different languages?					
Do you have easily access to ATM					

machine?					
Are you satisfied with the internet bandwidth provided for the e-banking transactions?					
Are you satisfied with the quality of internet?					
What type of connection are you using for the e-banking?					
Is the internet connection good enough to perform online transactions?					
Do you think that the technology provided by the bank is up to date?					
Is the bank provides Consumer Protection Act?					
Are they providing skilled IT professionals?					
Website down during accessing account?					
Quick response of real-time transaction?					
Reliability of transactions					
Are they providing rich user interface on the website?					
Are you satisfied with the bank's website downloading speed?					
Are they providing security schemas for the online transactions?					
Are they providing self-help services to support services?					
Are they providing customer services?					
Is the bank providing informational services (Bank products and services)?					
Is the bank providing communicative services (Email, account inquiry, change of address, loans applications)?					

Appendix B: Data Analysis

Table 5.1.1: Distribution and percentage of items related to 1-30 questions

Items	Strongly disagree		Disagree		Undecided or Neutral		Agree		Strongly agree		Mean
	F	P	F	P	F	P	F	P	F	P	
Total	104	3.5	204	6.9	521	17.6	1039	35.16	1087	36.78	3.97

Table 5.1.2: Security and Privacy

Items	Strongly disagree		Disagree		Undecided or Neutral		Agree		Strongly agree		Mean
	F	P	F	P	F	P	F	P	F	P	
Total	3	0.5	24	4	42	7.01	312	52.08	218	36.39	4.19

Table 5.1.3: Perceived usefulness and easiness in internet banking

Items	Strongly disagree		Disagree		Undecided or Neutral		Agree		Strongly agree		Mean
	F	P	F	P	F	P	F	P	F	P	
Total	8	0.78	75	7.3	147	14.5	429	42.26	356	35.07	4.06

Table 5.1.4: Distribution and percentage of items related to awareness

Items	Strongly disagree		Disagree		Undecided or Neutral		Agree		Strongly agree		Mean
	F	P	F	P	F	P	F	P	F	P	
Total	19	2.37	39	4.8	89	11.1	319	39.87	334	41.75	4.13

Table 5.1.5: Distribution and percentage of items related to level of personal interaction

Items	Strongly disagree		Disagree		Undecided or Neutral		Agree		Strongly agree		Mean
	F	P	F	P	F	P	F	P	F	P	
Total	54	10.8	78	15.6	55	11	182	36.4	131	26.2	3.51

Table 5.1.6: Purpose of internet banking

Items	Strongly disagree		Disagree		Undecided or Neutral		Agree		Strongly agree		Mean
	F	P	F	P	F	P	F	P	F	P	
Total	19	3.16	33	5.5	59	9.83	273	45.5	216	36	4.05

Table 5.7: Distribution and percentage of items related to bank profitability

Items	Strongly disagree		Disagree		Undecided or Neutral		Agree		Strongly agree		Mean
	F	P	F	P	F	P	F	P	F	P	
Total	5	1.6	15	5	21	7	130	43.3	129	43	4.21

Table 5.8: Independent Sample T-test and F-test

	Levene's Test for Quality of Variance		T-test for Equality of Means						
	F	Sig	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower 95% Confidence Intervals of Difference	Upper 95% Confidence Intervals of Difference
Internet Equal Variance Assumed	.012	.911	3.156	.98	.002	.3732	.11825	.13851	.60786
Equal Variance Not Assumed			3.062	26.22	.005	.3732	.12187	.12279	.62359

Table 5.9 Demographic

Age	Mean	N	Std. Deviation
18-24	3.88	25	.55386
25-34	4.0901	37	.45235
35-44	4.1181	24	.46490
48-57	4.0370	9	.28599
55+	4.4333	5	.56026
Total	4.0567	100	.48445

Table 5.10: ANOVA Analysis of Age Groups

	Sum of Squares	df	Mean Square	F	Sig
Age Between Groups (combined)	1.625	4	.406	1.768	.138
Within Groups	21.61	95	.227		
Total	23.234	99			

Table 5.11: ANOVA Analysis of Education

	Sum of Squares	df	Mean Square	F	Sig
Education Between Groups (combined)	1.164	3	.388	1.687	.175
Within Groups	22.071	96	.230		
Total	23.234	99			

Table 5.12: Model Summary 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	Df 1	Df 2	Sig. F Change
1	.436	.293	.147	.44735	.190	4.420	5	94	.001

Predictors: (Constant), Customer, LPI, PUE, Awareness, SP

Table 5.13: Model Summary 2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	Df 1	Df 2	Sig. F Change
1	.365	.214	.186	.48392	.012	1.216	1	98	.023

Predictors: (Constant) Bank Profit

Table 5.13.1: Coefficients (Dependent Variable: Internet Banking)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	1.143	.657		1.740	.085
Security and Privacy	.236	.125	.3	2.046	.039
Usefulness and Easiness	.039	.162	.176	2.137	.038
Awareness	.166	.142	.092	1.988	.017
Personal Interaction	.090	.096	.214	2.014	.025
Customer Satisfaction	.706	.283	.142	2.493	.014

Table 5.14: Coefficients (Dependent Variable: Bank Profit)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	3.668	.355		10.321	.000
Bank Profit	.123	.084	.192	2.014	.023