

Determinants of Internet Banking Adoption among Customers of
Commercial Bank of Ethiopia Jimma District: The Case of Jimma
Town



*A Research Paper Submitted To School of Graduate Studies in the Partial
Fulfillment of the Requirements for the Award of Masters of Science Degree in
Banking and Finance*

JIMMA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF BANKING AND FINANCE

August, 2020
Jimma, Ethiopia

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ABSTRACT

The main objective of this study was to assess the determinants of internet banking adoption among customers of commercial bank of Ethiopia Jimma District in case of Jimma town. Currently, the commercial bank of Ethiopia is providing convenient and economical internet banking services to its customers by using the development of ICT as an opportunity without diminishing the traditional banking service remotely. The study employed explanatory design. The target population comprised of 384 bank customers. The researcher used primary source of data which is collected through close ended and open ended questionnaires. Judgmental sampling was used to select 268 sample respondents with 30% non-response rate mainly because of COVID 19 pandemic. Accordingly, 221 questionnaires were returned with 82.46% response rate. To generate frequencies, explanatory and inferential statistics SPSS was used and derive conclusions and generalizations regarding the population. Explanatory statistics included use of percentages, mean, frequency distribution and standard deviation while inferential statistics used included correlation and multiple regression analysis. The study findings indicated that most of the respondents were not using internet banking service since it is not adopted by customers. The finding of the study revealed that perceived cost, perceived ease use, perceived risk, responsiveness, convenience and reliability were significant determinants of internet banking service adoption among customers of commercial bank of Ethiopia Jimma District found in Jimma Town. On the other hand, customer attitude were statistically insignificant in affecting adoption of internet banking. Result of the study indicates that perceived risk and perceived cost have negative effect in adoption of internet banking service. Reliability, Perceived ease use, convenience, responsiveness had positive effects on adoption of internet banking service. Accordingly the study recommended that the bank should negotiate with the complementary organizations like Ethio telecom, the bank should work to increase the trust of the customers by creating awareness through different media, preparing video show at the branches, and the damage they can gain from bank if the risk occurred due to bank security failure, linking the internet banking user with prize, like free from bank transfer fee for whom using for big money transfer made by customer to build their trust on internet banking so as to stimulate the consumer's intention to adopt and continue usage, to increase the adoption of internet banking. In addition to this the bank should increase the responsiveness of the employees by giving different training, providing guide line for the customer how to use the internet banking, customizing the internet banking in the way that it fits to the environment.

Key Words: *Consumer's Attitude, Reliability, Convenience, Perceived Ease of Use, Perceived Cost, Perceived Risk, Responsiveness, Internet Banking.*

CERTIFICATE

This is to certify that the thesis entitled “Determinants of Internet Banking Adoption among customers of Commercial Bank of Ethiopia Jimma District: The case on Jimma Town”, Submitted to Jimma University for the award of the Degree of Master of science in banking and finance and is a record of Valuable thesis work carried out by Soni Mulatu, under our guidance and supervision.

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Date

Signature

ACKNOWLEDGEMENTS

I am most grateful to Almighty God through his infinite mercy and love guided me throughout the duration of the program.

I am deeply grateful to my advisors Yibeltal Ayalew and Mekuanint Abera for their precious comments and suggestions during the course of this study.

I am extremely indebted to my family especially, my husband for his moral support since the beginning of my education. I am also grateful to my mother for her prays for me and my Father for his support and encouragement throughout my life.

Last but not least, I would like to express my deep gratitude to the district director, digital manager, and the staffs and branches managers who participated in this study during the data collection process. Finally I would like to thank Jimma University, college of business and Economics for granting me a study.

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LIST OF ACRONYMS

ANOVA	Analysis of Variance
ATM	Automated Teller Machine
CBE	Commercial Bank of Ethiopia
CORE	Centralized, online, real-time, electronic
EB	Electronic Banking
E-banking	Electronic Banking
IB	Internet Banking
ICT	Information Communication Technology
IT	information technology
NBE	National Bank of Ethiopia
POS	Point of Sale
SPSS	Statistical Package for Social Science
SMS	Short Message Sending

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Internet banking is the delivery of banking services to customers through the Internet network (You, et al 2007). At the basic level, Internet banking means establishing a web page by a bank to provide information about its product and services (Daniel, 1999). Internet banking is one platform of an electronic banking that is using the internet, where customers can view their account details, pay bills, and transfer money electronically. For banks, Internet banking is one platform of electronic banking and effective addition to the traditional branch banking model. It can greatly reduce banks' operating costs and grow the bank's business by opening new markets. Without time and space restrictions, customers can do many financial transactions using the Internet at low cost. Currently; the electronic technology is playing a vital role for the world of business especially in banking industry. Electronic banking (e-banking) is the newest delivery channel for banking services. The definition of e-banking varies amongst researches partially because electronic banking refers to several types of services through which bank customers can request information and carry out most retail banking services via computer, television or mobile phone (Haider and Faisal 2012).

Technological change is identified as one of the external forces in global transition (Daniel, 1997). With the continuing rapid development of information technology (IT), the Internet has become a requisite component of our daily life. It has delivered a lot of convenience to our lives and also provides new marketing channels for enterprises, as more and more enterprises adopt online marketing. Banking has always been a highly information intensive activity that relies heavily on information technology to acquire, process, and deliver the information to all customers. Banks find that they have to constantly innovate and update to retain their demanding and discerning customers and to provide convenient, reliable, and expedient services (Cabinet 2010). Particularly, it is expected to help the banking sector to expand their product and service, improve their competitiveness, create cash less customer, serve the customer without the limitation of space and time, improve service excellence, and make profit sustainable. Not only is IT critical in the processing of information, it provides a way for the banks to differentiate their products and services.

Tradition form of banking system was used as a medium of transactions in banks where by customers have to carry out most of their transactions in banking halls. But with numerous emerging technologies, many banks in most developed countries have implemented internetbanking. IB involves consumers using the Internet to access their bank account and to undertake banking transactions. On the other hands, Stevens (2002) argues that the banking industry of the new era operates in a complex and competitive environment characterized by these changing conditions and highly unpredictable economic climate. Information and Communication Technology (ICT) is at the center of this global change curve of Electronic Banking System in every nation including Ethiopia today. The requirement of the national bank of Ethiopia that all of the banks in the country be interfaced with national payment system (NPS) forced the commercial bank of Ethiopia to adopt online technology. Through this technology, it has adopted electronic banking in some of its branches of which commercial bank of Ethiopia Jimma district is among them.

At the basic level, Internet banking can mean the setting up of a web page by a bank to give information about its products and services. At an advanced level, it involves provision of facilities such as accessing accounts, transferring funds, and buying financial products or services online. Banks realized that the rising popularity of the World Wide Web gave them an added opportunity to advertise their services. Some developing countries have also taken advantage of internet banking as it helps to provide speedy and convenient services to their customers (Hussein and Abdelhalim, 2016). Internet banking provides customers with convenient services that can be carried out at home without going through the stress of going to the bank to have the same operations performed; such as bill payments, checking account balances, office account balances, funds transfers, online shopping transactions, and money transfer. Online banking services, Internet-banking offers various benefits to customers with regards to the ease and cost of transactions (Liu, 2008 quoted in Yang and Ahmed, 2009). 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 and Ahmed, 2009).

Banks have been using the Internet as one of their distribution channels because Internet Banking services benefit both the banks and their customers (Karjaluo, 2002). It has become the most profitable distribution channel of the banks because it can help banks to save costs. It is convenient for the customers to execute their bank transactions or contact their banks faster, anytime and anywhere. Many companies in the financial services sector have been quick to implement Internet capabilities, and electronic service is becoming a viable option for interaction between financial service providers and their customers (Speech, 2004). Clearly, in order to grow consumer internet banking adoption, banks must make key improvements that address consumer concerns. Thus, it would behoove financial institutions to gain an understanding of the key factors that influence consumer internet banking adoption.

Internet has an ever growing importance in the banking sector because of the advantages. It brings to both the banks and their customers. However, Age, education level, income and occupation are the most influential demographic factors affecting internet usage. Typical internet banking users tend to be well educated, relatively young and are high income earners. It has been widely recognized that the demographic factors have a great impact on consumer attitudes and behavior towards internet banking (Karjaluo, 2002).

There are numerous types of research conducted in several countries to identify the factors influencing on the customer adoption of internet banking system. (Gerrard et al.2006) in their study in Singapore identify risk to be an important factor for Internet Banking adoption. The finding shown as security and privacy in Internet Banking hinder the customers` adoption. This suggests that bank customers felt as all their financial information could be in danger.

Internet Banking has been widely used in developed countries and is rapidly expanding in developing countries. Even though, Ethiopian were started to use Internet banking services lately, cash is still the most dominant medium of exchange. In Ethiopia there is research that is done on key factors that determine adoption of internet banking in Ethiopia which is conducted by Abenet (2010). Among the commercial banks, commercial bank of Ethiopia was the first in introducing internet banking system to the customers to satisfy customer`s banking needs and wants. They have the larger customer base for the internet banking than the other banks. More accurately, internet banking acceptance was studied using the factors that are important from the success point of view, referring to the idea that consumers are using internet banking directly.

Hence, more knowledge on the determinants that affect internet banking adoption is needed in order to better understand and facilitate the adoption. Even though commercial bank of Ethiopia costs close to six million USD in the investment of CORE/centralized, online, real-time, electronic/ which use to facilitate the service of online banking, ATM, Mobile banking, POS, and Internet banking, but the use of Internet banking service by the customers are at an embryonic stage or it is not functioning as intended (CBE Jimma District semi-annual report from Dec 2017- Dec 2019). As per the researcher knowledge there is no study conducted to assess the determinants of internet banking adoption in case on commercial bank of Ethiopia in Jimma district currently. Therefore, this study tries to determine determinants of internet banking adoption among customers of commercial bank of Ethiopia in Jimma district Jimma town.

1.2. Statement of the Problem

Internet banking is the delivery of banking services to customers through the Internet network (Yiu, Grant and Edgar, 2007). According to (Iymperopoulou 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. There are several researches conducted in several countries to identify the factors influencing customer adoption of internet banking system.

According to Gikonyo (2014) gender difference, awareness, website features and security are the factors that influence the adoption of internet banking services in Kenya. Hussain and Abdelhlim (2016) in their study aimed at investigating the adoption of Internet banking by customers of Jordanian commercial banks found that, perceived ease of use, service quality, customer trust, and customer feedback on Internet banking adoption have significant impacts on Internet banking adoption whilst the best predictor of the adoption is accounted for the website quality followed by customer trust. However, the adoption rate is low and is tracked mainly by customers of high education levels and high ability in using computer applications and internet experiences. Also, the study provides some recommendations and future research to resolve the obstacles facing Internet banking adoption by customers of commercial banks in Jordan. Sarigiannidis et al. (2013) also found perceived usefulness, security risk and performance

risk, perceived ease of use and quality of the internet connection seemed to have an indirect effect on internet banking adoption in Greece. Almohaimmed (2012) revealed that perceived usefulness and service visibility directly influence Saudi customers' intention to use internet banking in china. Moreover, perceived, trust, system reliability and accessibility significantly influence perceived ease of use of internet banking. Musiime and Ramadhan (2011) reported as accessing account, usage, advantages accruing from the usage and use account were significant factors influencing customers adoption of internet banking services in Uganda. Gikonyo (2014) shown that gender difference, awareness, website features and security are the factors that influence the adoption of internet banking services in Kenya.

According to Bultum (2014) the security risk, lack of trust, lack of legal and regulatory frame work, Lack of ICT infrastructure and absence of competition between local and foreign banks are the challenges to adopt e- banking(like internet banking) services.On the other handthe study conducted in Kenya on determinants of the adoption of online banking in commercial banks in Kenya, concluded that online banking adoption and usage in Kenya was very low despite the high levels of internet access Mutiso, J.,&Wepukhulu, J. M.(2018).

Previous studies in Ethiopia are limited to perceived internet bank adoption and directing limited.For instance, according to commercial bank of Ethiopia JimmaDistrict(July 01/2019– December 31/2019) performance report, Internet banking has shown under performance activities against plan than other e-banking services. Internet banking has shown under performance activities 46% against the plan achievement for the semi-annual (CBE Report 2019).

However, one of the major targets of rendering service which is supported by technology is to win the competition by enhancing service excellence in the banking industry, to increase bank service accessibility, to eliminate the limitation of time and geographical boundaries and to reduce the customer comes to the hall of the branches. On the other hand, the bank plans to create paperless society anddesignsthe vision to become world class commercial bank by the year 2025 G.C. To bring the vision to realty the e-banking service like internet banking would play the major role. Since the researcher working for more than Nine years in the commercial bank of EthiopiaJimma district, from observation internet banking have under performance in every plan achievement from the beginning.Therefore, this issue triggered the researcher to

identify the determinants of internet banking in the commercial bank of Ethiopia Jimma district taking branches found in Jimma town as cases in point. So, the findings of this study would help the banking sectors and its customers to better identify and understand their internet banking market segment, their perception and behaviors in relation to using internet banking services. To achieve this objective the researcher adopted the following hypotheses:-

1.2. Hypotheses

H01: Attitude has no significant effect on users' 'adoption of internet-banking services among customers.

H02: Perceived easeuse has no significant effect on users' 'adoption of internet banking services among customers.

H03: Convenience has no significant effect on users' 'adoption of internet banking services among customers.

H04: Reliability has no significant effect on users' 'adoption of internet banking services among customers.

H05: Perceived risk has no significant effect on users' 'adoption of internet banking services among customers.

H06: Perceived cost has no significant effect on users' 'adoption of internet banking services among customers.

H07: Responsiveness of the bank employees has no significant effect on users' 'adoption of internet banking services among commercial bank customers.

1.3. Objectives

1.3.1. General Objective

The main objective of this study was to assess the determinants that influence the adoption of Internet banking service by customers of commercial bank of Ethiopia Jimma District found Jimma town.

1.3.2. Specific Objectives

Based on the above main objective of this study and the problem statement, the study has the following specific objectives:-

- To determine the impact of consumer attitude on the adoption of internet banking service among customers.
- To determine the impact of perceived ease of utilization in adopting internet banking services among customers.
- To assess the influence of convenience on the adoption of internet banking service among customers.
- To assess the effect of internet reliability on the use of internet banking service among customers.
- To identify the influence of perceived risk in the adoption of internet banking service among customers.
- To identify the influence of perceived cost on the adoption of internet-banking services among customers.
- To identify the influence of responsiveness of the bank employees in the adoption of internet banking service among customers.

1.4. Significant of the Study

Since this study is focusing on internet banking adoption factors in the adoption of this new technology the user of the bank and the service provider encountered with different opportunity and challenges. This study brings better understanding of the determinants that affect the adoption of internet banking. In addition to these the study can be used as valuable an input for the other researcher who needs to study further and for me also can help in better understanding about internet banking. Finally, based on the outcomes and result from the research the decision maker of the bank may contribute to enhance the opportunities to increase the adoption of internet banking services and reduce the factors that hinderthe adoption of internet banking service.

1.5. Scope of the Study

The study was limited to Jimma town the reasons for this are: Ethiopia is too large for the researcher to travel all over the country and also recently because of Covid 19 pandemic it was difficult to travel. Jimma is one of the largest and commercial cities in Ethiopia and has a heterogeneous population which ensures a wide spread of potential respondents to the study. The

cost and time required to conduct the study was lower because the study was limited to a restricted geographic area.

1.6. Limitation of the Study

While conducting study, the sample is taken only from commercial bank of Ethiopia which is single bank Jimma district which can limit the quality of this study. Also unwillingness of respondent, and also not properly responded to the whole content of the questionnaire due to misunderstandings, lack of knowledge, or commitment to the subject matter. Moreover COVID-19 also other hinders to gather and meet respondent. However, to minimize these problems, the researcher used interceptive interviewing technique and some of the questionnaire which are distributed to the Bank's customer are selectively distributed for those individuals the researcher believe that they have the potential, ability and capacity to respond to the questioner properly.

1.7. Organization of the Paper

The research is organized into five chapters: Chapter one focuses on the background of the study, problem statement, research questions, objectives, scope, significance, limitation and organization of the paper of the study. In chapter two, a range of literature were reviewed to capture relevant information concerning Internet banking. In chapter three, detail of methodology will follow to achieve results outline. It includes the study design, sampling, sampling technique and data analysis. Chapter four contains results and discussion from the study is supported with findings from other research works. Chapter five focuses on summery, conclusions and recommendations of the study.

CHAPTER TWO

Review of Literature

First of all, this chapter explains the basic terminology of Internet Banking starting from the general pointelectronic banking. Second, it outlines the definition of adoption and provides insight into the advantages and disadvantages of internet banking as well as the benefits for using internet banking for banks and customers. Besides it provides insight into determinants that influence consumers adoption of internet banking. Moreover, this chapter gives an overview of the status of internet banking in Ethiopia.

2.1. Basics of Electronic Banking.

Electronic Banking is the newest delivery channel of banking services. The definition varies amongst researches partially because electronic banking refers to several types of services through which a bank's customers can request information and carry out most of their banking transactions using computers, televisions or mobile phones (Daniel, 1999).

Electronic Banking is a high-order construct, which consists of several distribution channels. It should be noted that electronic banking is a bigger platform than just banking via the Internet. Karjaluoto (2002) suggests that the main electronic delivery channel in banking is the Internet, accessed via personal computer.

The most general type of electronic banking in our times is banking via the Internet, in other words Internet banking. The term electronic banking can be described in many ways. In every simple form, it can mean the provision of information or services by a bank to its customers, via a computer, television, telephone, or mobile phone (Daniel, 1999). Burr (1996), for example, describes it as an electronic connection between bank and customer in order to prepare, manage and control financial transactions. In addition, electronic banking can be considered as a variety of the following platforms: internet banking (or online banking), telephone banking, TV-based banking, mobile phone banking and e-banking (or offline banking). International Journal of Economics and Finance(2013).

Internet banking is one of e-banking platform that allows consumers to access their bank and accounts to undertake banking transactions online. At an advanced level Internet banking is called transactional online banking, because it involves the provision of facilities such as

accessing accounts, transfer of funds, and buying financial products or services online (Sathye, 1999). The terms Internet banking and online banking are often used in the literature to refer to something.

Furthermore, electronic banking is said to have three different means of delivery: telephone, PC, and the Internet. Daniel (1999), for example, introduces four different channels for electronic banking: PC banking, Internet banking, managed network, and TV-based banking.

Moreover, Telephone banking, TV-based banking, and managed network do not play such a big role in banking today. However, in the future the delivery platform is expected to shift from wired Internet connections to wireless mobile technologies.

EB is the newest delivery channel in many developed countries and there is wide agreement that the new channel will have a significant impact on the bank market (Daniel, 1999; Jayawardhena and Foley, 2000). According to Nehmzow (1997) Internet banking offers the traditional players in the financial services sector the opportunity to add a low cost distribution channel to their numerous different services. He continues that Internet banking also creates a threat to traditional banks' market share, because it neutralizes so many of their competitive advantages in having a traditional branch bank network.

There has also been some discussion about the disappearance of traditional banks. The future of Internet banking looks very promising. As Internet banking becomes more popular, it will be interesting to see what happens to traditional banks with branches. Nowadays the Internet is the main channel for electronic banking.

2.2. The Internet

Internet technology can make a significant contribution to a company's value chain. It can improve a company's relationship with vendors and suppliers, its internal operations and its customer relations, and offers the prospect of reaching an expanding customer base. The Internet also promises to dramatically lower communications costs by eliminating obstacles created by geography, time zones, and locations (Tan & Teo, 2000).

Owens and Robertson (2000) contend that it takes longer for physical organizations to develop an integrated e-commerce structure than it does for virtual traders to commence trading. This is

due to the reduced, simple physical structure of the virtual organizations. They argue that a structure of similar efficiency must be adopted by physical organizations for the provision of Internet services. (Mohammed shah, 2009) p-32

2.3. The Definition and Concept of Internet Banking

Internet banking defined as the delivery of banking services to customers through the Internet network (Yiu, Grant and Edgar, 2007) According to (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. Internet Banking means that banking services such as services introduction, loan application, account balance inquiry, fund transfer and so forth are provided by a bank through the Internet. Internet banking has evolved into a “one step service and information unit” that promises great benefits to both banks and consumers.

Internet banking facilitates for bank customers to carry out financial transactions on their own through the use of a secured internet website operated by the commercial bank, a retail or virtual bank, credit union or building society (Edojariogba, 2014). Internet banking becomes as the new trend and it comes as the latest technology in the current era. Due to the development of technological advancements ATM's, credit cards, debit cards, Tele-banking, internet banking have become as effective delivery channels. It helps to deliver traditional banking products. Banks have realized that the internet helps to expand their performance local into global (Mavri and Ioannou, 2006). Internet banking becomes popular day by day. Every person is busy with their works. They are seeking immediate services from the banks to maximize their benefits. Instead of paper banking now moves to the paperless banking systems. It helps to get quicker services with a minimum time and cost. Customers can use internet banking facilities during 24 hours while staying anywhere such as home, business,

Moreover, internet banking calls many names, Such as, E-Banking, Online banking, virtual banking. Bank customers can access their accounts through the internet. Here, Customers are given their own user names and password, by the banks to access their accounts. By using their

own user name and password they can do their all transactions without going to the banks (Burnham, 1996)

The concept of internet banking activities performed through electronic networks. It is the most recent delivery channel of banking services which is used for both business to business (B2B) and Business to customers (B2C) transactions. By using internet banking customers can get varieties of services. Such as, payment of bills and invoices, transfer of funds between accounts, applying for loans, payment of loan installments, sending funds to third parties via e-mails or internet connections regardless of where the client is located (Rahman,2002). Internet banking is the cost effective and cheapest delivery channel which reduces a large number of staff needs. Because no need a large number of employees to do their transactions. All the transactions can be done through the internet. Internet banking provides competitive advantages to the banks (Ortega, Martínez and Hoyos, 2007).With the development of the information technology banking sector's performance boosts day by day. Banks should consider reducing the inconvenience, minimizes cost of transactions and time saving to be important (Kaleem, 2008)

According to Michael Karlin, the President and Chief Operation Officer of the world's first virtual bank, Security First Network Bank, the idea of Internet Banking is as follows:

- You do not have to purchase any software, store any data on your computer, back up any information, since all transactions occur on the bank server over the infrastructure of the Internet.
- You will be able to conduct your banking services anywhere you like but you need to have a computer and a modem, no matter where you are (e.g. at home, at office, or in palace outside the country).
- You can use the banking services 24 hours a day, 7 days a week, and 365 days a year. You no longer have to reconcile a bank statement or manually track your ATM and paper checks.
- ❖ Internet Banking services rendered by Ethiopian banks;
 - Personal Profile Administration allowing personal demographic updates such as physical address, email address, phone numbers etc as well as Preference Updates such as automatic notifications, alerts and secure account messaging
 - Balance enquiry for each account

- View daily transaction register, with PDF export capabilities or export to excel for further analysis
- Ability to link accounts together so that transfers can be completed from one account to another within a fraction of a second
- Customer Service enquiry and resolution
- View check issuance status through the register
- Password change and management features
- Intrusion detection capability

Source CBE 2020

2.4. Adoption of Internet Banking System

The concept of adoption has been explained by different researchers in different according to Rogers (1995, p. 14), 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:

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

The internet has an ever growing importance in the banking sector because of the advantages. It brings to both the bank and their customers. However its advantage Age, education level,

income, occupation and marital status are the most influential demographic factors affecting internet usage. Typical internet banking users tend to be well educated, relatively young and are high income earners. It has been widely recognized that the demographic factors have a great impact on consumer attitudes and behavior towards internet banking (Karjaluoto, 2002).The more people feel secure, the more they will adopt internet banking service. The factors affecting the acceptance and adoption of new innovation are the level of security or risk associated with it (Cooper and Schindler, 2001).Technological advancements are very essential for people and human life Because it helps to save time and money. Information technology is becoming expansion nowadays and people tend to use it. New technological advancements have introduced varieties of changes in the world and business era (Qureshi, Zafar and Khan, 2008).There are several factors which influence to the internet banking adoption.(Laforet and Li, 2005).They highlighted that person's demography, motivation and behavior towards different banking technologies and individual acceptance of new technology. It has been highlighted that consumer's attitude toward online banking are influenced by basic experience of computer knowledge new technological advancements. When customers are adopting the internet banking they should consider several factors. Such as, password integrity, privacy, data, encryption, hacking, and the protection of personal information(Benamati and Serva, 2007).Consumer involvement is very essential for internet banking, as it requires the consumer to maintain and regularly interact with additional technology (a computer and an internet connection)(Jane, Hogarth and Hilgert, 2004)consumers are using internet banking an ongoing basis and need to acquire a certain comfort level with the technology to keep using it(Kaestner, 2008)

2.5. Importance of Internet Banking

Internet banking is very important for both customers and banks because, internet banking gives significant importance to the banks and customers. It has been said that low cost internet banking sites will to commoditize convenience. It simplifies banking performance. Therefore banks can get competitive advantage .on the other hand customers can possess convenience when they are getting service from banks. As well as it is a low cost alternative to the customers (Hamilton, 1996).The types of product and services offered through the internet frequently use less staff. No need to deploy a large number of employees to carry out the transactions. Ideally, internet banking should not be charged any fees and that are free from charge. However, certain

transactions, such as check cancellations and wire transfers would still require administrative charges. Since the cost of operating internet banking services is low, Internet banks should look for opportunities to lower the charges and transfer the cost saving to customers (Tan and Teo, 2000). Internet banking facilitates benefits to the both banks and customers. Comparing to the traditional banking, it gives some valuable benefits to the customers and banks. Customers can possess lowers transaction cost; provide 24-hour services; ensure increased security and control over transactions; reduces fraud risk; performs higher volume of transactions with less time; increases number and volume of value payment through banks; allow remote transactions facilities that replace physical presence of a customer in a bank branch and; increases transactions speed and accuracy. But traditional banking is more time consuming and high cost method (Rahman, 2002). Internet banking very essential for long-term survival of banks (Burnham 1996). Customers can access their accounts 24 hours a day even 7 days a week. Therefore, it has been said that internet banking is more accessible than traditional banking. It is a very cheapest method to customers and free from charges. Furthermore, e-banking from customer's point of view is that most banks provide account aggregation services at least internally (Sathye, 1999). According to the (Shah and Clarke, 2009) Customer first approach is very essential for internet banking Customers' very important part when providing the internet banking facilities. Bank should identify the different needs of the customers. In modern trend shows that customers want great choice.

2.6. Determinants that Influence Consumers Adoption of Internet Banking

2.6.1. Consumer and Internet Banking

Consumer behavior is about learning about consumers and their buying behavior. Schiffman and Kanuk (2000, p.8) explain that a consumer is used to describe two kinds of consumers, i.e. personal and business or organizational consumers. Personal consumers are consumers who buy goods and services for their own use, and business consumers are those buying products, equipment and services in order to run a business. Block and Roering (1979, p.132) define consumer behavior as the acts of individuals directly involved in obtaining and using economic goods and services. This includes the decision making processes that consumers go through when buying goods. With a better understanding of consumer behavior banks will be able to identify customer profiles. Beckett, et al. (2000, p.20) suggests that the type of financial

product being purchased influences consumer purchasing behavior. Secondly, the emphasis on trust and having a relationship is also highly pertinent to the strategies of banks and other financial providers. Thirdly the ability to retain customers and increase customer profitability is very important (Karialuoto, et al., 2002, p.263). Individual differences in consumer behavior have been theorized and found to be associated with the acceptance of new information technology, such as internet banking (Nelson, 1990, p.85).

2.6.2 Consumer Perception and Attitude

According to Lamb, et al. (2000, p.168), defines perception as the process whereby an individual selects, organizes and integrates stimuli into a meaningful and overall picture. Perception involves all the senses (seeing, feeling, tasting, smelling and hearing), and these sensory stimuli play a role in causing certain sensations which influence consumers in deciding whether to purchase or not.

According to Lussier (2000, p.295) perception has defense mechanisms that are used to protect consumers against undesirable stimuli from the environment. According to Reekie and Brits (1997, p.95) different consumers will perceive a product offering differently, depending on their needs. Consumer perception towards a product and service can play a role to influence their buying behavior. Consumers' acceptance of technological innovations such as internet banking may be influenced not only by their socioeconomic and demographic characteristics, but also by their perceptions of specific technologies and by the characteristics of different products and services (Davis, 1989, p.338). Attitude is a positive or negative feeling or mental state of readiness, learned and organized through experience that exerts specific influences on a person's response to people, objects and situations (Gibson, et al., 2000, p.65). Consumer attitude refers to the feeling of liking or disliking that consumers have towards products, stores, brands and other marketing stimuli. The attitude of consumers is of importance to marketers because they show consumers' intentions and behaviors towards the marketing mix variables of product, price, place and promotions (Fox all and Goldsmith, 1994, p.95). Attitudes represent a primary means of measuring the effectiveness of all aspects of marketing communication. Attitudes are learned and those which result in purchase behavior are formed as a result of direct experience with the product, information acquired from others, and exposure to mass media (Hawkins, et al., 1989, p.432). According to Guo (1999, p.122), attitudes are often viewed as determinants of meanings,

because they provide a context for the interpretation of new information, and help individuals to evaluate each other's opinions and organize and select facts. The attitude theory suggests that the more favorable attitude a person has towards a given product/service, the more likely that person is to buy or uses that product/service. The overall attitude towards an object is expected to relate to behaviors towards the object (Ajzen and Fishbone, 1980, p.65). The measure and understanding of attitudes allow and help marketers in the development of products that consumers want and promote them effectively and in evaluating their efforts at promoting the products (Foxall and Goldsmith, 1994, p.94). According to Lussier (2000, p.296) attitude is an overall perception about an object. Attitudes both affect and are affected by behavior. Hence attitude refers to the overall evaluation of an object. Attitudes are personal feelings that influence a person's tendency to act in a particular way. In this study attitude describes a person's perception towards internet banking. Attitude motivates consumers towards a particular behavior. According to Mink (2001,p.4), of the ten countries studied, 3% of consumers had no interest in internet banking as customer service is what really matters and they receive that at a traditional bank. An innovation presents potential adopters with a new means of solving problems and exploiting opportunities. According to Rogers (1983, p.213) an individual first forms an attitude towards the innovation leading to a decision to adopt or reject the innovation. If the innovation is perceived to be better than the existing system (a measure of its relative advantage), is consistent with the needs of the potential adopter (a measure of its compatibility), and is easy to understand and use (A measure of its complexity), it is more likely that a favorable attitude towards the innovation will be formed.

2.6.3. Relative Advantage

Relative advantage is the degree to which an innovation is perceived as being better than the idea it supersedes"(Rogers, 1983).Further, he stated that relative advantage is mostly referred to in terms of expediency, saving of money, effort and time, and reduced inconvenience in using or adopting an innovation. Relative advantage is giving economic profitability. Some specific type's relative advantages are needed to be considered by adopters when they are adopting the new innovation; Such as economic and social. Therefore, relative advantages are very important to the adopters. In the e-service context, users may perceive a relative advantage in assessing the internet and use its website services from any location at any time of the day. Online services present other advantages for the organizations in addition to providing continuous access. They

potentially contribute to valuable promotions of the company; enhance the quality and speed of customer services; create competitive advantages; entice shoppers and encourage customer interaction; support core business functions that are integral to business strategy, and provide new business opportunities by increasing market presence and facilitating online purchasing.(Polatoglu and Ekin, 2001).Relative advantages are very important when adopting the new innovation (Tornatzky and Klein, 1982). Internet banking gives various relative advantages to the customers. Such as, customers can access their accounts at any location, 24 hours services, convenience to users; they can check their accounts easily(Tan and Teo, 2000).Internet banking facilitates many advantages than the traditional banking. There are two types of perceived benefits Such as direct and indirect advantages. Direct advantages mean immediate and tangible benefits of internet banking Such as, faster transaction speed and information transparency. On the other hand, time saving, no need many paper documents, accurate information available at any time. Indirect advantages mean that are less tangible and difficult to measure. Such as 24 hours services, news updates, stock quotations (Lee, 2008)

2.6.4. Perceived Ease of Use

It refers to the degree to which a person that using a particular system would be free from effort (Davis 1986). It refers to the degree to which an organization that using a particular system would enhance or improve its job performance.

According to Masrom and Hussein (2008) the adoption of whether to use an information system for a particular individual is very much dependent on the perceived usefulness and perceived ease of use of the information system.

TAM is a well-established, powerful, and parsimonious tool for predicting user acceptance in the literature. The technology acceptance model, an adaptation of theory of reasoned action, gives us two important variables that influence the behavioral intention to use Internet banking (Davis, 1989):Perceived usefulness (PU): This was defined by Davis as “the degree to which a person believes that using a particular system would enhance his or her job performance” and Perceived ease-of-use (PEOU): Davis defined this as “the degree to which a person believes that using a particular system would be free from effort.”TAM has been used to examine the possible antecedents of perceived usefulness and perceived ease of use toward microcomputer usage.

However, a criticism of TAM is that there are very few studies that study the factors that affect PEOU and PU (Gefen&Keil, 1998).

2.6.5. Convenience

The fierce battle over customers, providing a unique experience is the compelling element that will retain customers. Mahmoud Shah (2009), OzlemAltun (2012)states that convenience and ease of operation make online banking more accessible. According to Wang (2002:4), internet banking is time saving and convenient since a customer can use bank seven days a week and twenty-four hours a day without physically visiting a branch and transactions are executed and confirmed almost immediately. According to Ravi (2008), Organizations experience efficiency gains through lower costs in the first phase of technological application. There are significant performance improvements in deploying Internet banking over alternative delivery mechanisms. Internet significantly lowers the cost of distribution of banking products and services. The cost per transaction of various delivery channels tells us that face-to-face banking costs.

2.6.6. Perceived Cost

According to Ching and Ellis (2004, p.414) adoption will be driven by the perceived costs and benefits inherent in the particular innovation. The cost of an innovation has many components initial investment costs, operational costs, and utilization costs. Roth well and Gardiner (1984, p.88) observe that there are two fundamental sets of factors affecting user needs, namely price factors and non-price factors. To this extent Gupta (1988, p.353) identifies price as a major factor in brand switching. If consumers are to use new technologies, the technologies must be reasonably priced relative to alternatives. Otherwise, the acceptance of the new technology may not be viable from the standpoint of the consumer. According to the Comptroller's Handbook (1999, p.17) another factor that would stand in the way of consumer adoption of internet banking is the cost factor. In internet banking two types of costs are involved. First the normal costs associated with Internet access fees and connection charges. Secondly, the bank fees and charges. Bradley and Stewart (2003, p.1091) found high initial set up costs; cost reductions and the costs incurred during implementation are considered as the greatest inhibitors of the diffusion of internet banking. Another study indicates that consumers will not adopt a new financial product unless it reduces their costs and does not require them to change their behavior when using it (Bareczal and Ellen, 1997, p.137). From a customer retention perspective, Goosen, et al.

(1999,p.59) point out that with the introduction of internet banking, lower switching costs and easy accessibility via the internet, customers who are dissatisfied with the services or products offered by their banks are more likely to withdraw their loyalty if their requirements are not provided for. Clearly cost perception is a factor which continues to inhibit the adoption of internet banking in Ethiopia. To overcome this barrier banks should be at pains to prove to consumers that internet banking is a cost effective and beneficial form of banking and in doing so actively take measures to dispel any misperceptions that consumers may have about online banking costs. In conclusion, by lowering the perceived cost of using internet banking, cost conscious consumers are more likely to adopt this innovation.

2.6.7. Perceived Risk

Perceived risk reflects the extent to which consumers are uncertain about the consequences of buying, using or disposing of an offering. It is important to recognize that risk is subjective. That is, the risk that a customer perceives in making a purchase decision may not really exist (Hoyer and MacInnis, 2000, p.67). Risk or uncertainty regarding the most appropriate purchase decision or the consequences of the decision is a significant variable influencing the total amount of information gathered by consumers (Loudon and Bitta, 1993, p.511). According to Loudon and Bitta (1993, p.512) there are several situations that influence the consumer's perception of uncertainty or consequences and, thus, the perception of risk. These are: uncertainty regarding buying goals; uncertainty regarding which alternatives (such as product, brand, or model) will best match or satisfy the purchase goals; perceived possible undesirable consequences if the purchase is made (or not made) and the result fails to satisfy buying goals. If the consumer senses any of these situations, then he or she is said to perceive risk in the situation. Research conducted in Turkey (Polatoglu and Ekin, 2001, p.164) states that risk includes financial, physical, or social risks associated with trying an innovation. It is known that security risks are one of the major barriers to the adoption of online banking. With the introduction of internet banking services by a few large, well-known, and trusted banks in Turkey, customers perceive the security risk to have decreased considerably. One of the major influencing factors around the use of internet banking is that of security. According to Liu and Arneet (1999, p.31) the need for secure transactions is critical to the success of not only internet banking but that of any e-commerce related to website. Consequently the lower the perception of risk in using internet banking the more likely an individual would be prepared to use it. Hartman, et al. (2000, p.75)

point out that security is a major concern wherever online transactions take place. They suggest that Internet-based service providers must implement access control, authentication procedures, encryption, firewalls, audit trails and virus protection to secure their online services. Another survey conducted by Cranor and Laurie (1999, p.38) found that 81% of Internet users are concerned about threats to their privacy while online. An empirical study found that consumers are often reluctant to share personal information for fear that their financial life will become an open book to the Internet universe (Bestavros, 2000, p.55). Security has been widely recognized as one of the main obstacles to the adoption of internet banking. Many studies suggest that banks must first convince their customers that internet banking and transactions are secure before customers will show a willingness to use internet banking. Consequently the adoption of internet banking is likely to increase when the risk of using internet banking is low.

2.7. Demographic Factors

Demographic factors, age income, education, occupation were significant factors for internet banking adoption. Consumers who are younger, affluent, well educated, with computer ability, with experience of other banking technologies, with occupation related to computer or the internet, and with a long time horizon for saving and spending are more likely to adopt internet banking. (Min Kim, Widdows and Yilmazer, 2005) .The age of the customer is directly affecting the rate of usage of e- banking. Since the younger generation is more familiar with internet based work, so they tend to use e-banking more than the others(Jayasiri and Weerathunga, 2008).The individuals who tended to use the internet early in Europe.

2.8. Types of Internet Banking

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 Aladwani (2001) in Safeena et al. (2010).

There are three types or functional levelsofinternet banking that is 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 customer s 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 Thalami (2009), Yibin (2003) and Diniz (1998) in Safeena l. (2010).

2.9. Advantage and Disadvantage of Internet Banking

Advantage of internet banking such as ease of use, time savings, cost reductions, service delivery control, and even technological changes are discussed below. Curran and Meuter (Ho and KO, 2008, 2005) list some of the advantage and disadvantage of online banking:

2.9.1 Advantage of Internet Banking

Convenience: Unlike the traditional banking systems whereby customers have to be physically present to conduct transactions, internet banking channels are always available to customers at any time day or night. This helps customers to carry out transactions at convenient time and from anywhere with internet access.

Transaction speed/cost reduction: Internet banking speed up transactions. It is quicker when compare to branch banking and ATMs. Internet banking is also less costly because cost of transportation to and from the bank is eliminated.

Effectiveness: With internet banking there is no hurry for rushing to the bank for carrying out transactions. You can manipulate your account at any time. Customers can manage their money and accounts and investments much more swiftly. At the same time, it is easier to pay bills online, to receive statements, and to transfer money.

Efficiency: Internet banking is efficient due to the fact that it allows free access, to manage and control all financial transactions without wasting much time.

2.9.2 Disadvantage of Internet Banking

Some of the disadvantage of internet banking listed by Basic (2009) are briefly listed here. These are based on customers' perspectives.

Security issue: is seen as one of the major issues affecting the use of internet banking. In spite of many sophisticated encryption software that have been designed to protect accounts, there is always a possibility of hacking by smart elements in the cyber world. Hacker attacks, phishing, malware and other unauthorized activities are common on the net. Many customers still therefore worry about safety and security issues over internet.

Changes in banks websites: Banks have to upgrade their websites by adding new features in unfamiliar places on their screen menus. In some cases, customers will probably need to re-enter their account details and search to locate the exact point of transactions.

Service issues: Some special services offer to customers is not possible online. Comprehensive financial services, such as brokerage accounts and insurance that traditional banks offer directly to customers cannot be offered online. Sometimes, traditional banks offer special services to loyal customers, such as preferred rates and investment advice at no extra charge, cases which require a customer's presence.

2.10. Definition of Variables in the Study

Customers Attitude (CA): refers to users' positive or negative feeling towards the adoption of e-banking (Davis et al., 1989; Taylor and Todd, 1995). This notify, a person's desirability to use the system or his/her perception about internet banking credibility and reliability.

Perceived Ease of Use (PEOU): refers to the degree to which the users perceived that using this internet banking would be free of effort, that is, the ease of learning and using internet banking.

Convenience (CON): refers to the quality of being suitable, useful or makes for an easier life.

Perceived Reliability (PR): refers to the extent to which internet banking services are reliable to influence its adoption by customers.

Perceived Cost of Service (PCS): refers to the degree to which the customers believe that the cost of using the internet banking services is expensive.

Perceived Risk (PR) Perceived risk reflects the extent to which consumers are uncertain about the consequences of buying, using or disposing of an offering. It is important to recognize that risk is subjective

Employees Responsiveness (ER): refers to the quality or state of being responsive of employees.

Demographic Characteristics

Many studies have investigated the effects of the customers' demographic characteristics such as age, gender, income and educational level on their attitude towards different banking technologies and individual adoption of new technology.

Education: refers to the degree to which users or non-users are educated, since it is believed to play a significant role with regards to attitude towards technology adoption and usage. According to (Burke, 2002) higher educated customers such as university graduates are more comfortable in using technology given that education is often positively correlated with an individual's level of internet literacy.

Gender: illustrates the difference in attitudes between male and female towards the adoption and usage of new technology. It is hard to say if males or females may be more likely to adopt internet banking.

Customer's Income: is another demographic factor of interest. It refers to the extent to which the level of income of users or non-users will influence their attitudes to adopt internet banking. It has not featured prominently in empirical studies on the adoption and diffusion of technology. We believe that it can exert a positive impact on customer's attitude towards internet banking adoption, given that high income earners are more likely to use these services.

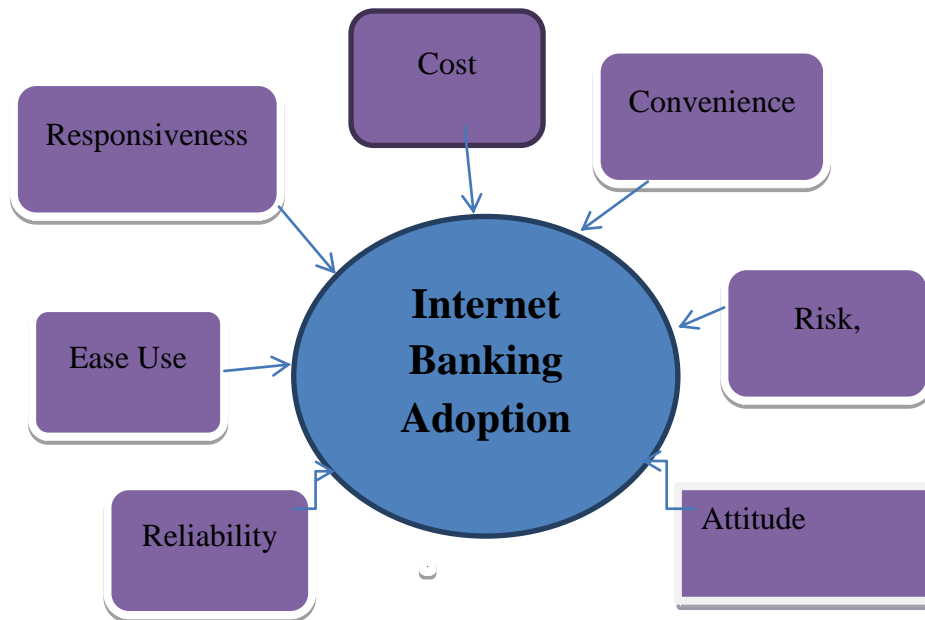
Age: will capture the attitudes towards adoption of new technology amongst different age groups. Previous studies on technology acceptance propose that there is a strong relationship between age and the adoption of new technology. That is, it is observed that older customers are found to have negative attitude towards technology and innovation as compared to younger adults who are more interested in using these new technologies. Thus, older customers are less likely to adopt internet banking.

Marital Status: refers to whether the respondent is single or not. This variable is not popular in the literature. It is expected that customer's attitudes towards internet banking adoption will be higher in singles than couples.

2.11. Conceptual frame work of the study

Figure 2.1 Conceptual frameworks:

Figure 2.1 shows the dependent variable internet banking adoption and independent variable perceived cost, perceived easeuse, perceived risk, reliability and attitude.



Source; Author (2020)

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Research Design

According to Kothari (2004) the research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. A choice of research design reflects the priority of a researcher about the magnitudes of the research process and methods. The objective of this research assessed determinants of Internet banking adoption. To analyze this study, the researcher adopted explanatory type of research method analysis the reason for selecting explanatory research design is a scientific method which involves observing and describing the behavior of a subject without influencing it in any way. It included use of percentages, mean, frequency distribution and standard deviation. It sets out to collect, organizes, and summarizes information about the matter being studied. Also inferential statistics used included correlation and multiple regression analysis.

3.2. Target Population

The target population for this study is customers of commercial bank of Ethiopia Jimma District. In order to collect data from the respondent, the researcher selected commercial bank of Ethiopia found in Jimma Town. 384 bank customers were selected due to their adoption of internet banking for 2020.

3.3. Sampling Technique and Sample Size

The researchers used Cochran's (1977) sample size determination formula to determine the sample size for study population with 95% confidence level which is used by researchers (Anderson 2009, PP. 313-316).

$$No = z^2 * p(1-q) / e^2$$

Therefore, for a confidence level 95%, Z= 1.96, e=0.05, and p=0.25

$$No = 1.96^2 * 0.25 / 0.05 = 384$$

No= required return sample size according to Cochran's formula= 384

Assuming response rate of 95%, a minimum drawn sample size were 268 which is calculated as follows:-

$$n1 = 384 * 0.7 = 268$$

Where:

- Anticipated return rate = 70%.
- **n1**= sample size adjusted for response rate.
- Maximum sample size = 384.

In this study judgmental sampling technique was used to include 384 sample respondents from commercial banks of Ethiopia in Jimma. Accordingly, 268 questionnaires were distributed to bank's customers. Among these distributed questionnaire, 221 questionnaires were returned with 82% response rate.

The researcher used the most frequently chosen confidence interval of 95% (1.96) from z distribution table). A larger value for the quantity $p(1 - q)$ resulted in a larger sample size. Note that the largest value of $n(1 - q)$ occurs when $p = 0.50$, that the sample size is sufficient to obtain the desired margin of error. It is also recommended to use planning value of $p = 0.5$ based on this detail the researcher designated p to be 0.5 (Anderson 2009, PP. 313- 316).

3.4. Data Type and Source

The researcher used primary data to identify the determinants of internet banking adoption of customers. Primary data were collected from customers who hold account such as demand account, saving account, fixed time deposit and loan account and those who transfer and/or receive money. Observation was also used. Since the researcher lives in Jimma town primary data collected from customers of Jimma district were collected by branch managers of the target branch then sent through mail through messengers. Secondary data was collected from bank's document such as journal articles, reports and other related sources.

3.5. Data Collection Method and Instrument

It is believed that the most convenient and economical data collection instrument in survey is questionnaire and interview. Collecting data through questionnaire is quite popular because it is less costly even when the population and sample size is large, thus the result can be more dependable and reliable. The closed ended questionnaire type and the interview was semi-structured one. Interview was conducted with Jimma the district manager, IT manager, and Digital Manager.

3.6. Methods of Data Analysis and Presentation

For the analysis of the data, explanatory and inferential statistics were used. Statistical Package for Social Science (SPSS) software version 20 was used to perform various statistical analyses. The stages in the statistical analysis were data preparation, tabulation of data, and then various tests were conducted to analyses relationships. Based on the questionnaire, frequencies and percentages were used for all variables of this study. Cronbach's alpha test was used to test for reliability and internal consistency of the research variables. To accomplish this research objective which is to assess the determinants of internet banking adoption among commercial bank of Ethiopia found in Jimma town multiple linear regression models was used due to the continuous nature of dependent variable internet banking adoption.

3.7. Model Specification

The model is specified as follows:-

$$IBU_i = \alpha_0 + \beta_1 PEU_i + \beta_2 RL_i + \beta_3 CA_i + \beta_4 PR_i + \beta_5 PCO_i + \beta_6 RSP_i + \beta_7 CON_i + \epsilon_i \dots \dots \dots Eq 1$$

Where:

IBU is internet-banking usage,

PEU is perceive ease use,

RL is reliability,

CA is customer attitude,

PR is Perceived risk,

PCO Perceived cost,

RSP responsiveness

CON convenience,

α_i is an intercept,

$\beta_1, \beta_2 \dots \beta_7$ is a coefficient and ϵ_i is an error term.

CHAPTER FOUR

DATA ANALYSIS, DISCUSSION AND INTERPRETATION OF FINDINGS

4. Introduction

The determinants of customers' adoption of internet banking services of banking sectors have been studied by many researchers across the world. However, this study was conducted to examine the determinants of customers' adoption of internet banking services in Ethiopian context particularly in Commercial bank of Ethiopia Jimma district found in Jimma Town to contribute its own effort for the empirical evidence.

4.1. Demographic Characteristics of Respondents

Table 4.1.1 General Information of the Respondents		
1.1 Gender of the respondent	Frequency	Percent
Male	151	68.3
Female	70	31.7
Total	221	100.0
1.2 Age of the respondent	Frequency	Percent
Below 25 year	40	18.1
26-35	141	63.8
36-45	35	15.8
Above 45	5	2.3
Total	221	100.0
1.3 Marital Status	Frequency	Percent
Single	55	24.9
Married	162	73.3
Divorced	4	1.8
Total	221	100.0
1.4 Occupation of the respondent	Frequency	percent
Student	23	10.4
Businessman	86	38.9
Employee	104	47.05

other specify	8	3.61
Total	221	100.0
1.5 Literacy	Frequency	percent
Yes	221	100.0
1.6 Education level of the respondent	Frequency	percent
primary completed	23	10.4
secondary completed	41	18.6
Diploma	75	33.9
bachelor degree	60	27.1
master's degree and above	22	10.0
Total	221	100.0
1.7 Income level of the respondent	Frequency	percent
Less than. 2000 birr	34	15.4
2001-5000	95	42.9
5001-8000	60	27.1
above 8000	32	14.4
Total	221	100.0

Sources questionnaire, 2020

The above table 4.1 presents the general information of the respondents. It shows that majority of the respondents are males that are 151(68.3%) and the remaining 70(31.7%) are females in which the males are dominant in the study. The table above 1.2 also shows that the age of the respondents ranging from the 26-35 years are 141(63.8%) that they are the dominant in the study and ages below 25,36-45,and above 45 years are 40(18.1%),35(15.8%)and 5(2.3%) respectively and As marital states shown from the above Table , 162(73.3%) are married who are the majority of the respondent in the study and 55(24.9%) are single, and 4(1.8) are divorced that are less dominant in the study. Occupation of the respondent as shown from the above table the dominant part of the respondents' occupations 104(47.05%) are employees and the remaining 86(38.9%), 23(10.4) and 8(3.61%) are businessmen, students and other occupations respectively. As shown from the above table 1.5 that all of the respondents are literate that is 221(100%) and the study is dominated by them. As shown from the tableabove, 1.6 shows the dominant

educational level of respondents is 75(33.9%) Diploma and the remaining were 60(27.10%), 41(18.6%), 23(10.4%), 22(10%) were bachelors, secondary completed; primary completed and master's degree respectively. From 161 users 112 are diploma holders and in the table above 1.7 indicate that educated people are using more internet banking service, because educated people are nearest to the information and can easily access the technology. As shown from 1.8 above most of the respondent income fall between the range from 2001 to 5000 that are 95(42.9%) and the remaining income earners are 34(15.4%), 60(27.1%) and 38(14.2%) are in the range of, less than birr 2000, 5001 to 8000 and greater than 8000.

Table 4.1.2: Gender of the respondents

Table 4.1.2 Cross tabulation of the user of Internet banking and Gender				
Users and Gender		the user of Internet-banking		Total
		Yes	No.	
Gender of the respondents	Male	40	111	151
	Female	20	50	70
Total		60	161	221

Sources SPSS version 20.0

The above table indicates that internet banking service non users can be influence by the male mostly because the numbers of the users from 161 non users 111 are men the rest 50 are women. On the other hand from users of internet banking of total 70, 20 of them are women and 40 are male that is doubling greater than women.

4.1.3 Age of the respondents

Table 4.1.3 Cross tabulation between group of age and user				
Age group and users cross tabulation		Users of internet-banking		Total
		Yes	No.	
Age of the respondents	Below 20 year	5	35	40
	26-35	37	104	141
	36-45	14	21	35
	Above 45	4	1	5
Total		60	161	221

Sources SPSS version 20.0

As table depicts from 40 respondents of the age group below 20 years, 35 of them are most users than 36-45 and above 45. This may show that the youngsters are accepting the internet banking proportionately more than the other age groups. From respondents, age groups below 25 years, age groups between 26-35 age groups between 36 -45and above age groups 45. This may indicate that the youngsters have more tendencies to accept internet banking and as age increasing the acceptance decreasing as can show from the table above. Therefore age is the influencing factors in adoption of internet banking.)

4.1.4.Income level of the respondents

Table 4.1.4 indicate cross tabulation of the users and income level				
Cross Tabulation		using internet-banking		Total
		yes	no.	
Income level of the respondent	less than br. 2000	13	21	34
	2001-5000	14	81	95
	5001-8000	25	35	60
	above 8000	8	24	32
Total		60	161	221

Sources SPSS version 20.0

Depict in table the income earners group 2001-5000 and 5001-8000 are the most users of internet banking. The respondent above income group above 8000 shows somewhat decreasing tendency.

4.1.5 Occupation of the respondents

cross tabulation of users		users of internet-banking		Total
		Yes	no.	
Occupation of the respondent	Student	2	21	23
	Businessman	18	68	86
	Employee	33	71	104
	other	7	1	8
Total		161	60	221

Sources SPSS version 20.0

As shown from the above table the dominant part of the respondents' occupations 86(38.9%) are businessmen and the remaining 84(38%), 50(22.6) and 1(.5%) are employees, students and other occupations respectively.

The businessmen and employees are part of the societies that can highly influence the adoption of internet banking service. Because this part of the occupation holder are the majorities of the study respondents. In addition to this the employees and businessmen have their own income and also they are mostly dominant part of the users of internet banking and other bank service. From the total users of internet banking 33 respondents are the employee and 18 respondents are businessmen the remaining 2 are student and 7 are other occupations. This shows that more and more effort is needed from the bank to create awareness on the society to increase the user of the internet banking.

4.2. Determinants of the Adoption of Internet Banking Services

4.2.1 The Relative Advantages of Internet Banking

As shown on the table 4.2.1 below internet banking allows respondents to manage their account better than the traditional banking system. This is indicated with mean of 4.11 that they have agreed (81%) with the stated advantage. This better management is from the fact that they can view their balance being at their home or any other place without contacting the bank physically can make online payment, can transfer fund from one account to other account or to any one without time and place restrictions. On the same table we can see that internet banking also

significantly saves their time (84.7%) have agreed that it saves their time, this is because they can use it 24hours a day. Much of time might be wasted during waiting for service if they go to bank physically and the time that spend to the way to branches bank.

Respondents were also asked regarding the easy communication that they can make with bank. Regarding this issue majority of them has positively supported this advantage. Around 81.4% of them have agreed that it enables them to have good communication pattern with bank in the same way the mean 4.15also assure this fact. Here the fact is that there is a possibility of getting necessary information online about the bank like; interest rate changes, if there is other better way to services, on how to safeguard their account, different new product service if there, different financial information and so on.

Advantages	Agreement level by percentage					Mean	Std. Deviation
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		
Internet banking allows me to manage my Account better.	3.2	14.5	1.4	30.3	50.7	4.11	1.174
Using internet banking saves my time.	1.4	10	3.6	29.9	54.8	4.27	1.02
Using Internet banking makes me more Comfortable to communicate with the bank.	2.7	13.1	4.1	25.8	52.9	4.15	1.159
Internet banking Reduces the frequency to visits a physical bank.	2.3	9.5	14.9	25.3	47.1	4.06	1.103
Using Internet banking save my cost.	1.8	7.2	13.6	30.3	46.2	4.21	1.58

Customers can view online monthly Statement and make payment online.	1.4	13.6	10	32.1	42.1	4.09	1.584
Customers can access to accounts around the clock	1.4	8.1	10.9	33	46.2	4.15	1.002

Source: respondents survey, 2020

Similarly on the table 4.2.1 above majority (72.4 %) of the respondents agree for the statement internet banking reduces the frequency to visit a physical bank and also the mean value 4.06 indicates on average respondents rate agree for the specified statement. on the other hand (76.50%) of the sample respondents agree on that using internet banking save their cost and the mean (4.21) also confirm the rated while only 9% were against the statement and the rest were neutral regarding this. It may imply that in traditional banking service the customer can only get service by visiting physical branch but internet banking service enables the customer to do banking activities being at his or her work place like shop, super market etc. Doing his or her business without being off from their business can increase the reliability and reduce reputation risk. Also CBE nowadays do not charge account to account transfer or between two accounts that eliminate commission transfer or bank fee. Moreover, it reduce transportation cost which would have been sent went to a branch bank.

In addition, using internet banking can enable Customers to view online monthly Statement and make payment online without visiting physical bank. This can help customers to make regular follow-up of his or her account protect against fraudulent acts. Furthermore the customer can control his checks and improper debit and credit to his or her accounts. Regarding statement customers can access to accounts around the clock, mean of 4.09 indicates the average respondents' response in respect to this was agreement and the response varies from this by only 1.584. On respondents view about 79.2 percent of the respondents agree regarding and the mean (4.15) also support it while only 9.5 percent opposes the argument. This argument indicates that the customer can have seven day in a week and 24 hours in a day banking service.

In addition to the advantage discussed above internet banking has the benefit of reducing stationary cost, increase revenue, increase data accuracy and accessibility; diminish workload by decreasing the numbers of customers come to hall of physical branch. This finding is supported by Wang (2002:4), e-banking(internet banking) is time saving and convenient since a customer

can use bank seven days a week and twenty-four hours a day without physically visiting a branch and transactions are executed and confirmed almost immediately.

4.2.2. Perceived Cost

Majority of the respondents for the argument, the telecommunication cost is expensive; respondents respond that the telecommunication cost is expensive which is explained by mean 2.12 mean and standard deviation 0.950. The telecommunication cost cannot encourage internet banking users positively due to the most respondent respond below the average the deviation is 0.950 from the mean. On the same way the statement internet banking service fee is expensive for me has negative impact on the internet banking because some users disagree that telecommunication cost is not expensive even though most of the respondent is not argue and rate was indicated by mean of 2.26 and 0.945 standard deviation from the mean as depicted on the table.

The level of rating for the perceived cost statement internet banking is cost effective to me and benefit outweigh the cost both statement have Negative effect on internet banking as can be seen from table 4.2.2. However the internet banking has the cost, its benefit that can be fetched from it is more than it cost, as the rating level of the respondents of mean 3.62 and standard deviation of 1.032. When comes to the statement that indicate the resource needed by internet banking like computer and Mobile phone most of the respondent responded agree with the mean 3.02 above average and with standard deviation 1.144. Therefore the bank shall customize with lowest cost accessories resource materials which may relatively be affordable to buy by the customers to adopt internet banking.

Items	N	Mean	Std. Deviation
1. The telecommunication cost is expensive.	221	2.12	0.950
2. Internet banking service fee is expensive for me.	221	2.26	.945
3. Internet banking is cost-effective to me.	221	2.87	1.058
4. Benefit outweigh the cost	221	3.62	1.032
5. Using internet banking increase cost of equipment like PC Computers, mobiles (smart).to use internet banking.	221	3.02	1.144
Total	221		

Sources SPSS version 20.0

The finding is supported by finding Botha (2002) who states that high Internet access costs is a factor which inhibits growth in South Africa because people are too concerned about cost to maintain lengthy internet connections. This result is also supported by finding of which Sathye argued that, in the context of Internet banking, two kinds of price were accounted for; the normal costs associated with Internet activities, and the bank costs and charges which had a negative effect on the adoption of internet banking everywhere.

4.2.3 Perceived Risk

According to table below the respondents for the statement I prefer to go to the bank to do my banking business for security reason the respondent rating with mean 3.73 and standard deviation 1.348 indicate that they go to physical bank to do their banking activities rather than using internet banking being at home or anywhere and time for the security reasons. This may be due to, for the long years the customers of the CBE were using banking activities by being at the physical branch communicating through employees of CBE before internet banking. As the result they may not build confidence or trust to use internet banking for the banking transaction communicating through electronic media moreover the customers have different information through different media about the various fraudulence act made by different hacker, fraudulent actors and so on. On the same table below we can also see that 2.13 mean and 1.348 standard deviation depict that the argument to internet banking is safe or secure that, the respondent rate it below the average. These customers may fear the fraud like hackers, privacy risk, etc. From their perception through social media and from different Medias

Table 4.2.3 perceived Risk			
Items	N	Mean	Std. Deviation
I prefer to go to the bank to do my banking business for security reason.	221	3.73	1.348
Internet banking is safe /secure.	221	2.13	.812
I am not afraid of using internet banking for my account details.	221	2.20	.927
I do not trust the internet banking system provided by the bank.	221	3.80	1.254
Internet Banking is safe, shall not exceed the account information Into the hands of malicious persons.	221	2.12	.958

Sources SPSS version 20.0

As shown from table 4.2.3 above most of the respondent fear using internet banking that is for the statement I am not afraid of using internet banking for my account details. The respondents also do not trust the internet banking system provided by the bank. The mean and standard deviation of the two statement that is 2.20 mean and 0.927 standard deviation for the first statement shows that they fear the risk of internet banking. More over the respondents rating level with mean 3.80 to the agreement with statement and the deviation of 1.254 from the average. The customer may not trust the system because of the perception that they had.

According to the table 4.2.3 for the statements internet Banking is safe, shall not exceed the account information into the hands of malicious the respondent rate it negatively. And the statements that measured the perceived risk towards adoption of internet banking to a great extent. Results were in support of Syed and Nida (2011) who conducted a study in Pakistan. More over the mean (2.12) and standard deviation (.958) as can be viewed from the table indicated the negative implication they have toward privacy risk they fear. The customer may fear that PIN (personal identification number) and their access can be obtained from their account information by fraudulent actors and they may think that they can lose their money and privacy. This result concurs with previous conducted by Sumani Yahiya, June 2011 E-banking applications (e.g. internet banking) represent a security challenge as they highly depend on critical ICT systems that create vulnerabilities in financial institutions, businesses and potentially harm banking customers.

4.2.4. Perceived Attitude

In accordance to Ajzen and Fishbein, (1980), the attitude theory put forward that the more favorable attitude a person has towards a given product or service, the more likely that person is to buy or use that product/service. The overall attitude towards an object is expected to relate to behaviors towards the object. This is also true for knowing attitude of the respondents toward internet banking.

As indicated on the table 4.2.4 respondents feel using internet banking is wonderful and modern ideas the respondents rate the statement with 3.96 mean and with standard deviation 1.279. This may indicate that the respondent feel that internet banking is wonderful and modern idea. The

mean and standard deviation indicate that their perception has positive implication on internet banking adoption.

Table 4.2.4 perceived Attitude			
Items	N	Mean	Std. Deviation
I feel using Internet banking is wonderful and modern ideas	221	3.96	1.279
I feel using Internet banking is for the youngsters, Not for the older.	221	2.48	1.234
I feel using Internet banking is for higher class of the society, not for the lowers.	221	2.56	1.339
I like to use Internet banking.	221	3.21	2.386
I'm glad, my friends and I would recommend the use of Internet banking Close to buddy list.	221	3.29	1.355
	221		

Sources SPSS version 20.0

As table 4.2.4 shows the mean (2.48) most of the respondents oppose the argument that using internet banking is for the youngsters, not for the older and standard deviation (1.279) also shows that the respondent response varies from the average. On the same way the respondent mean (2.56) can show from the same table above average agree the statement that using internet banking is for higher class of the society, not for the lower class more than averages with mean (3.21) respondents like to use IB. As respondents rating level shown by mean (3.29) above the average respondents glad, and recommend the use of internet banking to friends. Most of the respondent of my study have good attitude toward internet banking. Here the finding supports the prior studies of Sun Han (2002) and Sara NaimiBaraghani (2007) in which they have identified customers attitude affects the adoption of internet banking strongly.

4.2.5 Reliability

The respondents were requested to give their opinion or views on whether they trust the banks services or not. This reliability issue indicates if they are dependent on the specified organization, in our case commercial bank of Ethiopia regarding internet banking services. Here one of the major aspects is on sufficient available internet services. The presence of efficiency of internet banking is totally dependent on internet service. Absence or presence of network determines use pattern of internet banking in any areas i.e. before we think about internet banking we have to assure that the branch or the country has internet services.

Table 4.2.5. Reliability of internet banking system.	Agreement level by percentage					Mean	Std. Devia tion
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		
There is internet interruption in rendering Internet banking.	3.7	11.9	5	39.3	40.2	4	1.123
Using internet banking is difficult due to low internet access.	5.9	8.7	16.9	35.6	32.9	3.81	1.161
Internet connection and mobile network was not good enough to perform internet banking transactions.	3.7	5.5	18.7	34.2	37.9	3.97	1.058

Sources SPSS version 20.0

Accordingly 39.3% and 40.2% or as shown with its mean of 4 have indicated that there is a serious problem of internet interruption while using internet banking. As we all know unless internet access is good, it doesn't only kill on the customer time it also has significant impact on the company's profitability. In addition to this customers may face several challenges like inability to use their money for intended purposes. As shown in table 4.5.7 above even though the need to use internet banking the low access to internet facility is identified to be a major bottleneck. This could be understood from the table that around 35.6% of them have agreed and 32.9% have strongly agreed with the fact that there is low access to internet. This difficulty has an impact on the reliability of users on the internet banking service.

In the same table respondents were also requested to forward their observation or experience on Internet connection and mobile network sufficiency for internet banking transactions. As it has been pointed out in previous discussions there is low access to internet facilities. Keeping this in consideration even the existing connection itself isn't enough to perform their banking activities online. In addition to this mobile connection isn't good enough for communication (to access internet tokens of password). Customers have shown this problem by agreeing with the mean result of 3.97. This means it one critical factor affecting internet banking in this town. Moreover the qualitative data also indicate that, Ethio-telecom infrastructure is not as such on the standard level, so it requires great effort yet to the demanded level, The result indicate concur with the finding identified by, (Hamidizadeh et al. (2006), Aghaunor and Fothoh (2006) and Gardachew W.,(2010).

4.2.6. Responsiveness

This variable aims to ascertain if internet banking is influenced by employeesresponsiveness of willingness in rendering internet banking, knowledge of the employees in rendering internet banking, attractiveness of the reception of the customers by the bank employees and familiarity with service provided even if internet banking are reliably provided.

Table 4.2.6 responsiveness of employees	Agreement level by percentage					Mean	Std. Deviation
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		
The willingness of the employee in rendering Internet banking is very poor.	11.4	18.7	33.3	25.6	11	3.06	1.158
The knowledge of the employee in rendering Internet banking is very limited.	5	13.7	16	48.9	16	3.75	2.871
The reception of the customer by the bank employee in rendering Internet banking is attractive.	10	64.7	15.4	8.1	1.8	2.27	.819
I lack familiarity with service provided even if Internet Banking are reliably provided.	3.2	20.5	11	43.8	21.5	3.6	1.131

Sources SPSS version 20.00

As the above table 4.2.6 depict 36.6 percent of the respondent were agree on the statement that the willingness of the employee in rendering internet banking is very poor. The remaining 33.3 percent amazingly neutral and 30.10 percent are disagreeing on their rating. The mean (3.06) and standard deviation (1.158) support this fact. This may be due to the attitude that employees would have toward internet banking. It may also be due to lack of training on customer handling and the relationship between the employee and management could have may reflect on customer service rendering. Work overload, inconvenience in working environment etc. can affect the willingness of the employees. Similarly the knowledge of the employee in rendering internet banking is very limited is rated by the respondent that 64.9 percent are agreed and the rest respondents rated 18.7 percent are disagree. This may be due to lack of training on the knowhow of internet banking, lack of guideline how to rendering internet banking that provided by bank, lack of self-efficacy on the technological material like PC and Smartphone. And readiness of the employee to accept the new technology may be the reason. As shown on table 4.2.6 the reception of the customer by the bank employee in rendering internet banking is attractive were rated by the respondents 74.7 percent disagreed, 9.9 agree and 15.4 percent are neutral. The mean (2.27) and the standard deviation (.819) also support this finding. This may be due to employee dissatisfaction with organization, office layout, work overload and lack of employee job rotation. The same to this the statement lack of familiarity with service provided even if Internet banking is reliably provided was leveled by the respondent that 65.3 percent , 23.8 percent and 11 percent were agreed, disagreed and neutral respectively. More than average of the respondent were agreed that the mean (3.6) and deviate by 1.131 from the mean and so the support result. The lack of familiarity by the customers due to enough promotion was not done by the bank, lack of closely giving guidance on internet banking service, etc. may affecting the familiarity of internet banking with the customers. In addition to this the data from interview was support this finding as, they are on the edge of creating awareness, as most of the society is not much literate regarding IT usage in general, internet banking in specific. In addition to this little awareness among CBE staff, slow moving on the supply of IT equipment's and poor quality and lack of coordination among collaborating bank organ.

4.2.7. Convenience

This variable aims to ascertain if internet banking is perceived to be convenient by the respondents and whether this is a factor that influences its usage. According to the study of Kerem, (2001) conducted in Estonia the most important factors in engaging in internet banking are first and foremost convenience.

Table 4.2.7 reveals that 72 percent of the respondents agree and strongly agree that internet banking increase the accessibility of the bank. As can be seen from Table 4.2.7, respondents on average (mean, 4.12) agreed that internet banking is convenient to carry cash (electronic money) to eliminate any risks make their lifestyle more convenient.

Table 4.2.7 Convenience	Agreement level by percentage					Mean	Std. Deviation
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		
Internet banking increases the accessibility of the bank.	0.9	17	10.1	26.1	45.9	3.99	1.152
I find it convenient to carry cash to eliminate any risks	3.2	13.2	8.7	31.1	43.4	4.12	2.278
Internet banking reduces /eliminate/geographic boundaries.	3.2	8.3	21.1	29.4	38.1	3.91	1.099

Sources SPSS version 20.0

Also majorities (67.5%) of the respondents believe that internet banking reduces /eliminate/geographic boundaries consequently respondents believed that internet banking makes their life more convenient. Therefore this result coincides with empirical studies discussed previously in this study Shukla (2011) stated that increase banking offers a higher level of convenience for managing one's finances even from one's be at room. Convenience and ease of operation make online banking more accessible Ozlem Altun (2012).

4.2.8. Perceived ease use

Concerning ease of use as a benefit of adopting internet banking system, respondents were asked to rate their level of agreement using five level likert scale (strongly agree, Agree, Neutral, and Disagree and strongly disagreed) based on five questions shown in the table 4.2.8.

Table 4.2.8 perceived ease use			
Items	N	Mean	Std. Deviation
Its ease and understandable to use Internet banking For banking activities.	221	3.03	1.171
Using Internet banking does not require mental effort.	221	2.72	1.141
Internet banking system helps to perform banking task in a simple way.	221	2.95	1.222
The bank provide guidelines on the use of internet banking facility	221	2.87	1.216
Using internet banking is very complex	221	2.08	.891
Total respondents	221		

The result for the statement, it is ease and understandable to use internet banking on average respondents agree with mean, (3.03). On other hand the respondents rate their observation for the statement using internet banking does not require mental effort with (mean, 3.11) as can be shown from the above table. On the same way respondent give their opinion for the argument internet banking system helps to perform banking task in a simple way with mean (2.95) that it indicate they agree on the statement . They were also requested to give opinion regarding internet banking complexity and rate mean (2.08) by deviation of .891 which is below the average and they are against the statement. Table 4.2.8 show that the respondent opinion with the mean (2.87) that the bank provides guidelines on the use of internet banking facility. This indicate that the respondent agree with the statement. Thus this result is supported by the earlier study of Jun Wu (2008), which suggests that ease of use has a positive impact on the adoption of internet banking. Also this study were regular with the finding of Khalid *et al* (2006) which shows that there is obvious agreement about the significance of making the internet banking service because it is easy to use. Yitbarek T., 2013, Results also revealed that the construct perceived behavioral control is the dominant factor followed by perceived ease of use and attitudes in predicting an

individual's intention to accept e-banking (ATM, mobile banking, Internet banking) service channels.

4.3 Tests for Regression Analysis

In the explanatory statistics part, the study shows the mean and standard deviation of the dependent and independent variables. This section provides test for the autocorrelation by Durbin-Watson, internal consistency by Cronbach's Alpha (α) Test and correlation by Pearson correlation. Accordingly, as it can be seen from table 4.3.1.

Table 4.3.1. Cronbach's and Durbin-Watson Test#	Independent Variables	Cronbach's α test	Durbin-Watson test
1.	Cost	0.854	1.60
2.	Ease use	0.899	1.11
3.	Risk	0.836	1.02
4.	Reliability	0.872	1.04
5.	Attitude	0.869	1.18
6.	Convenience	0.792	1.62
7.	Responsiveness	0.877	1.46

As shown in the above table 4.3.1 the Cronbach's Alpha are high and showing a very strong internal consistency among the measurement items. According to George & Mallery (2003), the value of alpha should be greater than 0.7 so as to accept the instrument. To test autocorrelation Durbin-Watson (DW) statistical test was applied. If the p-value of the auto correlation test is greater than the significance level of 0.05 not serially correlated or not auto correlated. (Chris books, 2008)

Table 4.3.2: Pearson's correlation coefficient matrix

	IBA	PEOU	CA	RL	PR	CON	RSP	PCO
IBA	1							
PEOU	.351***	1						
CA	.418**	-.48*	1					
RL	.318**	.033***	.128**	1				
PR	-.347*	.39**	-.061	.033**	1			
CON	.238***	.49**	-.043*	.061***	.049**	1		
RSP	.049**	.028**	-.072**	-.047**	-.046**	.022**	1	
PCO	-0.39	0.48**	0.65**	0.51**	0.32**	0.55**	0.19**	1

*** indicates correlation is significant at 1% level, ** indicates correlation is significant at 5% level and * indicates correlation is significant at 10% level.

Source: own Survey 2020

According to the correlation matrix above and respective significance levels; explanatory variables of perceived ease use, reliability, customer attitude, Perceived risk, responsiveness convenience, found to have a significant linear association with the dependent variable internet banking adoption (IBA). From these independent variables perceived ease use and convenience factors found to have a significant positive correlation with IBA at significant level 1%. whereas customer attitude, reliability and responsiveness appeared also positive and statistically significant association with the dependent variable at 5% level. Lastly Perceived risk, found negative and significant effects with the dependent variable at 10% whereas perceived cost have no significant relation between IBA. More specifically, the correlation coefficient indicates only the relationship between dependent and independent variable, which means independent variable increase also dependent variable increase whereas independent variable decreases also dependent variable decrease.

4.4. Regression Analysis

In this topic the study is going to describe the relationship between the dependent variable (IBA) and the independent variable; Perceived ease use, reliability, customer attitude, Perceived risk, Perceived cost, responsiveness, convenience. To do this, let start with the overall significance of the regression model test.

Table 4.4.1: ANOVA^a

model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	198.254	6	42.204	198.369	.000 ^b
	Residual	62.073	215	.908		
	Total	209.418	221			

a. Dependent Variable: IBA

- b. Predictors: (Constant), convenience, Perceived ease use, reliability, customer attitude, Perceived risk, Perceived cost, responsiveness, convenience

As we see from the above ANOVA table: the P value is 0.00 which is less than the level of significance or 0.05

Table 4.4.2:-Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.728 ^a	.662	.624	.51033

The value of R²(in Table 4.4.2) is .728 which denotes that about 72.8% of variation in adoption of internet banking service is expressed in the variation, Perceived ease use, reliability, customer attitude, Perceived risk, Perceived cost, responsiveness, convenience.

Table 4.4.3:-Model summary

Before we come to the individual variable, first we should check the assumption of multiple linear regression models that is, the assumptions of multi co linearity.

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Co linearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.162	.245		.689	.098	3.762	3.762
Perceived ease use	.326	.065	.214	3.95	.0018	3.475	3.475
Reliability	.364	.018	.321	4.01	.091	4.164	4.164
Customer attitude,	.298	.054	.175	3.17	.73	4.327	4.327
Perceived risk	-.207	.033	.118	2.99	.065	3.564	3.564
Perceived cost,	-.211	.017	.165	2.89	.0361	3.661	3.661
Responsiveness	.348	.041	.215	3.12	.017	4.995	4.995
Convenience	.371	.231	.197	4.21	.0124	4.112	4.112

The assumption of multi co linearity is checked by VIF (Variance Inflated Factor). As we see from table 4.4.3 all the VIF is less than 10, therefore there is no multi co linearity problem.

The P value of variables (Perceived ease use, reliability, customer attitude, Perceived risk, Perceived cost, Responsiveness, Convenience) is less than 0.05.except customer attitude. That is the variables Perceived ease use, reliability, customer attitude, Perceived risk, Perceived cost, Responsiveness, Convenience has a significance effect on the adoption of internet banking.

According to the above table 4.4.3,the coefficient of Perceived ease use, reliability, customer attitude, Responsiveness and Convenience, is 0.326, 0.364, 0.298, 0.348 and0.371 respectively. This figure tells about if the reliability, customer attitude; Responsiveness and Convenience have significant correlation.

Table 4.4.4 VariableConclusion

No	Description	Alternative hypothesis	Null hypothesis
1	There is positive significant relationship between Perceived ease use factors and adoption of internet banking	Accepted	Rejected
2	There is positive significant relation between Reliability factors and adoption of internet banking	Accepted	Rejected
3	There is positive insignificant relationship between Customer attitude and adoption of internet banking.	Rejected	Accepted
4	There is negative significant relationship between Perceived risk factors and adoption of internet banking.	Accepted	Rejected
5	There is negative significant at 10 % relationship between Perceived cost factors and adoption of internet banking.	Accepted	Rejected
6	There is positive significant relationship between Responsiveness factors and adoption of internet banking	Accepted	Rejected
7	There is positive significant relationship between Convenience factors and adoption of internet banking	Accepted	Rejected

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The study aimed to identify the determinants of internet banking on commercial bank of Ethiopia Jimma town branches found in Jimma District using qualitative and quantitative approach. The purpose of this chapter is to present the summary, conclusions and recommendations which was found from data analysis chapter.

5.1. SUMMARY

Majority of respondents are males that are 151(68.3%) and the remaining 70(31.7) are females. The age of the respondents ranging from the 26-35 years are 141(63.8%) that they are the dominant in the study and ages below 25,36-45,and above 45 years are 40(18.1%),35(15.8%)and 5(2.3%) respectively.

The output shows 162(73.3%) are married who are the majority of the respondent in the study and 55(24.9%) are single, and 4(1.8) are divorced that are less dominant in the study. All of the respondents are literate that is 221(100%). The dominant educational level of respondents is 75(33.9%) Diploma and the remaining are 60(27.10%), 41(18.6%), 23(10.4%), 22(10%) are bachelors, secondary completed; primary completed and master's degree respectively.

Most of the respondents' income fall between the range of 2001 to 5000 that are 89(40.3%) and the remaining income earners are 60(27.1%), 34(15.4%), 38(17.2%) are in the range of, 5001 to 8000, less than 2000 and above 8000 respectively.

The dominant part of the respondents' occupations 104(47.05%) are employees and the remaining 86(38.9%), 23(10.4%), and 8(3.61%) are, businessmen, students and other occupations respectively.

Among the sample 161 (73.3%) of the respondents' are not the user of internet banking that the bank provide to its customers and the remaining 60(26.7%) of the respondents are the user of internet banking.

Respondents respond mean of 4.11 that they have strongly agree (50.7%) and agree (30.3%) with the stated advantage.29.9% have agreed that internet banking saves their time significantly and about 54.8% of them have strongly agreed, this is because they can use it 24 hours a day.

Around 28.5% of them have agreed that it enables them to have good communication pattern with bank in the same way 52.9% of the have agreed with this issue.

Majority (72.4 %) of the respondents agree for the statement internet banking reduces the frequency to visits a physical bank and also the mean value 4.06 indicates on average respondents rate agree for the specified statement. Internet banking can enabled Customer to view online monthly Statement and make payment online, and regarding this the mean of 4.09 indicates the average respondents' response regarding this was agreement and the response varies from this by only 1.584.

Majorities (61.23 percent) of internet banking users respond that The telecommunication cost is not expensive where as well as a total 80.49 percent of non-users both agrees and strongly agrees with the statement. Both users (60.48%) and non-users (57.96 %) agree on that Benefit of internet banking outweigh its cost On the assessment of reliability of internet banking, 39.3% and 40.2% or as shown with its mean of 4 have indicated that there is a serious problem of internet interruption while using internet banking.

Internet banking allows respondents to manage their Account better than the traditional banking system. On the other hand almost half (50.41%) of the sample respondents agree on that Using internet banking save their time.

Regarding to extra material/equipment costs associated with using internet banking for the statement of Using internet banking increase cost of equipment like PC mobile phone etc to use IB ,48.39 percent of user respondents respond did not support the statement where as 30.24 % of them rated neutral.

They have responded (74.7%) disagreed that the IB is safe or secure and the remaining 18.6 percent are neutral and 11.3 percent are agreed.

More over on the same table 69.3 percent of the respondents are do not trust the IB system provided by the bank and the remaining 11.8 percent are neutral and only 18.5 percent are trust the above statements in using IB. According to the mentioned statement, 73.8 percent of the respondents are disagree for the statements IB is safe, shall not exceed the account information into the hands of malicious persons and the remaining 17.20 percent are neutral and 9 percent are agree.

Concerning to perceived attitude Majorities (78.4 percent) of internet banking users feel using IB is wonderful and modern ideas as well as a total 54.23percent of non-users both agrees and strongly agrees with the statement.65.55 % of the respondents oppose the argument that using IB is for the youngsters, not for the older and non-users of IB believe that IB is for the youngsters.

More than half (53.21%) user respondents like to use IB but 67.8 percent of non-user respondents dislike using internet banking.

On its social issue about 67.4 percent of the respondent responded that agreed to the statement to your decision to adopt IB is influenced by friends and relatives.

That around 35.6% of them have agreed and 32.9% have strongly agreed with the fact that there is low access to internet. In the same table respondents were also requested to forward their observation or experience on Internet connection and mobile network sufficiency for IB transactions.

Some respondents were agreeing on the statement that the willingness of the employee in rendering IB is very poor. The reception of the customer by the bank employee in rendering IB is attractive was rated by the respondents 74.7 percent disagreed, 9.9 agree and 15.4 percent are neutral. Internet banking is reliably provided was leveled by the respondent that 65.3 percent, 23.8 percent and 11 percent were agreed, disagreed and neutral respectively.

Respondents on average (mean, 4.12) agreed that internet banking is convenient to carry cash to eliminate any risks make their lifestyle more convenient. On average respondents believe that IB is ease and understandable to use IB on average respondents agree (mean, 3.04). Most of the respondents believe that Using IB require mental effort while on average (mean, 3.11) they were neutral regarding IB complexity.

According to the correlation matrix above and respective significance levels; explanatory variables of perceived ease use, reliability, customer attitude, Perceived risk, responsiveness convenience, found to have a significant linear association with the dependent variable internet banking adoption (IBA). From these independent variables perceived ease use and convenience factors found to have a strongly significant positive correlation with IBA at significant level 1%. whereas customer attitude, reliability and responsiveness appeared also positive and statistically significant association with the dependent variable at 5% level. Lastly Perceived risk, found negative and significant effects with the dependent variable at 10% whereas perceives cost have no significant relation between IBA. More specifically, the correlation coefficient indicates only the relationship between dependent and independent variable, which means independent variable increase also dependent variable increase whereas independent variable decrease also dependent variable decrease.

The overall regression model is significant. The value of R² is 0.662 which implies that about 66.2% of variation in adoption of internet banking service is expressed in the variation on Perceived ease use, reliability, customer attitude, Perceived risk, Perceived cost, Responsiveness, Convenience.

5.2. CONCLUSIONS

The finding of the study revealed that perceived cost, perceived ease use, perceived risk, responsiveness, convenience and reliability were significant determinants of internet banking service adoption among customers of commercial bank of Ethiopia Jimma District found in Jimma Town. On the other hand, customer attitude were statistically insignificant in affecting adoption of internet banking. Result of the study indicates that perceived risk and perceived cost have negative effect in adoption of internet banking service. Reliability, Perceived ease use, convenience, responsiveness had positive effects on adoption of internet banking service.

From the investigation, the income earners groups between two thousand up to eight thousand are the most users of IB. the other shows somewhat decreasing tendency. This can be due to the fear of risk that arises. Besides, the businessmen and employees are part of the societies with better income that can highly determine the adoption of IB service.

The user respondents oppose the argument that IB service fee is expensive for them and they also perceived that internet banking makes their life more convenient. On the contrary majority of non-users of IB believe that IB service fee is expensive for them. The non-user respondents believe that using IB come up with extra costs associated with I.B.

The finding implies that respondents prefer to go physical bank to do their banking activities rather than using IB being at home or anywhere and time for the security reasons. As the result they may do not build confidence or trust to use IB for the banking transaction communicating through electronic media. Moreover the customers have different information through different media about the various fraudulence act made by different hacker, fraudulent actors and so on.

From the investigation the willingness of the employee in rendering internet banking is very poor. This may be due to the attitude that employees have toward IB, lack of training on customer handling and the relationship between the employee and management, Work overload, inconvenience in working environment etc. can affect the willingness of the employees. Because of absence of enough promotion by the bank, lack of closely giving guidance on IB service and etc are affecting the familiarity of IB with the customers.

The study findings indicated that most of the respondents were not using internet banking service since it is not adopted by customers.

The study concluded that perceived cost, perceived ease use, perceived risk, responsiveness, convenience and reliability were significant determinants of internet banking service adoption among customers of commercial bank of Ethiopia Jimma District found in Jimma Town. On the other hand, customer attitude were statistically insignificant in affecting adoption of internet banking.

The study further concluded that perceived risk and perceived cost have negative effect in adoption of internet banking service. Reliability, Perceived easy use, convenience, responsiveness had positive effects on adoption of internet banking service.

Target respondent feel that IB is advantageous for wonderful and modern idea and better life compared to the traditional one.

5.3. RECOMMENDATION

- For The Bank;
- ❖ To attract customers, commercial bank of Ethiopia Jimma District should give attention on this significant variable to attract new customer and to keep existing customer.
- ❖ Even though youngsters have dominated the internet banking services, the bank can initiate other age groups to be familiar with different awareness creation mechanisms like training, workshop and advertisements.
- ❖ Orientation is needed for peoples who earn more than eight thousand as well as for others on how to reduce identified risks of IB.
- ❖ The bank should install security features such as encryption devices, which protects sensitive information.
- ❖ To capture large market in the IB business, efforts need to made in modernizing all its services, this is because there are several private commercial banks in the town and country wise also.
- ❖ As shown on the analysis part the attitude of the customers have positive aspect regarding IB. Therefore the bank have to maintain this attitude by making customer satisfaction survey to meet their expectation and improving according to the finding and incorporates more what the need.
- ❖ As indicate in the analysis parts of this study perceived risk and perceived cost are determinants of IB adoption that hinders IB usage identified by the study. Therefore I strongly recommend the banks to implement strong firewall, advanced and strong antivirus and increase the security to protect the customer account from hackers and fraudulent act. In addition to this the bank should create awareness for the customer using different Medias like social media, mass media and having video show at branches.
- ❖ The potential advantages identified by the study as a better determinant on I.B adoption were better account management, save time and cost, create better communication, enables customer to view online their statement, reduce the frequency of the customers to physical bank and enables the customer using the banking service without the limitation of time and geographical boundaries.
- ❖ Ease-to-use internet banking is important for all customers so, Banks should aim to make their internet banking simple to use so that customers do not perceive them as being

complicated or difficult to use. This gives deep view for web page developers to design an internet banking system interface and Websites which are more user-friendly with clear instructions for users.

- ❖ Cost benefit analysis of using and not using IB could be communicated to the non-users because there is a belief that it is expensive compared to the traditional method.
- ❖ The bank should create direct awareness to potential adopters through advertisement on radio, Television and newspapers about the differences in traditional and internet bank.
- ❖ Banks have to effectively show that using the Internet as a service channel will be important for the potential user and that functionality will be delivered.
- ❖ Video presentations should be made at branches to showcase the user-friendless of internet banking services.
- ❖ As the finding indicates the responsiveness of employee rendering banking service was one of the determinants in adoption of IB. Therefore it is better if the bank give managerial and technical training for his employee as to incapacitate them for new banking service; it should produce relevant user guidelines for IB service as to make easy the operation. In addition to this, conducive environment need to be maintained for his employees and reward skim for the employee who has shown high performance to motivate its employees.
- ❖ Systems will be to safe guard customer account need to be update from time to time to international standard. So as to convince users and reduce the fear about security.
- ❖ The bank managers should give attention in thesis significant variables to attract potential customers and keep existing customers.
- ❖ In order to improve the reliability of the IB service the bank need to work with business partners such as, Ethno telecom to meet the customer expectations.
 - For Ethio-Telecom
- ❖ Ethio-Telecom should investigate to have preventive maintenance in the areas where frequent infrastructure failure occurs.
 - For the Government
- ❖ The government should work more on the ICT infrastructure development which serve as an alternative line when the other line stops functioning.

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**Appendix
Jimma University**

College of Business & Economics

Department of Banking and Finance

School of Post graduate studies

Dear respondents;

Greetings to all whom this questionnaire would appear! I would like to express my heart full appreciation in advance for the cooperation you show in completing the questionnaire.

My name is SoniMulatu I am conducting research for my MSc in Banking and Finance at Jimma University. The title of my research project is “Determinant of Internet banking Adoption among Customers of Commercial bank of Ethiopia Jimma District: The case of Jimma town”.

In order to collect representative data you are kindly requested to **mark** ✓ on your preference in the boxes, **circle** on your preferences from the multiple choices and **write your response** on the space given. The information provided will be treated confidentially and your co-operation will be highly appreciated. The aim of this research project is ‘ to identify the factors that influence customers to use internet banking and to improve the internet banking service to customers’.

Date: _____

Signed: _____

Part one

1. Demographic Details

1.1. Gender

Male	
Female	

1.2. Age category

Below 25	
26 to 35	
36 to 45	
Over 45	

1.3. Monthly Income

Less than Br 2000	
Br 2001 to Br 5000	
Br5001 to Br 8000	
Over Br 8000	

1.4. Literacy: able to read and write?

Yes	
No	

1.5. Educational qualifications.

Primary completed	
Secondary completed	

Diploma	
Bachelor degree	
MA & MSC and Above	

1.6. Occupation

Student	
Employee	
Businessman	
Other specify	

1.7. Marital Status

Married	
Divorced	
Single (never married)	
Widow(er)	

PART TWO

2. Internet banking perception

Below, there are questions in relation with Relative advantage, compatibility, complexity, perceived cost and perceived risk of internet banking, also decisions to adopt internet banking influencers.

Please indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from “strongly agree” to „strongly disagree“ .Each choices were identified by numbers ranged from 1 to 5.

Note: 1- Strongly Disagree, 2- disagree, 3-neutral, 4-agree, 5- Strongly agree

No.	The following are Determinants of internet banking Adoption among customers of CBE Jimma district in the case of Jimma Town when assessing internet banking system; please indicate level of your choice	1	2	3	4	5
Relative Advantages						
1	Internet banking allows me to manage my Account better.					
2	Using internet banking saves my time.					
3	Using internet banking makes me more Comfortable to communicate with the bank.					
4	Reduces the frequency of customer visits to a physical bank					
5	Using internet banking saves my cost.					
6	Customers can view online monthly Statement and make payment online.					
7	Customers can access to accounts around the clock					
Perceived Cost						
8	The telecommunication cost is expensive.					

9	Internet banking service fee is expensive for me.					
10	Internet banking is cost-effective to me.					
11	Benefit outweigh the cost					
12	Using internet banking increase cost of equipment like PC mobile phone etc .to use electronic banking.					
Perceived Risk						
13	I prefer to go to the bank to do my banking business for security reason					
14	Internet banking is safe /secure.					
15	I am not afraid of using internet banking for my account details.					
16	I do not trust the internet banking system provided by the bank.					
17	Internet Banking is safe, shall not exceed the account information into the hands of malicious persons.					
Perceived Attitude						
18	I feel using internet banking is wonderful and modern ideas					
19	I feel using internet banking is for the youngsters, Not for the older.					
20	I feel using internet banking is for higher class of the society, not for the lower's					
21	I like to use internet banking.					
22	I'm glad, my friends and I would recommend the use of internet banking Close to buddy list.					
23	Your decision to adopt internet banking is influenced by					

	relatives (friends, parents, colleagues etc)					
	Reliability					
24	There is internet interruption in rendering internet banking.					
25	There is power interruption in rendering internet banking.					
26	Using internet banking is difficult due to low internet access.					
27	Internet connection was not good enough to perform internet banking transactions.					
	Responsiveness					
28	The willingness of the employee in rendering internet banking is very poor.					
29	The knowledge of the employee in rendering internet banking is very limited.					
30	The reception of the customer by the bank employee in rendering internet banking is attractive.					
31	I lack familiarity with service provided even if, Internet Banking are reliably provided.					
	Convenience					
32	Internet banking increases the accessibility of the bank.					
33	I find it convenient to carry cash to eliminate any risks					
34	Internet banking reduces /eliminate/geographic boundaries.					
	Perceived ease use					
35	Its ease and understandable to use internet banking For banking activities.					

36	Using internet banking does not require mental effort.					
37	Internet system helps to perform banking task in a simple way.					
38	The bank provide guidelines on the use of internet banking facility					

Part three

5.1 What are the factors that influence you to use Internet-banking?

5.2 What factors do you think that hinders you to use internet banking?

5.3 What do you think are the factors influencing adoption of Internet-banking as a whole?

5.4 What do you think are the advantages of Internet-banking over the traditional banking way?

5.5 Please indicate how the banks can improve the internet banking service to you.

Thank you for time and your responses.

Part four

Structured interviews

Interviewed Bank Specifics:

➤ **For banks employees**

6.1. What are the factors that influence customers to use Internet-banking from your observation?

6.2 What factors do you think that hinders customer to use internet banking from your observation?

6.3 What was the deciding point in having internet-banking capability in your bank? (Please rank from highest to lowest weight)

- *To match competition in the market or to even beat competition in the market*
- *Expand market sales and share*
- *Respond to market and customer demands*
- *Service differentiation strategy*
- *Operational Efficiency (Cost cutting)*
- *Because to fulfil national bank of Ethiopia directive requirement*
- *Other: (please specify)*

6.4 What type of internet-banking services do you provide?

6.5 What are the main features of the IT infrastructure?

6.6 Is internet-banking in your bank up to the level you would like to have it? If yes why? If no why?

6.7 What are the opportunities and challenges you face internally and externally?

6.8 What industries are considered complementary and supportive in banking industry (i.e. Telecommunications)? What do you think Ethio telecom should improve to enable conveniently and consistently provide the internet banking service in your organization?

6.9 What is your suggestion in improving the use and acceptance of internet banking.

(AbinetYohanis:June 2010:Key factors that determine adoption of internet banking; pp 74-78)

N.B - Modified by the researcher.