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Factors Affecting Adoption of Electronic Banking in the case of Awash Bank southern region

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**JULY, 2024,
ADDIS ABABA, ETHIOPIA**

**Factors Affecting Adoption of Electronic Banking
in the case of Awash Bank southern region**

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BY

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JULY, 2024

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ADDIS ABABA

**ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
FACULTY OF BUSINESS**

**FACTORS AFFECTING ADOPTION OF ELECTRONIC
BANKING IN THE CASE OF AWASH BANK
SOUTHERN REGION**

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Abstract

Electronic Banking has been widely used in developed countries and is rapidly expanding in developing countries. Ethiopia's financial sector cannot remain an exception in expanding the use of the system. Thus, this study was conducted with a general objective of to investigate factor that affect adoption of e- banking system in Awash Bank. To achieve the objective descriptive and explanatory research design was employed while using both qualitative and quantitative techniques. Data was collected from primary sources that involve questionnaire, while secondary data included journals articles and like. By using simple random sampling technique, sample size of 400 was selected. The collected data were analyzed by using statistical tools (SPSS-Version 25). Both descriptive and inferential statistics were used for the data analysis. The results show that although there is a moderate level of knowledge of e-banking services, user adoption is still low. This implies that the bank has to step up its educational initiatives. Another problem is security, which emphasizes the significance of strong security procedures and transparent data privacy communication. Correlation analysis is used in the study to look at the connections between different variables and the adoption of e-banking. The adoption of security/confidentiality, environment, and organizational elements are significantly positively correlated, according to the study. Furthermore, there is a somewhat favorable link between acceptance and knowledge. Regression analysis was used to determine the main variables impacting the uptake of e-banking. A significant amount (86%) of the variation in adoption rates can be explained by the model. Infrastructure, awareness, environment, and security/confidentiality are important factors that influence Awash Bank's adoption of e-banking, according to the study. However, it was shown that organizational aspects had a modestly detrimental influence, necessitating more research. The study's result highlights the necessity of a multimodal strategy to improve Awash Bank's adoption of e-banking. This entails developing a favorable legislative framework, investing in infrastructure, increasing knowledge of the advantages of e-banking, boosting security/confidentiality, and optimizing internal procedures.

Keywords: *Awash Bank's implementation of e-banking, important driving factors*

CHAPTER ONE: Introduction

1.1Background of the Study

Information technology is considered as the key driver for the changes taking place around the world. Due to a pervasive and steadily growth of information and communication technology, the world banking industry is entering into new phenomena of unprecedented form of competition supported by modern information and communication infrastructure. E-commerce had become a buzzword for companies over a couple of years with increased awareness about the use of computers and internet.(JIBC August ,2010)

In a constantly changing world of today where past is replaced by dynamic present and the dynamic present is being replaced by more challenging future, the old ways of doing things and the prevailing attitudes and perception is no longer valid, it is dynamic with time and conditions. Change is permanent and a reality. Those who were not able to keep pace with the changes were destined to lose the race. Science and technology is changing the way financial institutions perform their transactions, science and technology had brought our life to be easy and comfortable. The advancement in technology especially in internet and information technology had led to new way of doing business in banking. Among these technologies that have cut down time for transaction and automated payment services working simultaneously different things with increasing efficiency is electronic core-banking solutions. (Turban king, 2006)

A study accompanied by Auta (2010), in Nigeria to be familiar with issues upsetting e-banking acceptance among bank customers found that the concern of safety, accessibility problem, lack of enough knowledge about the service and lack of infrastructures such as power and telecommunication amenities were amongst the major factors that affect consumers adoption of ebanking. Similarly, Anwana (2010), on his study also recognized that the major inhibiting factors of e-banking adoption were inadequate security, lack of knowledge of use of the technology, inadequate and declining telecommunication facilities and infrastructure, inadequate public power supply, lack of trust, poor economic condition of

the people, and lack of confidence on the technology by the people. With esteem to safety and understanding of the technology, this study infers that e-banking services and products were not trustworthy and secured, and so, is not trusted. Consumers“ do not know how to use some of the e-banking products/services, their banks do not offer training or education on its practice and so, they choose face-to-face banking to e-banking, because, they think it is difficult.

Electronic banking is the waves of the future. It provokes enormous benefits to customers' in terms of ease and cost of transaction either through internet, telephone or other electronic delivery channels. For many customers, electronic banking means 24 hours access to cash through all automated teller machine (ATM) or direct deposit or payment of checks from checking or saving account, but electronic banking now involves many different types of transaction.(NBE,2021)

Technology-Organization-Environment framework Source: Tornatzky and Fleischer (1990)
The technological factor refers to adopter's perception of E-banking attributes. Typical characteristics of technology considered in technology adoption studies were based on the assumption of Roger's diffusion of innovation (Rogers 2003), Which include relative advantages (perceived benefits), and relative disadvantages (perceived risks).While the organizational factor refers to the organization's characteristics that influence its ability to adopt and use of E-banking system. The environmental factor refers to the external environment in which an organization operates and its condition for supporting the development of E-banking services. For each context, various factors have been identified from the literature but only those that were considered relevant for E-banking adoption were included in the framework.

Networking is done with the primary objective of sharing resources by establishing links of communication between various elements. A well designed computer network helps managers to communicate view and exchange information with others and shwere costs computer peripheral softwwere and data in a cost effective manner. The network not only links the user with various services and stock information but also links the services, the mysteries and different elements of the stock information. (Kumar, 1998).

Alhinaiet al. (2013) develops a research model which integrates two types of factor which were linked to the individual characteristics of the clients (customer-related factors) and those that relate to customers' insights of various features of the e-banking systems (system related factors). Based on this finding system-related set of factors (Perceived benefit, ease of use, perceived risk and internal capability or confidentiality) were the most determinant factors for ebanking adoption.

Paul (2013), examination displays that the young age group is more prone with computer and internet banking. So they were more attracted in using the e-banking system predominantly in ATM & online transaction rather than old & traditional banking. Once more find that an excessive number of clients especially the old generation having no computer knowledge were until now desire the traditional banking but along with some moderate changes and quick service delivery. A study conducted by Abenet (2010), concerning the determinants of e-banking adoption in Ethiopia revealed that the young age group is more computer literate and finds it easy to accept and use new technologies.

E-banking reduces time and energy spent by the customers as they do not have to remain in long lines in front of banks to get their simple jobs done. It is simple as well as suitable to do transactions using e-banking. Due to e-banking, the banks receive pleasure from many reward like wider and deeper accomplish to the clients, more rapidly time to advertise, capability to begin new products and services punctually, larger client trustworthiness etc. (Gautam L et al., 2014).

Ethiopia is one of the least developing countries with low level of IT and internet density. About 83% of the population in Ethiopia resides in rural wereas. Only 12% of the road network in Ethiopia is paved and Ethiopia remains one of the lowest road densities in Africa. About 80% of the population in Ethiopia had no access to all weather roads. The existing poor communication and physical infrastructure in Ethiopia increases transaction costs and limits access to financial services. The relatively disbursed population living in remote wereas is also one of the causes for poor communication infrastructure (WDI, UN, World Bank, 2021). Despite a huge population of more than 120 million, Ethiopia had one of the lowest "IT net densities" in the world, figured approximately one internet link for 20,000 people. (World

Bank, 2019).The present dearth of formal financial institutions and underdeveloped infrastructure in Ethiopia makes the use of checks and electronic payments (debit, credit card, ATM, Mobile banking GIROS and wire transfers) difficult. It is also affected by unreliable and non existing electric and telecommunication services in the rural wereas (EEA,2021).Internet banking services were crucial for long term survival of banks in the world of electronic commerce.(Burnham 2016)

The modern banking sector in Ethiopia is relatively a recent phenomenon. Its history dates back to the beginning of the 20th century. Through this short period of history, the banking sector had passed four distinct phades that had passed various stages of development until 1991 free economic policy of the country had brought the sector to its current historic period that is characterized as revitalization of the banking business. (NBE, 2020)

Laekemariam (2015), studied the features disturbing the receiving of mobile banking in CBE. The common aim of the examination is to identify factors that persuade the acceptance and practice of mobile banking. The finding of this examination exposed that performance expectation, perceived risk, perceived cost, effort expectancy and trust, were the factors affecting users having intention to adopt mobile banking. Age and occupation is important factor for reception of mobile banking but educational criterion was not a major factor for receiving of mobile banking in Ethiopian mobile banking user context.

Awash Bank S.C (AB) is the first private bank in the country that was established on November 10,1994 under license no. LBB/007/99 in accordance with the commercial code of Ethiopia that commenced operation on 28th October, 1999 by founding members of 486 shwereholders with a paid up capital of birr 24.2 million. The bank started its operation on February 13,1995 with debase ‘pc’ computers where each branch had its own data management, account transaction and report. Later, after some years commenced networked core banking system only in Addis Ababa city branches (Awash Bank, 2011). At present the bank is working with full fledged electronic- banking operation. This research had selected this bank because of its longtime history in developing the banking technologies.

The study had considered six influencing factors which were believed to have significant challenging role in deciding the level of adoption towards electronic e banking.The study

would envisage the relationship of these six influencing factors by descriptions and also graphic expression of correlation and regression lines and confirms its validity and reliability along with stated expressions.

Finally the study would explain the result of the research analysis from the systematically designed research method and investigation carefully conducted as sample survey at the selected sample area and forwards a conclusion with views and recommendations. The research results and conclusion would be expressed in a formal way of reporting to be used as input for any interested parties and stakeholders. The conclusion report is believed to be used as input for further studies and actions.

1.2. Statement of the Problem

The emergence of internet had augmented the spread of globalization, liberalization and digitalization in the industries around the world. The tide of internet usage brought a digital economic revolution and dramatic change in people's attitude, perception and adoption, (Johnson and sons, 2019)

E-banking faces numerous challenges to fully adapt E-Banking applications and seize the opportunities presented by ICT applications in general. However, the following Key Challenges exist that could hinder adoption of E-Banking in Awash Bank. Low level of internet penetration and poorly developed telecommunication infrastructure: Lack of infrastructure for telecommunications, lack of suitable legal and regulatory framework for e-commerce and e-payment or unawareness or absence of cyber law and security, high rates of illiteracy, high cost of Internet service and high costs of computers and ICT apparatus, poor infrastructure that could hamper the development of ICT in Commercial Banks in particular in Awash bank.

Backward infrastructure in ICT and low level of people's adaptation in IT is the critical problem of least developed countries like Ethiopia. Despite a huge population of more than 120 million, Ethiopia had one of the lowest "IT net densities" in the world, figured approximately one internet link for 20,000 people. (World Bank, 2019)

Awash bank this time provides different e-banking products to customer. But the provided e-banking products (services) were not adopted (used) as expected. Due to this most bank's staffs involve to awareness creation to adopt e-banking by the customer but the challenge of adoption is still continuous. Consequently, additional lessons were still mandatory to understand the importance of e-banking accommodations in the nation to be familiar with regions in which the nation lacks e-banking acceptance and flow. Therefore, to concentrate on the existing breach in the literature, this research is intended to discover the e-banking adoption condition in Awash bank and in general focusing on factors that impact the acceptance of e-banking scheme. This issue requires further studies. Factors believed to have an influencing role in the adoption of the system need to be investigated how and to what extent they influence adoption.

Hence, more studies and investigation particularly from the customer's perspectives were still essential to better understand what to do to increase e-banking services in Ethiopia. As a result this research is intended to add towards filling up the gap in terms of understanding factors that influence e-banking adoption and how these factors influence users in individual selection of e-banking services in order to provide appropriate and more defined recommendations for successful e-banking adoption strategies in the bank under study.. The purpose of this research is also to assess the problems around the issue and passes views and recommendations that would be used as input for further discussion and implementation and designing policy in Awash Bank considered in this particular study.

Although e-banking is becoming more and more popular worldwide and had many potential advantages, Awash Bank in Ethiopia is having trouble getting its customers to use it widely. The purpose of this study is to look at the barriers that Awash Bank is facing when adopting e-banking. Important difficulties noted were as follows:

Restricted infrastructure includes low internet penetration, a lackluster telecommunications network, and insufficient ICT resources within the bank.

Low consumer awareness: Prospective customers do not have a thorough grasp of e-banking services and their advantages.

Concerns about security: Client worries about online fraud and data security related to e-banking.

Affordability: High prices for ICT equipment and internet connectivity prevent many customers from participating.

Policy and regulations: Ethiopia lacks a strong legislative and regulatory structure for online shopping and electronic payments.

This study aims to close the knowledge gap by investigating the ways in which these components impact Awash Bank customers' usage of online banking services. The study's goal is to better understand these elements in order to offer suggestions for resolving these issues and encouraging the bank to implement effective e-banking adoption tactics

1.3. Research Objectives(s)

1.3.1. The General objective:-

The general target of this research is to investigate factor elements that affect acceptance and adoption of e- banking system in Awash Bank Addis Ababa city southern region that represents the bank as a whole..

1.3.2. The specific Objective:-

The five specific objectives were:-

1. To investigate how awareness of the technology affects adoption of e banking
2. To examine the influence of infrastructure on the adoption of e-banking
3. To examine the influence of confidentiality (trust) on adoption of e banking.
4. To investigate the influence of environmental factors on the level of adoption of e banking.

5. To investigate the influence of organizational factors on adoption of e banking.

1.4 Research Questions

1. What is the influence of awareness of the system on adoption of e-banking in Awash Bank?
2. What is the influence of infrastructure on adoption of e-banking in Awash Bank?
3. What is the influence of lack of confidentiality on adoption of e banking in Awash Bank?
4. What is the influence of environmental factors on adoption of e-banking in Awash Bank?
5. What is the influence of organizational factors on adoption of e-banking in Awash Bank?

HYPOTHESIS

H1: Awareness of the technology has positive significant effect on the adoption of e banking.

H2: infrastructure has positive significant effect on the adoption of e banking.

H3: lack of confidentiality has positive significant effect on the adoption of e banking.

H4: environmental factors has positive significant effect on the adoption of e banking.

H5: organizational factors has positive significant effect on the adoption of e banking.

1.5 Significance Of The Study

The output of this study can be may contribute different benefits for for different stake holders as the study may provide information about the scale of adoption towards e banking and factors that affect its acceptance by bank customers that can be used as input for the stake holders, the ongoing activities and policy designs towards implementing the system.

The study may also give information for the bank industry to make the system and users familiar and get adopted by mass of customers. Finally, the study may also serve as a base for the consequent research work and lead other researchers to study in the werea. The result of this examination may add value to the bank under study and the major contribution of this study is to detect the elements that influence the acceptance and adoption of electronic banking facility. The study believes that knowing the factor elements may benefit the banks to reconsider and formulate a new strategy to adopt and retain the use of electronic banking services.

1.6 Scope and Limitation Of The Study

The research is designed to conduct its research as sample survey in 8 senior Addis Ababa southern region branches that have significant number of customers that would be considered in the investigation. The study had selected the appropriate werea size that had relatively intense transactions where the required data can be obtained that can represent the bank under study.

The study had selected the southern regional locations out of the four districts by considering it can represent all district branches of the city and the bank as well because of its relatively intense volume of transactions.

Therefore, the limitation is systematically made for sample survey that can gather the required data for analysis where the delimitation is the bank under study Awash Bank. This limitation also includes constraint of time for conducting data collection and analysis processes.

1.7 Organization of the Study

This Thesis consists of 5 chapters and a corresponding analysis figures (tables).

Chapter one:- that includes an introductory part, background and detail description of the methodology of the study,

Chapter two:- Related literature review that consists both local and international theoretical review and empirical reviews. Definitions and concepts,

Chapter Three:- Chapter three provide detail description of the methodology

Chapter four:- Result summary of the research analysis.

Chapter Five:- Conclusion and Recommendation.:- would derive conclusion and results And Suggestions for further research in the future.

CHAPTER TWO LITERATURE REVIEW

This chapter is going to discuss from definitions, theoretical and empirical works that had described almost all cases by considering factors that influence the level of adoption of the electronic banking system. The literature that the study reviewed also consists of the benefits the customers had gained by the system. Both the theoretical and empirical researches expressed the factors that were considered to have influences on the status of adoption towards electronic banking. As per the literatures the study had selected, most of the narrated factors that were mentioned and analysed in both theoretical and empirical literatures presented here under. These influencing factors and some other related factor elements were noted under each literature.

2.1. Definition Of E-banking

E-Banking is defined as using electronic devices like internet, wireless connection networks, ATM, phone and cell phone in banking services. These services were parts of providing currency for and economic system for the country (Laford & Li, 2005).

Electronic banking had also been defined in different ways. Daniel defines E banking as the dissemination of Banks' statistics and facilities by banks to clients through diverse media that can be cast off with diverse terminal devices like individual computer and a cellular mobile with browser software, mobile or digital television. It can also be defined as the transfer of banking facilities through the open-access computer network (the Internet) directly to customer home or private address and services. At a highly developed level, it needs provision of services such as accessing accounts; relocate resources, and purchasing financial products or facilities online (Daniel E., 1999).

2.1.1. Types of E-banking

E-banking can be defined in a variety of platforms such as internet banking or (online banking), TV based banking, mobile phone banking, and PC (personal computer) banking (or offline banking) whereby customers access these services using an intelligent electronic device, like PC, personal digital assistant (PDA), automated teller machine (ATM), point of

sale (POS), kiosk, or touch tone telephone (Alagheband 2006). According to Alghaeband, there were different types of e-banking and some of the basic were discussed as follow:

1. Automated Teller Machines (ATM) - It is an electronic terminal which gives consumers the opportunity to get banking service at almost any time to withdraw cash, make deposits or transfer funds between accounts, a consumer needs an ATM card and a personal identification number (PIN).

2. Point-of-Sale Transfer Terminals (POS) - The system allows consumers to pay for retail purchase with a check card, a new name for debit card. This card looks like a credit card but with a significant difference. The money for the purchase is transferred immediately from account of debit card holder to the store's account (Malak 2007).

3. Internet / extranet banking- It is an electronic home banking system using web technology in which Bank customers were able to conduct their business transactions with the bank through personal computers.

4. Mobile banking- Mobile banking is a service that enables customers to conduct some banking services such as account inquiry and funds transfer, by using of short text message (SMS).

E-banking reduces time and energy spent by the customers as they do not have to remain in long lines in front of banks to get their simple jobs done. It is simple as well as suitable to do transactions using e-banking. Due to e-banking, the banks receive pleasure from many reward like wider and deeper accomplish to the clients, more rapidly time to advertise, capability to begin new products and services punctually, larger client trustworthiness etc. e-banking technologies have grown rapidly in most recent years, and the obtain ability of variety of products had directed to in an increase in the acceptance between clients. These technologies comprise direct credit, computer banking, deposited value cards, and debit cards. It permits corporation to create new business links from different global business alliances, test new products and services, and make market research and other enquiries all at a minimal cost both financial and otherwise (Gautam L et al., 2014). According to Poloucek et al. (2013), e-

banking can be defined as the transmission of banking services to clients by means of electronic ways.

2.2. Theoretical Literature Review

This research study had went through definitions, conceptual work, theoretical and empirical works that had described almost all cases by considering factor elements that influences the level of adoption of the electronic banking system. The literature that the study reviewed also consists the benefits the customers had gained by this system . Both the theoretical and empirical researches expressed the factors that were considered to have influences on the status of adoption towards electronic banking. As per the literatures the study had selected, most of the narrated factors were mentioned and analysed.in both theoretical and empirical literatures presented here under. These influencing factors and some other related factor elements were noted under each literature.

The 21st Century, shaped by the technological revolution, is the age of globalization. The Internet massively impacts all aspects of business. In the 21st century, electronic business is no longer an option for businesses; it is a necessity (George, 2011). Recently, electronic banking had been adopted in various commercial activities (Mambi, 2010), advancing services such as sell and purchase of items through the use of internet systems.

The more we were going to the higher levels of e- Banking, the less manual works would be, the more computer systematize, the more networks available, the less time restriction, and ultimately the more secure banking system would be. Services were done by internet network that is popular for its security. On the other hand, e- Banking is the use of communication in exchanging currency in banking system (Godarzi & Zobaidi 1999). In other definition e- Banking is a service producer with low costs by the help of electronic channels. These productions and services can be: account bill, loan, deposit management, e-payment, e-money. e- Banking is using internet and or intranet that were accessible for the people. Definitions such as digital money, e- check, e- money, e- signature were new phenomena that their origin returns to e-Banking (bid abadi & alahyary 2003). Accounting, exchanging, receiving bill, and paying bill were given to the clients a list with time order. e- Banking had a

lot of benefits like increasing clients, and decreasing bank costs. Moreover, by using e-Banking it is easy to the bank to do their services faster and with more security. They can also increase their shwereholders.

2.3. The History of e -payment System in Ethiopia

Ethiopia did not embrace e- banking early as compwered to other countries. Certainly the banking industry in Ethiopia had been under developed working in traditional banking operations; hence, the introduction of e- banking was delayed. The history of e-banking in the nation can be drawn back with the outline of online internet banking system and introduction ATM in the country.

Awash bank had began online internet banking early among private banks in the country and announced ATM service for native customer in 2001 with its 8 ATM located in Addis Ababa. Next to CBE, Dashen bank also introduces ATM to its customer (Gardachew, 2010).There were major stakeholders to provide this service.

The NBE is the major stakeholders in the electronic payment service of the country, which encompasses retail electronic fee structure. The NBE is the supervisory and regulatory body which is authorized to supervise all payment providers (Information Network Security Agency, 2014). Information Network Security Agency (INSA):- is the major stakeholder for the payment industry by virtue of its entrusted powers and duty which also includes acting national policies, laws, standards and strategies that permit to safeguard information and computer based key infrastructures safety, and oversight their enforcement upon approval(INSA,2014).

2.4 Electronic Banking Services Currently Being Delivered in Awash Bank

Automated Teller Machines (ATM):-It is an electronic device which provides the customers with coordinator to financial transactions in a community space starved of the need for a human assistant or bank cashier. In addition, the potential benefit of ATM were cashiers were relieved of some of the simpler transactions of simply dispensing cash, cheaper to dispense cash through a machine or saves cost and on the side of customers 24-hour availability and

potentially faster service. ATM may provide access to customers at time branches were not working. The service of ATM is Cash withdrawal, pin change, make deposits or transfer funds between accounts, foreign exchange, balance inquiry and mini statement (Sara, 2007).

Mobile Banking:-is the latest service in electronic banking. Mobile banking facilities were offered through a convention of link to these services. Access to the database is completed through a secret code and a customer code. Customers can verify their balance and build modification between accounts. According to Dragos (2014), mobile-banking can be defined also as an account management tool which can be accessed through the cell phone.:- POS package is an advanced electronic cash shifting system that permits the clients of banks to fee for their buying via their credit card at any POS legitimates tore. Point of Sale (POS) means a retail shop, a checkout counter in a shop, or the location where a transaction occurs. More predominantly, the POS often put forward to the hardwwere and softwwere cast-off for counters the corresponding of an electronic cash register. POS scheme is applied in stores, restaurants, hostels, stadiums, and casinos, as well as approximately any form of retail organization. The money for the purchade is transmitting right away from account of debit card holder to the store's account (Malak, 2007).

2.5 Benefits of Electronic Banking

According to Poloucek et al. (2013), e-banking can be designated as the stipulation of banking products and facilities to clients by means of electronic ways. The benefits of having electronic banking system can be seen from different perspectives as follows.

2,5.1. Benefits to Customers

Increased competition is usually transformed into improved quality of services and lower fees for traditional banking services, the client does not need to physically visit the bank, which means, increase of comfort, significantly better availability of banking products and services, saving time and costs compwered to physical presence in the bank, fast and also the customers can gain 24/7 access to banking services at his convenience.. Furthermore, payment cards can make life easier for people who want to travel abroad as it shrinks the volume of cash one needs to transmit and the related risk of theft. In addition, by dropping the amount of

cash on hand, merchants can administer to decrease risks as well as costs related to cash management (Dawd, 2004).

2.5.2. Benefits to Banks

The major benefit for the banks offering electronic banking services is better branding and better awareness to the market or a competitive advantage. In this active world, e-banking assists the banks to catch the attention of a greater number of customers and lead in the competition from other banks. According to Olga (2003), banks that would provide such services would be considered as privileged in technology implementation. Consequently, those banks that supply the service can improve the customer satisfaction through complicated services.

By providing secure e-banking services, the banks can also evade fake activities. With the assistance of e-banking, banks can save time and hence they can increase the number of transactions and business (Devamohan, 2002). The other advantages of e-banking were possible to quantify in monetary terms. The central goal of every corporation is to make the most of profits for its owners and banks were not an exemption. In this view, automated e-banking services offer a wonderful chance for exploiting profits (Olga, 2003).

2.6 Challenges of Adopting E-banking in Ethiopia

As per literatures gathered from various local and international sources Ethiopian banking business faces several challenges to accept (adopt) e-banking scheme and capture the opportunities and the following influencing factors. challenges for e-banking requests were:

Lack of infrastructure Low level of internet distribution and inadequately developed telecommunication infrastructure.

Lack of proper legal and authoritarian structure for e-commerce and e-payment:-Ethiopian present laws do not provide accommodation electronic contracts and signatures. Ethiopia had not yet sanctioned regulation that compacts with e-commerce worry containing enforceability of the system

Legality of electronic agreements, digital signatures and intellectual copyright and limits the utilization of encryption technologies..

Lack of awareness mainly because of high Proportions of illiteracy: -Illiterateness proportion is a severe obstruction for the receiving of e-banking in Ethiopia blocks the simplicity of banking facilities.

Lack of organizational factors that influences adoption of e banking were also financial and human resources environmental factors legal framework, national ICT infrastructure, competitive pressure and Government support e-banking adoption technological factors) Perceived risks (relative disadvantage) Perceived benefits (relative advantage) Journal of Management Information System and E-commerce

Lack of environmental and organizational issues like suitable legal and regulatory frame works for E-commerce and E- payments, political instability in neighboring countries, high rates of illiteracy and absence of financial networks that links different banks were challenges for adequate adoption of the system.

Frequent power and network interruption (poor infrastructure) - Lack of reliable power supply is a key challenge for smoothly running E-banking in Ethiopia.

Security: -One of the major challenges and the basic necessities of e-banking were ensuring its security. Securing the practice in e-banking includes authenticating data of the customer and banker and defending the information to be diffused from interception. This verification can be completed by using user ID and passwords. In addition, way that prevents repudiation both by the merchant and customer once the payment process had taken place must be provided (Barnes and Hunt, 2001).

According to Worku (2010), e-banking scheme have to take into account the exact of many-sided security keys i.e. security needs of all shwere parties in the e-banking system. An e-payment scheme that is not safe may not get belief from its users. Trust is the vital features to guarantee the receiving of e-banking system by users. Martina (2005) also indicated that e-banking requests represent a safety challenge as they highly be influenced by ICT systems that create susceptibilities in financial institutions, companies and possibly harm clients. It is imperative for banks to understand and address security concerns in order to leverage the potential of ICTs in delivering e-banking applications.

The above literature discussed about the serious case of the sensitive challenge that influences the adoption level towards e banking. From various literatures reviewed, it is noted that challenges narrated in literatures were one and similar that had been accepted as universal threats including the prevailing Ethiopian case.

Rogers had been one of the number of researchers who had focused upon the adoption process, which he defines as the method decided in separate or additional decision-maker unit permits from first information of an invention, to forming an approach toward the innovation to a decision or refusal to application of the innovative idea, and to validation of this decision (Rogers and Shoemaker, 1971).

2.7. Empirical Review of The Study

A study accompanied by Auta (2010), in Nigeria to be familiar with issues upsetting e-banking acceptance among bank customers found that the concern of safety, accessibility problem, lack of enough knowledge about the service and lack of infrastructures such as power and telecommunication amenities were amongst the major factors that affect consumers adoption of ebanking. Similarly, Anwana (2010), on his study also recognized that the major inhibiting factors of e-banking adoption were inadequate security, lack of knowledge of use of the technology, inadequate and declining telecommunication facilities and infrastructure, inadequate public power supply, lack of trust, poor economic condition of the people, and lack of confidence on the technology by the people.

Alhinaiet al. (2013) develops a research model which integrates two types of factor which were linked to the individual characteristics of the clients (customer-related factors) and those that relate to customers' insights of various features of the e-banking systems (system related factors). Based on this finding system-related set of factors (Perceived benefit, ease of use, perceived risk and internal capability or confidentiality) were the most determinant factors for ebanking adoption. Paul (2013), examination displays that the young age group is more prone with computer and internet banking. So they were more attracted in using the e-banking system predominantly in ATM & online transaction rather than old & traditional banking. Once more find that an excessive number of clients especially the old generation having no

computer knowledge were until now desire the traditional banking but along with some moderate changes and quick service delivery.

Kartini and Rina (2016) in the opening of technology launch external factors dominate the acceptance of technology together with IT infrastructure, perceived profit and risk and mass media advertising but at later stage interpersonal pressure and aggressive banks awareness creation and personal recommendation influences the adoption speed.

Ayana (2012) discovered in his study on Acceptance of Electronic banking scheme in Ethiopian Banking business: Barriers and Drivers that E-banking system, like ATM, mobile banking, ebanking and others remained not fine accepted by Ethiopian banking business. This is because of inadequate ICT arrangement and absence of lawful outline at NBE, which can inspire banking manufacturing to realize the system. In addition to the overhead two basic factors touching receiving of E banking in Ethiopia, result of the study also displays that security threat and lack of trust on the usage of technological adoption were other major barrier for the system. The level of security risk linked with e-banking product or service, like ATM, internet banking, mobile banking and others, pose different face up to different banks. Improvements were necessary to make certain for consumer confidence. Lack of rivalry among indigenous and foreign banks is also extra challenge for the receiving of E-banking in the country. Technical and managerial services obtainable in Ethiopian banks for the receiving of e-banking were also restricted.

Demographic factors have also been established to be linked with acceptance of different banking channels, particularly internet banking. For illustration, people with high educational success may have ability for computers and acquire good information dealing out skills (Al-Ashban and Burney, 2001). These behaviors were crucial in the circumstance of e-banking and consequently a connection between proper education and adoption is propagated. The results reported in Dover (1988) point out that woman were also less to be expected to conduct their banking activities online. Akinci et al. (2004) results in Turkey demonstrate that mid-aged consumers were further probable than younger or adult consumers to usage internet banking. Those who feel right to superior medium class and have high-level occupations were more likely to custom Internet banking (Karjaluoto et al., 2004)

The above empirical literatures discussed about research findings which were similar and very much related to our case of study like the serious case of the sensitive safety challenge the concerns of safety (security), technological, environmental, organizational, lack of infrastructure (power & telecommunication) and an amazing factor suggested is customer related factors (individual characteristics), lack of use of technology (awareness), Power supply, lack of trust (confidence on sustainability of the technology) and the other different empirical search report is about the perceived benefits of the 24 hours TM usage, The other truth finding of the empirical research is about the old generation which is in excessive number that have no computer knowledge still at this century they desire the traditional banking, lack of IT infrastructure that influences adoption towards e banking.

The need for this research is to feel the gap between the previous related research works and this study is the dynamic change in technological discoveries, intensively growing global economic transactions, and the rapid development of IT technology, people's desire for such facilities that can ease life, etc .This scenario had brought about dynamic changes is the level of adoption of the system

Bultum (2014), also quotes on the influences upsetting e-banking acceptance in Ethiopia were perceived advantage and threat, legal and regulatory frameworks, government support, IT infrastructure and technical and managerial skills of the bank. The result obtained from the study states that lack of such authorized framework may thus block the introduction of cost effective modern electronic payment instrument such as ATMs, credit and debit cards, mobile/telephone/internet banking.

Laekemariam (2015), studied the features disturbing the receiving of mobile banking in CBE. The comm. on aim of the examination is to identify factors that persuade the acceptance and practice of mobile banking. The finding of this examination exposed that performance expectation, perceived risk, perceived cost, effort expectancy and trust, were the factors affecting users having intention to adopt mobile banking. Age and occupation is important factor for reception of mobile banking but educational criterion was not a major factor for receiving of mobile banking in Ethiopian mobile banking user context.

Yitabwerek and Zeleke (2013) conducted research to analyze factors that influence clients „intent to accept e-banking facility networks in Bahir-Dar city. The study used variables from Theory of Criticized Behavior and Technology Approval Model. The results exposed that attitude; subjective standard, perceived behavioral control, observed realism and perceived simplicity of custom and perceived risk were major in affecting consumers aim to use e-banking service channels. A study conducted by Abenet (2010), concerning the determinants of e-banking adoption in Ethiopia revealed that the young age group is more computer literate and finds it easy to accept and use new technologies. Takele Y. and Sira Z. (2013), had analyzed factors that influence customer’s intent to the receiving of E-banking facility canals in Bahirdar City by integrating TAM, TPB and PR. The authors finding shows that the seven factors included in the models (attitude, subjective norm, perceived behavioral control, seeming helpfulness, seeming simplicity of custom and perceived risk were significant in affecting users intention of use e-payment.

2.8 Conceptual Framework

In order to achieve the research objective the conceptual structure would be clarified by the dependent and independent variable of elements upsetting the acceptance and adoption of e-banking.

1. Lack of developed infrastructure that brings about power failure and interruption of e-banking equipment A study conducted about customer satisfaction and taking on electronic banking facility on some selected banks of Ethiopia listed that currently there were some elements which disturb customer satisfaction and acceptance of electronic banking facility in selected banks (commercial banks of Ethiopia, Wegagen bank, and Zemen bank) of Ethiopia (Bambore PL,2013). Those were tools out of instruction, machine out of cash, no printing declarations, cards get blocked, frequent failure of ATM service, untrustworthiness of ATM service, lack of enough specialists in all bank who resolve collapse of ATM machine, lack of sufficient alternative scheme which substitute ATM service for the customer when temporary predicament happen in the machine, lack of expediency of e-bank service, lack of consistent Tele-banking, under-development of technological infrastructure, disruption of network, lack of suitable and regulatory frame work for e-commerce, resistance to changes in technology

among customers and service providers as result of fear of risk, lack of fair distribution of e-banking were determinant causes for customers hesitant to adopt of e-banking system.

2. Environmental factors and adoption of E- banking:- Environmental factors mainly relates to different facilitating and inhibiting factors in wereas of operations (Al-Qirim, 2006). The werena in which a firm conduct its business in adopting technological innovations; its industry, competitors, access to resources supplied by other externals and dealings with government were claimed to be covered under environmental contexts (Kvin Z. et al. 2004). Legal frameworks, the National ICT infrastructure, Competitive pressure and Government supports were amongst significant factors to be considered in the study (Ayana, 2012) as described here under.

2.1 Legal Frameworks: - The existence and maturity of legal frameworks on the e-commerce within a country to influence the diffusion of online transactions including electronic banking as indicated in various studies (Tan & Wu, 2002 and Martinson, 2001).

2.2 National ICT Infrastructure: - National ICT infrastructure is a major factor that supports the adoption of e-banking system as the case for other initiatives. Without an adequate development and quality of a national ICT infrastructure, e-banking adoption and use cannot do well (Efendioghu 2004 &Scupola 2003).

2.3 Competitive pressure: - Competitive pressure can strongly influence any bank to develop and adopt e-banking initiatives and it may affect the bank's perception towards innovation (Quaddus & Hofmeyer 2007). Intense competition stimulates the adoption of innovation (Mansfield et al. 1977).

3. Successful electronic banking implementation requires effective technology management and the limited access to financial services is attributed to three main challenges: limited scale (outreach), depth and the high cost of providing financial services. Essentially, the provision of financial services to many more people, especially in the depth of rural wereas, using traditional branch networks entails high costs (Helms, 2006). In an attempt to overcome these challenges, financial service providers in a growing number of countries were finding

innovative ways of delivering financial services. The use of ICT is indeed providing a means to increasing scale and depth, while reducing costs in the provision of financial services. Studies suggest that technology plays a significant role in improving financial access by taking financial services in a sustainable way to under-served and un-served wereas (Stegman. Rocha, & Davis, 2005), The .studies also reveal that technologies such as ATMs, mobile phones and points-of-sale (POS) devices were increasingly being used to reduce costs and increase access for low-income clients (Ivatury, 2006). These technologies were providing alternative delivery channels for the delivery of financial services.

Organization – Technology – Environment(TOE) frame work

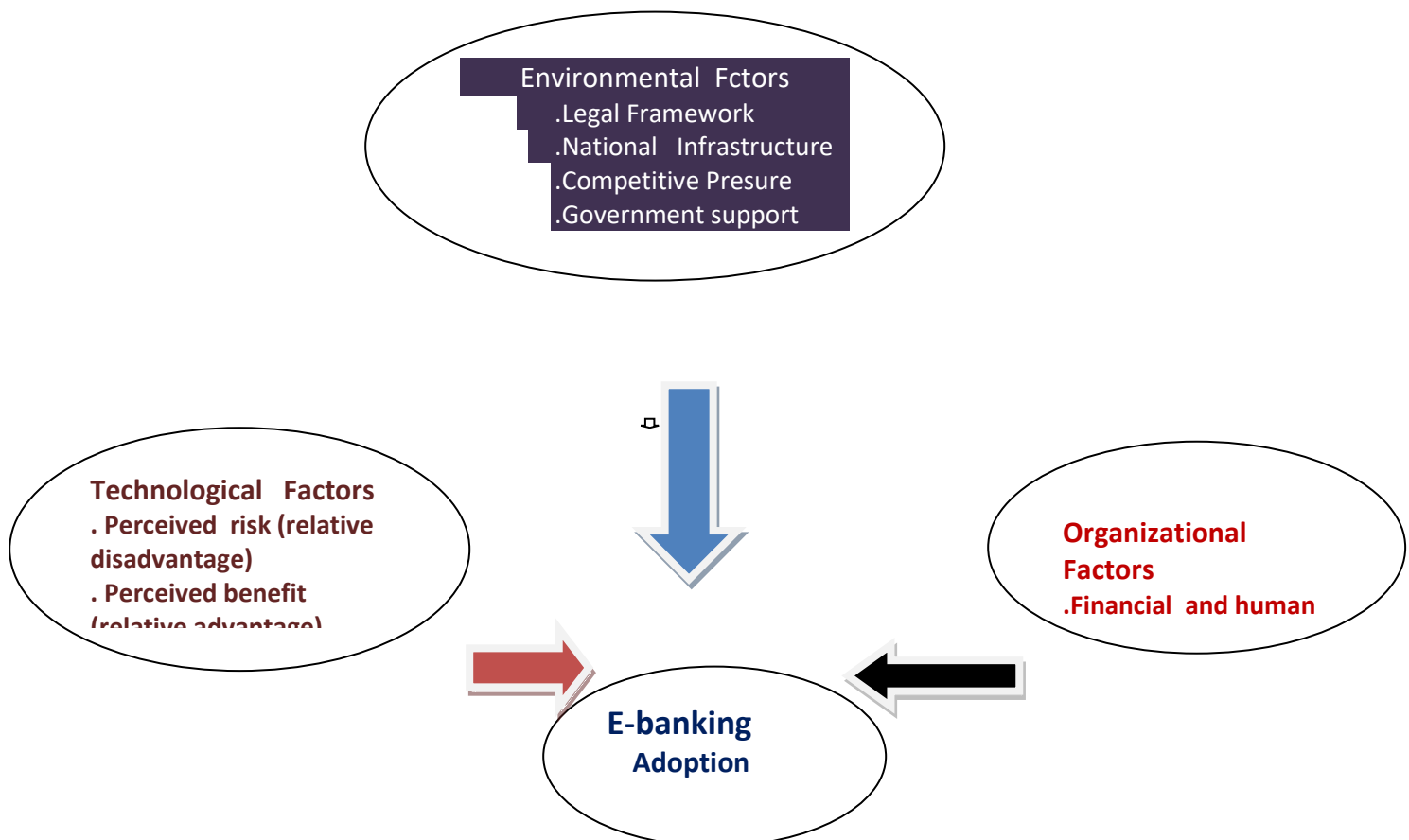


Fig. Torenatzky and Flezcher (1990)

4. Lack of confidentiality and Trust on the System. This factor is associated with sensitivity of password and pin that should be kept by the user in order to keep their account information secret or private. Passwords and pin numbers were vulnerable to risk unless and otherwise they were confidentially kept in safe place or in memory. Despite its benefit in easing the service, this risk highly affects customers' intention to adopt the system.

Customers were not willing to conduct transactions or make business with providers in an environment with a high level of uncertainty. Trust is the most important factor that can reduce the uncertainty (Grazioli and Jarvenpaa, 2000). Distrust and risk were natural factors and they were sometimes invisible in guarantees and agreements (Grabner-Kräuter and Faullant, 2008). In the online environment, users in all parts of the world were allowed to access vital information on computer systems and information transferred online. The online financial transaction is, therefore, naturally dangerous from the perspective of security.

Government can either directly or indirectly affect the adoption of Ebanking in terms of creating a favorable environment and impetus for banking institutions and their customers so that the services can be diffused with the community (Kuan 2001 & Iacovou 1995). Generally these theories discuss different variables associated with the adoption of E-banking and i.e. from technological factors perceived benefits and perceived risks, from organizational factors human and financial resources and from environmental factors legal frameworks, national ICT infrastructures, competitive pressure and government support and this theory used to test does this variable affect the adoption of E-banking in Ethiopia.

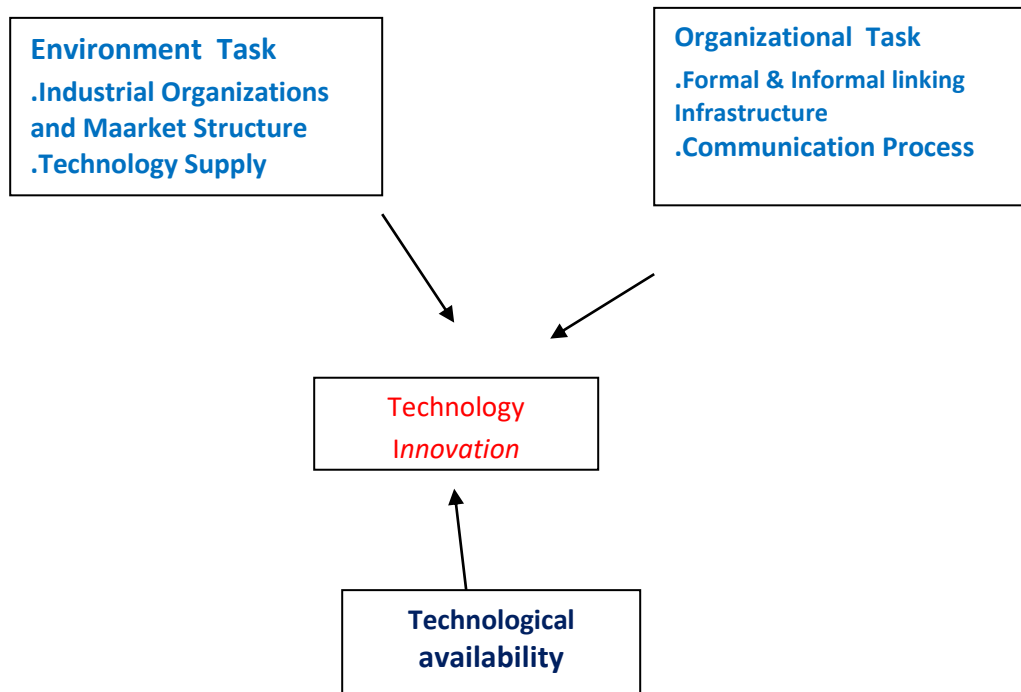
5. Lack of awareness about e-banking which is related to level of consciousness of e-banking impacts their approach to acceptance /adoption of e banking. The orientation and practical works on e-banking furthermore supports individuals to accept the system..Additionally, Polatoglu and Ekin (2001) designated that the additional acquaintance and expertise a client possessed nearby electronic banking, the sooner it was for the client to make use of electronic banking. Inaccessibility and high cost of internet: - The price of Internet entry relative to per capita income is a critical factor. Awareness is created mostly from the level of academic background.

6. Organizational ability to utilize web technology capabilities is one of the issues to electronic banking web technology as a business channel requires some additional investment and resources such as hardware and software, awareness and willingness shortages of information infrastructure remain a critical issue in some cases to the continuing growth of online banking (Chuurchu and Kauffman)

The TOE framework consists of three main components: technology, organization, and environment. Technology refers to the characteristics of the technology itself, including its functionality, complexity, compatibility with existing systems, and ease of use. Organization refers to the internal context in which the technology is used, including factors such as the organization's size, structure, culture, and resources. Environment refers to the external context in which the organization operates, including factors such as market conditions, regulatory requirements, and social and cultural norms.

One of the strengths of the TOE framework is that it provides a holistic perspective on technology adoption and implementation. Rather than focusing solely on the technology itself or the organizational context, the framework recognizes that both internal and external factors were important in shaping technology adoption and use. This allows researchers to take a more nuanced approach to studying technology adoption, and it helps organizations to better understand the complex interplay of factors that influence their technology decisions.

Organization – Technology – Environment(TOE) frame work



Source:- Tornatzky and Flezsher Framework

Another strength of the TOE framework is its flexibility. The framework can be applied to a wide range of technologies and organizational contexts, making it a useful tool for researchers and practitioners in a variety of fields. Additionally, the framework can be adapted to different research methods, including qualitative and quantitative approaches.

However, there were also some limitations to the TOE framework. One limitation is that it may be overly broad and general, making it difficult to apply in specific contexts. Additionally, the framework may not fully capture the complexity of technology adoption and implementation, particularly in rapidly changing environments where external factors can have a significant impact on technology decision.

In this study the above research frame work is used as influencing factors measurement on the adoption of banking in Awash bank since it is believed that the magnitude of influence of these elements is significant that should be investigated by research work. The main purpose

for carrying out research on the adoption of e- banking services is due to the lack of empirical studies on Ethiopian electronic banking services. The objective of this study is to explore and investigate the factors of technology–organization–environment theory (TOE) that play the main role in the implementation of e-banking services in Awash Bank. Four exogenous variables, one mediator, one moderator, and one endogenous variable make up the current study's framework. The exogenous variables consist of security, relative advantages, government support, top management and organization readiness as mediator as well as organization type is moderator while the endogenous variables comprise of intention toward e-banking by banks customers.

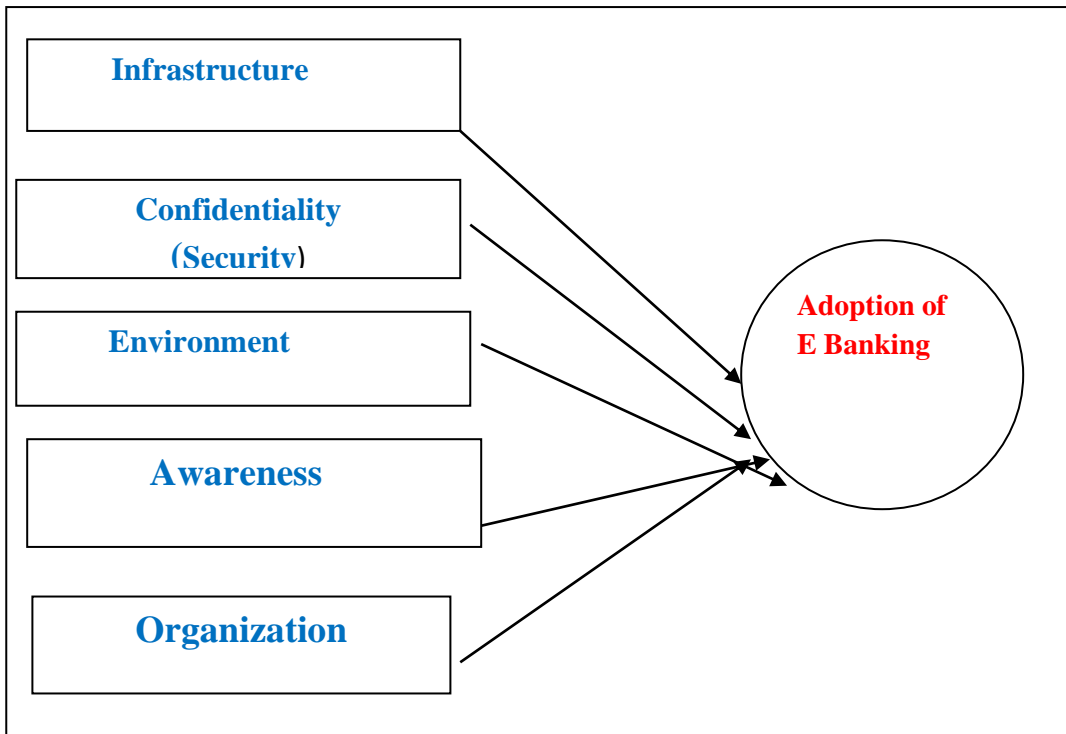
The above conceptual frame work focuses on the overall online financial transactions including e banking and e commerce (e buying and e selling) which had similar nature to e banking. Various studies have identified different factors of trust that could influence internet users' trust in online transactions. The tendency of customers to make a risky decision in online activities (for example disclosing credit card information) depends on their assessment of the sellers' security and their examination of the trust of the electronic commerce system. The conceptual frame work stresses the significant role of infrastructure that may create disruption of network and power break out.

In regard to online financial transactions, some customers may show a higher stance to trusting everything and everyone. These groups of customers have a tendency to trust a Web vendor despite having only limited information about it, whereas other groups of customers need more information to create trust. This view is very much related to awareness is created from academic status which is considered as one of the factor element in this research study. Customers' level of consciousness of e- banking impacts the approach to acceptance /adaptability of e banking. People with high educational success would have ability for computers know how and acquire good information in dealing out skills.

As it is obviously known concepts were emanated from practical observations about online internet transactions e banking and e commerce that requires time taking orientation with practical involvement in the technology. Concepts were ideas created from trends, the existing and the forth coming expectations. However, almost all conceptual frame works effectively

reflects the existing challenges in adoption of e banking. Challenges were factor elements that would actively influence the status of adoption of e banking.

Illustration of list of factor elements and the independent variable.



Source:-Adopted from Tornafzky and Flelscher (1999)

CHAPTER THREE RESEARCH METHDOLOGY

3.1. Description of the Study Werea

The banking sector in Ethiopia is controlled by central bank (NBE) acting as the chief bank of the country. There were a number of state owned and private commercial banks registered and licensed under the NBE directive. The entry in this sector is open and a number of private banks were joining the business. The research study project had selected Awash Bank since the bank is the first private bank in its establishment and had relatively great amount of clients. with long years service period..The bank gives better provision of various e-banking facilities. The bank had many branches in different administrative regions although many of its branches were with in Addis Ababa. This study had targeted its research in selected 8 branches of southern region of Addis Ababa

3.2 Research Design

Because of the nature of the issue, the research design contains about the type of data, method of data collection, source of data and sampling strategy (Saunders, (Lewis, & Thornhill 2012. The research study would use a descriptive and explanatory method would be considered and questionnaire formats would be employed as a tool for primary data collection. Systematically well designed Questionnaires would be designed for the selected bank branch customers. Data collected would be summarized in purposely designed tables by 5 measuring variables stratum. The analysis would be carried out by using statistical measurement in ‘percentage’ as measurement parameter (Formula) . The descriptive is used to describe the views of customers upon e-banking in the bank. The explanatory would be used to explain the contents and the scale of influencing factors in adoption of e banking.system.

3.3 Research Approach

As we understand from the topic, this study investigates peoples' view & attitude towards perception and adaptability of the new banking technology operation system and the problems encountered towards this system.

This study had designed to use a mixed approach method: i.e. quantitative and qualitative methods, involving primary data collection methods which would be employed to investigate the customers' and bank employees' perception towards the electronic digital-banking system. Factors influencing its implementation would also be identified and shall be presented in purposely and carefully designed questions and hypothesis that can meet the objective of statement of the problem for the research assessment.

3.4. Target Population

According to Hair et al.(2010), target population is said to be a particular group of people or object where the designed questions can be asked or considered so as to be able to acquire the required data and information. According to Mugenda (2008), part (sample) clients were the total customers that the researcher identifies in his or her investigation. In order to undertake this research, the study had planned to consider eight branches of Awash bank southern district. The research study is basically to investigate the level of adaptation of e banking by the bank customers as of September 2023 .Therefore customers of all the 15 branches of the district who were using e- banking service were considered as target population of the study where the 8 selected branches would be considered as sample survey.

For convenience to conduct the assessment, it is designed that a total of 400 individual customer respondents would participate in this survey. The total targeted population would be 185,000. The study considers this sample for its designed research investigation

3.5 Sample Size and Sampling procedure

Sampling is the statistical method of choosing a division called sample of a concerned population for determinations of making observations and statistical inferences about that

population (Bhattacharjee, 2012). This study shall be engaged on random sampling; because the sampling werea coverage is systematically selected and the designed sample survey can be reached to the targeted customers based on their lists. Employing convenient sampling technique is better when the targeted population is large to reduce cost, time and easy to handle (Saunders, Lewis & Thornhill, 2009). Based on geographical location Awash Bank is sub divided in to four districts based on directions in Addis Ababa namely North, South, West and East districts. For convenience the researcher had selected the southern district which comprises 15 branches out of which the selected sample survey shall be 8 branches. The e-banking performance evaluation mainly includes number of e- banking users (bank customers), number of e-banking transaction and volume of transactions made by any e-banking service as of September 2023.

Sample size is actually the whole quantity of units which were to be selected for the analysis in the research study and the representation for the study calculated according to the formula suggested by Yamane's (1967) with 95% confidence and 5% acceptable sampling error. Among 185,000. Populations; the sample scope is calculated using the following formula.

$$n = \frac{N}{1+N(e^2)}$$

Where: n= sample size

N = population number

e= margin of error

Using the above formula, the sample size is calculated at 95% confidence interval and e would be 0.05, and the population number N is **185,000**

$$n = \frac{185,000}{1+185,000 \cdot (0.05)^2} = 399.137 = 400.$$

Where: n = 400.

N = 185,000.

e = 0.05

Based on the above formula the research study would gather data through questionnaire from about 400 respondents. The breakdown of sample size of the selected 8 branches is presented in the table below.

Sample size determination is computed as follows.

$N_{1 \text{ to } 8} = \text{Sample pop. from 8 brs.}$

$N = \text{Target population}$

$$N_{1 \text{ to } 8} = n \times \frac{N_{1 \text{ to } 8}}{N} = 64, 55, 73, 27, 51, 40, 29, 61$$

Table 1. Population and sample size

No	Name of branches	No of e banking users	Sample size
1	Lafto	33,700	72
2	Sedeka	25,430	54
3	Lebu	30,000	65
4	Lafto Gebeya	12,500	27
5	Hanna Mariam	23,435	51
6	Burk Wayu	18,490	40
7	Lebu Musika Sefer	13,445	30
8	Habru	28,000	61
	Total	185,000	400

Source:- Banks Reports as of September, 2023

3.6 Sampling Technique and Procedure

Sampling is the statistical method of choosing a division called a sample of a population of concern for determinations of making observations and statistical inferences about that population (Bhattacharjee, 2012).

To make adequate representation of samples, the research had designed to distribute proportional number of questionnaires against their volume of customers as it is detailed above in the table to find a proportional number of respondents from all the selected eight Awash bank southern district branches whose total is 400. The number of customers of branches varies based on the length of its service period from its opening date. The study had been purposely designed to make this in order to avoid a higher respondents from lower customer base and lower respondents from higher customer base branches. Questioners were going to be collected through the bank branches' customer service staff members and through my own direct effort randomly. To increase the representation of samples the data shall be collected in different times and this method helps the research study to get sufficient information that can represent the bank's performance in its endeavor to maintain adequate perception and adaptability of the e banking system.

The type of the research study to be used is a survey research that would focus on the study of relationships among variables affecting adoption of e banking towards electronic banking that measures the characteristics of customers' attitude in their understanding and taking on in the introduction of the new technology and operation system.

3.7 Data Sources and Data Collection Method

3.7.1 Primary Data

Primary data were helpful to get original information from the respondents to know their feelings, opinions, attributes and perceptions towards e-banking on customer satisfaction. Therefore, primary data were collected from respondents (e-banking customers) which have direct participation and involvement in the e-banking by distributing questionnaires purposely designed to scale up customers' views.

The data source is from the selected bank branches in the selected werea. The data sources shall be from the bank customers existing in the selected census werea's bank branches. The bank managers and supervisors were supposed to assist me for this data collection with questionnaires to be distributed to branches to gather the required primary data.

Questionnaires would be prepared that contain both open ended and close-ended questions. The first part of the questionnaire would be devoted to consider demographic, residence werea, occupation, academic status, english knowledge,. The other parts would be prepared in a design to get information about the selected factors that the study believed to have influencing role on scale of adoption on e-banking system; The questionnaire would purposely be designed to investigate customers' view towards the emerged electronic system and gather their attitude Since all data to be collected were with questionnaire from the directly concerned persons, the type of data would be reliable.

Questionnaires would be distributed to branch managers after explaining the purpose of the research and informing about the institutional approval. branch managers would be briefed on how to distribute the questionnaires through customer service clerical staff members to customers of the branch. A deadline would also be fixed with the branch managers to collect the filled questionnaires. Ethical issues like anonymity of the participants, confidentiality of the information collected would be reserved. Ethical issues like anonymity of the participants, confidentiality of the information collected would be reserved.

The research had selected as a source of data the Awash bank southern district which comprises 15 branches. Data is going to be collected through systematically well designed questionnaire that can measure the level of adaptability of e -banking by customers of the bank.

3.7.2Secondary Data

This type of data involves different reports and published documents that had been processed, analysed and ascertained by a third party. As a result, journals, annual reports, audit reports and research papers on similar issues and or related topics shall be used as secondary sources of data to analyze the issue with the existing statement of problems. Secondary data is mainly from documents and it is usually called documentary data.

3.8 Methods of Data Analysis

3.8.1. Questionnaire:-

The technique to be used for data collection from the desired customers is open ended questionnaire. Questions were [repwered form of eaffirmative statements, relating to the concepts on e-banking to identify their views on the factors affecting the adoption of e-banking to be able to measure the respondent's opinions. The questionnaires were structured in close-ended type and responses to the questions shall be measured on a five Likert rating scale where: Strongly Agree (SA) = 5; Agree (A) = 4; Neutral (N) =3, Disagree (D) = 2; and Strongly Disagree (SD) = 1; the use of Likert scale is to make it easier for respondents to answer question in a simple way. In addition, this research instrument would have cwereful recording and efficient use of statistics for the interpretation of data. questions present in the form of affirmative statements, relating to the concepts on e-banking to identify their intention on the factors affecting the adoption of e- banking, so as to be enable to measure the respondent's opinions.

Therefore, the breakdown of customers' responses would be summarized and systematically organized by table and measurement analysis would be conducted from this organized data. by data analysis method and analysis formula, First the stratum profile of respondents would be reviewed and data collected through questionnaires would be analyzed and interpreted through descriptive statistical methods by using percentage as a measurement parameter.

All data collected were going to be summarized by systematically designed tables against demographic characteristics (strata). The analysis and interpretation would also be based on the stratum and research questions. Summary or result of the processed data analysis would be expressed accordingly.

This summary result shall be used as input for conclusions and interpretations. And recommendations also can be forwarded for interested ones. The findings of the study were going to be used to express the desired level of adoption of the bank customers towards electronic-banking technology.

3.9 Validity and Reliability

3.9.1 Validity:-

Moreover, to secure the content validity of the instrument, the researcher referred previous researcher's questionnaires that fit the purpose and let different scholars and supervisory staff of the sampled bank in the work place to review the instrument before distributing to the respondents and taking an advice from advisor. Accordingly, they had critically examined and forwarded some modifications on the instrument; hence, their expertise feedback had been incorporated. Furthermore, pre-test were conducted using a total of 5 samples i.e. 1 pre-test from each sample group. Based on the findings of the pre-test, the researcher tries to rephrase some questions that were not clear without affecting the basic context of the instrument. And, it was confirmed that the questionnaires that pass the pre- test become effective to meet the objective of the study before distributed to the respondents.

Validity is to mean genuine and justifiable that can be expressed in two ways

1. Face validity i.e since the primary data is to be collected from systematically designed questionnaire to be filled by the direct concerned parties, the actual data needed for analysis is going to be gathered from the directly concerned people, the sampling and data analysis method ie genuine and valid.
2. Content Validity:- The result of the analysis would be summarized and systematically organized by table and a percentage measurement parameter shall be used. Reasonableness emanates from whether the measuring instrument truly measures and find out what it had been anticipated or how the research consequences were believed to be real? To make this study acceptable and valid, it would be envisaged by demographic expression of coorelation and regression lines for views and interpretation.

To secure the content validity of the instrument, the study had referred previous researcher's questionnaires that fit the purpose and let different scholars and supervisory staff of the sampled bank branches in the work place to review the cases before distributing to the

respondents.. Furthermore, pre-test shall be conducted to verify its validity against the real truth.

3.9.2 Reliability

Reliability is a measure of internal consistency which is concerned with factor elements, responses, consistent across constructs and indicates whether results were stable over time when the instrument is administered (Creswell, 2009).

Both primary and secondary data would be used for this research. The Primary data to be collected is from the selected sample werea of Awash Bank customers using purposely designed questionnaires. The customers' (respondents) would purposively be selected so as to acquire the real and genuine data.. Hence forth, since the research study is going to be conducted by gathering data from the right persons and place, the findings would be reliable, acceptable and valid. In addition, the study is also to be conducted by and after analyzing a number of literature review mentioned in the above title which makes the research more reliable.

3.10 Ethical Procedure:-

I would like to assure that this research study would be fully conducted by only me and I would like to assure to any concerned party that It would be my original work to be prepwered under the guidance and an advisor assigned to me by the University. All sources of datato be used for the research would also be expressed in detail.I further would like to confirm that the thesis research study would not be submitted either in part or in full for any other purpose.

Unit 4 Data Analysis and Discussion

Introduction

This study investigates the consequences of e-banking adoption, focusing on Awash Bank. The adoption of e-banking had significantly transformed the banking industry, with the increasing use of online financial services. The study aims to analyze the implications, difficulties, and possibilities related to Awash Bank's adoption of e-banking, providing insights for strategic decision-making in the dynamic field of finance and banking. Data was analyzed using SPSS 25 and Stata14.

4.1 Response rate

The research survey, involving 330 out of 400 so that respondents from various groups, had a 82.5% response rate, providing valuable insights into their perspectives. This high response rate demonstrates the participants' engagement, enhancing the reliability and comprehensiveness of the data collected.

4.2 Statistics on Reliability

	Reliability statistics	
	Cronbach's alpha	No of items
Awareness	.872	4
infrastructure	.939	5
Security/ confidentiality	.906	5
Environment	.919	4
Organizational factor	.844	4
Adoption of e banking	.927	5
	.980	27

Table 4.2 reliability test

A reliability study assesses the internal consistency of a set of measuring scales or survey questions. Higher Cronbach's Alpha ratings indicate greater reliability. The results show high levels of internal consistency in awareness, infrastructure, protection and confidentiality, environment, organizational structure aspects, and adoption of e-banking respectively (0.939 ,0.919 ,0.844 ,0.927 and 0.872)

The overall reliability of the entire object collection is excellent (0.980), with 27 items indicating trustworthiness in evaluating the required concepts. The high degree of internal consistency in the awareness assessment, infrastructure measurement, protection and confidentiality, environment evaluation, and adoption of e-banking indicates the instrument's effectiveness in gauging a coherent construct.

4.3 Demography analysis

	Frequency	Percent
Gender		
Male	128	39
Female	202	61
Level of Education		
Up to secondary school	90	27
Degree	227	69
Masters	13	4
Occupation		
Employee	270	82
Self-employee	60	18
Total	330	100

Table 4.3 demography of the respondents

The demographic analysis that is supplied describes the traits of the research participants and groups them according to their gender, educational attainment, and employment. Here's how the demographic makes sense

The study examines demographic characteristics among a sample of 330 individuals, including gender, education level, and employment. The majority of respondents were female, with 61% being female and 39% male. The sample had a diverse educational background, with 69% having a degree and 27% having completed secondary school. Only 4% have a master's degree, indicating a subset with advanced degrees. The majority of respondents were 82% employed, and 18% from the self employeeed . These demographic findings provide a basis for further analysis and contextualization of responses, allowing for a more nuanced assessment of the research findings.

4.4 Descriptive statistics of the variables of factors of Adoption of E-banking

Descriptive Statistics			
Factor	Mean	Median	Standard Deviation
Awareness	2.18 (indicates a slight positive sentiment)	2.0 (suggests a neutral or slightly positive lean)	1.001 (low value indicates agreement among respondents)
Infrastructure	2.41 (indicates a slight positive sentiment)	2.0 (suggests a neutral or slightly positive lean)	1.153 (low value indicates agreement among respondents)
Security/Confidentiality	2.50 (indicates a slight positive sentiment)	2.0 (suggests a neutral or slightly positive lean)	1.089 (low value indicates agreement among respondents)
Environment	2.51 (indicates a slight positive sentiment)	2.0 (suggests a neutral or slightly positive lean)	1.139 (low value indicates agreement among respondents)
Organizational Factors	2.28 (indicates a slight positive sentiment)	2.0 (suggests a neutral or slightly positive lean)	1.198 (low value indicates agreement among respondents)
Adoption of e-banking	1.97 (indicates a neutral sentiment)	2.0 (suggests a neutral or slightly positive lean)	1.038 (low value indicates agreement among respondents)

Table 4.4 descriptive statics of factors of Adoption o e-banking

All things considered, the results point to a somewhat favorable attitude toward the factors, with the exception of e-banking adoption, which has a mean that is more neutral. All factor medians are 2.0, indicating a neutral or slightly positive slant in respondents' perceptions. Furthermore, the modest standard deviations for each category show that respondents' perceptions of these characteristics are generally in accord.

The factors with the highest means are Security/Confidentiality and Environment, suggesting a more favorable reaction than other aspects.

The least amount of adoption is in e-banking, indicating a more ambivalent attitude. The "distance") between points on the Likert scale may not be constant, therefore it's vital to keep that in mind. As a result, it is important to interpret the methods cautiously. Particularly, the overall division below

Analysis of E-Banking Characteristic Information

This data provides insights into how customers view specific e-banking features using a 5-point Likert scale, where 1 represents strongly disagree and 5 represents strongly approve. Let's now examine the implications for each category covered in the descriptive data that follow.

Awareness (average: 2.18), The average score demonstrates a lack of understanding of the functions and features of internet banking. This suggests that banks should increase their marketing and educational efforts in order to inform potential clients.

Infrastructure (2.41 as the mean), This grade shows that people's perceptions of the e-banking industry's underlying infrastructure range from neutral to moderately positive. On the other hand, the standard deviation (1.153) indicates some variation in user experiences. Banks should identify locations that require growth. like internet access or app capability.

Security/Privacy (average: 2.50%), A somewhat favorable sentiment toward safety precautions is indicated by a little over neutral score. However, there is still room for improvement. Building trust requires robust security protocols and open information about safety precautions.

the environment (average: 2.51), Similar to Security/Confidentiality, this score denotes a neutral to moderately positive assessment of the friendliness and use of the e-banking platform. By integrating user feedback and conducting usability tests, the user experience might be enhanced.

Organizational Aspects (Mean: 2.28), The low score points to potential problems with organizational elements including customer support, complaint processing, and the transparency of e-banking services. Banks need to focus on improving customer service channels and effectively handling customer complaints.

Adoption of e-banking (average score: 1.97), the lowest shows that the user is reluctant or hesitant to use online banking services. This might be due to a variety of factors, such as low knowledge, security concerns, or a lack of trust in the framework. Banks need to find solutions for these problems and emphasize the benefits of online banking in order to encourage wider adoption.

hence, The information suggests that there is room for development in several e-banking service-related sectors. By resolving these concerns, banks may promote trust, boost user adoption of e-banking technology, and increase awareness.

4.5 correlation coefficients

Correlations							
		Awareness	Infrastructure	Security/Confidentiality	Environment	Organizational Factors	Adoption of banking
Awareness	Pearson Correlation	1					
	Sig. (2-tailed)						
Infrastructure	Pearson Correlation	.485**	1				
	Sig. (2-tailed)	.000					
Security/Confidentiality	Pearson Correlation	.743**	.815**	1			
	Sig. (2-tailed)	.000	.000				
Environment	Pearson Correlation	.751**	.797**	.920**	1		
	Sig. (2-tailed)	.000	.000	.000			

Organizational Factors	Pearson Correlation	.812**	.764**	.882**	.870**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	330	330	330	330	330	
Adoption of e banking	Pearson Correlation	.722**	.839**	.856**	.886**	.824**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	330	330	330	330	330	330
**. Correlation is significant at the 0.01 level (2-tailed).							

Table 4.5 correlation

Correlation Coefficient in the E-Banking Survey ,that had a linear link between two variables is measured by the Pearson correlation coefficients, which were displayed in the table. The correlations and their degrees of significance were broken down as follows: regarding the Degree of Correlation Strength:

The linear link between two variables is displayed, along with its intensity and direction, in the correlation matrix. The range of a Pearson correlation coefficient is -1 to +1. A complete positive linear relationship, where the values of the two variables grow in tandem when one variable's value rises, is indicated by a correlation coefficient of +1. A complete negative linear connection, where the value of one variable grows and the value of the other variable drops, is shown by a correlation coefficient of -1. If there is no linear relationship between the two variables, the correlation coefficient is 0.

The likelihood that the observed link may be the result of chance is indicated by the significance level (p-value). A statistically significant correlation is one with a p-value of less than 0.05, indicating that the observed association is implausible.
to be the result of chance.

All of the relationships were statistically significant ($p\text{-value} < 0.01$), as can be seen from the correlation matrix. These were a few of the main conclusions,

The Correlation of E-Banking Adoption discussion based on the Table

So that The correlation coefficients between several elements and Awash Bank's e-banking adoption were shown in the table. Strong associations were shown by the statistical significance of all correlations at the 0.01 level. The information in the table is broken down as follows:

the Extensive Positive Associations were :

Adoption, Security, and Confidentiality , Customers that value security and data secrecy were more likely to use Awash Bank's e-banking services, according to the greatest connection (0.856).

Environment & Adoption (0.886), Higher adoption of e-banking is associated with a robust environment, which is probably referring to elements like governmental assistance and legislative frameworks.

Organizational Factors & Adoption (0.824), E-banking adoption is probably greatly influenced by efficient internal bank procedures, resources, and marketing.
the Positive Correlations That Were Moderate were :

Awwereeness & Adoption (0.722), Clients were more likely to use Awash Bank's e-banking services if they were awwere of them.

Infrastructure & Adoption (0.839), There is a modest correlation between greater adoption rates and a strong technology infrastructure (such as the internet and mobile networks).

Infrastructure & Security/Confidentiality (0.815),E-banking systems that have a robust infrastructure were probably more secure.

Environment & Security/Confidentiality (0.920), Strong rules and security precautions were probably part of a supportive environment, which increases consumer confidence.

Environment & Organizational Factors (0.870),Banks may be more woulding to invest in the infrastructure and marketing of e-banking in a supportive environment.

Organizational Factors & Security/Confidentiality (0.882), Banks that place a high priority on security were probably going to have robust internal controls in place, which builds client confidence.

According to the statistics, Awash Bank had to use a multifaceted approach to enhance the usage of e-banking. These were Promote security and trust ,Pay close attention to strong security protocols and transpwerent data privacy messaging ,Raise awwereness, Inform prospective customers of the advantages and simplicity of utilizing online banking services, Make infrastructure investments,To ensure seamless e-banking operations, guarantee dependable internet and mobile connectivity, Friendly environment: Support laws that encourage the expansion of online banking , Streamline internal procedures for effective e-banking service delivery by optimizing internal processes . so Awash Bank can increase consumer adoption by improving the e-banking experience and security by addressing these aspects. The correlations' effects on Awash Bank's e-banking

4.6 Regression of the adoption of e-banking

4.6.1 model summary

Table 4.6.1 model sumrry

Model Summary				
Model	R	R Squwere	Adjusted R Squwere	Std. Error of the Estimate
1	.927 ^a	.860	.857	.392
a. Predictors: (Constant), Organizational Factors, Infrastructure, Awwereness, Environment, Security/Confidentiality				

The Model Summary and its consequences were broken down as follows:

To discuss about Awash Bank's Regression Analysis of E-Banking Adoption based on The model summary based on table that was presented in information about the regression analysis that was done to determine the factors impacting Awash Bank's adoption of e-banking. The summary of the main conclusions were as follows: -

R-squared and its modifications:

The model explains a considerable amount (86%) of the variance in the adoption of e-banking, according to the R-squared value of 0.860. The adjusted R-squared value of 0.857 was somewhat lower than R-squared, indicating that the independent factors (Organizational Factors,

Infrastructure, Awareness, Environment, and Security/Confidentiality) jointly have a major influence in predicting e-banking adoption. In light of the number of terms included, this modification shows that the model had a reasonable fit and takes into consideration the complexity of the model (number of predictor variables).

Regarding Normal Error of the Estimate, The amount of variation in the model that cannot be explained is shown by the standard error of the estimate (0.392). Stated otherwise, it represents the mean discrepancy between the estimated values derived from the model and the factual

Observed values for the adoption of electronic banking. This estimate's moderate standard error raises the possibility that adoption of e-banking is influenced by variables other than those in the model.

The Important Predictors were, Even if the regression analysis doesn't specifically show how important each individual predictor is, we may still learn from the correlation table you previously showed. According to those correlations, there were statistically significant associations between the adoption of e-banking and all of the independent variables (organizational factors, infrastructure, awareness, environment, and security/confidentiality).

4.6.2 ANOVA

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	304.823	5	60.965	396.551	.000 ^b
	Residual	49.811	324	.154		
	Total	354.633	329			
a. Dependent Variable: Adoption of e banking						
b. Predictors: (Constant), Organizational Factors, Infrastructure, Awareness, Environment, Security/Confidentiality						

Table 4.6.2 ANOVA

Here's a discussion of the ANOVA results based on Key Findings below

Concerning ANOVA, Squared Sums (SS), Regression SS (Organizational Factors, Infrastructure, Awareness, Environment, and Security/Confidentiality):

Analysis of Awash Bank's ANOVA Results for E-Banking Adoption
The presented ANOVA table based on the regression analysis of Awash Bank's e-banking adoption that we previously addressed. Below is a summary of the main conclusions: the Overall Significance of the Model was: -

The "Regression" row's "Sig." value (0.000) is less than the usual significance level of 0.05. This suggests that a sizable percentage of the variance in the adoption of e-banking may be statistically explained by the model. Stated differently, the adoption of e-banking is statistically predicted by the combined impact of the independent factors (Organizational Factors, Infrastructure, Awareness, Environment, and Security/Confidentiality). The F-statistic, the importance of the model is further reinforced by the high value of the F-statistic (396.551). It implies that the between-groups variance, or variation explained by the model, is significantly greater than the within-groups variance, or the unexplained variance.
Constraints of ANOVA: Although ANOVA aids in determining the model's overall

significance, it is unable to identify the individual independent variables that significantly contribute to the model.

We would need to examine the findings of a post-hoc test (such as t-tests or multiple comparison tests) in order to comprehend the distinct contributions of each independent variable. These tests would determine which independent variables have a statistically significant effect on

The adoption of e-banking by comparing the regression coefficients of each variable. Overall, the ANOVA findings show that the selected model accounts for a considerable portion of the variance in Awash Bank's e-banking adoption. But more research using post-hoc testing is required to identify the precise independent variables that were the most powerful promoters of e-banking approval.

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.383	.062		-6.179	.000
	Awwereeness	.311	.043	.300	7.248	.000
	Infrastructure	.438	.038	.486	11.477	.000
	Security/Confident ialiity	-.039	.059	-.040	-.656	.512
	Environment	.366	.053	.402	6.875	.000
	Organizational Factors	-.091	.048	-.105	-1.886	.060
a. Dependent Variable: Adoption of e banking						

Table 4.6.3 coficients

The Coefficients table and key findings were :-

In regression Model , the independent variables (predictors) Unstandardized Coefficients (B) that These values represent the change in the predicted adoption rate associated with a one-unit increase in the corresponding independent variable, holding all other variables constant. However, interpreting these coefficients can be challenging due to the presence of other variables.

Standardized Coefficients (Beta): These were more interpretable because they reflect the strength and direction of the relationship between each independent variable and e-banking adoption, independent of the scale of the variables.

When beta value Positive that indicates that a higher value of the independent variable is associated with a greater adoption of e-banking. And also Negative Beta, Suggests that a higher value of the independent variable leads to lower e-banking adoption.

Regarding the t-statistic and Sig value These values indicate the statistical significance of each individual variable in the model. A low p-value (typically less than 0.05) suggests that the variable is statistically significant.

About the Collinearity Statistics (Tolerance and VIF): These assess the potential issue of multicollinearity , which occurs when independent variables were highly correlated. Ideally, Tolerance values should be above 0.1 and VIF (Variance Inflation Factor) values below 10 to avoid concerns about multicollinearity.

When the Analysis of Individual Variables described based on the value of beta of each variables of adoption of e-banking.

Awareness (Beta: 0.300, Sig.: 0.000): This positive and significant beta indicates that a higher level of awareness about e-banking services is associated with a greater adoption rate. This highlights the importance of effective marketing and educational campaigns to promote e-banking at Awash Bank.

Infrastructure (Beta: 0.486, Sig.: 0.000): The strong positive beta and significance level suggest that a more strong e-banking infrastructure (including reliable internet connectivity and user-friendly platforms) significantly encourages e-banking adoption.

Security/Confidentiality (Beta: -0.040, Sig.: .512): The negative beta (not statistically significant) implies that there might be a weak negative relationship between perceived security/confidentiality and adoption. However, the lack of significance suggests this relationship might not be entirely reliable. Further investigation might be needed to understand user perceptions of security and its impact on adoption.

Environment (Beta: 0.402, Sig.: 0.000): The positive and significant beta coefficient indicates that a supportive regulatory and legal environment plays a crucial role in promoting e-banking adoption.

Organizational Factors (Beta: -0.105, Sig.: .060): The negative and marginally significant beta suggests a possible negative association between certain organizational factors and e-banking adoption. However, a more in-depth analysis might be necessary to pinpoint the specific organizational factors hindering adoption.

It's essential to consider the limitations of interpreting unstandardized coefficients (B) due to the presence of multiple variables. While they provide some directional information, beta coefficients offer a more reliable understanding of the relative impact of each variable. Overall, the Coefficients table provides valuable insights into the key drivers of e-banking adoption at Awash Bank. It highlights the importance of awareness campaigns, infrastructure development, and a supportive environment. Further investigation into security perceptions and specific organizational factors could provide even more actionable insights for the bank.

4.7 Hypothesis Test

The outcome of the hypothesis tests based on p value to be accepted or rejected. The hypothesis is below accepted or rejected based on the value of sig p-value for HO null

hypotheses to be accepted the hypotheses formulated statement should be significant if p-value is below 0.05 otherwise it is rejected.

		Statements of Hypothesis		Sig.
1	(H0):	There is no significant relationship between the infrastructure of Awash Bank and the adoption of E-Banking.	Rejected	Sig.: 0.000
2	(H0):	Confidentiality and security measures implemented by Awash Bank do not significantly impact the adoption of E-Banking.	Accepted	Sig.: 0.512
3	(H0):	The external environment, such as regulatory and economic factors, had no significant effect on the adoption of E-Banking in Awash Bank.	Rejected	Sig.: 0.000
4	(H0):	The level of awareness among customers and employees in Awash Bank had no significant impact on the adoption of E-Banking.	Rejected	Sig.: 0.000
5	(H0):	Organizational factors, such as structure and culture in Awash Bank, do not significantly affect the adoption of E-Banking.	Rejected	Sig.: 0.060 newerest (0.1) as 0.05

Table 4.7 Hypothesis test

The hypothesis tests and their implications were as follows:

1. **Infrastructure:** The null hypothesis (H0) states that there is no significant relationship between the infrastructure of Awash Bank and the adoption of E-Banking. This implies that the infrastructure of Awash Bank plays a significant role in the adoption of E-Banking.
2. **Confidentiality and Security:** The null hypothesis (H0) states that confidentiality and security measures implemented by Awash Bank do not significantly impact the adoption of E-Banking. This implies that the level of confidentiality and security measures in Awash Bank does not significantly affect the adoption of E-Banking.
3. **External Environment:** The null hypothesis (H0) states that the external environment, such as regulatory and economic factors, had no significant effect on the adoption of E-Banking in Awash Bank. This implies that the external environment plays a significant role in the adoption of E-Banking.
4. **Awwereness:** The null hypothesis (H0) states that the level of awwereness among customers and employees in Awash Bank had no significant impact on the adoption of E-Banking. This implies that higher awwereness levels within the bank's stakeholders significantly contribute to the adoption of E-Banking.
5. **Organizational Factors:** The null hypothesis (H0) states that organizational factors, such as structure and culture in Awash Bank, do not significantly affect the adoption of E-Banking. This implies that organizational factors within Awash Bank play a significant role in determining the adoption of E-Banking.

UNIT 5 summry conclusion and Rekomandation

5.1 Introducation

This chapter offers a comprehensive summary of the study's findings, conclusions, recommendations, and potential directions for further research. Finding the characteristics influencing the adoption of e-banking is the main objective of this study. Regarding Awash Bank , The main objective of this study is to investigate what factors that affect the adoption of e-banking .

This part examined the overall conclusion drawn from regression analysis, as shown in the table above, based on earlier studies as well as the results of this investigation. Using the literature as a guide, the findings for each explanatory variable and their effect on Ethiopian AWASH banks' adoption of E-banking were examined. The result of the discovery was therefore evaluated in view of previous support from theory and actual data in the form of the following

This argues that the use of technology in the banking industry should be governed by a defined regulatory framework. Investments in ICT infrastructure should also be made to help the banking industry, and banks should give technological innovation competition precedence over more traditional forms of competition among retail banks. Malaysia (Sadiq Sohail and Shanmugham 2003) shown that service prices have no effect on the uptake of e-banking.

In a similar spirit, the results of the study showed that customers' adoption is significantly impacted by e-banking variables resulted from the study result. The outcome is equivalent to that of the study carried out in Lebanon. and in Singapore (Gerrard et al., 2006; Dagfous & Toufaily, 2007). This may have occurred because online banking services, by their very nature, operate in a riskier environment due to the lack of in-person product appraisals, direct client connection, and contractual or warranty protection. This implies that customers can be concerned about how long a transaction would take to complete or about how long it would take them to become proficient at using it.

5.2 Summary Of Findings

Reliability

The study found high internal consistency in awareness, infrastructure, security/confidentiality, environment, organizational structure, and e-banking adoption, with high Cronbach's Alpha scores indicating more dependability. The survey instrument had a high overall dependability of 0.980.

Demography

The research involved 330 participants, comprising 82.5% of a 400-person sample. The majority were female (61%), with 69% holding a degree and 27% having completed high school. Only 4% held master's degrees. Eighty-two percent worked for themselves.

Descriptive statistics

The data shows that customers have varying perceptions of e-banking features, with an average score of 2.18. This suggests a need for increased marketing and educational efforts. The infrastructure of the e-banking industry is rated between neutral and moderately positive, with some variation in user experiences. Security/Privacy is generally favorable, but there is room for improvement. The environment is generally neutral, with a score of 2.51, suggesting a need for usability testing. Organizational aspects, such as customer support and complaint processing, were rated low, indicating potential issues. Adoption of e-banking is low, indicating room for development.

Correlation

The E-Banking Survey reveals a significant linear link between adoption, security, and confidentiality, with customers valuing security and data secrecy more likely to use Awash Bank's services. The environment and adoption of e-banking were influenced by robust government assistance, efficient internal procedures, resources, and marketing. To enhance e-

banking usage, Awash Bank should promote security, trust, transparency, infrastructure investments, and streamline internal procedures.

Regression

The regression analysis of Awash Bank's adoption of e-banking revealed that the model explains 86% of the variance in adoption, with independent factors such as organizational factors, infrastructure, awareness, environment, and security/confidentiality playing a significant role. The adjusted R-squared value of 0.857 suggests that these factors jointly influence e-banking adoption. The normal error of the estimate (0.392) suggests that the adoption of e-banking may be influenced by other variables. The correlation table suggests significant associations between e-banking adoption and all independent variables, suggesting that infrastructure, organizational factors, awareness, security/confidentiality, and environment were the most significant factors affecting Awash Bank's adoption.

ANOVA

The ANOVA analysis of Awash Bank's e-banking adoption revealed that the model accounts for a significant portion of the variance. The "Regression" row's "Sig." value (0.000) is less than the usual significance level of 0.05, suggesting that a significant percentage of the variance in e-banking adoption may be statistically explained by the model. The F-statistic (396.551) further reinforces the model's importance. However, ANOVA cannot identify individual independent variables, so post-hoc tests were needed to understand their distinct contributions.

Coefficients of variables of prediction

The regression model reveals that a higher level of awareness about e-banking services is associated with a greater adoption rate. This is supported by the positive beta coefficient, which indicates a stronger relationship between the independent variable and e-banking adoption. The t-statistic and Sig value indicate the statistical significance of each individual variable. Collinearity statistics, such as tolerance and VIF, assess the potential issue of multicollinearity. The analysis of individual variables revealed that awareness, infrastructure, security/confidentiality, environment, and organizational factors all play a

crucial role in promoting e-banking adoption. However, the unstandardized coefficients (B) can be challenging to interpret due to the presence of multiple variables. The Coefficients table provides valuable insights into the key drivers of e-banking adoption at Awash Bank, emphasizing the importance of awareness campaigns, infrastructure development, and a supportive environment.

5.3 conclusion

The study examines Awash Bank's adoption of e-banking and its factors affecting its success. Results show that the bank's adoption is influenced by factors such as reliability, demographics, and user experience. The adoption of e-banking is positively correlated with security, environment, and awareness. Opportunities for improvement include raising awareness, upgrading infrastructure, strengthening security, optimizing the environment, and streamlining internal procedures. The study also suggests that a broader audience, improved infrastructure, and a supportive atmosphere can help boost client adoption. Collaboration with stakeholders and streamlined internal procedures can also contribute to the success of e-banking.

5.4 Recommendation

Awash Bank should enhance e-banking adoption by developing targeted marketing campaigns, investing in infrastructure, implementing robust security practices, advocating for government policies that support e-banking growth, and streamlining internal processes related to e-banking services. These strategies would create a more attractive and secure e-banking environment, leading to wider customer adoption and increased digital banking usage. The bank should also advocate for government policies that promote a supportive environment for e-banking growth.

Enhance workers' skill sets: To guarantee that they can efficiently serve client demands and foster confidence, bank employees should get training on e-banking protocols and best practices.

Encourage general awareness Continue educating the public about the benefits of e-banking and the security precautions in place by running focused advertisements.

By concentrating on these suggestions, Awash bank can produce improve the security, dependability, and usability of e-banking, which would eventually encourage broader usage and allow the country to profit from a digital financial system.

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APPENDIXES

Questionnaire

Dear your honors : I prepwered this questionnaire for conducting a research work to be used for partial fulfillment of the requirement of my graduation in MBA. I would like to thank you for your cooperation in filling the research questions accordingly.

This research questions were designed to investigate the adoption of e banking in Awash Bank southern district. The survey is going to be conducted around the district location to evaluate the level of perception and adoption of e banking. Please note that this research work shall only be used for academic purpose.

Would you please put a mark (√) on the boxes accordingly.

I. General Profile

1. Gender Male ☐ Female ☐
2. Academic Status ☐ Up to secondary school
 ☐ Degree
 ☐ Masters
3. Occupation ☐ self employe ☐ Employee ☐ Student

Please put a right mark (√) on the table corresponding to your level of agreement

S.NO	Questions designed to evaluate the level of perception and adoption towards e banking system	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
	1. Awareness					
Aw1	I have sufficient knowledge about e banking					
AW2	I have sufficient information and experience about e banking service					
AW3	E banking is recommended because of its fast and 24 hours service and reliability.					
AW4	The bank provides orientation about the system through mass media					
	2. Infrastructure					
INF-1	Ethio telecom is providing reliable internet service					
INF-2	Awash bank had adequate (ICT) technological infrastructure					
INF-3	There is adequate supply of electronic goods, for adoption of e banking					
INF-4	The government is working to expand electric and telecommunication facilities that contributes for adoption.					
INF-5	The competition with other banks influences the level of adoption towards e banking.					
	3. Security/Confidentiality					

Sec-1	I believe customer service is maintained in e banking					
Sec-2	I believe e banking had legal protection					
Sec-3	E banking service had no any risk whether there is cyber protection or not.					
Sec-4	The new digital e banking does not keep safety of account balances, the system is not required					
Sec 5	I believe e banking keeps customers data confidential.					
	4 Environment					
Env-1	There is adequate supply of electronic and computer apparatus					
Env-2	I believe awash bank have better E banking service compared with other banks					
Env-3	Absence of competition among foreign banks hinders the level of adoption of e banking					
Env-4	There is regulatory framework on the system					
	5. Organizational Factors					
O-F-1	I believe the bank had technological orientation for readiness					
O-F2	The Banks had skilled human resource to implement e banking.					
O-F 3	The bank I am using is giving orientation for customers about e banking system.					
OF-4	I believe the bank had regulatory framework in					

	implementation of the system					
	6.Adoption of e banking					
AD1	I perceived fast service benefit from the system					
AD 2	I perceived an easy banking transaction from the system					
AD 3	I Perceived benefit of 24 hours banking service					
AD4	I use all type of e banking services					
AD5	I use e banking services frequently					

Views and recommendations related to the research objective.

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