

# Challenges and Prospects of Online Banking System in Commercial Bank of Ethiopia

Derese Simegneew Alehegn

Ethiopia, Addis Ababa, 56196, Addis Ababa

**Abstract:** *This study examines the challenges and prospects of online banking system. The objective of the study was on the challenges face and prospects get from online banking system in commercial bank of Ethiopia in Debre Markos branch. Mixed research approach was employed and both primary and secondary data used. The primary data are collected through questionnaire and interview and secondary data are collected through bank websites, annual report of the organization. The researcher uses probability sampling technique, that is simple random sampling and the collected data was analyzed by using descriptive analysis such as tables and percentages. From the analysis of the collected data, the findings revealed that: balance inquiry, cash Withdrawal, funds transfer within the bank, are some the major practice of online banking in commercial banks that are providing the service to their customer. The different online-banking channels by which bank are using to provide these services to their customers are ATM card, Internet banking and Mobile banking. On the View point of the bank Cost reduction, reduce risks, it provide 24 hour service, provide quality service, coverage of wide geographical area, customer satisfactions are some of the prospects of using online banking. Interruption of networks, lack of it skilled man power, Chances of risk, Lack of suitable legal and regulatory framework, absence of financial networks that links different banks, Low level of internet penetration and poorly developed telecommunication infrastructure, high cost of internet, security concerns are among the major challenges of online-banking service in the commercial bank of Ethiopia in Debre marks branch. As per the finding, Even if, the bank uses proper follow up through security check ups, updating software periodically, antivirus scan in computer monitor, 24 hours check on antivirus scan; the problem does not retarded or reduced, in case of this the bank worked hardly with partners (like Ethiopia telecom), and using modern technology like Remote Deposit Capture, and finally giving more attention on customers awareness in relation to visa card and mobile banking usages. this research provide an opportunity for decision makers of the external users like governmental agencies ,customers and regulatory authorities, and for managers of the bank's in relation to challenges of online banking to consider and evaluate the opportunities observed in the existing practice*

**Keywords:** Challenges, Online Banking, Commercial Bank

## CHAPTER ONE 1.1 INTRODUCTION

This research would conducted on the assessments of challenges and prospects of online banking in commercial bank of Ethiopia Debre marks branch.

The increasing competitive environment in the financial service market has resulted pressure to develop and utilize alternative delivery channel in the world. The most recently delivery channel introduced is online- banking are also known as E-banking.(Daniel and Story,1997)

Like all other social entities financial institutions are being constantly shaken by technological innovations and inventions (Shyamapada et al, 2011). For instance, still now bank clients were used to stand in line to get financial services, but now because of the development of the Information and Communication Technology (ICT) and introduction of online- banking services they can perform it at anytime from anywhere even from home. In online banking system, funds are transferred through electronic signals between financial institutions and individual accounts, and between individual accounts, (Shyamapada et al., 2011)

online-banking has many advantages and interesting diversities including more number of customers, services in higher quality and lower price, preservation and enhancement of share in market, unlimited space for market, concentration in new distribution, making Challenges and prospects of online- Banking in Ethiopia competition between commercial brands, concentration on expenses and improvement of revenue, providing extensive services improvement in management system, decreasing the expenses of contractions, close intra banking connection and controlling ecological pollution,( Farshad Havasi1 et al, 2013).The challenges on financial institute in the advancement of technology from country to country there will be information hacker, interruption of networks and lack of IT skilled man power (frastor et al, 2000) and also the prospect That bank get from is to minimize the work load the customers are easy to access their wants to some time or save time (Accenture ,2005) .

In developed and developing countries are embracing online banking as a technology evolves, different kinds of online banking systems immerse. Reaching bringing a new dimension to the interaction between user and bank. they include on line banking like mobile banking visa card and internet banking which are reliable ,easy ,fast and time safe for the customer (Gikondi And Bloor ,2000; Linoa and Cheung,2002)

In general the fast advancing global information infrastructure, information technology and computer networks such as the Internet and Telecommunication systems, enables the development of electronic banking at a global level,(Dr.Unaneswarn,2009)

## 1.2 Statement of the problem

The role of information technology to the bank sectors are getting bigger. As a result, banks are adopting technologies that help them deliver banking services by the most cost effective channels and one of such channel is adoption of online -banking or internet banking (Booz and Hamilton, 1997)

online banking system has the following advantage for instance, to facilitate the interaction of customers and employees, to increase the loyalty between customer and employees, it removes the traditional geographical barriers, it is mechanism for efficient and cost effective for the bank, it possess a strategic risk of loss of business to banks who do not respond in time, on the contrary, even if online banking has many advantage but it has its own drawback this are like problem of lack of awareness on the benefit of new technology, free of risk among banks, customer preference of the online banking facility, lack of trained personnel on key bank, cash or tendency to be content with existing structure people are resistance to new payment mechanism, frequent connectivity failure in mobile lines, frequent power interruption and wide spread of problem in internet connection,(Sathy, 2001 )

Online banking is generally secure, but it certainly isn't always secure. Identity theft is running rampant, and banks are by no means immune. And once the information is compromised, it can take months or even years to correct the damage, (Daniel and story, 1997)

The advancement of online- banking is bringing many changes for inter reaction of customers and bank such as save time, providing facility service to speed up the services for the customer to minimize the work load. Even though online- banking has the above prospects but there are a challenge that hinder the service of online- banking .These are interruption of networks, the system needs serious follow up of supervisors, lack of information and technology skilled man power head of connivance of clients to utilize less adopting online- banking facilities (*managers of Debre Markos commercial bank of Ethiopia, 2010* ), consequently because of this problem specially interruption of power and network are the leading problem that hinder the online banking service for his customer from time to time, *So due to the above problem the researchers would motivate to conduct this research for the purpose of reducing those problems by discovering as much as possible their solution and finally to give constrictive advisable opinion to the Debre Markos commercial bank of Ethiopia.*

Generally the problem of online banking system in Ethiopia includes, Low level of internet penetration and poorly developed telecommunication infrastructure, High cost of Internet, Absence of financial networks that links different banks (Banks are not yet automated),Frequent power interruption, Resistance to changes in technology among customers and staff due to: Lack of awareness on the benefits of new technologies, Fear of risk, Lack of trained personnel in key organizations, Tendency to be content with the existing structures,(Gardchew Worku,2010)

## 1.4 Objective of the study

### 1.4.1 General objective

General objective of the study are to assess the challenges and prospects of online banking in commercial bank of Ethiopia in Debre markos branch

### 1.4.2. Specific objective

Specific objectives of the study are the following

1. To identify the challenges facing on online banking system in mobile banking and VISA card in commercial banks of Ethiopia Debre markos branch
2. To examine the prospects get in mobile banking and VISA card
- 3 To identify benefits realized by the banks from online-banking technology to complement their service delivery channels.
4. To investigate the mechanism that should be taken to overcome the problem face on online banking

### 1.5 Significance of the study

This research would believe to have the following importance.

- provide an opportunity for decision makers of the external users like governmental agencies ,customers and regulatory authorities, and for managers of the bank's in relation to challenges of online banking to consider and evaluate the opportunities observed in the existing practice, in order to take appropriate corrective measures in the area or to accelerate the positive factors (if any) for the promotion of online banking by taking appropriate findings from this research and help them to reduce the cost of searching problems

-The researchers improve experience about online banking system in commercial banks of Ethiopia Debre markos branch associated with online banking practice system that the organization used and it would the customers improve easiest accessibility for customer account any branch and , It will help the organization to know and to address challenges of online banking system in

the bank and challenges facing customers, The research would give general knowledge about the challenge and prospect of online banking.

### **1.6 scope of the study**

This research paper is restricted to assess the challenges and prospects of online banking in

Commercial bank of Ethiopia Debre markos branch. This research considers mobile banking and visa card. The researcher will collect data from manager; employees of the commercial bank of Ethiopia in Debre markos branch not include customers

### **1.7 Limitation of the study**

There were so many limitations to complete this study like

-Some staff members were not willing to give the required information because of Carelessness or intentional failure.

-Time and financial constraint to go every day and collected the data in detail.

-internet connection problem

### **1.8 organization of the study**

The study has five separate chapters. The first chapter is an introduction part

Includes, background of the study, statement of the problems, objectives of the study,

Significant of the study, scope of the study and limitation of the study. Second chapter present important related literature review, chapter three is about methodology like Research design, Research approach, Data type and source, data collection method, sampling technique and sample size, methods of data analysis. The fourth chapter deals about data analysis and discussion, and finally, the last chapter five, conclusion and recommendation.

## **3. Methodology of the study**

### **3.1 Research design**

Research design is usually a plan or blueprint which specifies how data relating to a given problem should be collected and analyzed.

According to (Kothari,2008), research design is the conceptual structure within which research is conducted; it contains the mechanisms of data collection, variable measurement and analysis. It provides the procedural outlines for the conduct of any investigation. In this study, the researcher would used qualitative type because it helps to provided in- depth information to address the objectives,(William Zikmund ,2010.)

### **3.2 Research approach**

The researcher uses mixed or both quantitative and qualitative approach to conduct the study. Mixed methods” refers to an emergent methodology of research that advances the systematic integration, or “mixing,” of quantitative and qualitative approach within a single investigation or sustained program of inquiry. The basic premise of this methodology is that such integration permits a more complete and synergistic utilization of data than do separate quantitative and qualitative data collection and analysis,(William Zikmund,2010)

### **3.3 Data type and source**

The researchers were conduct by collecting data from only primary data type from commercial bank of Ethiopia Debre markos branch. These data are collected from the staff’s employees of the commercial banks based on a semi structured or both closed and open ended questionnaires.

### **3.4 data collection method**

In order to collect sufficient data so as to answer the research questions, researchers were used two surveys; the first was a questionnaire to get quantified results. The second survey was interviews aimed to collect data from commercial bank of Ethiopia Debre markos branch managers.

### **3.5 sampling technique**

The sampling technique that are used for this research paper is probability sampling technique that is simple random sampling. The reason behind to choose it is to; minimize bias in the selection of respondents, unrestricted sampling, equal chance of selecting item, free from subjectivity, independent of choice (Robert johnson,1983)

### **3.6 sample size**

According to the data obtained from commercial bank of Ethiopia Debre markos branch there are 189 employees in six commercial banks of Ethiopia that are concerned with the bank operation up to May 8/27/2010 The researchers obtain samples using the formula 90% confidence level and 10% margin errors to reduce the number of representatives due to time constraint and budget constraint.

According to (Yamane, 1967)

$$n = N/1+N (e)^2$$

Where; n= sample size

N= target population=189

e<sup>2</sup>= margin error=10%=0.1

Therefore the sample size that the researcher will use;

$$\frac{189}{1+189(0.1)^2} = 65$$

### 3.7 methods of data analysis

In order to meet the stated research objectives, the collected data were analyzed based on the nature of the objective. Accordingly, the data collected via questionnaires was analyzed with descriptive statistics using statistical package for social scientists (SPSS) V. 20.0. Furthermore, Wolcott (1994) cited in Creswell 2003; pp. 184,

The researcher would use descriptive research to conduct the study .the reason for selection of descriptive research is the study that would need descriptive analysis tools and it appropriate to achieve the research objective. After the relevant data were collected from primary data types the researchers would analyses, summarize and interpret the data using tables and percentages

## 4. DATA ANALYSIS AND DISCUSSION

### 4.1 Introduction

This part of the paper deals with the analysis and discussion of data obtained through interview and questionnaires distributed to the respondents of commercial bank employees. In this initial part of the paper, collected data in the form of questionnaires’ from employees of commercial bank of Ethiopia in Debre markos branch. Collected interviews from top management. And we distributed 65 copies of questionnaires for staff employees of commercial bank Debre markos branch but 51 of them are returned. Weanalyzed and interpreted through descriptive research and analysis by sub titles. The questionnaire is used to know challenges face on the on line banking systems and prospects that the bank gets from online banking.

### 4.2 discussion and analysis related to objective 1

**Table 4.2.1.response of respondents on challenges faces on mobile banking**

	Frequency	Percentage %
Yes	37	72.5
No	14	27.5
Total	51	100%

Source, questionnaire from 2018 by the researchers

According to the response of the respondent, majority of them, that is, 72.5 % of respondents says that challenges face on mobile banking that hinder the day to day activities, that are performed in the commercial bank of Ethiopia in Debre markos branch. Such challenges are network problem or interruption network, low awareness of customerscauses theft of money(when someone else is know the password of some bodyelse,He/She can make every thing which is done by mobile banking service like money transfer, money theft or stolen), the codebeing secured if the code is unmemorable or it is forget, before complete the transaction the system shows out of time but the transaction completed, not all persons uses this service due to lack of awareness of customers except the educated one (difficult for uneducated ),it can be blocked if we have attempted so many times arising from loss of code number or personal identification number.

While the remaining 27.5 % of the respondents says that there is no challenges face on mobile banking.

**Table 4.2.2 response of respondents on challenges face VISA card**

	Frequency	Percentage (%)
Yes	41	80.4
N0	10	19.6
Total	56	100%

Source, questionnaire from 2018 by the researchers

From the above table the response of the respondent’s shows, that is 80.4 % of the respondents deals that there is a challenges face on visa card that hinder the day to day activities of the bank .These challenges face on the visa card are; Interruption of electric

power ,after deduct the cash from the customer account the system may be fail with different problems before cash paid during this time the ATM machine do not give the money to customers and this needs more time to adjust cash out balances, Theft is most of the time happened when some one knows the password of others persons VISA card personal identification number, The customers does not keep their cards properly, Amount limit per day, Less awareness to the public, problem of network, It is not suitable for illiterate customer, The card may be expired or blocked when a person does not use for long period, New technology challenges, Customers does not use their VISA properly (infected card usage) and PIN and this the cause For corrupt the machine

While the remaining 19.6 % says VISA card does not face challenge

According to tigestfekadu 2008, the challenges regarding the use of VISA card are computer literacy of customers, the customers not familiar with the level of IT.

**According to Gauruba and Aigbe 2010**, while assessing ATM and its challenges in the Nigerian banking industry and argued that ATM which is meant to serve the customers better is now becoming a nightmare for some customers because of fraud perpetuated in their account through ATM withdrawals.

The above analysis revealed that VISA card suffered by different challenges that hinder the availability of the banking services provided by the bank to customers

**4.2.3 Respondents response challenges face on online banking system**

As the response given by the respondents of commercial bank employees challenges face on online banking are the same that of VISA card and mobile banking like; Interruption of network, Electric power interruption, The system by itself, it may busy ( system failure), Most of the time customers may not identify credit and debit alerts, Software delaine’s

**4.3 discussion and analysis related to objective 2**

**Table 4.3.1 response of respondents about prospects of visa card**

	Frequency	Percentage (%)
Yes	35	68.6
No	16	31.4
Total	51	100%

Source, on questionnaire, 2018 by the researchers

From the above table 68.6 % of the respondents says that visa card has many advantages that used to facilitate the interaction of the customer and the bank. These advantages that the bank get from VISA card are:

to reduce the work load of the employees for provide or give service to the customer, it used to transfer money to other account, it provide 24 hour service for customers, it saves time, used to withdraw money easily from any ATM machine which is nearest to us, it enables the customers to access banking service any where and any time, it decrease cash load, give services on Sunday and holidays, the commission collected from VISA card has a good prospect for the bank, easily accessible, used to avoid holding cash in our pocket, it is used to withdraw and check balances by their PIN with out the helper of banker.

But the other respondents which covers 31.4 % says that visa card has no advantage for the bank.

**In the narrative ,Meutret.al,2000** in Oludimu and Olayinka (2008,p.10) described ATM as a self service technology and asserted that customers benefited from the service intermesh of how ease it to use, the avoidance of service personal and the ability to transact when ever they wanted and not necessarily in the bank premises. According to **Meutret.al,2000** in Oludimu and Olayinka (2008,p.10) the benefit of ATM include retail out lets, stores, eateries, clubs and taverns .

In general this indicates that VISA card pay an important role to banks

**Table 4.3.2 response of respondents on the amount of money withdrawn by visa card per day**

	frequency	Percentage (%)
3000-5000	10	19.61
Above 5000	36	70.59
Less than 3000	5	9.8
Total	51	100%

Source: on questionnaire from 2018 by the researchers

According to the response of the respondents from the above table 70.59 % of the respondent says that, visa card with draw money more than 5000 per day. While the remaining 19.61 % and 9.8 % are says 3000-5000 and Less than 3000 respectively

The response of the respondent implies that VISA card provides a good services to customers by withdrawn money for their day to day use

**4.3.3 Respondents response about customer’s comfortability with the online banking services**

According to the response of the respondents customers are satisfied by mobile banking services, due to easy accessibility by any mobile phones at any time and any where at home,

**Table 4.3.4 response of respondents for mobile banking prospects**

	frequency	Percentage (%)
Yes	39	76.5
No	12	23.5
Total	51	100%

Source, questionnaire from 2018 by the researchers

According to the above table the researchers understand that majority of the respondent such that 76.5 % of them are says mobile banking system have a great prospect to banks by facilitating the interaction between customer and employees. Such prospects are; getting bank services using mobile without coming to the bank, to check balancers every where by its personnel mobile, Easily accessible by any mobile phone in different channels like SMS, Android, important to see daily exchange rate and loan repayment schedules, save time, cost and available banking services to customers at home, to transfer money from one personal account to the other personal account, and to know the amount of money left in the bank

While the remaining 23.5 % of the respondents says that mobile banking system have no advantage.

According to ShahrHevrony 2010 , mobile banking channel is valuable due to the fact that it enables them to have continuous relationship with their customer for value offerings such as credit, value added services such as mobile notifications, better understanding of customer behavior in order to maximize service and value. It is important for banks specifically since unlike most other e-commerce or e-business apps, that can use add hock for certain purchase or task, customer interaction with his bank account is constant.

This revealed that mobile banking play a crucial role for commercial banks and customers of their service user

**4.4. Discussion and analysis related to objective 3**

**4.4.1 Respondents response on benefits realized by the organization from online banking technology**

According to the response of the respondents the benefits realized by bank from online banking technology are; it helps to facilitate and fast the customers service delivery, Minimize cost, Minimize time , provide day today transactions of the bank to users , Save use of property ( wise use of resources), Withdrawal of money with out passbook ,Satisfying bank customers. Easily accessibility to all customers ,Reduce work load, It facilitates the interaction of customers and employees by increasing the number of users due to availability on every where and any time, It simplifies bank activities, and transfer money( cash) from one personal account to others personal account

According to Dawd (2009), E-banking services like ATM, internet banking, Mobile Banking and others help banks save a lot of costs. In the long run a bank can save money by

not paying for tellers or for managing branches. This way of cutting transaction cost results

in higher profit margin for the banks. Dawd (2009) also noted that, the combination of higher technology and higher skills have posted a higher turnover for banks as they have been able to provide better customer support and have managed their assets well.

This analyses revealed that online banking technology provides a great benefit for the offered of this services

**4.5. Discussion and analysis related to objective 4**

**4.5.1 Respondent responses about system safeguarded against viruses**

As per the response given by the respondents the system safeguarded against virus by using; proper follow up through security check ups, updating software periodically, antivirus scan in computer monitor, its own system administrator, 24 hours check up by antivirus scan, using enough security system to protect the system from viruses, And generally there is a department which is called IS ( information system) decisions which established for these purpose and loading recent anti viruses, however, these protection methods does not safeguarded viruses

**4.5.2. Response of respondents about institutions conducting regular systems of testing and evaluation of online banking system**

Majority of the respondent says the institution conducts regular system of testing by server administrator, every day each branches, districts and at center head office, check and maintain theonline banking system every day properly to check online banking is

work day to day or not, because the system needs great follow up, but some the respondent says, when the net work fails and starts to work, the online banking system must be test

#### **4.5.3. Response of respondents about withstanding the challenges face on mobile banking and VISA card**

According to the response of the respondents many challenges are faced on visa card and mobile banking system. So these challenges are overcoming (withstand) by using appropriate mechanisms. These mechanisms are, by creating awareness to customers related to the usage of their visa card, removing interruption of electric power by communicate with responsible bodies and using generator light, reduce interruption of network by communicating responsible body of telecommunication workers, working with partners like Ethio telecom, upgrading the system and its capacity, VISA card quality, using modern technology and continuously maintain, reporting the concerned body when the failure is happen, When the visa card is block, by change the visa card code, When the mobile banking is block, by change PIN

Primary data that are obtained from interview questions that provided for challenges and prospects of online banking system in commercial bank of Ethiopia in case of Debre markos branch

According to the response of managers in commercial bank of Ethiopia Debre markos branches there exists challenge on mobile banking system. Such challenges are the following;

- interruption or failure of networks
- Less awareness of the literate people
- Less understanding of the employees about the system

#### **And also challenges face on visa card are;**

- Net work interruption
- Interruption of electricity
- Less awareness of the public
- Less awareness of the staff employees

According to the responses of managers commercial bank of Ethiopia all Debremarkos branches, there is the above Challenges but also the following prospects that the bank get from such on mobile banking system and visa card. Prospects of mobile banking;

- The easiest to give quality service
- It reduce risks
- It used to transfer money and used to know the remaining balance on the account

#### **Prospects of visa cards;**

- easy to get cash at any time
- easiest to give quality service
- it used to create cash less societies

According to the response of managers, to uses any mechanism to solve or overcome the challenges faces on visa card and mobile banking systems. These mechanisms are;

- developing tele infrastructure

- consistent awareness creation on visa card and mobile banking access users

ask for the responsible body of electricians to solve the problem that faced on visa card and mobile banking system

the response of the manager implies that VISA card and mobile banking challenged by different problems , so as to reduce this problem tele infra structure in necessary

## **5.1 conclusion and discussion**

### **Introduction**

The primary purpose of this study is to assess the challenges and prospects of online banking especially on VISA card and mobile banking, a case study in commercial bank of Ethiopia Debre markos branch. .This chapter as a whole presents the concluding remarks for the main findings in

Chapter four and important recommendations as per the main problems investigated in this research study respectively.

### **5.2 conclusion**

As per the findings from chapter four analysis we can conclude that

- The bank faces different challenges on online banking system related to VISA card and mobile banking,like:problem of network, disturbance of electric power, system failure, software delay ness,not only this but also most of the time customers are suffered by security risk due to un- wise use of their VISA card and it's PIN

-From the bank perspective: Minimum cost, Minimum time, check day to day transactions, Save consumption of property (wise use of resources), Withdrawal of money without passbook, Satisfying bank customers, Easily accessibility to interested customers, Reduction of work load, simplification of bank activities, Customer - Employee interaction, money transfer (cash) from one personal account to others personal account are the major benefits realized from online banking technology to the banks

In general from this finding can be understood that, checking amount of money left in the bank, Easy accessible by any mobile phone in different channels, providing 24 hours services to Customers, decreasing of cash load, service providing on Sunday and holidays are the main Prospects of VISA card and mobile banking for the banks service

Due to customers lacking awareness about online banking services, the customer does not properly use their visa card, this is the major risk or challenge for ATM machine.

In general Perceived Ease of use is one of the basic benefits for online -banking, in which it enables bank staffs to perform banking activities in a simple way. Online banking has improved the bank customer relationship by rendering services throughout the day and night in every week. Customers can now have access to their account outside working hours to make withdrawal to attend to their needs; also customers can transfer from one account to another through electronic means.

### 5.3 recommendations

As per the findings from the analysis of the collected data; the following Recommendations are forwarded in order to promote and develop viable online-banking service in Debre markos branch. .

Even if, the bank uses proper follow up through security check ups, updating software periodically, antivirus scan in computer monitor, 24 hours check on antivirus scan; the problem does not retard or reduced, in case of this the bank worked hardly with partners (like Ehio telecom), and using modern technology( remote deposit capture- it is an online services that can deposit money in the form of checks at your home, office or other locations with out having to get to the bank and it has dual control for security,(Chase Staford,2010) and finally giving more attention on customers awareness about online banking services related to their VISA card usage

Ongoing efforts by the Ethiopia telecommunication corporation to expand ICT infrastructure should be encouraged by the government and gradually the bank should try to reduce the main challenges of online banking challenges related to network interruption

The National Bank of the country and the government should prepare various capacity building Activities for banks regarding online -banking operation and provide incentives for banks to invest rigorously on ICT infrastructure to reduce software delaine's and Electric power interruption in the banks online banking service operation.

Security risk is the major challenge for customers to use online banking service in the banking industry. Therefore, the national bank of the country in collaboration with all banks in the country should prepare typical security technologies that is remote deposit capture, applicable to control system networks such as firewall, intrusion detection and prevention etc.

Awareness with respect to ease use, security, timely, accessibility and convenience of online -banking should be created to the public through different ways such as advertisement, and magazines

### REFERENCE

- Daniel, E., & Storey, C. (1997). On-line banking: Strategic and management challenges pergamon. PII: 4-5 S0024-63010007.
- GardachewWorku,(2010),` Electronic -banking in Ethiopia: practices, opportunities and Challenges", Journal of internet Banking and commerce, 15(2):2-9-Robert johnson, patriciakuby.(1983).Elementary statistics, eighth edition,HA29 L 388 BE.ST-46.RL
- Adriana, C. (2006). Forms of electronic banking. *Journal of internet banking*, Vol. 16(6), Bank of Slovenia, Narodna
- Balachandher K., G., Santha V., Norhazlin I., & Rajendra P., (2001). *Electronic banking in Malaysia: A note on Evolution of Services and Consumer Reactions*. *banking*. Internet Research, 10, 1:7–18.
  - -Nyangosi, R., Arora, J. S., & Sing, S. (2009). The evolution of e-banking: a study of Indian and Kenyan technology awareness.*International Journal of Electronic Finance*.3, 2: 149–169
- Rose, P. S. (1999). *Commercial bank management*, (4t) ed., Irwin/McGraw-Hill, Boston, USA.
- Thulani, D., Tofara, C & Langton, R., (2009). Adoption and Use of Internet Banking in Zimbabwe: An Exploratory Study. *Journal of Internet Banking and Commerce*, Vol.14(1)



- Abor, J., (2004). *Technological Innovations and Banking in Ghana: An evaluation of customers' perceptions*. Accra, University of Ghana, Legon.
- Cheng, F.T.C., (2006). Adoption of internet banking: An empirical study in Hong Kong." *Decision Support Systems*, vol. 42, pp. 1558-1572.
- michael,2006,. Prospect and Challenges of E-banking inMalaysia. *The Electronic Journal on Information Systems in Developing Countries*. .3:1, pp. 5-19.
- Gikandi J. W., & Bloor, C. (2010). Adoption and effectiveness of electronic banking in Kenya:Electronic commerce research and applications.9:277–282 help with my bank . org/ dictionary/index.html accessed on30/3/211
- Mols, N.P., (1998). The Behavioral Consequences of PC Banking. *International Journal of Bank Marketing*, 16 (5), pp.195-20
- Sathye, M. (2001). Adoption of Internet banking by Australian consumers: an empirical investigation. *International Journal of Bank Marketing*, Vol. 17 No. 7, pp. 324-34.
- William Zikmund, B., Carr, G. and Barry, B. (2010). *Business Research Methods*, 8 th ed. Cengage Learning, Stamford, U.S.A
- Bank Away.,(2001). *Net Banking Benefits! Sheer Acceleration, Electronic Banking: The Ultimate Guide to Business and Technology of Online Banking*.
- Booz-Allen and Hamilton.,(1997). *Corporate internet banking: A global study of potential Effects'*, New York, NY.
- Farshad Havasi1, FattanehAlizadehMeshkany, Reza Hashemi.,(2013). 'E-banking: Status, Implementation, Challenges, Opportunities' *IOSR Journal Of Humanities And Social Science (IOSR-JHSS) Volume 12, Issue 6 , PP 40-48*.
- Harrison UtumUbi, 2012, Adoption of e-commerce in the Nigerian banking Industry: problems and prospects, A study of UBA PLC and Zenith Bank PLC, Nnamdi Azikiwe University, AWKA Anambra State.MA thesis.
- Malak, J 2007, Readiness of the Palestinian banking sector in adopting the electronic banking system: exploratory study, MA thesis, The Islamic University of Palestine.
- Mols, Niels. (1998). The Behavioral Consequences of PC banking, *International Journal of Bank Marketing*, pp. 195–201.
- Morufu, O. and Taibat, A. (2012). Bankers perceptions of electronic banking in Nigeria: A review of post consolidation experience. *Research Journal of Finance and Accounting*, 3(2): 5-6.
- Okoye, Victor. 2013 ,“ E–Banking in Nigerian Banking Industry: Challenges and Prospects” *International Journal for Management Science and Technology (IJMST) Vol. 1; Issue 6 ISSN:2320-8848(O.)/2321-0362(P.)*
- Segun, A. (2011) Mobile Banking to Transform Nigeria's Economy, says GT Bank Boss THISDAYLIVE [online], Available at: <http://www.thisdaylive.com/articles/mobile-banking-to-transform-nigerias-economy-says-gt-bank-boss/105126/> (retrieved: July 10, 2015).
- Shyamapada B, Abu T., and Salman S. Shinwary(2011) *Electronic Banking in Bangladesh: Security Issues, Forms, Opportunities and Challenges Canadian, Journal on Scientific and Industrial Research Vol. 2 No. 5,*
- Singh, B. and Malhotra, P. (2004). Adoption of Internet banking: An empirical investigationof Indian banking Sector. *Journal of Internet Banking and Commerce*, 9(2).
- Yang, Y 1997, The security of electronic banking, a research paper presented at the national formation systems security conference U.S.A
- ZiadHunaiti, Masa'deh, Mohammed Mansour and Ahmad Al-Nawafleh (2009) *Electronic Commerce Adoption Barriers in Small and Medium-Sized Enterprises in Developing Countries: The Case of Libya IBIMA business review Volume 2, 2009, pp 37-43*
- Booz-Allen and Hamilton (1999). *Corporate internet banking: A global study of potential Effects'*, New York, NY.
- Creswell, W 2003, *Research Design: Qualitative, Quantitative and Mixed Approaches," 2 nd edition*. Sage publication, California.
- geofferymichael.,(2018),. Conceptual model for assessing service quality of mobile banking: In: *Journal of Management*, Vol. 4(4).
- Dr. Uvaneswaran. S.M, 2017,Challenges in E- banking services and its impact on profitability of public sector bank in Ethiopia ,*International Journal of Marketing &Financial Management*, Volume 5, Issue 7, Jul-2017, pp 36-46 ISSN: 2348 –3954 (Online) ISSN: 2349 –2546 (Print),
- Accenture ,(2005) ,global management consulting,annual report 2005,USA
- ShaharHesvrony, 2010, mobile banking, mission critical systems development.tel Aviv university,Israel
- Chase saford ,(2010),. Online banking journal , president of commercial banking at mid west bank