



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

**CHALLENGES AND PROSPECTS OF MOBILE BANKING SERVICE: THE CASE OF  
LION INTERNATIONAL BANK S.C**

**BY  
BENYAM HAILU W/MICHEAL**

**JUNE, 2020  
ADDIS ABABA, ETHIOPIA**

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SCHOOL OF GRADUATE STUDIES**

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LION INTERNATIONAL BANK S.C**

**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE  
STUDIES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE  
OF MASTER OF BUSINESS ADMINISTRATION**

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## **DECLARATION**

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Hailemeleket Taye (Asst. Prof.). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

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**ENDORSEMENT**

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

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Date

## **ACKNOWLEDGEMENTS**

I would like to take this opportunity to express my sincere gratitude and appreciation to all people who helped me in this thesis work. I am most grateful to my advisor, Hailemeleket Taye (Asst. Prof.) for his invaluable guidance and comments from the very outset up to the end of my research project.

Finally, I acknowledge the support of all Lion International Bank staffs, who have always been positive and supportive.

## **Abstract**

*This research project was initiated and implemented with the aim to document the challenges and prospects of mobile banking service in the case of Lion International Bank S.C. at Addis Ababa, Ethiopia. In order to achieve study objectives and answer the research questions a mixed approach to research was adopted. Methods included: survey by questionnaire, key informant interview and official document examination. The response rate for the survey was 83%. Primary data were collected through administering a questionnaire having both closed- and open-ended questions and conducting key informant interview. The questionnaire was distributed to a total of 148 sampled respondents and the response rate was 83%. Descriptive statistical and qualitative analysis results showed that the case study organization has been facing internal and external challenges in implementing and delivering its mobile banking service or products in the city. The internal challenges or factors relate to scope of marketing practices and management commitment in key areas like continuous improvement and technological innovations. Whereas, the external factors relate to ICT infrastructure, lack of trust and feel confident on any security aspects of the service, strict NBE policies, procedure and approval system for implementation of the service and other government provisions or restrictions in the area. The study also revealed major prospects of mobile banking service such as attractive service delivery way to retain mobile banking service users, increasing level of Customer request for mobile banking service and Customer satisfaction with lion mobile banking Service has increased from time to time and the bank provides continuous strategic direction for improvement of mobile banking service and also government's new plans and proclamations which are in pipelines are indicative of sound prospects. To this end, recommendations are forwarded for consideration by the study organization and other parties.*

**Keywords:** Mobile Banking, Electronic Banking, Challenges, Prospects, Ethiopia

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## **List of Acronyms and Abbreviations**

<b>E-banking</b>	Electronic Banking
<b>CBE</b>	Commercial Bank of Ethiopia
<b>LIB</b>	Lion International Bank
<b>DB</b>	Dashen Bank
<b>NBE</b>	National Bank of Ethiopia
<b>ATM</b>	Automated Teller Machine
<b>POS</b>	Point of Sale
<b>PC</b>	Personal Computer
<b>ICT</b>	Information Communication Technology
<b>PDA</b>	Personal Digital Assistant
<b>M-Banking</b>	Mobile Banking
<b>SMS</b>	Short Message Sending

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## CHAPTER ONE

### INTRODUCTION TO THE STUDY

This chapter begins by providing the background for the study. Following this, the research site, problem, objectives, study parameters and significance are outlined one by one. The structure of the thesis is also indicated.

#### 1.1 Background of the Study

Electronic banking is transforming the financial service industry through innovations of modern technology by using electronic signals rather than through an exchange of cash, checks or other types of paper documents. E-banking uses particularly information technology to generate, collect and process information about bank operation and bank customers efficiently and effectively (Kabir, 2012).

The increasingly competitive environment in the financial service market has resulted in pressure to develop and utilize alternative delivery channels. The most recently delivery channel introduced is online or electronic banking also known as e-banking (Onuman, 2016). Online or electronic banking systems give everybody the opportunity for easy access to their banking activities. These banking activities may include: retrieving an account balance, money transfers between a user's accounts or from a user's account to someone else's account, retrieving an account history, bill payments, market exchange, loan application and cheque order to the banks (Daniel & Storey, 1997).

Technological innovation is currently recognized as one of the key factors in firm's competitive advantage as well as critical element in improving mode of service delivery and customer satisfaction in the banking industry (Mehireteab, 2016).

The interaction between user and a bank has been substantially improved by deploying ATMs, Internet banking, and more recently, mobile banking (Claessens, 2002). The importance of e-banking can be seen from two perspectives.

A bank may get various benefits by rendering e-banking services to its customers, for instance, less transaction costs, since electronics transactions are the cheapest mode of transactions; reduced margin for human error since the information is relayed electronically there is no room for human error; less paperwork as most of the time digital records reduce paperwork and make

the documentation process easier to handle; better customer loyalty since e-banking services are more customer friendly than those services delivered through a physical channel; and, reduced fixed cost since the bank may not need to expand branches, if its e-banking services are utilized effectively ( Kabir, 2012).

On the other hand, e-banking services have a number of advantages for the bank customers, for instance, convenience is one of the acceptability factor of e-banking service, in that, a customer can access its account and transact from anywhere 24 hours & seven days a week; also it is low cost per transaction since the customer does not have to visit the branch for every transaction, it saves both time and money. In addition to this, there is no geographical barrier to banking services made available for customers. In traditional banking system, geographical distance could hamper certain banking transactions. However, with e-banking, geographical barriers are reduced or avoided (Kabir, 2012).

As in case with other countries, the current financial activities and transactions of our country banking industry are moving and becoming dependent on technological innovation and electronic service delivery systems, such as ATM, agent banking, Internet banking, mobile Banking, POS, etc. Such banking services are taking place at an overwhelmingly fast pace globally (Gardachew, 2010).

This study has been initiated with intention to examine challenges in practice of e-banking services, specifically, mobile banking in the context of Ethiopia. For such purpose, a private bank operating in the country, Lion International Bank targeted as a site for the investigation.

Lion International Bank commenced operation on 6<sup>th</sup> January 2007 with three branches. As indicated in its 2018/19 second quarter internal report, number of branches across the country has reached 275+, more than 45 of them located in Addis Ababa.

The bank has a vision to be leading bank in the Ethiopia by 2035 and committed for the shareholders' value, care for the satisfaction of the public, partners and employees through service excellence, innovation, passionately focused team and providing diversified banking service to the society. At the end of the last budget year, 2018/19, it was reported that the bank has had 794,057 customers, of this more than 58,000 subscribed Lion mobile banking service.

The bank launched its mobile banking service for its customer at beginning of July 2019. The key features of Lion mobile banking service contain fund transfer to any Lion International bank account; view balances, transactions and account history; and, get mini account statement.

## **1.2 Statement of the Problem**

Electronic banking services are becoming a dominant concern area of all banks operating in today's business world, and Lion International Bank is no exception. But, since the adoption of such modern services, the bank has been observing gaps between what has been planned and actually executed (achieved) in delivering e-banking services to the society. In order to determine the way forward, it is a must to identify the causes for such business problem; which may be attributable to internal and/or external environmental factors. By doing so, it is possible to find out solutions enabling the bank deliver competitive and adequate e-banking service to its actual and potential customers.

So far, researchers interested in the area have studied e-banking services in commercial banks operating in Ethiopia.

The study conducted by Mehireteab (2016) on challenges in adoption of electronic banking at Nib International Bank S.C, identified that technological risk which include system failure, processing errors, software defects, operating mistakes and inadequate recovery capabilities posed challenge to adoption and growth of e-banking services.

A research undertaken by Senait (2007) on prospect and challenges of e-banking concluded that the determinant factors of e-banking in Ethiopia includes technological and infrastructural requirements, customers' attitude, capacity of existing banks and capacity of regulatory and supervisory organs.

A similar study conducted by Ayana (2014) revealed that e-banking systems such as ATM, mobile banking, Internet banking and others not well adopted by Ethiopian banking industry, due to low level of ICT infrastructure and lack of legal framework expected from the regulatory body, NBE (National Bank of Ethiopia). In addition to this, the result of the study also showed that security risk and lack of trust on the use of technological adoption are other major barriers for the system. Together with this, limited technical and managerial skills in Ethiopian banks were also mentioned as an influential factor for the choice of technology in Ethiopian banks.

Hence, the researchers perspective is limited to a specific case and lacks an in-depth analysis of other e-banking services which is mobile banking service, provided by the bank their challenges and prospects. The above discussion on researches conducted on E-Banking service in the banking sector in Ethiopia shows that inadequate information concerning the challenges and prospects of the services in the country in general and in Lion international Bank in particular.

Compared to prior studies, the unique feature of this study is that it solely focuses on mobile banking service which is considered as a new phenomenon, introduced following the adoption of ATM, POS and Internet banking services in the country. In other words, this means that much research has not been done on mobile banking practice observed in Ethiopia. Reducing such a gap is, therefore, the main purpose of this study.

### **1.3 Research Questions**

For the realization of its objectives, the study was directed towards answering the following research questions:

- What does the practice and profile of mobile banking service at the study organization look like?
- What are the major challenges in mobile banking activities and their consequences at Lion International Bank?
- What prospects are there for the study organization and similar establishments in the country?

### **1.4 Objectives of the Study**

#### **1.4.1 General Objective**

The general objective of the study is to identify prospects and challenges that Lion International Bank facing in adopting and delivering mobile banking service in Addis Ababa.



### **1.4.2 Specific Objectives**

The specific objectives of the study are:

- To determine major internal and external challenges of mobile banking service rendered by Lion International Bank in Addis Ababa, Ethiopia,
- To examine the mobile banking Service provided to customers in selected branches of Lion international Bank in Addis Ababa, and
- To explore the prospect of Mobile banking provided at selected branches of Lion international Bank in Addis Ababa.

### **1.5 Significance of the Study**

The study result and its recommendations could serve management at the case study organization as input in making informed decisions. This helps the bank to develop and implement a better strategy possibly attracting new customers and retaining the existing mobile banking service users so that corporate performance in the area can be enhanced. In addition to this, the study is also expected to stimulate further research in the area and, with provision of useful information, it can help other researchers in conducting similar studies in the area.

### **1.6 Scope and Limitation of the Study**

Thematically, the study was made to focus on mobile banking challenges and prospects. The investigation planned to take place in Ethiopia's capital, Addis Ababa by targeting all branches of Lion International Bank existing in the city where high, moderate and low level of mobile banking transactions observed. The study required both qualitative and quantitative data to be gathered from official (organizational) documents and employees of the bank including all the Alternative Channel Department staffs and sample customer service officers working at branch offices of the bank. Methods to be employed in data collection included: document/ record examination, key informant interview and a questionnaire.

Due to time and other resource constraints, the researcher forced to exclude 20 newly opened branch offices of the bank from the study. This made the total number of branches to be covered limited to 25. Moreover, because of Corona virus (COVID 19) pandemic in the world as well as in Ethiopia primary data supposed to be collected from external customers of the bank found

hardly possible. In other words, this means that inability to examine challenges and prospects of mobile banking from the perspective of consumers (actual and potential customers). This can be seen as main limitation of the study.

### **1.7 Organization of the Study**

This study is divided into five chapters. Chapter two presents review of relevant literature (covering both theoretical and empirical studies so far conducted in the area). Chapter three outlines methodological details of the study, and its ethical considerations. Following this, study result and discussions are presented in chapter four. Finally, chapter five provides summary of study findings, conclusions, and recommendations made for consideration.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Theoretical/Conceptual Review**

##### **2.1.1 Definition of Electronic Banking**

The use of electronic communication in finance goes back much further than the 1970s. As long ago as 1918, the payments between banks used to be settled electronically over the telegraph. This use of electronic communications in payments systems has steadily increased over time. Now, virtually all large payments between banks and corporations are done electronically. Financial services industry has removed the boundaries between different financial institutions, enabling new financial products and services to appear and making the existing ones available in different packages (Turban, 2002).

The definition of e-banking varies amongst researches partially because electronic banking refers to several types of services through which bank customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1999; Mols, 1998; Sathye, 1999). Turban (2002) describes it as an electronic connection between bank and customer in order to prepare, manage and control financial transactions. Electronic banking can also be defined as a variety of platforms such as Internet banking (or online banking), telephone banking, TV-based banking, PC based banking (or offline banking) and mobile phone banking (Kolodinsky, 2004).

According to Zairi (2003), electronic banking refers to the use of the Internet as a remote delivery channel for providing services, such as opening a deposit account, transferring funds among different accounts and electronic bill presentment (an instruction that directs a third party to pay the recipient a fixed sum). This can be offered in two main ways. First, an existing bank with physical offices can establish a website and offer these services to its customers in addition to its traditional delivery channels. Second, is to establish a virtual bank, where the computer server is housed in an office that serves as the legal address of such a bank. Virtual banks offer their customers the ability to make deposits and withdraw funds via ATMs (Automated Teller Machines) or other remote delivery channels owned by other institutions, for which a service fee is incurred (Zairi, 2003).

E-banking is seen as the provision of retail and small value banking products and services through electronic channels. Such products and services can include deposit taking, lending, account management, the provision of financial advice, electronic bill payment, and the provision of other electronic payment products and services such as electronic money (The Basel Committee, 2003).

E-banking encompasses systems that enable financial institutions, customers, individuals and businesses, to access accounts, transact business, or obtain information on financial products and services through public or private networks, including the Internet. Customers access e-banking services using an intelligent electronic device, such as a personal computer (PC), personal digital assistant (PDA), cell phone, automated teller machine (ATM) etc. Private networks restrict access to participant (financial institutions, customers, merchants, and third party service providers) bound by agreement on the terms of membership. Public networks have no such membership requirements (Husni and Noor, 2011). In general, electronic banking can be described as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels (FFIEC, 2013).

The concept of e-banking includes all types of banking activities performed through electronic networks. It is the most recent delivery channel of banking services, which is used for both business-to-business and business-to-customer transactions. However, in true sense, e-banking includes activities like payment of bills and invoices, transfer of funds between accounts, applying for a loan, payment of loan installments, sending funds to third parties via emails or Internet connections regardless of where the client is located. Leow (1999) state that the terms PC banking, online banking, Internet banking, telephone banking or mobile banking refers to a number of ways in which customer can access their banks without having to be physically present at the bank branch. Therefore, e-banking covers all these ways of banking business electronically. Since e-banking offers some smart services benefiting both banks and customers compared with traditional banking system, it has become imperative to make necessary room for banks to flourish e-banking. Among others, attractiveness of e-banking includes: it lowers transaction cost; provides 24- hour services; ensure increased security and control over transactions; reduces fraud risk; performs higher volume of transactions with less time; increases number and volume of value payment through banks; allows remote transaction facilities that

replace physical presence of a customer in a bank branch and; increases transaction speed and accuracy. On the other hand, traditional banking is time-consuming and more costly and therefore, e-banking is replacing traditional banking all over the world.

### **2.1.2. Types of Electronic Banking Products**

There are a number of electronic banking technological products and services. The major ones include: automated teller machine (ATM), point of sale (POS), mobile banking, credit card, debit card, smart card, telephone and PC/Internet banking (Ayana, 2012).

ATM is a device that allows customers who have an ATM Card to perform routine banking transactions without interacting with the human teller. The ATM card holder can do most of the banking transactions like withdrawals, deposits of cash, balance enquiry, etc. With the use of ATMs, banks are providing ‘Any Where and Any Time Banking’ to their customers. That is, the customer can have access to ATMs at anywhere within the country or throughout the world at any time. It also reduces the transaction time. Banks can use ATMs as media for publicity by displaying products on the screen. And the cost of setting up ATMs is much lesser than the physical branch (Devamohan, 2002).

Supported by portable electronic device connected to a wider network, a point-of-sale service allows credit/debit cardholders make payments at sales/purchase outlets. It is capable of handling retail payments, cashless payments, cash back balance inquiry, airtime transaction, printing mini statement etc. (Kumaga, 2010).

Mobile banking is a product that offers customers of a bank to access services as they move. Customers can make their transactions anywhere such as account balance, transaction enquiries, stop checks, and other customer’s service instructions, balance inquiry, account verification, bill payment, electronic fund transfer, updates and history, customer service via mobile, transfer between accounts etc.(Tiwari , 2007). In order to have access and use such services customers of the bank must have a mobile/cell phone with SIM card registered on mobile network built and maintained by telecom service provider(s).

Unlike ATM, POS and mobile/cell phone (required for mobile banking), other technological products such as credit, debit and smart cards don’t qualify as processing hardware. Credit card can be called as an equivalent of a loan sanctioned by the bank to its customers. Credit card

facilitates and makes it possible to “Use First and Pay Later” the specified amount of credit as per the agreed terms of sanction. Before issuing the card, the bank would like to know and be sure the identification, age, level and source of income and repaying capacity of the customer. The card enables the cardholder to purchase goods and services from the merchant establishments and shops. The credit that is granted is either settled in full by the end of a specified period, generally a month, or can be settled in part, with the remaining balance extended as credit. Interest will be charged by the bank on monthly basis for the credit provided through the card. And service charges also will be collected from the cardholder for the transaction and processing (Asokan, 2000).

A debit card, on the other hand, facilitates online electronic payment like credit card but from savings or current accounts of the cardholder for purchases. This card is a deposit access product where a cardholder uses his own money in his bank account through such a card on the principle of “Pay First and Use Later”. Debit card can be used to make purchase at retail shops and merchant establishments in the same way as the credit card is used. But to use the debit card, the cardholder must have sufficient balance in his account (Murthy, 2004).

Uniquely, the smart card is an amazing piece of technology. It is the size of a regular ATM card but is capable of storing over a 1000 times more data. The data can be encrypted and hence the card is completely temper-proof. The card can also be personalized to the holder by printing personal and other details on the card face. Smart card is issued to customers to provide adequate and timely credit support for their consumption needs including all purchases. Customers can use this card wherever they need. The loan amount sanctioned to the customer will be recorded in the card. The merchants can sell the goods to the customer based on the card and they can collect the amount from the local branch of the issued bank or any other bank (Vassiliou, 2004). In addition to this , smart card have an edge over credit cards like if anyone lose smart card then it can be disabled right away and once it’s done there is no way anyone can access the information stored in it and also a smart card can be used to store information in it. Other than bank account detail, it can link emergency contact information, driver’s license or even phone calling card (Bajpai, 2019).

Telephone and PC banking is a system that enables customers, via telephone calls, find out about their position, with their bankers merely dialing the telephone numbers given to them by the banks. In addition, the computers on the phone would require special codes given to the customers as a means of identification of authentic users before they can receive any information they requested for. This is a service introduced into the banking industry as a result of computer telephone technology being made available. Service areas include: account balance enquiry; account statement printing; intra-banks account to account transfer; inter-banks account to account transfer; download account transaction, etc., (Devamohan, 2002).

Telephone and PC banking brings the bank to the door step of the customer, it does not require the customer to visit the physical branch of the bank (i.e., the premises); interactive voice response becomes a regular feature of operations; text-to-speech capability becomes reality; a uniformed messaging capability become permanent feature of the bank (Vassiliou, 2004).

Internet / extranet banking is an electronic home banking system using web technology in which bank customers are able to conduct their business transactions with the bank through personal computers (Ayana, 2012).

## **2.2. Benefits of Electronic Banking**

Electronic banking services are becoming the preferred way of making transactions in the developed world due to the fact that they understand the benefits very well through long years of using them in their economy (Dawd, 2004). The benefits of having electronic banking system can be seen from different perspectives as follows.

### **2.2.1. Benefits to Customers**

E-banking offers substantial advantage to customers in the form of convenience, time saving and easy access to the banking services. The customers can transact in their account at anytime and anywhere throughout the country or outside the country. There is no time and place restriction. The customers need not visit a branch for each and every transaction and no need to wait in the long queue. By this they can save time. The customers can avail 24 hours a day and 7 days a week access to banking services at anywhere. With the help of e-banking, the easy access to the banks is another advantage to the customers (Gurău, 2002).

E-banking provides sophisticated services to the customers (Devamohan, 2002). A writer in the area, Dawd (2004) argued that cardholders can be benefited from the safe and convenient nature of using cards for payment. Moreover, payment cards can make life easy for people who want to travel abroad as it minimizes the volume of cash one needs to carry and the associated risk of theft. As customer of banks merchants too are beneficiaries of e-banking provisions. Those merchants who accept cards able to increase their sales as card holders prefer them for accepting card-based payments. Moreover, by reducing the amount of cash on hand, merchants can manage to reduce risks as well as costs related to cash management (Dawd, 2004).

### **2.2.2. Benefits to Banks**

The first benefit for the banks offering electronic banking services is better branding and better responsiveness to the market. In this competitive world, e-banking helps the banks to attract more number of customers and tackle the competition from other banks. According to Olga (2003), those banks that would offer such services would be perceived as leaders in technology implementation. Therefore, those banks that provide the service can enhance customer satisfaction through sophisticated services.

By providing secured e-banking services, the banks can also avoid fraudulent activities. With the help of e-banking, banks can save time and hence they can increase the number of transactions and business (Devamohan, 2002). The other benefits of e-banking are possible to measure in monetary terms. The main goal of every company is to maximize profits for its owners and banks are not an exception. In this regard, automated e-banking services offer a perfect opportunity for maximizing profits (Olga, 2003).

### **2.2.3. Benefits to the Economy**

As e-banking provide opportunity to banking sector to enlarge their customer base, it has a consequence to increase the volume of credit creation which in turn results in better economic condition. The positive impacts of electronic banking are immense for economic development of a nation. Some of the economic benefits of e-banking as identified by Dawd (2009) include the following:



### ***A. Reduction of the cost for printing cash notes and its related distribution***

In a cash based economy, governments are required to invest a great deal of fund on printing of cash notes and distributing same to the public. Due to manual transfer of currency between individuals, the life of cash notes is very minimal. As a result of this frequent wear and tear, the magnitude and frequency of the investment on cash note printing as well as its related distribution is significant. In the case of electronic payment systems the transaction values are transferred from one account to another using electronic means, reducing the need for cash note distribution. Thus, by encouraging acceptance of payment cards, governments can achieve huge cost saving for their economy in terms of reducing cash note printing and related expenditure (Ibid, 2004).

### ***B. Enhancement of Aggregate Deposit***

When people start to increase the proportion of their saving compared to their daily consumption, the saved money can be utilized for investment purposes that in turn will create employment opportunities. This is a great benefit for the economy as a whole. However, individual savings could not bring this kind of impact. The benefit can only be obtained when savings are made in a banking system whereby the saved fund can be deployed to the economy in the form of loan to encourage the required investment (Ibid, 2004).

In an electronic payment card infrastructure, people do not need to carry cash notes for their day to day expenditures as well as contingencies. They rather are encouraged to deposit their fund in the banking system and obtain a single plastic to access this fund at any time of the day when the need arises. This implies that unused funds are always in the banking system that helps to facilitate economic growth (Ibid, 2004).

### ***C. Banking the un-banked***

While the electronic payment card infrastructure is diversified, pay payroll for employees can be handled through this system. Besides, creating ease and convenience, both for the employer as well as the employee, it enables individuals to enter into the banking system which they may not be interested otherwise (Dawd, 2009). Such impact of banking the unbanked population also has a benefit in increasing aggregate deposits as indicated above.

#### ***D. Increasing the potential for hard currency generation***

Especially in developing economies, earning of hard currency is very essential to manage a country's balance of payment. The payment card system can bring a good potential of enabling economies to earn more foreign currency. This can be realized by attracting tourists and by encouraging them to spend more. In today's world, availability of payment card infrastructure is one of the criteria that tourists set while they decide which country to visit. As a result, countries that maintain a developed electronic payment card system have a better potential of being visited by tourists than those which do not establish the infrastructure. Hence, more tourists and increased hard currency as a result of diversifying payment card business (Ibid, 2004).

Furthermore, due to the fact that travelers can access their account at home easily while staying in another country, where the payment card infrastructure is established, their chance of spending more is great. Travelers, being outside of their home country, feel more unsafe and uncomfortable to carry bulk amount of cash while on travel. Thus, they can be forced to spend only to the extent of the limited cash on hand during a certain period of stay in another country. On the other hand, if they can use their card for payment, they can spend more since they have the right to access their account back home safely and conveniently (Ibid, 2004).

### **2.3. Challenges of Electronic Banking**

Electronic banking, despite its numerous benefits, implementing its applications is not free of challenges. Some of the identified and reported challenges by prior research works include security, infrastructure, regulatory and legal issues and socio-cultural factors.

One of the biggest challenges and the basic requirements of e-banking is ensuring its security. Securing the process in e-banking involves authenticating data of the customer and banker and protecting the information to be transmitted from interception. This authentication can be done using user ID and passwords. In addition, a means must be provided that prevent repudiation both by the merchant and the customer once the payment process has taken place (Barnes and Hunt, 2001).

As indicated in the work of Worku (2010), e-banking systems must also take into account the need of multilateral security keys, i.e., security needs of all participating parties in the e-banking system. An e-payment system that is not secured may not get trust from its users. Trust is one of

the crucial factors to ensure the acceptance of e-banking system by users. Martina (2005) also stressed that e-banking applications represent a security challenge as they highly depend on critical ICT systems that create vulnerabilities in financial institutions, businesses and potentially harm customers. It is imperative for banks to understand and address security concerns in order to leverage the potential of ICTs in delivering e-banking applications. Software failures can also be considered as security challenge as it destroy entire portions of a network and bring huge losses.

In addition to the above, a disclosure of private information, counterfeiting and illegal alteration of payment data are also taken as security challenges (Tadesse and Kidan, 2005). In e-payment, there are many ways in which private information may be accessed by attackers. For instance, hackers may intercept network traffic to get confidential data. It is also possible to access private data stored on a computer connected to the Internet. This data could be used to make fraudulent transactions that could lead to a loss of money. Counterfeiting, on the other hand, is the creation of new data or duplication of existing data, which are technically valid but not legally admissible. Cloning of e-money for double spending and creation of fake accounts are example of counterfeiting. One popular form of counterfeiting attack is duplication of electronic data from a payment cards (e.g. ATM card) is creating duplicate cards and withdraw money from the accounts. Whereas; illegal alteration of payment data refers to modification of payment information illegally, this may result in loss of money. Ultimately, this may result in loss of customer confidence. Alterations could be made to the transaction account numbers resulting in misdirected payments, to the payment amounts or to electronic balances. Another security challenge in e-payment is usage of a fraudulent web site by an attacker to collect credit card number and other personal and/or financial information. As noted in the work of the above writers (Ibid, 2004.), the most common method for securing e-banking services is using cryptographic based technologies such as encryption and digital signatures. However, applying these technologies will reduce its efficiency by making it slower and as a result some sort of compromising has to be made between security and system efficiency.

Regarding infrastructure, it is necessary to have a reliable and cost effective facility accessible to the majority of the population so that effective deployment of e-banking can be ensured. The most common communication infrastructure for e-banking is computer network such as Internet.

Most e-banking systems use Internet to communicate with their customers. The other communication infrastructure available for e-banking users is the mobile network meant for mobile phone holders. Automating the banking activities is another prerequisite for e-banking system. Closed financial network that links banks and other financial institutions is necessary. This network is usually used between banks or other financial institution for clearing and payment confirmation.

According to Kumaga (2010), low level of Internet penetration and poorly developed telecommunications infrastructure impede smooth development and improvements in e-commerce in developing countries. Another major problem that relates to this is frequent electric power disruption. This will create lot of problems in e-banking activities which are basically depending on power supply. It will force the banks to depend on generators; this in turn results in high operational cost. These problems are considered as obstacles for the expansion of e-banking services.

As far as regulatory and legal issues are concerned, national, regional or international set of laws, rules, and other regulations are important prerequisites for successful implementation of e-banking services. Some of the main elements include rules on money laundering, supervision of commercial banks and e-money institutions by supervisory authorities, payment system oversight by central banks, consumer and data protection, cooperation and competition issues (European Central Bank, 2002).

According to Mishra (2009), the virtual and global nature of e-payment also raises legal questions such as which jurisdiction will be competent and about applicable laws in disputed cases, validity of electronic data, electronic contracts, and electronic signature. Moreover, a legal and regulatory framework that builds trust and confidence supporting technical efforts to meet the same is another important issue that needs to be addressed. In this regard, legislative support is essential for protecting the interests of customers and banks in various areas relating to e-banking and payment systems. Some of the main issues like liability for loss in case of fraud, allocation of loss in case of insolvency, cheque truncation, evidence and burden of proof, preservation of records, prevention of fraud, etc. are to be cleared in the legislation (ECB, 2002). This can be done by adopting model laws at global level such as UNCITRAL Model law on e-

commerce (1996), UNCITRAL Model law on e-signatures (2001) and at regional level such as the SADC Model law on Electronic Transaction and Data Protection (Ibid, 2004.).

Cultural and historical differences in attitudes and the use of different forms of money (e.g. use of credit card in North America and use of debit cards in Europe) complicate the task of developing an electronic payment system that is applicable at international level. Difference in the degree of the required security and efficiency among peoples of different cultures and level of development aggravates the problem (Tadesse and Kidan, 2005).

#### **2.4. Electronic Banking in Ethiopia**

Certainly, the banking industry in Ethiopia is underdeveloped and therefore there is an all immediate need to embark on capacity building arrangements and modernize the banking system by employing the state of the art technology being used anywhere in the world. With a growing number of import-export businesses, and increased international trades and international relations, the current banking system is short of providing efficient and dependable services and therefore all banks operating in Ethiopia should recognize the need for introducing electronic banking system to satisfy their customers and meet the requirements of rapidly expanding domestic and international trades, and increasing international banking services (Worku, 2010).

Undeniably the largest state-owned bank, Commercial Bank of Ethiopia, introduced ATM service for local users in 2001 with its fleet of eight ATMs located in Addis Ababa. Moreover, CBE has had Visa membership since November 14, 2005. However, due to lack of appropriate infrastructure it failed to reap the fruit of its membership. Despite being the pioneer in introducing ATM based payment system and acquired Visa membership, CBE lagged behind Dashen Bank, which worked aggressively to maintain its lead in electronic payment systems (Gardachew, 2010).

Dashen Bank, a forerunner in introducing e-banking in Ethiopia, has installed ATMs at convenient locations for its own cardholders. The Dashen Bank ATM is available 24 hours a day, seven days a week and 365 days a year providing service to Dashen Debit cardholders and International Visa cardholders coming to the country. At the end of June 2013 G.C, Dashen Bank has installed 105 ATMs and more than 783 point of sales (POS) terminals in its area branches, university compounds, shopping malls, supermarkets, restaurants and hotels.

Lion International Bank has started providing mobile banking service that allows users to access their bank account over their mobile phone, this facility permits customers to check balance, review transaction and effect account to account fund transfer over the phone. Similarly, Lion bank SMS (Short Messages) banking system also gives notification upon cash withdrawal or deposit, direct debits or credits, loan repayment period, immediately after the transaction is undertaken.

## **2.5 Definition of Mobile Banking**

Mobile banking is an application of mobile commerce which enables customers to access bank accounts through mobile devices to conduct and complete bank-related transactions such as balancing cheques, checking account statuses, transferring money and selling stocks (Kim *et al.*, 2009). In the work of Luo *et al.* (2010), mobile banking is defined as an innovative method for accessing banking services via a channel whereby the customer interacts with a bank using a mobile phone. Mobile banking also means performing banking activities which primarily consist of opening and maintaining mobile/regular accounts and accepting deposits; furthermore, it includes performing fund transfer or cash-in and cash-out services using mobile devices (NBE).

Mobile banking can perform various functions like mini statement, checking of account history, SMS alerts, access to card statement, balance check, mobile recharge etc. via mobile phones (Vinayagamoorthy , 2012). Banks are constantly updating their technology and want to increase their customer base by reaching to each and every customer. There are many advantages of using mobile banking, such as people in the rural or remote areas can also get an easy access to mobile banking whenever required.

### **2.5.1. The Origin of Mobile Banking**

Ishengoma (2011) indicated that the earliest mobile banking services were offered via SMS with the introduction of the first primitive smart phones with WAP support enabling the use of the mobile web. In 1999, European banks started to offer mobile banking on this platform to their customers. Mobile banking until 2010 often been performed via SMS or the mobile web. The M-banking system operates in such a way that a specific sequence of SMS messages will enable the system to verify if the client has sufficient funds in his or her wallet and authorize a deposit or withdrawal transaction at the agent. Also, when depositing money, the merchant receives cash and the system credits the client's bank account or mobile wallet. In the same way the client can

also withdraw money at the merchant: through exchanging SMS to provide authorization, the merchant hands the client cash and debits the merchant's account.

The electronic banking service was ushered into the Ethiopian market in 2001 when the largest state owned, Commercial Bank of Ethiopia (CBE) introduced ATM to deliver service to the local users (Gardachew, 2010). After this the electronic banking service scope was further expanded to mobile banking when Dashen Bank signed an agreement with iVery, a South African e-payment technology company, for the introduction of mobile commerce in April 21, 2009. According to the agreement, an iVerypayment technology has licensed its Gateway and MI Card e-payment processing solution to Dashen Bank. Dashen's Mod birr users can transfer 500 Birr to other Mod Birr users in 24 hours a day. This would make Dashen Bank the first private bank in Ethiopia to acquire e-commerce and mobile merchant transactions (Amanyehun, 2011).

However, mobile banking came into full practice after several years of trials and errors as well as wait-and-see attitude by customers. Since then, mobile banking has shown a gradual growth across many parts of Ethiopia. Despite the very high mobile penetration rate, the use and adoption of mobile banking services remains low. With the advent of new mobile technologies, such as Blackberry, Iphone, Androids, etc., which serves as a catalyst, mobile banking is on the edge to draw millions of new users within the world teeming population (Agwu, 2012).

### **2.5.2 Benefits of Mobile Banking**

Mobile banking allows anytime, anywhere (within the network coverage) banking with all the inherent advantages (Pousttchi, 2007). The high penetration of mobile phones across the strata of society makes it a natural tool for taking electronic banking to its next level. It is more than likely that Internet banking and mobile banking would exist as allies rather than competitors for each other.

Convenience is one of the benefits of mobile banking as banking transactions and other related activities can be performed in the comfort of customer's home or offices or otherwise. The usefulness of conducting banking transactions at home or from the office or anywhere eliminates the difficulties that are associated with driving to the bank, the cost of petrol, and parking. Mobile banking also allows customers to perform banking transactions 24 hours a day, 7 days a week, and 365 days a year (Eckhardt, 2009). Other benefits of mobile banking include the following:

### ***A. Account Operation***

This refers to an activity that involves monetary transactions. Such transactions may involve an external account and/or internal account. Mobile banking services that are used to operate an account are: money remittances, issue standing orders, transfer funds to and from sub-accounts, subscribing insurance policies (Tiwari& Stephan 2007).

- Mobile devices may be used to instruct the bank to remit money in order to conduct one-time transactions, such as paying bills or transferring funds. This service can also include the facility to cancel an ordered remittance.
- The house bank may be entrusted with standing orders for payment of regularly recurring payments such as payment of standing payments, monthly rent or telephone bill.
- Funds from one sub-account may be transferred to another as and when needed, for instance from a savings account to checking or other types of account and vice versa (Sunil and Durga 2013).
- Standardized, low-cost insurance policies like travel insurance policy may be purchased via mobile devices. This service could be particularly attractive in time-critical situations, for instance, if a bank customer has to set out on an urgent, unplanned journey, he may still be able to subscribe to a travel insurance policy offered by his house bank.

### ***B. Account Administration***

Mobile accounting services that are used to administer the account include access administration and change operative accounts (Tiwari& Stephan, 2007; Sunil and Durga, 2013).

- Mobile devices may be used to administer the access to an account, for example to change the individual PIN or to request new transaction numbers.
- Through this service a customer can change his default operative account and do transactions using a different account. This option is attractive for customers holding several sub accounts. Funds of sub-accounts may be hereby utilized in a targeted manner without first transferring the amount to the default account.



## **2.6 Empirical Review**

According to Rahman (2008), in Bangladesh, despite huge demand from the business community as well as the retail customers particularly the urban customers, electronic banking is still at a budding state due mainly to a number of constraints such as unavailability of a backbone network connecting the whole country; inadequacy of reliable and secure information infrastructure especially telecommunication infrastructure; sluggish ICT penetration in banking sector; insufficient legal and regulatory support for adopting e-banking.

In addition, an exploratory study that was conducted in Zimbabwe by Chitura(2008) indicated that cost of implementation, security concerns, lack of expertise, inadequate legislation and consumer acceptance are the major challenges for the adoption of e-banking in the country's banking industry.

Moreover, as investigated by Ibrahim (2009) through exploratory study he tried to identify critical challenges for the adoption of e-banking in Nigeria: for instance : Lack of technological infrastructure, regulatory and legal issues, non-readiness of banks and other stake holders (acceptability), resistance to changes in technology among customers due to various reason such as lack of awareness on the benefits of new technologies, fear of risk among banks and lack of trained personnel in key organizations were mentioned as major factors for adoption of e-banking.

E-banking is now a global phenomenon, according to Rahman (2008). Apart from the developed countries, the developing countries are experiencing strong growth in e-banking. The government's emphasis on setting up ICT park, raising allocation for developing ICT infrastructure, waiving taxes on computer peripherals and other measures including the automation program of banking sector and competition among the scheduled banks in improving customer services have accelerated the prospects of e-banking in Bangladesh (Ibid, 2004).

A case study conducted in Ghana by Cudjoe et al.(2015) found that the majority of the respondents (74%) believed that, the services provided through their banks using a mobile device must be compatible with their important transaction needs before they can use the self-service. A study conducted by Rumanyikaet (2015) about obstacles towards the adoption of mobile banking in Tanzania. Their observation revealed that poor network coverage (78.6 %), lack of knowledge

of mobile banking users (57.1%), lack of enough floats, ATMs breakdown and theft (50%), poor security of mobile network (57.1%), are critical obstacles towards the adoption of mobile banking in Tanzania. The finding identified that facilitation condition is most significant predictor of intention to mobile banking adoption.

A research conducted locally by Gizachew (2016) revealed that perceived ease of use has emerged in the study as having an insignificant negative influence on mobile banking usage. In addition, the researcher concluded that awareness was found to have an insignificant impact on mobile banking usage. The researcher further concluded that having more or less awareness about mobile banking has no significant impact on usage of mobile banking adoption for customers in Addis Ababa, Ethiopia.

A similar study conducted by Worku (2015) on perception of commercial bank customers in Addis Ababa revealed that perceived usefulness and perceived ease of use have positive relationship with the adoption of mobile banking, whereas perceived risk has negative relationship with the adoption of mobile banking.

Kalkidan (2016) conducted a research on factors influencing the usage of mobile banking in Ethiopia by gathering data from customers of Commercial Bank of Ethiopia and United Bank in Addis Ababa. The study used Technology Acceptance Model (TAM) and Innovation Diffusion Theory (IDT) by integrating perceived risk, trust and awareness into the established models. Survey was conducted using questionnaire. The research results found relative advantage, compatibility, perceived trust, perceived usefulness, and perceived risk as major influencing factors for mobile banking adoption whereas perceived ease of use and awareness were found to have insignificant effect on mobile banking usage for bank customers located in Addis Ababa, Ethiopia. The study recommended banks to consider investing in campaigns and arranging information sessions to demonstrate the features of mobile banking services, and its benefits over traditional channels.

### **2.6.1 Perceived Advantages, Drivers and Barriers of E-Banking**

The study that was conducted in Omani banks by Al-Sabbagh, I., &Molla, A. (2004) using exploratory research found that bank manager' perceptions of four constructs: perceived relative advantage, perceived organizational performance, perceived customer/organizational relationship and perceived ease of use provided a broader understanding of e-banking adoption in the banking industry.

The first construct, perceived relative advantage relates to the degree to which bank managers think that Internet technology might help their bank gain advantages in the industry. From the literature, three major issues emerged relating to the perception of relative advantage: convenience of services; innovative use of IT; and management of banking services (Ibid, 2004). The second construct, perceived organizational performance is associated with how much a bank manager thinks Internet technology could improve their organizational performance. Three issues, profitability; market environment and employee productivity were utilized to explore this construct in depth. From the broad question related to profitability, two impediments are indicated; high technology investment cost and the need for economies of scale for Internet technology use are inhibiting the rate of e-banking adoption. Productivity of employees was another issue of interest. Most respondents expected that their business efficiency could be improved on the Internet (Ibid, 2011).

The third construct, perceived customer/ organizational relationship relates to how a bank manager perceives Internet technology adoption in terms of improving the relationship with their customers. In the literature, three major issues emerge related to the perception of customer/organizational relationship, customer trust, customer commitment, and customer satisfaction (Ibid, 2011).

The final construct, perceived ease of use measures how easy a bank manager believes that Internet technology is to use. The literature suggests that if technology is perceived to be easy to use, then the rate of adoption will increase. The research threw up three major issues related to perceived ease of use, easy to navigate, easy to learn and easy to manage. The last issue related to management of financial transactions on the Internet (Ibid, 2011).

An exploratory research conducted by Salehi(2004) in Iran indicate that the adoption status of e-banking is the transition of pre-development to development phase and the main drivers for adopting e-banking are downsizing, gaining competitive advantage, increasing market share and improving bank's image. The analysis further reveals that inefficient ICT infrastructure, political challenges and traditional organizational culture are barriers for adoption of e-banking.

In addition to the above factors, a case study that was conducted in China by Kurnia, FeiPeng, Yi Ruo Liu (2005) suggests that Government support is also a strong driver for e-banking adoption. It manifested in two ways. Firstly, the Government is establishing an electronic commerce (EC)-friendly environment in the country. The Government in recent years to revamp the national ICT and logistic infrastructures has committed heavy investments. New EC laws and regulations have also been passed and adjusted to provide legal protections for EC activities in general. Secondly, the government also directly offers financial incentives to promote e-banking adoption.

## CHAPTER THREE

### RESEARCH METHODOLOGY

This chapter presents the methodology and ethical standards adopted in conducting the research in general and its design, approach, sampling technique and procedure, methods of data collection, its analysis and interpretation employed for identifying and discussing key study findings in particular.

#### **3.1 Description of the Study Area**

The research sites covered in this study encompass Lion International Bank's HQ (headquarters) and its 25 branches having a year or more banking experience in Ethiopia's capital, Addis Ababa.

#### **3.2 Research Design and Approach**

The study was conducted by using descriptive survey research type. Its primary aim was to examine challenges and prospects of the mobile banking service of Lion International Bank at its selected branches operating in Addis Ababa, Ethiopia. As a case study research its concern was with the complexity and particular nature of the case in question at a single organization or institution mentioned above (Stake, 1995). The researcher has chosen the aforementioned research design to better explore the current problems and related issues that this particular study addresses at a single institution. As stated by Bayat (2007), descriptive research is casting light on current issues or problems through process of data collection that helps researchers to describe the situation more completely than was possible. Such a consideration was found appropriate as it involves collecting data in order to answer important questions concerning the status of subjects or the case under study.

##### **3.2.1 Research Approach**

The researcher mainly used a quantitative research approach to gather, analyze, and measure statistical data based on measurements of quantity. It is applicable to phenomena that can be expressed in terms of quantity (Kothari, 2004). In a quantitative research approach, a number of objects selected and studied in order to increase the ability to draw general conclusions. This was

supported by primary and secondary qualitative data generated for enriching study findings and checking their validity as well.

### **3.3 Target Population and Sampling Techniques**

The study population targeted from the bank's HQ plus its 25 branches consisted of 236 employees of the bank. This included branches and employees with more than one year of banking experience at the research site; involved directly in the bank's mobile banking service delivery activity. This means that, the study excluded those branches or employees of the bank with less than one year of banking experience. Purposive sampling technique is used to select the sample from the target population.

In order to allow the researcher to sample the population with a desired degree of accuracy, Slovin's(1960) formula was employed. To any quantitative researcher, Slovin's formula gives an idea of how large the sample size needs to be to ensure a reasonable accuracy of result. Accordingly, the sample size for the study was determined considering variables incorporated in the formula including the actual population size, required precision levels and, confidence level as follows:  $n=N/(1+N*e^2)$  where  $n$ =sample size,  $N$ =total population and  $e$ =error tolerance with a 95% confidence level and +-5% precision.

Therefore,  $n=236/(1+236*0.05*0.05) = 148.42$ .

When we come to questioner distribution criteria of the study, the researcher distributed all the 148 questionnaires by apportioning them to the 25 branches and HQ according to their workforce size and job specialization. In other words, this means that the sample size was apportioned among the 25 branches proportionally based on their staff size and job specialization. Accordingly, the distribution list included, among others, all professional staff found at the Alternative Channel Banking Department. The reason for giving special or more attention (weight) to such department staffs was that, due to the nature of their job, they deemed to be more knowledgeable about the existing opportunities and challenges in implementation of electronic/ mobile banking services and could provide important perspective in addressing the research questions. Members of staff from other departments or divisions or units included in the distribution list covered managers and customer service officers working at different levels, and front-office staffs having regular interactions with the bank's customers at 25 branch outlets

(sites) of the bank were the dominant group. As a whole, the questionnaire was distributed to 68% of employees targeted for study.

### **3.4 Data Collection Tools and Methods**

Both primary and secondary sources were used for the purpose of this study. Primary data were obtained directly from first hand sources by means of a survey questionnaire, in the course of doing the descriptive research part of the study. In other words, primary data required for the study were gathered through administering a survey questionnaire distributed to 148 employees of the bank targeted from its HQ and 25 branches covered in the study.

The questions incorporated in the questionnaire were mainly structured ones, that is, presented in close-ended form by which respondents were asked to indicate their level of agreement using Likert's five scale rating measurement where: Strongly Agree (SA) = 5; Agree (A) = 4; Neutral (N) = 3, Disagree (D)= 2; and Strongly Disagree (SD) = 1. This was considered in order to make it easier for respondents to answer such questions.

The questionnaire made to have three sections. The first section focused on demographics of respondents; whereas, in section two full focus was made on main thematic areas of the study. All items in section two are of closed-ended questions described above with Likert's scaling. The last section incorporated open-ended questions with the aim to generate qualitative data enriching/supplementing the quantitative ones on main thematic areas of the study. In methodological/analytical sense, such questions found necessary for obtaining supplementary data and interpreting analysis results in comprehensive and verifiable manner. As indicated in relevant literature, open-ended questions are useful when the researcher want to see how respondents discuss an issue or discover what is on their minds without imposing an agenda (Lake and Harper,1987; cited in Pitchaya et al., 2010).

Besides, the researcher has conducted key informant interviews with two purposively selected key informants (Division Managers) at Alternative Channel Banking Department of the Bank. The key informants were selected as it was considered in the study that they have had detail knowledge, and experience of e-banking practices, challenges and its prospects.

Moreover, secondary data required for the study were gathered from various sources such as official documents, records and reports of the industry, regulatory organ reports, web sites, books, annual reports and magazines, and published literature in the area through document examination/ review.

### **3.5 Data Analysis**

The raw quantitative data gathered through administering the questionnaire was analyzed using the descriptive statistical functions of SPSS software, version 22. Accordingly, frequency distribution tables along with percentages, mean and standard deviation were used to analyze the responses of the respondents. Whereas qualitative data generated through administering key informant interview and document examination were analyzed through content/ narrative analysis.

Finally, triangulation was employed for checking and verifying results obtained through administering the questionnaire and the key informant interview.

### **3.6 Ethical Consideration**

Throughout the research, the researcher upheld and respected the participants' right to privacy, anonymity, fair treatment and to protection from discomfort and harm (Neuman, 2003). Ethics is the code of moral principles and values that governs the behavior of an individual or group with respect to what is right or wrong (Bratton and Gold, 2000). In this research, ethical issues have got especial consideration. The researcher discussed the purpose of the research clearly to the participants during data gathering stage of the research. As a matter of confidentiality, the participants were not required to write or tell their names. Furthermore, the participants were assured that their responses for the questionnaire as well as the interview are used for the intended purpose only and wiped out their responses as no more required after completing the research.



## CHAPTER FOUR

### RESULT AND DISCUSSION

This chapter presents data collected through administering a questionnaire, key informant interview and document examination; its analysis, results and discussion on main study findings and related matters.

#### 4.1 Quantitative and Qualitative Data Analysis

As indicated in the preceding chapter, the study utilized descriptive statistics as brief descriptive coefficients that summarize a given data set, which can be either a representation of the entire or a sample of a population. The following subsections provide summary of the descriptive statistics of quantitative and qualitative data gathered through administering the questionnaire.

##### 4.1.1 Response Rate

The researcher prepared and issued out 148 questionnaires to potential respondents. However, 25 respondents hadn't responded and returned back the questionnaire. It is evident that only 83% completed questionnaires have been received and analyzed, while 17% questionnaires didn't reach the researcher (Table 4.1).

**Table 4.1 Response rate**

<b>Categories</b>	<b>Respondent</b>	<b>Percentage</b>
<b>Responded</b>	123	83%
<b>Not Responded</b>	25	17%
<b>Total</b>	148	100%

*Source: SPSS output of own survey, 2020*

#### 4.2 Demographic Profile of Respondents

The table below (Table 4.2) summarizes analysis results on demographics of respondents who actually participated in the research. The analysis covered key attributes like gender, age, educational attainment, work experience, and job position of the respondents.

**Table 4.2 Demographic profile of respondents**

Demographic profile		Frequency	Percent	Valid percent
Gender	Male	89	72.4	72.4
	Female	34	27.6	27.6
Age	Below 25 years	74	60.2	60.2
	26 - 35 years	36	29.3	29.3
	36 - 45 years	13	10.6	10.6
Educational attainment	First Degree	97	78.9	78.9
	Second Degree	26	21.1	21.1
Work experience	1 - 5 years	80	65.0	65.0
	6 - 10 years	34	27.6	27.6
	More than 10 years	9	7.3	7.3
Job position	Customer Service Officer	67	54.5	54.5
	Senior Customer Service Officer	31	25.2	25.2
	Customer Service Manager	12	9.8	9.8
	Branch Manager	7	5.7	5.7
	Alternative Banking Channel Officer	3	2.4	2.4
	System Administrator Officer	3	2.4	2.4

*Source: SPSS output of own survey, 2020*

### ***Gender distribution***

As shown on the table above, male and female respondents constitute 72.4% and 27.6% of the study participants, respectively. This shows that most of the study participants are male.

### ***Age distribution***

Respondents aged below 25 years constituted the largest group (60.2%), this is followed by respondents falling into 26 to 35 age group (29.3%). And the rest, 10.6% found above the age of thirty-five (i.e., 36 to 45 years old). This indicates that most of the study participants are young adults.

### ***Educational attainment***

When the educational attainment level of respondents is considered, it can easily be seen that most of respondents have first degree (78.9%), and the remaining, 21.1% reported that they have earned second degree. This indicates that majority of the research participants are first degree holders.

### ***Work experience distribution***

Regarding the banking work experience of respondents at the case study organization, 65.1% reported to have between one and five years of work experience, this is followed by those respondents with 5 to 10 years of experience (27.6%); and, the rest, 7.3% reported that they have more than ten years of work experience.

### ***Job position distribution***

As far as the current job position of respondents is concerned, more than half of them (54%) reported that they work as Customer Service Officer involving in delivery and facilitation of all banking services of the bank at front-office desks, this is followed by respondents working as Senior Customer Service Officer (25.2%). The remaining includes holders of one of the following job posts: Customer Service Manager (9.8%), Branch Manager (5.7%), Alternative Banking Channel Officer (2.4%) and System Administrator Officer (2.4%).

## **4.3 Challenges and Prospects of Mobile Banking Service**

Perceived challenges of mobile banking were investigated under two major categories: internal and external factors. The study considered a total of sixteen items (variables) for analysis: half of this investigated as internal factor (challenge) and the rest as external. Regarding perceived prospects, a total of five items (variables) were considered and analyzed. Analysis result for each of these presented as follows.

### **4.3.1 Internal Factors/ Challenges**

Both the frequency distribution tables (Annex B: Table 4.3.1 to Table 4.3.8) and the summary table below (Table 4.3) show that the implementation of mobile banking service at the case study organization challenged by various internal factors including lack of service promotion, inability to create awareness about the benefits of mobile banking among customers of the bank, lack of commitment to the adoption of new technologies in the area and lack of continuous improvement as listed table below.

**Table 4.3 Summary of results for Internal Factors**

S.No.	Item		Frequencies	Valid %	Mean	SD
1	Mobile banking service promotion given serious attention by management of the bank.				2.43	1.23
		Strongly Disagree	26	21.3		
		Disagree	55	44.7		
		Neutral	14	11.4		
		Agree	17	13.8		
		Strongly Agree	11	8.9		
	<b>Total</b>	123	100			
2	The bank has a well-trained manpower to build and maintain mobile banking service				3.56	1.12
		Strongly Disagree	3	2.4		
		Disagree	27	22		
		Neutral	17	13.8		
		Agree	50	40.7		
		Strongly Agree	26	21.1		
	<b>Total</b>	123	100			
3	Awareness about the benefits of mobile banking has been created among customers of the bank.				2.52	1.33
		Strongly Disagree	26	21.14		
		Disagree	56	45.53		
		Neutral	9	7.32		
		Agree	14	11.38		
		Strongly Agree	18	14.63		
	<b>Total</b>	123	100			
4	The bank has developed and maintained a user friendly system for delivering mobile banking service.				3.53	0.96
		Strongly Disagree	1	0.81		
		Disagree	21	17.07		
		Neutral	30	24.39		
		Agree	53	43.09		
		Strongly Agree	18	14.63		
	<b>Total</b>	123	100			
5	The bank has had adequate skilled IT personnel dealing with technological innovation and associated problems.				3.71	0.95
		Strongly Disagree	3	2.44		
		Disagree	15	12.2		
		Neutral	15	12.2		
		Agree	71	57.72		
		Strongly Agree	19	15.45		
	<b>Total</b>	123	100			

6	Top management of the bank has been committed to adoption (implementation) of new technologies in the area.				2.38	1.20
		Strongly Disagree	30	24.39		
		Disagree	52	42.28		
		Neutral	13	10.57		
		Agree	20	16.26		
		Strongly Agree	8	6.5		
	Total	123	100			
7	Lion bank gives appropriate attention for continues improvement on adequateness and competency of mobile banking service to satisfy its users				2.79	1.24
		Strongly Disagree	13	10.57		
		Disagree	56	45.53		
		Neutral	11	8.94		
		Agree	29	23.58		
		Strongly Agree	14	11.38		
	Total	123	100			
8	The bank managed to arrange and conduct sufficient staff training on how to use and delivering mobile banking service				3.48	1.25
		Strongly Disagree	5	4.07		
		Disagree	34	27.64		
		Neutral	12	9.76		
		Agree	40	32.52		
		Strongly Agree	32	26.02		
	Total	123	100			

Source: SPSS output of own survey, 2020

Key: 1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree

In four other areas, however, the response of study participants as a whole showed the existence of a well-trained manpower to build and maintain mobile banking service/ adequate skilled IT personnel dealing with technological innovation and associated problems, a user friendly system for delivering the service under study, sufficient staff training on how to use and deliver mobile banking service. In other words, the mean value of second, fourth, fifth and eighth question are 3.56, 3.53, 3.71 and 3.48 which represent a positive response on the level of measurement scale that means, the largest number of study participants agreed on the issue(s) or item(s) presented to them. On the basis of this, it is possible to say that:

- The bank has a well-trained manpower to build and maintain mobile banking service;
- The bank has developed and maintained a user friendly system for delivering mobile banking service;

- The bank has had adequate skilled IT personnel dealing with technological innovation and associated problems; and,
- The bank managed to arrange and conduct sufficient staff training on how to use and delivering mobile banking service

On the other hand, the Mean value result shows, 2.43, 2.52, 2.38 and 2.79 for question number one, three, six and seven respectively. It means that, the largest number of study participants disagreed on the issue(s) or item(s) presented to them. Based on this, one can state that:

- Mobile banking service promotion has not been given serious attention by management of the bank;
- Awareness about the benefits of mobile banking has not been created among customers of the bank;
- Top management of the bank has not been committed to adoption (implementation) of new technologies in the area; and,
- The bank has not been giving appropriate attention for continues improvement on adequateness and competency of mobile banking service to satisfy its users.

Generally, E-banking as well as mobile banking services is acceptable practices for communities residing in Addis Ababa. However, more than 56% of the respondent confirmed that, the bank failed on awareness creation about the benefits of mobile banking among customers of the bank. This finding supported by Atnekut (2016) whose work identified lack of awareness about e-banking as barrier to adopt e-banking services.

Moreover, the study observed that, there is absence of giving appropriate attention for continues improvement on adequateness and competency of mobile banking service to satisfy its users. In addition to this, factors that are mentioned above are supported by collected data through key informant interviews with identified e-banking staffs that are found to be relevant in providing detail and practical information regarding the issues raised in relation with mobile banking service of the bank.

Furthermore, responses made to open-ended questions incorporated in the questionnaire, and some respondents mentioned that, limitation of withdrawal set by the bank which is the maximum ceil of money transfer amount is Birr 50,000.00 indicated as additional internal challenges for effective implementation of mobile banking.

### 4.3.2 External Factors/ Challenges

Analysis results summarized using frequency distribution tables on Annex B (Table 4.4.1 to Table 4.4.8) as well as the table next page (Table 4.4) indicate the existence of six external environmental factors negatively affecting the delivery of the bank’s mobile banking service in the study area. These are: network problems, inadequacy of ICT infrastructure, lack of trust and confidence from the side of customers which resulted from security threats, unfavorable government policies and directives in the area, fear of risk associated with use of new technological innovations, and service accessibility problem.

**Table 4.4: Summary of Results on External Factors**

S.No.	Item		Frequencies	Valid %	Mean	SD
1	Mobile banking services may not perform well because of network problems in the city.				3.96	1.12
		Strongly Disagree	4	3.25		
		Disagree	15	12.20		
		Neutral	10	8.13		
		Agree	46	37.4		
		Strongly Agree	48	39.02		
		<b>Total</b>	123	100		
2	Lion Bank’s mobile banking Service packages are competitive and fulfil all type of payment options when compared to other banks in the country.				3.69	1.10
		Strongly Disagree	5	4.07		
		Disagree	19	15.45		
		Neutral	12	9.76		
		Agree	60	48.78		
		Strongly Agree	27	21.95		
		<b>Total</b>	123	100		
3	ICT infrastructure of the city is sufficient enough for proper and efficient delivery of mobile banking service				2.53	1.28
		Strongly Disagree	23	18.7		
		Disagree	58	47.15		
		Neutral	10	8.13		
		Agree	17	13.82		
		Strongly Agree	15	12.2		
		<b>Total</b>	123	100		
4	Mobile banking service users of the bank can put trust and feel confident on any security aspects				2.70	1.23
		Strongly Disagree	16	13.01		
		Disagree	56	45.53		
		Neutral	11	8.94		

	of the service.	Agree	28	22.76		
		Strongly Agree	12	9.76		
		<b>Total</b>	123	100		
5	Government and/or National Bank's initiatives, policies and directives on e-banking service created favourable conditions in terms of attracting and having willing customers for the service.				2.56	1.32
		Strongly Disagree	24	19.51		
		Disagree	55	44.72		
		Neutral	14	11.38		
		Agree	11	8.94		
		Strongly Agree	19	15.45		
		<b>Total</b>	123	100		
6	Customers are giving their willingness to use mobile banking without any fear of risk to use new technological innovations.				2.81	1.31
		Strongly Disagree	17	13.82		
		Disagree	49	39.34		
		Neutral	16	13.01		
		Agree	22	17.89		
		Strongly Agree	19	15.45		
		<b>Total</b>	123	100		
7	Culturally, e-banking in general and mobile banking in particular are acceptable practices for communities residing in Addis Ababa.				3.57	1.18
		Strongly Disagree	4	3.25		
		Disagree	29	23.58		
		Neutral	12	9.76		
		Agree	48	39.02		
		Strongly Agree	30	24.39		
		<b>Total</b>	123	100		
8	There is accessibility problem of mobile banking service among societal members residing in Addis Ababa.				3.93	1.15
		Strongly Disagree	1	0.81		
		Disagree	25	20.33		
		Neutral	4	3.25		
		Agree	44	35.77		
		Strongly Agree	49	39.84		
		<b>Total</b>	123	100		

Source: SPSS output of own survey, 2020

Key: 1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree



In other words, the above study finding narrative bases itself on the fact that a huge majority of respondents, in strongest sense (or otherwise) agreed that mobile banking services may not perform well because of network problems; and, there is accessibility problem of mobile banking service among societal members residing in Addis Ababa. The other observation that served as basis for the narrative finding is the fact that, a huge majority of study participants in strongest sense (or otherwise) disagreed with the following four issues:

- ICT infrastructure of the city is sufficient enough for proper and efficient delivery of mobile banking service,
- Mobile banking service users of the bank can put trust and feel confident on any security aspects of the service,
- Government and/or the National Bank's initiatives, policies and directives on e-banking service created favorable conditions in terms of attracting and having willing customers for the service, and
- Customers are giving their willingness to use mobile banking without any fear of risk to use new technological innovations.

External challenges identified in this study that more than 65% of respondents had agreed and strongly agreed were ICT infrastructure of the city is not sufficient enough for proper and efficient delivery of mobile banking service. Furthermore, mobile network problem has been one of barriers for effective mobile banking service of the bank and from the study it is evident that majority of respondents indicated network problem is highly challenging to perform e banking operation. The work by Kassahun (2016) indicate that, majority of challenges for adoption and development of e-banking technology in Ethiopia are derived from the external environments and limitation in network infrastructure and Internet related support services.

Moreover, there is lack of strong government support in the area. It is understood that NBE as well as Government provisions lack comprehensiveness and they focused more on restrictions. In fact, 64% of the respondents confirmed that there is weak support. According to Abraham (2012), among the common problems known in Ethiopian which are related to electronic banking one of them are limitation of government policies, regulations and e-commerce laws, as well as legislation to protect workers and to make the Internet secure.

In general the frequencies table above represents a weak level and negative response on measurement of scale on the above points with Mean value of 3.96, 2.53, 2.70, 2.56 and 2.81 for question number one, three, four, five, and six respectively.

However, on two issues, a large proportion of respondents agreed that the bank's mobile banking service packages are competitive and fulfill all type of payment options when compared to other banks in the country, and e-banking in general and mobile banking in particular are acceptable practices for communities residing in Addis Ababa (Mean=3.69 and Mean=3.57 for question number two and seven). This result disregards two environmental factors as challenges of mobile banking in the city. These are: competition in the banking industry and a socio-cultural element.

### 4.3.3 Prospects

The result as shown on Annex B (Table 4.5.1 to Table 4.5.5) and on Table 4.5 below indicate a promising future for mobile banking service of the bank.

**Table 4.5: Summary of Results on Prospects of Mobile Banking**

S.No.	Item		Frequencies	Valid %	Mean	SD
1	The quality of mobile banking service has been improving from time to time.				4.09	0.93
		Strongly Disagree	1	0.81		
		Disagree	12	9.76		
		Neutral	6	4.88		
		Agree	59	47.97		
		Strongly Agree	45	36.59		
	<b>Total</b>	123	100			
2	The bank provides continuous strategic direction for Mobile banking service.				4.13	1.02
		Strongly Disagree	3	2.44		
		Disagree	12	9.76		
		Neutral	3	2.44		
		Agree	52	42.28		
		Strongly Agree	53	43.09		
	<b>Total</b>	123	100			
3	Service delivery ways of the bank are attractive to retain mobile banking service users.				4.11	1.08
		Strongly Disagree	6	4.88		
		Disagree	9	7.32		
		Neutral	3	2.44		
		Agree	52	42.28		

		Strongly Agree	53	43.09		
		<b>Total</b>	123	100		
4	Customer satisfaction with our mobile banking service is increasing from time to time.				4.04	1.01
		Strongly Disagree	1	0.81		
		Disagree	16	13.01		
		Neutral	6	4.88		
		Agree	53	43.09		
		Strongly Agree	47	38.21		
		<b>Total</b>	123	100		
5	Customer request for mobile banking service is increasing from time to time.				4.31	0.91
		Strongly Disagree	-	-		
		Disagree	11	8.94		
		Neutral	5	4.07		
		Agree	41	33.33		
		Strongly Agree	66	53.66		
		<b>Total</b>	123	100		

Source: SPSS output of own survey, 2020

Key: 1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree

In that, a huge proportion or number of study participants confirmed (or agreed in strongest or moderate sense) that,

- The quality of mobile banking service has been improving from time to time;
- The bank is providing continuous strategic direction for mobile banking service;
- Service delivery ways of the bank are attractive to retain mobile banking service users;
- Customer satisfaction with the bank's mobile banking service is increasing from time to time;
- Customer request for mobile banking service is increasing from time to time.

As shown in the above table, majority of the respondents think that there is a positive or strong response on measurement of scale on the above points with Mean value of 4.09, 4.13, 4.11, 4.04 and 4.31 for question number one, two, three, four, and five respectively.

Regarding prospects of mobile banking, the major perspective identified in this study revealed that, more than 86% of respondents were agreed and strongly agreed about there is a growth of customer request to use the service from time to time. Also 82% and 85% of the respondents confirmed that customer satisfaction with the service is also showing an increasing level, this augmented by long-term strategic direction set by the bank, and new government provisions which are in pipe line will definitely create a better situation in the area. The above point is supported by Ayana (2012) who identified in her study that the prospects of adopting mobile and agent banking are improving of customer satisfaction, through enhancing speed and efficiency, reduce number of customers come to banking hall, while it reduces the work load of bank staff, increase the productivity of banks, increase reliability and accessibility of banking service, create better relationship among banks and clients, used as better information control and unlimited time to access bank account and information.

In addition to the above point, key informant interview result show that there is good prospect regarding to electronic banking services generally and mobile banking service particularly. In fact, Lion International Bank as well as NBE are planning to enhance the provision of e-banking services with better policies and technological innovations

#### **4.4 Official Document Examination Result**

The documents were reviewed by referring most recent information from authorized documents of the Bank, annual reports different publications & reports made by the Bank and National Bank of Ethiopia. The document reviews were used to triangulate the data collected through survey questionnaire and interview.

Document examination results also show a promising future for e-banking (including mobile banking) in the country. In this regard, the Government's plan to deregulate the Ethiopian telecom industry, the new e-commerce law (proclamation) which is at final launching stage and the significant increase being observed in mobile penetration rate across the country can be mentioned as examples.

## CHAPTER FIVE

### CONCLUSIONS AND RECOMMENDATIONS

This chapter provides summary of study findings, followed by conclusions drawn from study findings and, finally, presents recommendations made for consideration by the case study organization and other stakeholders in the area.

#### 5.1. Summary of Findings

The study intended to examine challenges and prospects of mobile banking service at selected branches and HQ of Lion International Bank, Addis Ababa, Ethiopia through using quantitative and qualitative research approaches. Primary data were collected through administering a questionnaire having both closed- and open-ended questions and conducting key informant interview. A total of 125 employees of the bank participated as respondents in the process. Frequency distribution tables, percentages, means and standard deviation were used for descriptive analysis purpose. Quantitative and qualitative analysis results showed that the case study organization has been facing challenges in implementing and delivering its mobile banking service or products in the city, which resulted from various internal and external environmental factors as summarized below.

- There is lack of appropriate attention given by the bank management for promotion of mobile banking service. Accordingly, awareness about the benefits of mobile banking has not been created among customers of the bank.
- Lack of management committed to continuous improvement in general and adoption (implementation) of new technologies in the area in particular.
- Network problem, insufficiency of ICT infrastructure in the city, insecurity affecting trust, confidence and willingness among customers, inadequate government support in terms of policy, directives, growth initiatives, etc.

Concerning prospects of mobile banking, the major perspective identified in this study revealed that, more than 86% of respondents confirmed that there is growth in customer request to use the service from time to time. Also 82% and 85% of the respondent confirmed that customer satisfaction with the service is also showing an increase, this augmented by long-term strategic

direction set by the bank. New government initiatives (plans and proclamations which are in pipe line) also show a promising future.

## **5.2. Conclusions**

The use of mobile banking enable customers to accomplish their daily tasks quickly, there are many perceived potential operational efficiency benefits of mobile banking for banks too. These are: increase in productivity, reduction in paper work, reduction in transaction cost, increase in reliability and reducing errors. However, there are challenges that hinder the effectiveness and efficiency of mobile banking in a certain context. This study was conducted in the context of Ethiopia and identified challenges emanating both from the internal and external environment of the case study organization. The internal challenges or factors relate to scope of marketing practices and management commitment in key areas like continuous improvement and technological innovations. Whereas, the external factors relate to ICT infrastructure, security threats, macro policies, legislation and other government provisions or restrictions in the area.

The fact that customer satisfaction with mobile banking service, its quality and customer request for the service increasing from time to time (which is supported by long term strategic direction of the bank), and also government's new plans and proclamations which are in pipeline are indicative of sound prospects that mobile banking service at the case study organization or in Ethiopia as a whole will show significant improvement, growth and development for the benefit of all stakeholders in the area.

## **5.3 Recommendations**

Based on the findings and conclusions of the study, the following recommendations are made:

- The Bank should launch aggressive campaigns to create awareness about the benefits of mobile banking service among its actual and potential customers. Together with this, it is a must to address issues such as fear of lack of privacy and security, along with relative advantages of using e-banking products and continuous review and upgrading of the existing system of security to the level that minimize risk;
- Government should support the banking sector as a whole by facilitating development of sufficient ICT infrastructure and strengthen the quality of the network for the successful implementation and development of e-banking services;

- In collaboration with banks, Government should educate and inform communities on the workability and effectiveness of e-banking technology. This will increase the customer confidence levels;
- The transfer amount limit which is set by the bank shall be adjusted based on the demand of the customer and experience of other banks in the industry.
- NBE should revise restrictions and design flexible directives and procedures that help the banks to render the mobile banking service with convenient and customized way as appropriate and demand by customers.

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## **Annex A: Data Gathering Tools**

### **A.1 Questionnaire**

**St.Mary's University**

**School of Business**

**Master of Business Administration Program (MBA General)**

**Research Questionnaire**

Research topic/ Title: Challenges and Prospects of Mobile Banking Service in Ethiopia: A Case Study at Lion International Bank, Addis Ababa.

Name of researcher: Benyam Hailu

Contact details: Tel.: +251913624066; Email: **Ben621803@gmail.com**

Dear Sir/Madam,

I am a postgraduate student, currently undertaking the aforementioned research in a partial fulfillment of the award of Master of Business Administration at St. Mary's University. The general purpose of the study is to identify challenges and prospects of mobile banking that Lion International Bank facing in the context of Ethiopia. It is believed that the study result could possibly benefit not only the bank but also other stake holders in the area.

The expected respondents of this questionnaire are staffs of those randomly selected branches of the bank operating in Addis Abeba, Ethiopia. As staff member working at the said research site, you are one of the respondents selected to participate in this study. Please assist me in giving correct and complete information so that it is possible to come up with valid findings on matters chosen for investigation. Your participation is entirely voluntary and the questionnaire is completely anonymous. The data will be kept confidentially and it will be used for study purpose only.

Thank you in advance for your cooperation.

Benyam Hailu

## General Instruction

- Do not write your name in any part of the questionnaire
- Your frank response is vital for the success of the study
- Please put a “✓” mark on your choices
- Give a short and precise answers for questions followed by a blank spaces

## Part I: Personal Data

1. Are you male or female?

Female

Male

2. Your age category:

Below 25 years

25-35years

36-45 years

46 and above

3. What is your educational qualification?

Diploma

First Degree

Second Degree

PhD

4. For how long have you served in this bank?

Less than one year

1-5 years

6-10 years

More than 10 years

5. Your current job position/ title:

Customer Service Officer

Senior Customer Service Officer

Customer Service Manager

Branch Manager

Alternative Channel Banking Department staffs

## Part II: Environmental Factors and Prospects

Please indicate how much you agree or disagree with each of the following statements by putting the “x” mark.

	<b>Dimension</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
	<b>Internal Factors</b>	1	2	3	4	5
1.	Mobile banking service promotion given serious attention by management of the bank.					
2.	The bank has a well-trained manpower to build and maintain mobile banking service.					
3.	Awareness about the benefits of mobile banking has been created among customers of the bank.					
4.	The bank has developed and maintained a user friendly system for delivering mobile banking service.					
5.	The bank has had adequate skilled IT personnel dealing with technological innovation and associated problems.					
6.	Top management of the bank has been committed to adoption (implementation) of new technologies in the area.					
7.	Lion bank gives appropriate attention for continues improvement on adequateness and competency of mobile banking service to satisfy its users.					
8.	The bank managed to arrange and conduct sufficient staff training on how to use and delivering mobile banking service.					

	<b>External Factors</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
1.	Mobile banking services may not perform well because of network problems.					
2.	Lion bank's mobile banking service packages are competitive and fulfill all type of payment options when compared to other banks in the country.					
3.	ICT infrastructure of the city is sufficient enough for proper and efficient delivery of mobile banking service.					
4.	Mobile banking service user of the bank can put trust and feel confident on any security aspects of the service.					
5.	Government and/or National Bank's initiatives, policies and directives on e-banking service created favorable conditions in terms of attracting and having willing customers for the service.					
6.	Customers are giving their willingness to use mobile banking without any fear of risk to use new technological innovations.					
7.	Culturally, e-banking in general and mobile banking in particular are acceptable practices for communities residing in Addis Abeba.					
8.	There is accessibility problem of mobile banking service among societal members residing in Addis Abeba.					

	<b>Prospects</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
1.	The quality of mobile banking service has been improving from time to time.					
2.	The bank provides continuous strategic direction for Mobile banking service.					
3.	Service delivery ways of the bank are attractive to retain mobile banking service users.					
4.	Customer satisfaction with our mobile banking service is increasing from time to time.					
5.	Customer request for mobile banking service is increasing from time to time.					

**Part III: Open-ended questions**

- 1. With regard to mobile banking or e-banking in general, what internal challenges have you faced or observed while working for the Bank?

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- 2. What external challenges have you faced or observed in the area while working for the Bank?

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- 3. What should be done to address the identified internal and external challenges?

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- 4. What do you think about future prospects of mobile banking service at the bank or in the country as a whole?

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- 5. Finally, do you have any other comment on mobile banking service of the bank? If “yes”, please use the blank space below.

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**A.2 Key Informant Interview (*meant for Alternative Channel Banking Division Manager*)**

Name of the interviewer \_\_\_\_\_

Position of the interviewee \_\_\_\_\_

Place of Interview \_\_\_\_\_

Date of Interview \_\_\_\_\_

1. How does the bank create awareness about the product?
2. What is your view about the current implementation of mobile banking services?
3. What are the challenges been faced by the bank(s) in associated with mobile banking service?
4. What are the government (especially NBE) roles and supports in this E-banking service?
5. What are prospects of mobile banking in LIB?

## Annex B: Frequency Distribution Tables

### 4.3.1 Internal Factors

**Table 4.3.1 Serious attention given to mobile banking promotion by management**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>	26	21.3	21.3	21.1
<b>Disagree</b>	55	44.7	44.7	65.9
<b>Neutral</b>	14	11.4	11.4	77.2
<b>Agree</b>	17	13.8	13.8	91.1
<b>Strongly Agree</b>	11	8.9	8.9	100.0
<b>Total</b>	123	100.0	100.0	
<b>Mean</b>				2.44
<b>Standard Deviation</b>				1.2

*Source: SPSS output of own survey, 2020*

Table 4.3.1 shows, Regarding to giving appropriate or serious attention by the bank management in associated with mobile banking service 21.3% and 44.7% of respondents strongly disagreed and disagreed respectively that the bank management lacks giving appropriate attention for promotion and marketing of mobile banking service to create awareness among the society about the benefit of the service and it indicates a challenge for mobile banking service. This result implies that lack of adequate appropriate attention by the bank management for mobile banking service is one of internal challenging factors for effective implementation of mobile banking service.

**Table 4.3.2 The bank has a well-trained man power in the area**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>	3	2.4	2.4	2.4
<b>Disagree</b>	27	22.0	22.0	24.4
<b>Neutral</b>	17	13.8	13.8	38.2
<b>Agree</b>	50	40.7	40.7	78.9
<b>Strongly Agree</b>	26	21.1	21.1	100.0
<b>Total</b>	123	100.0	100.0	
<b>Mean</b>				3.56
<b>Standard Deviation</b>				1.3

*Source: SPSS output of own survey, 2020*

Respondents were asked the degree of agreement on the statement saying “The bank has well-trained manpower to build and maintain mobile banking service”. Accordingly, as table 4.3.2 shows, 40.7% and 21.1% of respondents agreed and strongly agreed, respectively. On the other hand, 2.4% and 22% of respondents were strongly disagreed and disagreed respectively on the above statement. 13.8% of respondents answered neutral on the issue.

**Table 4.3.3 Awareness about the benefits of mobile banking created among customers**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>	26.00	21.14	21.14	21.14
<b>Disagree</b>	56.00	45.53	45.53	66.67
<b>Neutral</b>	9.00	7.32	7.32	73.98
<b>Agree</b>	14.00	11.38	11.38	85.37
<b>Strongly Agree</b>	18.00	14.63	14.63	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				2.5
<b>Standard Deviation</b>				1.3

*Source: SPSS output of own survey, 2020*

The above table, Table 4.3.3, indicates that majority of the respondents disagreed on the issue that awareness creation activity of the bank for its customer is properly done constituting with 45.5% of the total respondents answers. Thus, it can assure that there is a lack of awareness creation by the bank on mobile banking for its customer. While 14.6% and 11.4% of the respondents strongly agreed and agreed that there is appropriate awareness creation about mobile banking by the bank. The remaining respondents 9(7.3%) maintained that the bank is not good or bad on the activity. Generally, this implies that there is a weakness on awareness creation of how to use and benefit of mobile banking service to its customers by the bank.

**Table 4.3.4A user friendly system has been developed for mobile banking customers**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>	1.00	0.81	0.81	0.81
<b>Disagree</b>	21.00	17.07	17.07	17.89
<b>Neutral</b>	30.00	24.39	24.39	42.28
<b>Agree</b>	53.00	43.09	43.09	85.37
<b>Strongly Agree</b>	18.00	14.63	14.63	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				3.5
<b>Standard Deviation</b>				0.9

*Source: SPSS output of own survey, 2020*

The result presented in the table above shows the responded feedback of the issue that the bank has developed and maintained a user friendly system for delivering mobile banking service. In which it shows 43% and 14.6% of respondents agreed and strongly agreed respectively. While Only 1% of respondents strongly disagreed and 17% disagreed on the statement. The rest 0.81% of respondents remain neutral on the issue. It can be interpreted that the bank really has developed and maintained a user friendly system for delivering mobile banking service.

**Table 4.3.5The bank has had adequate skilled IT personnel dealing with technological innovation and associated problems**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>	3.00	2.44	2.44	2.44
<b>Disagree</b>	15.00	12.20	12.20	14.63
<b>Neutral</b>	15.00	12.20	12.20	26.83
<b>Agree</b>	71.00	57.72	57.72	84.55
<b>Strongly Agree</b>	19.00	15.45	15.45	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				3.71
<b>Standard Deviation</b>				0.9

*Source: SPSS output of own survey, 2020*

The table offered above shows that 57.7% and 15.5% of respondents agreed and strongly agreed respectively that the bank has adequate skilled IT personnel on technological innovation influences implementation of mobile banking services exists. Only 2.44% of respondents are strongly disagreed and 12.2% disagreed on the statement. The rest 12.2% of respondents remain neutral on the issue. This implies that the respondents agreed the adequacy of skilled IT personnel existence.

**Table 4.3.6 Top management of the bank has been committed to adoption (implementation) of new technologies in the area**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>	30.00	24.39	24.39	24.39
<b>Disagree</b>	52.00	42.28	42.28	66.67
<b>Neutral</b>	13.00	10.57	10.57	77.24
<b>Agree</b>	20.00	16.26	16.26	93.50
<b>Strongly Agree</b>	8.00	6.50	6.50	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>	2.3			
<b>Standard Deviation</b>	1.2			

*Source: SPSS output of own survey, 2020*

According to table 4.3.6 above respondents were asked to reveal their degree of agreement on the Statement saying “Top management of the bank has been committed to adoption (implementation) of new technologies in the area”. Accordingly, 42.28% and 24.4% of respondents disagreed, and strongly disagreed respectively on the statement. While 16% and 6% of respondents agreed and strongly agreed on the statement. The rest 13% of respondents remain neutral on the statement.

**Table 4.3.7 Lion bank gives appropriate attention for continues improvement on adequateness and competency of mobile banking service to satisfy its users**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>	13.00	10.57	10.57	10.57
<b>Disagree</b>	56.00	45.53	45.53	56.10
<b>Neutral</b>	11.00	8.94	8.94	65.04
<b>Agree</b>	29.00	23.58	23.58	88.62
<b>Strongly Agree</b>	14.00	11.38	11.38	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				2.8
<b>Standard Deviation</b>				1.3

*Source: SPSS output of own survey, 2020*

Descriptive statistics result shown in the table above presents the degree agreement of respondents on the statement stating “Lion bank gives appropriate attention for continues improvement on adequateness and competency of mobile banking service to satisfy its users.” Accordingly, 45.5% and 10.6% of respondents disagreed and strongly disagreed respectively on the statement. On the other side, 11.38% and 23.58% of respondents strongly agreed and disagreed on the statement. The rest 8.94% of respondents remains neutral on the statement. From this point it’s observed that lack of attention availability on features and technical improvement on mobile banking service of the bank.

**Table 4.3.8 The bank managed to arrange and conduct sufficient staff training on how to use and delivering mobile banking service**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>	5.00	4.07	4.07	4.07
<b>Disagree</b>	34.00	27.64	27.64	31.71
<b>Neutral</b>	12.00	9.76	9.76	41.46
<b>Agree</b>	40.00	32.52	32.52	73.98
<b>Strongly Agree</b>	32.00	26.02	26.02	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				3.4
<b>Standard Deviation</b>				1.3

*Source: SPSS output of own survey, 2020*

According to the SPSS result shown in the above table out of the total respondents 27.64% and 4.07% disagreed and strongly disagreed respectively on the statement stating “The bank managed to arrange and conduct sufficient staff training on how to use and delivering mobile banking service.” In contrary to this 32% and 26% of respondents agreed and strongly agreed on the statement. Finally, 9.76% of respondents remain neutral on this statement.

### 4.3.2 External Factors

**Table 4.4.1 Response to “Mobile banking services may not perform well because of network problems”**

	Frequency	Percent	Valid Percent	Cumulative Percent
<b>Strongly Disagree</b>	4.00	3.25	3.25	3.25
<b>Disagree</b>	15.00	12.20	12.20	15.45
<b>Neutral</b>	10.00	8.13	8.13	23.58
<b>Agree</b>	46.00	37.40	37.40	60.98
<b>Strongly Agree</b>	48.00	39.02	39.02	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				3.9
<b>Standard Deviation</b>				1.1

*Source: SPSS output of own survey, 2020*

The result presented in the table above shows the responded feedback of the issue that Mobile banking services may not perform well because of network problems. In which it shows 37.4% and 39.02% of respondents agreed and strongly agreed respectively. While Only 3.25% of respondents strongly disagreed and 12.20% disagreed on the statement. The rest 8.13% of respondents remain neutral on the issue. It can be interpreted that network problem hinder mobile banking services.

**Table 4.4.2 Response to “Lion bank’s mobile banking service packages are competitive and fulfill all type of payment options when compared to other banks in the country”**

	Frequency	Percent	Valid Percent	Cumulative Percent
<b>Strongly Disagree</b>	5.00	4.07	4.07	4.07
<b>Disagree</b>	19.00	15.45	15.45	19.51
<b>Neutral</b>	12.00	9.76	9.76	29.27
<b>Agree</b>	60.00	48.78	48.78	78.05
<b>Strongly Agree</b>	27.00	21.95	21.95	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				3.6
<b>Standard Deviation</b>				1.1



*Source: SPSS output of own survey, 2020*

The above table shows the opinion to the issue that Lion bank's mobile banking service packages are competitive and fulfills all type of payment options when compared to other banks in the country. In which it shows 48.78% and 21.95% of respondents agreed and strongly agreed respectively. While Only 4.07% of respondents strongly disagreed and 15.45% disagreed on the statement. The rest 9.76% of respondents remain neutral on the issue. It can be interpreted that Lion bank's mobile banking service packages are competitive and fulfill all type of payment options when compared to other banks.

**Table 4.4.3 Responses of "ICT infrastructure of the city is sufficient enough for proper and efficient delivery of mobile banking service"**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>	23.00	18.70	18.70	18.70
<b>Disagree</b>	58.00	47.15	47.15	65.85
<b>Neutral</b>	10.00	8.13	8.13	73.98
<b>Agree</b>	17.00	13.82	13.82	87.80
<b>Strongly Agree</b>	15.00	12.20	12.20	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				2.5
<b>Standard Deviation</b>				1.3

*Source: SPSS output of own survey, 2020*

Respondents were asked the degree of agreement on the statement saying "ICT infrastructure of the city is sufficient enough for proper and efficient delivery of mobile banking service". Accordingly, as table 4.4.3 shows, 47.15% and 18.70% of respondents disagreed and strongly disagreed respectively. On the other hand, 12.20% and 13.82% of respondents strongly agreed and agreed respectively on the above statement. Only 8.13% of respondents answered neutral on the issue. And this shows that how ICT infrastructures of the city were critical and have great role for effective implementation of E-banking service of the bank.

**Table 4.4.4 Responses of "Mobile banking service user of the bank can put trust and feel confident on any security aspects of the service"**

	Frequency	Percent	Valid Percent	Cumulative Percent
<b>Strongly Disagree</b>	16.00	13.01	13.01	13.01
<b>Disagree</b>	56.00	45.53	45.53	58.54
<b>Neutral</b>	11.00	8.94	8.94	67.48
<b>Agree</b>	28.00	22.76	22.76	90.24
<b>Strongly Agree</b>	12.00	9.76	9.76	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				2.7
<b>Standard Deviation</b>				1.2

*Source: SPSS output of own survey, 2020*

The above table shows the opinion of respondents to the issue that Mobile banking service user of the bank can put trust and feel confident on any security aspects of the service. In which it shows 45.53% and 13.01% of respondents disagreed and strongly disagreed respectively. 22.76% of respondents agreed and 9.76% strongly agreed on the statement. The rest 8.94% of respondents remain neutral on the issue. It can be understood that Mobile banking service users of the bank are how much sensitive on security issues and can't put trust and feel confident on any security aspects of the service.

**Table 4.4.5 Responses to "Government and/or National Bank's initiatives, policies and directives on e-banking service created favorable conditions in terms of attracting and having willing customers"**

	Frequency	Percent	Valid Percent	Cumulative Percent
<b>Strongly Disagree</b>	24.00	19.51	19.51	19.51
<b>Disagree</b>	55.00	44.72	44.72	64.23
<b>Neutral</b>	14.00	11.38	11.38	75.61
<b>Agree</b>	11.00	8.94	8.94	84.55
<b>Strongly Agree</b>	19.00	15.45	15.45	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				2.5
<b>Standard Deviation</b>				1.3

Source: SPSS output of own survey, 2020

Respondents were asked the degree of agreement for responses of "Government and/or National Bank's initiatives, policies and directives on e-banking service created favorable conditions in terms of attracting and having willing customers". Accordingly, as table 4.4.5 shows, 44.72% and 19.51% of respondents disagreed and strongly disagreed respectively. On the other hand, 15.45% and 8.94% of respondents strongly agreed and agreed respectively on the above statement. Only 11.38% of respondents answered neutral on the issue. This indicates majority of the respondent confirmed that, there is a weak supporting system by government and/or National bank of Ethiopia in this matter.

**Table 4.4.6 Responses to "Customers are giving their willingness to use mobile banking without any fear of risk to use new technological innovations"**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>	17.00	13.82	13.82	13.82
<b>Disagree</b>	49.00	39.84	39.84	53.66
<b>Neutral</b>	16.00	13.01	13.01	66.67
<b>Agree</b>	22.00	17.89	17.89	84.55
<b>Strongly Agree</b>	19.00	15.45	15.45	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				2.8
<b>Standard Deviation</b>				1.3

Source: SPSS output of own survey, 2020

Table 4.4.6 shows the frequencies of responses of "Customers are giving their willingness to use mobile banking without any fear of risk to use new technological innovations". Almost 40% of the respondents disagreed to the issue. The other respondent's percentage is shown above.

**Table 4.4.7 Responses to "Culturally, e-banking in general and mobile banking in particular are acceptable practices for communities residing in Addis Abeba"**

	Frequency	Percent	Valid Percent	Cumulative Percent
<b>Strongly Disagree</b>	4.00	3.25	3.25	3.25
<b>Disagree</b>	29.00	23.58	23.58	26.83
<b>Neutral</b>	12.00	9.76	9.76	36.59
<b>Agree</b>	48.00	39.02	39.02	75.61
<b>Strongly Agree</b>	30.00	24.39	24.39	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				3.5
<b>Standard Deviation</b>				1.1

*Source: SPSS output of own survey, 2020*

Respondents were asked the degree of agreement for responses of “Culturally, e-banking in general and mobile banking in particular are acceptable practices for communities residing in Addis Ababa”. Accordingly, as table 4.4.7 shows, 39% and 24.39% of respondents agreed and strongly agreed respectively. 3.25% and 23.58% of respondents strongly disagreed and disagreed respectively on the above statement. Only 9.76% of respondents answered neutral on the issue. It shows that there is acceptability of technology in the society in related to e-banking activities and its good opportunities to the bank to easily convince them and expand the service within the community.

**Table 4.4.8 Responses to "There is accessibility problem of mobile banking service among societal members residing in Addis Ababa"**

	Frequency	Percent	Valid Percent	Cumulative Percent
<b>Strongly Disagree</b>	1.00	0.81	0.81	0.81
<b>Disagree</b>	25.00	20.33	20.33	21.14
<b>Neutral</b>	4.00	3.25	3.25	24.39
<b>Agree</b>	44.00	35.77	35.77	60.16
<b>Strongly Agree</b>	49.00	39.84	39.84	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				3.9
<b>Standard Deviation</b>				1.1

*Source: SPSS output of own survey, 2020*

The above table shows the opinion of respondents to the issue that there is accessibility problem of mobile banking service among societal members residing in Addis Ababa. In which it shows 39.84% and 35.77% of respondents strongly agreed and agreed respectively. 20.33% of respondents disagreed and 0.81% strongly disagreed on the statement. The rest 3.25% of respondents remain neutral on the aspect issue. It can be understood that majority of the respondent agreed there is accessibility problem on mobile banking service of the bank.

### 4.3.3 Prospects of Mobile Banking

**Table 4.5.1 The quality of mobile banking service has been improving from time to time**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>	1.00	0.81	0.81	0.81
<b>Disagree</b>	12.00	9.76	9.76	10.57
<b>Neutral</b>	6.00	4.88	4.88	15.45
<b>Agree</b>	59.00	47.97	47.97	63.41
<b>Strongly Agree</b>	45.00	36.59	36.59	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				4.0
<b>Standard Deviation</b>				0.9

*Source: SPSS output of own survey, 2020*

Respondents were asked the degree of agreement for responses of “The quality of mobile banking service has been improving from time to time”. Accordingly, as table 4.5.1 shows, 47.97% and 36.59% of respondents agreed and strongly agreed respectively. 0.81% and 9.76% of respondents strongly disagreed and disagreed respectively on the above statement. Only 4.88% of respondents answered neutral on the issue.

**Table 4.5.2 The bank provides continuous strategic direction for Mobile banking service**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>	3.00	2.44	2.44	2.44
<b>Disagree</b>	12.00	9.76	9.76	12.20
<b>Neutral</b>	3.00	2.44	2.44	14.63
<b>Agree</b>	52.00	42.28	42.28	56.91
<b>Strongly Agree</b>	53.00	43.09	43.09	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				4.1
<b>Standard Deviation</b>				1.0

*Source: SPSS output of own survey, 2020*

The result presented in the table above shows the responded feedback of the issue that the bank provides continuous strategic direction for Mobile banking service. In which it shows 42.28% and 43.09% of respondents agreed and strongly agreed respectively. While Only 2.44% of respondents strongly disagreed and 9.76% disagreed on the statement. The rest 3 respondents, 2.44% of respondents, remain neutral on the issue. It can be interpreted that the bank provides strategic direction progressively.

**Table 4.5.3 Service delivery ways of the bank are attractive to retain mobile banking service users.**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>	6.00	4.88	4.88	4.88
<b>Disagree</b>	9.00	7.32	7.32	12.20
<b>Neutral</b>	3.00	2.44	2.44	14.63
<b>Agree</b>	52.00	42.28	42.28	56.91
<b>Strongly Agree</b>	53.00	43.09	43.09	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				4.1
<b>Standard Deviation</b>				1.0

*Source: SPSS output of own survey, 2020*

Respondents were asked the degree of agreement for responses of “Service delivery ways of the bank are attractive to retain mobile banking service users”. Accordingly, as table 4.5.3 shows, 43.09% and 42.28% of respondents strongly agreed and agreed respectively. 4.88% and 7.32% of respondents disagreed and strongly disagreed respectively on the above statement. Only, 3 respondents, 2.44% of respondents answered neutral on the issue.

**Table 4.5.4 Customer satisfaction with our mobile banking service is increasing from time to time.**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>	1.00	0.81	0.81	0.81
<b>Disagree</b>	16.00	13.01	13.01	13.82
<b>Neutral</b>	6.00	4.88	4.88	18.70
<b>Agree</b>	53.00	43.09	43.09	61.79
<b>Strongly Agree</b>	47.00	38.21	38.21	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>	4.0			
<b>Standard Deviation</b>	1.0			

*Source: SPSS output of own survey, 2020*

The result presented in the table above shows the responded feedback of the issue that Customer satisfaction with our mobile banking service is increasing from time to time. In which it shows 38.21% and 43.09% of respondents strongly agreed and agreed respectively. While Only 0.81% of respondents strongly disagreed and 13.01% disagreed on the statement. The rest 6 respondents, 4.88% of respondents, remain neutral on the issue. It can be interpreted that customer satisfaction with our mobile banking service is increasing from time to time.

**Table 4.5.5 Customer request for mobile banking service is increasing from time to time**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Strongly Disagree</b>				
<b>Disagree</b>	11.00	8.94	8.94	8.94
<b>Neutral</b>	5.00	4.07	4.07	13.01
<b>Agree</b>	41.00	33.33	33.33	46.34
<b>Strongly Agree</b>	66.00	53.66	53.66	100.00
<b>Total</b>	123.00	100.00	100.00	
<b>Mean</b>				4.3
<b>Standard Deviation</b>				0.9

*Source: SPSS output of own survey, 2020*

The result presented in the table above shows the responded feedback of the issue that the banks request by customers for mobile banking is increasing through time. In which it shows 53.66% and 33.33% of respondents strongly agreed and agreed respectively. While no one strongly disagreed and 8.94% disagreed on the statement. The rest 5 respondents, 4.07% of respondents, remain neutral on the issue. It can be interpreted that the banks request by customers for mobile banking is increasing through time.