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**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF BUSINESS AND ECONOMICS**  
**DEPARTMENT OF MASTER OF BUSINESS ADMINISTRATION**

**The Challenges and Prospects of E-Banking System in Commercial Bank of  
Ethiopia: A Case Study of CBE-Birr Agent banking**

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**Advisor: Alem Hagos (PhD)**

**A Thesis Submitted to Partial Fulfillment of the Requirement for the Award of  
Master of Business Administration (In Finance)**

**June, 2020**

**Addis Ababa, Ethiopia**

### **Declaration**

I, Hana Tilahun Demeke, declare that this thesis entitled “**The Challenges and Prospects of E-Banking System in Commercial Bank of Ethiopia: A Case Study of CBE-Birr Agent banking**” is my original work prepared under the guidance of my advisor Alem Hagos (PhD). It hasn't been presented for degree in any other university and that all sources of materials used for the thesis have been duly acknowledged.

Signature: \_\_\_\_\_

Date : \_\_\_\_\_ June, 2020 \_\_\_\_\_

Hana Tilahun

### **Certification**

Here with I, state that, Hana Tilahun Demeke has been carried out this research work entitled **“The Challenges and Prospects of E-Banking System in Commercial Bank of Ethiopia: A Case Study of CBE-Birr Agent banking”** under my supervision. This thesis paper has been submitted to Addis Ababa University, College of Business and Economics.

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Date: June, 2020

**ADDIS ABABA UNIVERSITY  
COLLEGE OF BUSINESS AND ECONOMICS  
GRADUATE PROGRAM**

**The Challenges and Prospects of E-Banking System in Commercial Bank of Ethiopia: A Case Study of CBE-Birr Agent Banking**

**BY: Hana Tilahun-GSE/2223/09**

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**June, 2020**

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***Abstract***

*This research intends to examine the challenge and prospects of e-banking system in Commercial Bank of Ethiopia, specifically focusing on CBE-Birr agent banking service. To achieve this objective and answer the research questions, the researcher adopts both qualitative and quantitative research approaches. The study was conducted based on the data collected from four branches of commercial bank of Ethiopia: Finfine, Gofasefer, Nifas-Silk, and Senga-Tera. To select survey respondents (employees, customers and agents) from the selected branches, proportional random sampling method was applied. The collected data was analyzed using descriptive and exploratory methods of data analysis. The study found that organizational factors/attributes (system quality, service quality, security, institutional capacity, innovativeness, reachability, and support system), environmental factors (access to internet, access to power, network stability, institutional and legal supports), and customer-related factors (exposure to new technology and risk taking behavior) determines the challenges as well as prospects of adopting agent banking services. The response gathered from agent banking providers (bank and agents) and service users (customers) show that there are limitations related to system quality, service quality, security, support system, access to power, network stability, exposure to new technology and risk taking behavior of customers. Any effort by the bank to promote adoption and expansion of CBE-Birr agent banking service should find solutions to such limitations and challenges. The study also revealed that government's commitment to support the sector coupled with the nature of CBE-Birr agent banking, innovativeness, reachability, and problem-solving are the main contributing factors and prospects for wider adoption of CBE-birr and related agent banking services. Therefore, the study recommend to the bank to utilize these supports and enabling factors to deal with challenges of adoption and use of agent banking service/products.*

***Key words: Adoption, CBE-Birr, Agent banking, Challenge and prospects***

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**List of Acronyms**

**A.A:** Addis Ababa

**ATM:** Automated Teller Machine

**AVR:** Automated Voice Response

**CBE:** Commercial Bank of Ethiopia

**E-Banking:** Electronic Banking

**FDRE:** Federal Democratic Republic of Ethiopia

**FSA:** Financial Services Authority

**ICT:** Information and Communication Technology

**IDT:** Innovation Diffusion Theory

**IS:** Information System

**IT:** Information Technology

**MB:** Mobile Banking

**NBE:** National Bank of Ethiopia

**PIN:** Personal Identification Number

**POS:** Point on Sale

**S.C:** Share Company

**SM:** Success Model

**SPSS:** Statistical Package for the Social Sciences

**TAM:** Technology Acceptance Model

**TPB:** Theory of Planned Behavior

**TRA:** Theory of Reasoned Action

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## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of the Study**

In the modern banking system, one crucial innovation technological advancement has brought is the introduction of Electronic banking (E-banking). Traditional banking was characterized by physical decentralization, with branches scattered around populated areas to give customers easy geographical access (Ainin et.al, 2005). According to Lockette and Littler (1997), physical banks assure customers that their banks have substantial resources and guarantee the security of their savings. However, technology is fast-growing making it difficult for the traditional banking system to compete favorably. With the advent of e-banking, the physical decentralization of bank branches has been reduced; customers not necessarily need to be physically present in the banking hall but can bank virtually or by other electronic means.

E-banking has become increasingly prevalent and employed by many financial institutions to reduce costs associated with having personnel serve customers physically, shorten processing periods, increase speed, improve the flexibility of business transactions and provide better service (Shih and Fang, 2004). Also, with the rapid growth of other types of electronic, largely internet-based services; there has been increased interest in e-banking services. Both the academic and popular literature forecasted the rapid growth and significant impact of e-banking on all types of markets (Nielsen, 2002). E-banking is nothing but e-business in banking industry. It may also be referred as internet banking. The computer applications are paramount concern to the banks in today's business environment and internet has become the major platform for all financial, banking and commercial transactions in the present (Magembe and Shemi, 2002).

The rapidly growing information and communication technology is knocking the front-door of every organization in the world, where Ethiopian banks would not be exceptions. In Ethiopia, however, cash is still the most dominant medium of exchange, and electronic payment systems are at an embryonic stage. In the face of rapid expansion of electronic payment systems throughout the developed and the developing world, Ethiopia's financial sector cannot remain an exception in expanding the use of the system. While E-banking has improved efficiency and

convenience, it has also posed several challenges to the regulators and supervisors (Uppal and Jatana, 2007).

Commercial bank of Ethiopia is the first bank in Ethiopia to introduce Automated Teller Machine (ATM) service for local users. Currently, the bank started agent banking service since 2017 G.C. Agent means a person engaged in a commercial/business activity and has been contracted by a financial institution to provide the services of the financial institution. Agent banking means the conduct of banking business on behalf of a financial institution through an agent using various service delivery channels (NBE directives no FIS /01/2012).

Agent banking service improves the bank's geographical coverage and competitiveness and this greater level of convenience help the customers to access banking service through agents of the bank. And, it has enabled banking institutions to contend more effectively by extending their products and services beyond restriction of space and time through established third party with the application of technology. However, the adoption of agent banking system is a recent phenomenon in commercial bank of Ethiopia. Therefore, this study is intended to examine how organizational factors (system quality, service quality, security, innovativeness, reach ability, support system, and staff profile), environmental factors (access to internet, access to power, network stability, support institution, and legal issue), and customer factors (exposure to new technology and risk taking behavior) affect the adoption of agent banking services in CBE. Therefore, the study assesses what challenges and what drives or promotes adopting the system.

## **1.2 Statement of the Problem**

The adoption rate and use of e-banking products vary from bank to bank and even branch to branch within the same financial institution. More importantly, it is crucial to note that customers are demanding e-banking services and they tend to use the service as a criterion to compare banks and branches. During the past five to ten years, Commercial Bank of Ethiopia (CBE) has taken a number of measures to improve the service delivering capacity, efficiency, service quality and accessibility. Such efforts and processes were supported by the introduction and implementation of improved banking technologies, practices, and systems. To this purpose, the introduction of e-banking system and other related products are notable mentions. Despite CBE's

effort to modernize the system through the introduction of e-banking, the effectiveness, prospects and challenges associated with adoption of e-banking has not been well-researched. Limited number of scholars have examined the prospects and challenges of e-banking system in the context of Ethiopia: to mention a few Gardachew (2010), Michael (2013), Mattewos (2016), Kassahun (2016), Tilahun (2017), Tamirat (2017) , Henos (2018), Yikeber (2018) and Yeshitila (2019).

Although some studies have been conducted related to agent banking, the previous studies put together all agent banking in one and did not make study on each services. For example, recent study done by Henok (2018) on challenges and prospects of agent banking: A case study of M-Birr and CBE-Birr and he fails to study on CBE-Birr agent banking all alone. Another study on challenges and prospects of mobile and agent banking adoption in Ethiopia banking industry done by Yikber (2018) also fails to made study on CBE-Birr agent banking all alone. Even if there is study on the same title by Yeshitila (2019) “Assessing opportunities and challenges of CBE-Birr mobile money service: Case study on commercial bank of Ethiopia” the study mainly focused on customers’ intention to use CBE-Birr Mobile money service and he fail to show service provider (bank) and agents’ intension about the challenges and prospects of CBE-Birr agent banking. Since CBE is the largest bank in Ethiopia and all new products firstly started in the bank than other banks, studying the main factors behind the adoption and expansion of e-banking new products would have paramount importance to the modernization of the entire banking industry. Therefore, the study focuses on one of agent banking systems called CBE-Birr.

In addition, recent studies conducted by Yeshitila (2019), Yikeber (2018) and Henos (2018), they have their own limitations in methodology and concept. For example, Yeshitila (2019) mainly focused on and collect data from customers of CBE. Henos (2018) used data only from customers of five branches of commercial bank of Ethiopia who are active users of mobile banking and Yikeber (2018) used data from purposively selected e-banking staffs of the six banks commencing mobile and agent banking; Commercial bank of Ethiopia, Dashen Bank, United Bank, Lion International Bank, Wegagen bank and Cooperative Bank of Oromia. However, both studies fail to examine the opinion and perspectives of employee, customers and agents together. Therefore, to address such gap, the researcher emphasized on the main

underlying factors which constrain, motivate, and incentivize the adoption of agent banking at the level of organization (CBE), agents and user (customer).

### **1.3 Research Question**

Knowing of the problems stated, the study tried to assess the adoption and implementation of agent banking or CBE-Birr service in commercial bank of Ethiopia and seek to answer the following research questions:

- 1) What are the critical factors for expansion of CBE-Birr agent banking?
- 2) What are the challenges/ barriers of CBE-Birr agent banking?
- 3) What are the opportunities/prospects due to the expansion of CBE-Birr agent banking?

### **1.4 Objective of the Study**

#### **1.4.1 General Objective**

The main objective of the study is to investigate the challenges and prospects of CBE-Birr agent banking system in Commercial Bank of Ethiopia.

#### **1.4.2 Specific Objective**

The specific objectives of this study are to:

- 1) Identify the critical factors for expansion of CBE-Birr agent banking
- 2) Assess the challenges/barriers of CBE-Birr agent banking.
- 3) Explore opportunities/prospects associated with the expansion of CBE-Birr agent banking.

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

#### **1.5.1 Scope of the Study**

The scope of this study is delimited to the assessment of the challenges and prospects of e-banking service in selected district and branches of CBE which are located in Addis Ababa region. There are four districts in Addis Ababa: South, North, East, and West. These four district

branches are classified into two regions: Addis Ababa region branches and outline branches. This study specifically focused on Addis Ababa region branches under South Addis Ababa district.

### **1.5.2 Limitation of the Study**

Although Commercial Bank of Ethiopia is scattered all over the country, this paper specifically focuses on CBE Addis Ababa region. The focus on Addis Ababa may hide some of the challenges and prospects of CBE-Birr agent banking originate from those branches operating outside of Addis Ababa. Therefore, this may somehow affect the effort to get a full picture about the issues under study.

### **1.6 Significance of the Study**

In many ways, the findings of this paper are vital and add-value to the existing literature regarding agent banking service provision. Firstly, it provides evidence related to key challenges and prospects of e-banking system from the point of view of CBE, customers and agents. It identifies the technical and operational challenges of agent banking in CBE and suggests ways by which they could be tackled. This can also provide inputs for decision makers (e.g., branch managers), risk managers (e.g., insurances), regulators, and policy makers (National Bank of Ethiopia). Furthermore, the outcome of the study is expected to assist other researchers for further studies in the area of e-banking.

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

The study is organized into five chapters. The first chapter includes background of the study, statement of the problem with research question, research objectives, scope, significance and limitations of the study. Chapter two reviewed the literature relevant to the concepts and applications of e-banking system. The third chapter covered the research methodology and design. Chapter four is devoted to data analysis, discussion and interpretation of key results. Finally, chapter five will provided the summary, conclusion and recommendation.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Types of E-banking**

There are different types of e-banking. Some of these types are: Internet Banking, Telephone Banking, Automated Teller Machines (ATM), Point of Sale (POS), Mobile Banking and Agent Banking.

#### **Internet Banking**

According to Thulani et.al (2009), internet banking refers to systems that enable bank customers to get access to their accounts and general information on bank products and services through the use of banks website, without the intervention or inconvenience of sending letters, faxes, original signatures and telephone confirmations. According to them, for those that have access to the internet and a computer that one needs to do is to proceed to the banks website and login. This gives easy access to the person's accounts and this enables the person to clearly see transactions that have occurred within his/her accounts.

#### **Telephone Banking**

Tele banking (telephone banking) can be considered as a form of remote or virtual banking, which is essentially the delivery of branch financial services via telecommunication devices where the bank customers can perform retail banking transactions by dialing a touch-tone telephone or mobile communication unit, which is connected to an automated system of the bank by utilizing Automated Voice Response (AVR) technology (Balachandher et al., 2001). It allows consumers to phone their financial institutions with instructions to pay certain bills or to transfer funds between accounts (Federal Trade Commission, 2006).

#### **Automated Teller Machine (ATM)**

ATM also called 24-hour tellers are electronic terminals which give consumers the opportunity to bank at almost any time (Federal Trade Commission, 2006). ATM banking is described as a combination of a computer terminal, record-keeping system and cash vault in one unit, permitting customers to enter the banks book keeping system with a plastic card containing a

Personal Identification Number (PIN) or by punching a special code number into the computer terminal linked to the banks computerized records 24 hours a day (Rose, 1999).

### **Point of Sale (POS)**

An Electronic Funds Transfer at the Point of Sale (POS) is an online system that allows customers to transfer funds instantaneously from their bank accounts to merchant accounts when making purchases (at purchase points). A POS uses a debit card to activate an Electronic Fund Transfer Process (Chorofas, 1988). Point-of-Sale Transfer Terminals allow consumers to pay for retail purchase with a check card, a new name for debit card. This card looks like a credit card but with a significant difference, the money for the purchase is transferred immediately from your account to the store's account.

### **Mobile Banking (MB)**

Mobile banking can be defined as an occurrence when customers access a bank networks using cellular phones, pagers, personal digital assistants, or similar devices through telecommunication wireless networks (Segun, 2011).

### **Agent banking**

A banking agent is a retail or postal outlet contracted by a financial institution or a mobile network operator to process clients' transactions. Rather than a branch teller, it is the owner or an employee of the retail outlet who conducts the transaction and lets clients deposit, withdraw, and transfer funds, pay their bills, inquire about an account balance, or receive government benefits or a direct deposit from their employer. Banking agents can be pharmacies, supermarkets, convenience stores, lottery outlets, post offices, and many more (NBE, 2015). CBE-Birr is a mobile and agent banking service provided by commercial bank of Ethiopia. It is an electronic wallet or payment service operated under financial regulation via a mobile device. It can be used on both smart phones and basic featured phones (CBE news, 2017).

## **2.2 Benefit of E-banking**

The interaction between user and bank has been substantially improved by deploying ATM, internet banking, and more recently, mobile banking (Claessens et al., 2002). 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: some of the benefits are described as follows.

### **2.2.1 Benefits to Customers**

E-banking leads to higher level of customers' satisfaction and retention (Polatoglu and Ekin, 2001). It 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 the 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 will be another advantage to the customers. Thus the e-banking provides sophisticated services to the customers (Devamohan, 2002).

### **2.2.2 Benefits to Banks**

Banks can benefit from lower transaction costs as e-banking requires less paper work, less staffs and physical branches (Cheng , 2006). The first benefits 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 the 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) are as follow:

- ✓ Reduction of the cost for printing cash notes and its related distribution
- ✓ Enhancement of Aggregate Deposit
- ✓ Banking the un-banked
- ✓ Increasing the potential for hard currency generation

### **2.3 Agent banking**

Agent banking means the conduct of banking business on behalf of a financial institution through an agent using various service delivery channels (NBE directives Number FIS /01/2012). Agent banking is a service outlet contracted by financial institution or mobile network operator to process client transactions rather than a bank teller. It is the owner or an employee of the retail outlet who conducts the transaction and lets its client deposit, withdraw and transfer funds, pay their bills, inquire about an account balance, or a direct deposit from their employer, or receive government benefits. Banking agents can be pharmacies, super markets, conveniences stores, lottery outlets, post offices and so on (Leyman *et al*, 2006). Agent banking is a kind of branchless banking which is significantly cheaper alternative to conventional branch-based banking that allows financial institutions and other commercial players to offer financial services outside traditional bank premises (Hassen, et al, 2011).

Agent banking is a new conception in Ethiopia but practiced globally as a very extensive distribution and marketing channel for financial inclusion sources for the bank performance and profit. CBE-BIRR is an agent banking service introduced by Commercial Bank of Ethiopia in accordance with NBE directive number FIS/01/2012. It was in development phase for long period of time and became live in 2017. Like other agent banking service providers, CBE-BIRR customers can transfer money to subscribed or unsubscribed users, deposit and withdraw cash from agents, buy airtime directly without scratching mobile cards and pay for goods and services. Commercial Bank of Ethiopia has more than 1,500 branches in Ethiopia and CBE-BIRR is taking advantage of this huge number of networked branches to recruit new agents and customers.

## **2.4 Challenges and Prospects of Agent banking/CBE-Birr**

Agent banking in Ethiopia is a recent banking product that given by different commercial banks in the country and commercial bank of Ethiopia is one of it to give the service by giving its name CBE-Birr. In the fact that this is a new banking service, it needs studies on challenges and prospects to adopt it. Therefore, the researcher identified organizational factor, environmental factor, and customer factor to study agent banking challenges and prospects.

### **2.4.1 Organizational Factor**

Researcher identified factors related to the organizational context that play a crucial role in technology adoption and some factors in this category are arguably more influential than others. The seven organizational factors relevant for agent banking adoptions included in this study are:

#### **System quality**

System quality is the desirable characteristics of an information system. For example ease of use, system flexibility, system reliability, ease of learning, intuitiveness, sophistication, response time (Petter *et al*, 2008). Ease of use is the degree to which the users perceived that by using IS they need less effort to use the system. In addition a quality of IS needs to be flexible enough in order for the user to use the system .Flexible IS means the ability to customize the system based on the conditions and the internal and external changes .The lower the flexibility of the system, the lower the user's satisfaction which later impacts the user's engagement to the system. Moreover

reliability is important indicators of quality IS .Reliability is defined as degree of which the users can trust the IS. In addition, ease to learn is important indicators of quality IS. Ease to learning is the degree to which users perceived that the system easy to learn. As well as system features of intuitiveness, sophistication, and response times are important an indicator of quality IS. Response time is the length of time taken by a system to response to an instruction. Longer system response times may cause lower satisfaction of users.

### **Service Quality**

E-banking system provides appropriate client support likely to yield a suitable customer experience hence encouraging repeated use and ultimate success. Parasuraman *et al.* (1985) highlights the main requirements for delivering high services in order of their importance as follows: According to them, the service delivery must be reliable to the customer. They defined reliability as the ability to perform the promised service dependably and accurately. The second key requirement for service delivery is the concept of responsiveness which is the willingness to help customers and to provide prompt services. The third variable according to them is assurance. The authors defined assurance as the knowledge and courtesy of employees and their ability to convey trust and confidence. The fourth attribute of a quality service delivery is the element of empathy which is the provision of caring, individualized attention to customers. Parasuraman *et al.* (1985) last variable of good service delivery is the concept of tangibility. The authors define tangibility as the appearance of physical facilities, equipment, personnel, and communication materials.

### **Innovativeness**

Innovation occurs as a result of successful implementation of creative ideas within an organization. Creativity, on the other hand, is the development of a novel and useful idea in any domain and is a seed for all innovations ( Amabile T.M., 1997).

Levels of productivity, employment, revenues, or the betterment of competitive position can be used to measure innovativeness. Further measures may include the examination of distinctive competencies, or of quality. Such indicators, however, depend on the context of operations, market conditions, actions undertaken by competition, economic and political situations in the

region, reputation of the company, and customer loyalty. These may all have a strong impact on results of “indicating” of innovation. Quantification of these processes is almost impossible in light of diversity of possible contextual factors. (Katz S, 2006). Interrelationships between and among these factors of innovativeness are not documented, and the measurement of innovation processes may fail to provide evidence regarding casual relationships.

### **Security**

According to Ruby and Pankaj (2011), customers should never share personal information like PIN numbers, passwords etc with anyone, including employees of the bank. It is important that documents that contain confidential information are safeguarded. PIN or password mailers should not be stored, the PIN and/or passwords should be changed immediately and memorized before destroying the mailers. Customers are advised not to provide sensitive account-related information over unsecured e-mails or over the phone. Take simple precautions like changing the ATM PIN and online login and transaction passwords on a regular basis. Also ensure that the logged in session is properly signed out.

According to FSA (2010), Security issues are sources of concerned for everybody more especially as it concerns banking industry. E-banking are prone to security breaches such as fraud, theft of commercially sensitive or financial information, defacement of web sites or denial of service and flaws in system design and/or set up leading to security breaches. All these security breaches have potentially serious financial, legal and reputational implications.

### **Reachability**

Most financial institution closes their doors early, but with agents, for as long as the business premise remains open, you can do your transactions, and this gives flexible hours. This has proven to be very convenient especially for people who are busy during the day. The other benefits to customer are financial institution agents have proven to be cost-effective especially to people who live in rural areas that are far away from banks (Veniard, 2010).

### **Support system**

National ICT infrastructure is a major factor that supports the adoption of E-banking as the case for other E-commerce initiatives. Without an adequate development level and quality of a nation's ICT infrastructure, new technology adoption and use cannot do well (Efendioghu 2004 & Scupola 2003). According to Cohen (2002), the ongoing global expansion of a high-tech telecommunications infrastructure, coupled with the increased availability of advanced information technology services, is having an impact on almost every emerging industry. Emerging industries are newly formed or reformed industries that have been created by technological innovations, shifts relative cost relationships, emergence of new consumer needs or other economic and sociological changes that evaluate a new product or service to the level of a potentially viable business opportunity.

### **Staff profile**

Employee means a chief executive officer, a senior executive officer or any other person who is appointed or hired by a bank to carry out its day-to-day operational activities (FDRE proclamation no 592/2008)

#### **2.4.2 Environmental factor**

Environmental factors that identified by researcher that play a crucial role in technology adoption and some factors in this category are arguably more influential than others. The five environmental factors relevant for agent banking adoptions included in this study are:

#### **Access to Internet**

For availing the benefits of online banking one should have access to the Internet. For this purpose, he should own a desktop, laptop device, and an Internet connection. This reason limits the usage of online banking, as sometimes it's almost impossible to have an Internet connection, to serve the purpose. One might also face problems if the Internet connectivity breaks down during an ongoing transaction, or if someone eavesdrop his user name and password, while accessing it in a cyber café (Ruby and Pankaj, 2011)

When the internet facilities enter into the banking sector, the inter-bank activities are linked through internet, the concept of “Electronic Banking or Net Banking” is also introduced. Electronic banking enables a customer to do banking transactions through the bank’s website in the internet. It is more or less like bringing the bank to customer’s computer, at the place and time of customer’s choice (Devamohan, 2002).The banking industry is entering into new phenomena of unprecedented form of competition supported by modern information and communication infrastructure especially through the use of internet (Shittu, 2010).

### **Access to power**

The inconsistent availability of power supply in the country is one of the challenges for the implementation and continuous availability of Agent Banking service. Consequently, utility disruptions or software or hardware failures can cause a lack of service availability and information loss. Financial Institution without business continuity and disaster recovery planning may be on risk of non availability of services in case of catastrophic events, power breakdowns, fire etc and natural disasters (flooding, earthquake etc) (Flaming et. al, 2011).

### **Network stability**

Stability resembles intelligence: easy to imagine and hard to define. If a network has violently changing properties, it is most probably not very stable. The network usually dissipates the disturbing effect, which means that the change is distributed over various elements of the network and relaxation occurs.

Agent banking is a retail or postal outlet contracted by a financial institution or a mobile network operator to process client’s transactions. Rather than a branch teller, it is the owner or an employee of the retail outlet who conducts the transaction and lets clients deposit, withdraw, and transfer funds, pay their bills, inquire about an account balance, or receive government benefits or a direct deposit from their employer. Banking agents can be pharmacies, supermarkets, convenience stores, lottery outlets, post offices and many more (Kumar, Nair, Parsons, & Urdapilleta, 2006).

### **Support institution**

Government and other private institutions can promote financial inclusion. Support of government, directly or indirectly reflect the effectiveness of financial institutions effort to bring in underprivileged people to the main stream financial inclusion system. Government can either directly or indirectly affect the adoption of electronic banking in terms of creating a favorable environment and impetus for banking institutions and their customers so that the services can be diffused with the community (Iacovou, 1995).

### **Legal issues**

In the countries studied, the banks and non-banks involved undoubtedly devoted significant effort to researching the relevant laws and regulations before investing in agent-assisted branch-less banking approaches, and in most cases, they also consulted with regulatory authorities to understand better how authorities were likely to apply existing rules to the new model. But because regulators have had little experience with both models and are still adjusting existing rules to address them (or have yet to begin this process), some level of legal and regulatory uncertainty and ambiguity for both the banks and to a lesser extent also for retail agents remains (Makin, 2012).

In 2012, NBE has developed a directive called Regulation of Mobile and Agent Banking Services Directives No. FIS /01/2012 which effective date of January 01, 2013. As per the directive, financial institution that intends to provide mobile and agent banking service shall seek approval from the National Bank. And it shall enter into a written contract with third party service providers such as technology service providers and telecom companies and such contracts shall clearly define the roles and responsibilities of each party in the provision of mobile and agent banking services.

At the time of application financial institution shall submit at least the following:

- ✓ Business plan
- ✓ Operational Policy and Procedure Manual
- ✓ Risk Management Policy and Procedure

- ✓ Board minutes showing the board of directors of specific financial institution has reviewed and endorsed the mobile and agent banking services to be provided
- ✓ Agent due diligence policy and procedure and declaration of agent suitability assessment signed by a chief executive officer or chairperson of board of directors of a financial institution
- ✓ Penalty matrix that shall be imposed on agents for possible violations of agreements and malpractices.
- ✓ Agreement entered with third parties including technology service providers and telecom companies.

### **2.4.3 Customer Attribute**

Customer factors, exposure to technology and risk taking behavior, identified by researcher in the following way

#### **Exposure to technology**

According to Suoranta and Mattila (as cited in Gichana, 2013), as technology continues to be an important element in financial service delivery, understanding the factors that influence the behavior of consumers towards using electronic banking technologies will continue to be an important area of research.

While carrying out online transactions there are many instances when the banker might need help of a representative, from the bank. The brick and mortar banks have customer care representatives who are easier to talk to, but in case of online banking, in which the banks provide customer care numbers, the bankers find it difficult to get their problems solved. Sometimes there is congestion in the network and they have to wait for sometime, in order to talk to the bank's representative at the other end. Once the line is put through, one may either get somebody helpful and knowledgeable or may not, leaving him in a baffled and confused situation. Although online banking involves risk and imposes certain problems, there are many facilities provided by it. To avail these benefits, it is important for one to educate himself about the risks, and the steps he can take to protect his financial information. It is also necessary to

understand the rights and responsibilities as an online banking consumer, in order to make a difference to one's own financial well-being (Ruby and Pankaj, 2011)

### **Risk taking**

E-banking poses some different risks as compared to the traditional banking. These risks are more pronounced in the case of Internet banking. Firstly, the risk of technological changes has to be carefully watched. This is essential to update technologies and remain cost effective and customer friendly. The technologies are generally obtained from outside parties. The banks have to be careful about risks involved in such agreements. The security is an important area of risk. In fact it will be very crucial for the expansion of Net Banking. Another important area will emerge out of cross-border implications as 'Net Banking' breaks the geographical boundaries. Imposing regularity conditions on such transactions will be a difficult task (Ruby and Pankaj, 2011).

As per NBE directives Number FIS /01/2012, the technology used for delivery and agent banking services must be secure and should at least ensure the following:

- ✓ *User Risk*: user awareness on their information security including how to secure Personal Identification Number (PIN) and other security features.
- ✓ *Infrastructure and Software Application Risk*: It include information security standard, application error, message type and message handling, PIN and user authentication, financial and non financial data storage, availability of services and backup, confidentiality of user information, data and transaction integrity, maintenance of audit trails, aggregation of duties, and authorization controls.
- ✓ *Communication Media Risks*: It includes communication protocol risks, data storage risks, availability and quality of service.
- ✓ *Agent and Third Party Service Provider Risks*: It includes data Encryption and message integrity, data storage and backup, physical and logical access to system, and authenticity and non-reputability of communication.

### **2.5 Technology Acceptance Theories and Models**

Various researchers in the field of information systems have ventured to investigate the theories and models that have power in predicting and explaining behavior across usage domains. Majorly, these studies focus on how to promote usage by examining what encourages or hinders technology adoption and usage. Since every prominent technology acceptance theory has different premises and benefits, it is vital to analyze some of them and consider how they may contribute towards a sound basis for creating a model that could be applicable to e-banking.

### **2.5.1 Innovations Diffusion Theory (IDT)**

IDT is concerned with how innovations spread and consists of two interlinked processes notably the diffusion and the adoption process. IDT gradually evolved towards a polished innovation-decision process introduced by Rogers (Rogers 1962, 1983, 1995; Rogers & Shoemaker 1971). The innovation-decision process is one through which an individual or other decision-making entity passes through the critical stages of knowledge of an innovation; forming an attitude toward the innovation; making a decision to adopt or reject; implementation of the new idea and confirmation of this decision (Rogers 1995).

Innovation Diffusion Theory: The first theory taken in consideration is the Innovation Diffusion Theory (IDT) that explains individuals' intention to adopt a technology as a modality to perform a traditional activity. The theory is developed by Roger's (1983). The critical factors that determine the adoption of an innovation at the general level are the following: relative advantage, compatibility, complexity, trial ability and observe ability Rogers (1995)

### **2.5.2 Theory of Reasoned Action (TRA)**

This theory was developed by Ajzen and Fishbein (1980) and forms the backbone of studies associated with attitude-behavior relationships. The model contends that an individual's actual behavior is determined by the person's intention to perform the behavior. TRA postulates that beliefs influence attitude and social norms which in turn shape a behavioral intention that ultimately guides or even dictates an individual's behavior. Intention is the cognitive representation of a person's inclination towards a particular conduct and is considered to be the immediate antecedent of behavior.

### **2.5.3 Theory of Planned Behavior (TPB)**

TPB evolved from the Theory of Reasoned Action, with an additional construct termed as perceived behavior control. TPB recognizes that behavior can be deliberate and planned. Therefore the extra construct aids to account for situations where an individual lacks the control or resources necessary for carrying out the targeted behavior freely (Ajzen, 1991).

For TPB, the intention is determined by three core constructs namely; attitude toward the specific behavior; subjective norms and perceived behavioral control. Perceived behavioral control refers to people's perceptions of their ability to perform a given behavior and influences intention (Ajzen, 1991). TPB perceives human behavior as guided by three kinds of beliefs notably behavioral beliefs, normative beliefs and control beliefs.

#### **2.5.4 Technology Acceptance Model (TAM)**

The Technology Acceptance Model (TAM) was developed from TRA as a theoretical basis for specifying the causal linkages between perceived usefulness, perceived ease of use, users' attitudes, intentions and actual usage behavior (Davis 1989). Davis (1989) developed and validated better measures for predicting and explaining usage which crystallized on two theoretical constructs namely perceived usefulness and perceived ease of use as the fundamental determinants of system use. Hence, TAM replaces determinants of attitude of TRA with perceived usefulness and perceived ease of use.

#### **2.6 IS Success Models**

Organizations and institutions invest large amounts of money and time in various information systems. IS investments are typically justified by the expected increase in economical effectiveness. The success of the investments is a critical concern of both academic and practitioner communities (Sylla and Wen, 2002).

Managers are particularly eager to recognize the benefits achieved by IS investments. Though various approaches for measuring the success of IT investments exist, IS related benefits are still difficult to quantify owing to multiple factors that influence organizational outcomes. The measurement of IS effectiveness and success remains a highly complex issue. Sector specific models identify distinct critical success factors or new success dimensions within a restricted context.

### **2.6.1 Delone&McLeon IS Success Models**

A prominently cited model for analyzing multiple dimensions of IS success is the one developed by Delone & McLeon (1992). This model is based on Shannon and Weaver's (1949) pioneering work on communication and Mason's (1978) extensions to it. The original model is a comprehensive framework with six interrelated dimensions of success namely; system quality, information quality, system use, user satisfaction, individual impacts, and organizational impacts.

Though the original model has been used in a large number of studies, many modifications and improvements to the model have been suggested (Seddon, 1997; Wilkin and Hewitt, 1999). Rai et al 2002) empirically and theoretically assessed Delone& McLean's (1992) and Seddon's (1997) models of IS success. Their findings supported Delone & McLean's focusing on integrated IS success models. Their findings also supported Seddon's (1997) three construct categories namely system and information quality, general perceptual measures about net benefits of IS use and IS behavior.

Ten years after the original model, DeLone and McLean revisited their own model and made slight modifications to it. Delone & McLean's (2003) aver that IS quality has three major dimensions notably information quality, system quality and service quality. Information quality is related to the semantic level and the information product characteristics such as accuracy, meaningfulness, and timeliness. System quality describes the technical level characteristics of the information system. Service quality has to do with the information system support level where the focus is not on the product but on the services like end-user support which affect "use" and "user satisfaction". The updated model captured the service quality dimension to reflect the importance of service and support in successful systems. All quality dimensions of the model influence both user satisfaction and intention to use the system. Use and user satisfaction bring certain net benefits that affect the future use and satisfaction either positively or negatively if technology provides features and support that fit the requirements of a task.

## **2.7 Empirical Review**

The researcher tried to review related researches works pertaining to the topic in order to demonstrate through understanding of the research topic. Based on main findings of each research works under consideration, the review tries to make a link between the Challenge & prospects of electronic banking service in commercial bank of Ethiopia which mainly focuses on agent banking.

Lehman (2010) “Operational Management Challenges of Agent Banking System” has studied operational challenges of agent banking system in a global level focusing on the challenges on building agent network, managing of liquidity and managing of the channel. The study finds out that how building consistent customer experience is important towards bringing success in agent networking indicating the success of Safaricom-Kenya (M-PESA) and the failure of MTN Uganda that followed inconsistent customer experience. With respect to liquidity management the study finds out how managing liquidity plays fundamental role in ensuring system viability. In this regard the experience of Vodacom- Tanzania was taken as a real experience which allows Agent Aggregators who perform the task of agent recruitment, managing their floats and transporting cash to the agent. The aggregator receives a flat fee for each new agent and a percentage of the agent commissions which provides an incentive to sign up high-quality agents who will actively transact. From the perspective of channel management, the study finds out that outsourcing or using third parties for agent channel management is recommended since with the expansion of agent network, it would be difficult for providers to manage the business and covers the “last mile” of the distribution chain (Lehman, 2010).

Tilahun (2017) has made study on “Opportunities and Challenges of Agent Banking. The case of selected commercial banks in Ethiopia” the finding confirms that, despite the significant progress registered, the implementation and delivery of agent banking service in Ethiopian banking sector was unsatisfactory due to lack of attention and support of commercial banks, the level of managerial skills, financial networks among banks, telecom network and internet access and awareness creation among the society. It is recommended that commercial banks should facilitate continuous training and awareness creation, enhancement of telecom service and collaboration of institutions to have a technological linkage among them (Tilahun, 2017).

Tamirat (2017) focused his study on “An assessment of factors affecting adoption of agent banking. The case of Lion International Bank S.C. (Agent perspective)”. The findings of the research revealed that major challenges facing up the successful implementation of Agent banking system in the selected bank were trustworthiness of the technology, simplicity, resource, commitment of top level management, training, government support, legal framework, belongingness of Agent and public awareness regarding agency banking system. After due consideration of those findings the researcher recommend on major issues like awareness and customer sensitization, continues training , security and liquidity management for the stakeholders, the bank, the agent, Ethio-telecom and National Bank of Ethiopia in connection with their roles (Tamirat, 2017).

Yikeber (2018) in Ethiopia has made a study on “challenge and prospects of mobile and agent banking adoption in Ethiopian banking industry”. The main objective of the study was assessing the challenge and prospects of mobile and agent banking adoption in Ethiopian banking industry. The study revealed that environmental (lack of adequate ICT infrastructure, poor quality of internet and mobile network, inconsistent power & network supply in rural areas of the country), organizational (lack of support & commitment of top level management, lack of availability of well-trained manpower to build agent network, lack of skill of IT personnel, lack of technical and managerial skill of staffs), and technological (lack of confidence with the security aspect, customer’s fear of risk of new technology innovation, and lack of availability of physical security) are challenges of adopting mobile and agent banking. The study also revealed that, the major prospects of adopting mobile and agent banking classified under perceived ease and perceived usefulness are simplicity to perform banking tasks, easiness to understand and use, friendliness with the existing service offering, improving customer service being a solution for banks closing their doors early, motivates fast small cash movers to put their extra money into the banking system, creating wider market coverage for the bank, increases the productivity of banks, enhance customer service, and accessibility of service without limit of time and place. The study recommended banks to consider technology based competition, regulatory body to issue suitable legal frameworks to ease the adoption of mobile and agent banking system while

the government should support banking sector by investing on ICT infrastructure development and financial (Yikeber, 2018).

Henos (2018) has made study on “Challenges and Prospects of Agent Banking in Ethiopia: the case of M-BIRR and CBE-BIRR” and the result identifies different factors grouped in five constructs of technology acceptance model. These factors and sub-factors are Perceived Economic factor (Cost of using bank account), Perceived usefulness (Actual /practical benefits) Perceived ease of use (illiteracy, Awareness, mobile network quality), Perceived Trust (trust to the bank, trust to the agents, trust to the technology), Perceived Risk (Vulnerability to Errors and Vulnerability to Hackers). Challenges regarding development of agent banking are also discussed with service providers and agents. To this end, different challenges are raised and discussed during the interview including awareness of customers and agents, availability of limited services, NBE regulations and limitations, lack of budget, poor advertisement, illiteracy and mobile network quality (Henos, 2018).

Yeshitila (2019) made study on “Assessing opportunities and challenges of CBE-Birr mobile money service: case study on commercial bank of Ethiopia” The result found that limitation in building effective agent network and lack of reliable customer support service are the main challenges for implementation and expansion of CBE – BIRR mobile money service. The most ranked opportunities identified in this study that large number of respondent agreed on opportunities of implementing and expanding CBE – BIRR mobile money service in commercial bank of Ethiopia is that Commitment of the government to strengthen the banking industry, late adopter opportunities, Increment of educated potential customer and Improvement in the banking habit of the society

## **2.8 Research Gap**

When technology is rapidly growing and the numbers of participant increasing, the banking sector needs up-to-date studies to identify challenge and prospects of the adoption. However, there is quite literature gap and no studies are conducted for commercial bank of Ethiopia. As per the knowledge of the researcher, there is a little research work on agent banking which include commercial bank of Ethiopia. Tilahun (2017) “Opportunities and Challenges of Agent Banking

the case of selected commercial banks in Ethiopia” used employee and agents as a primary source. Henos (2018) “Challenges and Prospects of Agent Banking in Ethiopia: the case of M-BIRR and CBE-BIRR” focused on customer perspective, and Yikeber (2018) study on “challenge and prospects of mobile and agent banking adoption in Ethiopian banking industry” focused on employee perspective. And Yeshitila (2019) made a study on challenge and prospect of CBE-Birr mobile service and focused on customers’ perspectives. This show the previous studies don’t use both customer and employee. Therefore, more studies are still required to assess challenges and opportunity of agent banking in commercial bank of Ethiopia. To bridge the gap towards the literature on agent banking in commercial bank of Ethiopia, this study estimated to contribute its part through identifying the basic challenges and prospects by using both employee and customer perspective.

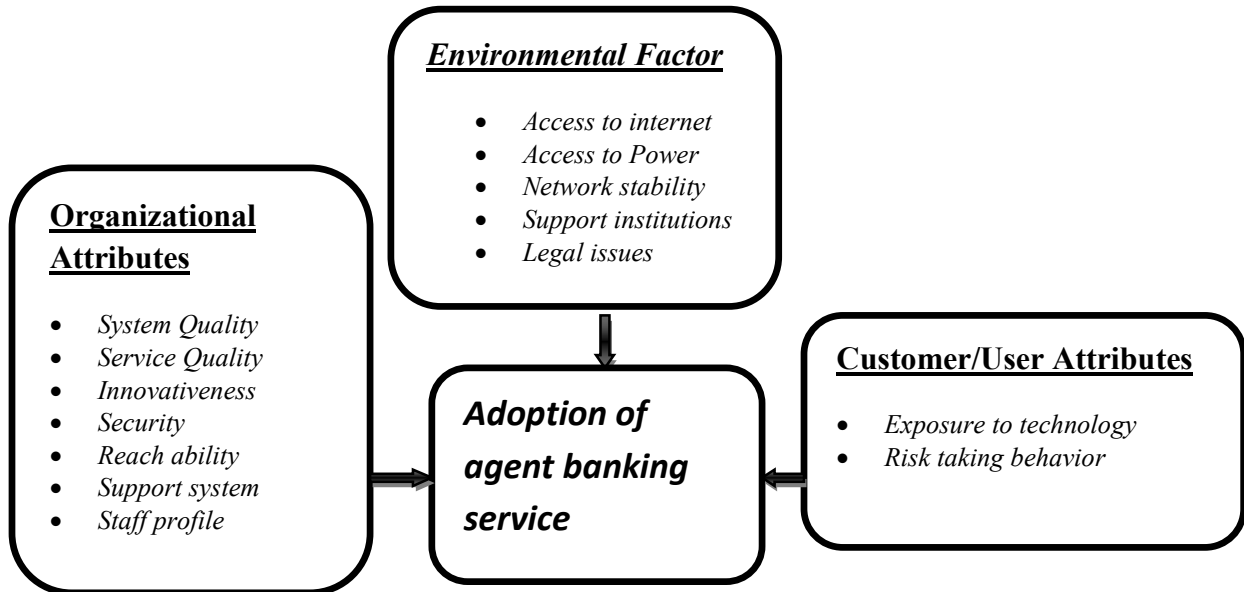
## **2.9 Conceptual Framework**

In the literature, there are many factors that support or limit the adoption and use of e-banking services. For instance, Technology Acceptance Models (TAM) and Success Model (SM) put forward different factors that contribute to the challenges and prospects of using e-banking. These factors include different qualitative and quantitative variables: such as, quality dimension, beliefs, attitude, intentions, usage behavior, usefulness, expected benefits etc. Innovation Diffusion Theory (IDT) is concerned with how innovations spread among users and consists of two interlinked processes notably the diffusion and the adoption process (Adrian et. al, 2016)

Therefore, instead of adopting and relying on a single theory or model, an integrated approach which blends elements from different theories, models and methods better offers more reliable insight to the fundamental question of why e-banking would succeed or fail (Adrian et. al, 2016)

The conceptual framework of this study has been designed based on the framework put forward by Adrian et. al (2016). It shows that the challenges and prospects of e-banking emerge from the way the organization deliver the service (Organizational Attributes), the knowledge, attitude and behavior of the customer ( Customer/User Attributes) and the underlying environment that enables or limits the use of e-banking (Environmental Factor) . The model for e-banking is conceptualized as shown below:

**Figure-1: Conceptual Framework on the Prospects and Challenges of agent banking or CBE-Birr**



*Source: compiled based on Adrian et al. (2016)*

Different factors could affect the adoption of e-banking technologies. Different factor construct in the proposed model described below:

**System quality:** is the principal criterion for judging whether system performance is efficient and flawless in e-banking. A system can be made to order to match the needs of diverse context. A low effort requirement potentially increases transactional probability by boosting usability of the system.

**Service quality:** is very central in attracting customers to e-banking. Key attributes identifiable with service quality include; content quality, currency, understandability, timeliness, and preciseness (Delone & Maclean, 1992).

**Innovativeness:** The scale of features and diversity of use of e-banking system have an influential carriage on the success of a system. Innovation incorporates both informational and transactional components. A system that encompasses multiple transactional functionalities is bound to realize a speedy success. Innovation can be defined as an output (product, device, theory, etc.) that is somewhat new to the place, time, or purpose of its application.

**Security:** poses a significant challenge in e-banking environment. Users are usually apprehensive about the level of security when transacting electronically. Key issues of concern relate to trust, protection of personal and financial data and recovery of transactional information in the event of a failure.

**Reachability:** People tend to use or adopt a technology/improved practice if it is easily accessible. The cost and effort required to access e-banking services should be not high enough that undermine/discourage demand, particularly for those people with limited ability to pay. In the context of e-banking, this can be determined by the power of the internet network. If the network accommodates few numbers of consumers, this will affect the accessibility and reachability of the service.

**Support system and institution:** The access, use and impacts of e-banking technologies are often influenced by the quality of the service offered by support institutions. In a situation where most of the customers are not educated or inadequately trained to use e-banking technologies, the banking sector has huge responsibility to provide information, guidance and quality service to actual and potential customers.

**Staff profile:** The performance of the banking sector relies heavily on the motivation and performance of its employees/staffs. As far as e-banking is concerned, they play key role during the provisions of key e-banking services such as customer registration, effecting transaction, system operationalization, and compliance registration.

**Access to internet and network stability:** The operation and effectiveness of e-banking activities heavily relay on the access to and speed of internet services. The provision of e-banking services needs multi sector engagement, importantly requires telecommunication products and network security. Therefore, e-banking users demand continuous supply of internet facility in such a way that people could have access to their money seven days a week and twenty four hours a day.

**Access to power and key infrastructure:** In the context of Ethiopian financial system, the interruption and fluctuation of electric power supply affects the rate of use and level of trust of

the e-banking service users. The charging facilities and alternative power sources could be considered to improve the reach and reduce the key infrastructural bottlenecks.

**Legal issues and network security:** To win the trust of e-banking service users and ensure maximum level of safety and security, the e-banking service providers such as commercial banks should have a structure which effectively addresses the legal and security issues of current and potential consumers.

**Exposure to technology and risk taking:** Customer's attitude towards risk and uncertainty affects the decision and rate of use of e-banking services. Studies show that often people are conservative to adopt e-banking products and those who are reluctant to use improved practices and technologies are categorized as risk averse. Such risk aversion behavior is affected by different factors, including the level of income and wealth, asset ownership, level of trust on the e-banking product, availability of insurance etc.

## **CHAPTER THREE: RESEARCH METHODOLOGY AND DESIGN**

In this chapter, the researcher briefly examines the research design, data sources, methods of data collection, and method of data analysis.

### **3.1 Research Design**

The researcher has adopted descriptive and exploratory research design to gather information that are relevant to examine the key challenges and prospects of CBE-Birr agent banking system.

### **3.2 Research Approach**

To achieve the objectives of the study and answer the research questions, the researcher had adopted both qualitative and quantitative research approaches. In the qualitative approach, key informant interview shall be undertaken using CBE employees and agents who are involved in e-banking service provision. This has been helpful to gain deeper understanding about agent banking system as well as agent banking. In addition, the researcher has collected quantitative information from e-banking service provider (CBE) and users (customers). As discussed in the later section, the data collected using the two approaches have been analyzed using different methods of analysis.

### **3.3 Data Source and Collection Method/Instrument**

To conduct this research, both primary and secondary data sources and collection methods were used. Primary data have been collected using survey questionnaires and key informant interviews. The questionnaire includes both structured and unstructured questions. The structured questionnaire prepared mainly to address closed-ended type of questions. Accordingly, five-point scale (Likert-scale) questions were asked for respondents and it was helpful for the researcher to know the respondent's feelings and level of agreement. In addition, the respondent chose one option from the given scales that best-fit with the views. The questions were prepared and asked in a language the respondents could easily understand. The unstructured type of questions was prepared in a way for the respondents can explain the reason behind their choices. This enable the researcher gather information without limiting the choice given to the respondents. To gain deeper information, therefore, most of the questions were of open-ended type.

Besides, the researcher also used interview from selected CBE-birr agents, e-payment managers and information technology managers. During the interview, both open and closed-ended question formats were used. Furthermore, secondary data sources such as books, journal articles, previous bank reports, previous bulletins, and CBE official website were used for the study.

### **3.4 Sample Size and Sampling Technique**

The researcher applied two-stage sampling process to select target branches and respondents. At first, the researcher applied cluster sampling method to choose the target district from the four districts (South, North, East and West). Since they are homogenous in service provision as well as branch operations, the researcher have selected South Addis Ababa district for geographical convenience. Under each district, the branches are divided into Grade-1, Grade-2, Grade-3, Grade-4, and special braches. The branch grading system is based on deposit performance, customer base and number of transactions. The special branches have more number of CBE-Birr users and they have better experience in agent banking service delivery. Therefore, this study chooses four of the special branches in South Addis Ababa district: Finfine, Gofa-Sefer, Nifas-Silk and Senga-Tera branches. In selecting respondents from branch, the researcher used proportional simple random sampling.

According to CBE’s electronic payment report in September 2019, there are 8,827 CBE-Birr customers in Finfine, Gofa-sefer, Nefas-Silk and Senga-Tera (see Table 1). From total number of customers, the researcher considers active customers who are using CBE-Birr service for more than one year. It is because the researcher believes that those customers are experienced enough and can have adequate knowledge of CBE-Birr agent banking system.

**Table 1 Distribution of CBE-Birr customers and agent in Special branch of SAAD**

S.No	Branch Name	Total number of CBE-Birr Customers up to Sep, 2019	Total number of CBE-Birr Customers more than one year	Active CBE-Birr Customer more than one year	Inactive CBE-Birr Customer more than one year	CBE-Birr agent up to Sep,2019
1	Finfine	1693	492	105	387	1
2	Gofa Sefer	970	111	34	77	1
3	Nefas Silk	3463	629	117	512	2
4	Sengatera	2701	745	151	594	1

*The Challenges and Prospects of E-Banking System in Commercial Bank of Ethiopia: A Case Study of Agent banking (CBE-Birr)*

Total	8827	1,977	407	1,570	5
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**Source: Based on CBE E-Payment report (Sep, 2019)**

To determine the optimal sample size for the study, the researcher adopted the formula used by Isreal (1992) and Olouch (2012). It is represented as:

$$n = \frac{N}{1 + N * (e)^2} = \frac{701}{1 + 701 * (0.05)^2} \approx 255$$

Where, n= sample size; N = size of population; and e = precision level (0.05)

The total population of employees and customers in Special branches of South Addis Ababa district are obtained from human resource and E-payment departments upon formal request.

Table 2 shows the details regarding the sample of respondent, employees and customers.

**Table 2: Sample Selection and Composition of Sample Respondents**

S.No	Branch Name	Total population in each branch				Sample respondents selected for the study			
		Total number of CBE Employee up to Sep,2019		Active CBE-Birr Customer more than one year		Employee		Customer	
		Freq	%	Freq	%	Freq	%	Freq	%
1	Finfine	90	0.13	105	0.15	33	0.13	38	0.15
2	Gofa Sefer	60	0.09	34	0.05	22	0.09	12	0.05
3	Nefas Silk	77	0.11	117	0.17	28	0.11	43	0.17
4	Sengatera	67	0.10	151	0.22	24	0.10	55	0.22
<b>Total</b>		<b>294</b>		<b>407</b>		<b>107</b>	<b>0.42</b>	<b>148</b>	<b>0.58</b>
Total number of Population		<b>N=701</b>				<b>n = 255</b>			

**Source: based on CBE Human Resource and E-Payment Department (Sep, 2019)**

This study has total number of population (701): 294 total employees and 407 total active CBE-Birr customers. By using the previously described formula, the study collects primary data from 107 employees and 148 customers who are actively using CBE-Birr service for more than one year. The provision of CBE-Birr service involves other actors and decision makers. Therefore, to supplement the opinion of the respondents about challenge and prospect of agent banking service provision, the researcher also conducted key informants interviews with other stakeholders. To

this end, the researcher has conducted interviews with all CBE-birr agents: five agents from selected branches as per it shown in table 1, e-payment manager, and information technology manager.

### **3.5 Methods of Data Analysis**

The collected data was processed and analyzed using descriptive and exploratory method of analysis with the help of Statistical Package for Social Science (SPSS) software. After conducting statistical analysis, proper interpretation and implications of the results have been examined. Moreover, the findings and key results are presented using tables coupled with detailed explanations, interpretations and discussions.

## CHAPTER FOUR: RESULTS AND DISCUSSION

This chapter presents the analysis, results and discussions relevant to the challenges and prospects of e-banking service provision (CBE-Birr) in commercial bank of Ethiopia. The required data were collected from employees, customers and agents of CBE. The researcher mainly used descriptive method of data analysis and interpreted the results in line with the research objectives. Tables are widely used along with frequency and percentages to display the results.

The researcher has distributed a total of 255 questionnaires for employees and customers: 107 questionnaires for employees and 148 questionnaires for customers. During data collection, the researcher had approximately 91% response rate; out of the total 255 questionnaires, 232 questionnaires were properly filled and returned (99 from employees and 133 from customers). The collected data are processed, summarized, presented and analyzed using SPSS software version 22 (SPSS 22).

### 4.1 Demographic Profile of Respondents

Table 3 summarizes the demographic characteristics of sample CBE customers. The demographic variables include: educational level, monthly income, occupation and banking experience.

**Table 3: Demographic Profile of Sample Customers**

Variable	Categories	Frequency	Percent	Cumulative Percent
<b>Education level of respondent</b>	Primary	35	26.3	26.3
	Secondary	32	24.1	50.4
	College/TVT	15	11.3	61.7
	Degree or above	51	38.3	100
	<b>Total</b>	133	100	
<b>Monthly income of respondent (Birr)</b>	600 to 1650	10	7.5	7.5
	1651 to 3200	40	30.1	37.6
	3201 to 5250	58	43.6	81.2
	5251 to 7800	22	16.5	97.7
	7801 to 10900	3	2.3	100
	<b>Total</b>	133	100	
<b>Occupation of</b>	Government	68	51.1	51.1

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<b>respondent</b>	Private	33	24.8	75.9
	Other	32	24.1	100
	<b>Total</b>	133	100	
<b>Banking experience of Respondent (in years)</b>	3	21	15.8	15.8
	4	18	13.5	29.3
	5	44	33.1	62.4
	6	9	6.8	69.2
	7	21	15.8	85.0
	10	20	15.0	100.0
	Total	133	100.0	

*Source: own computation based on the collected using employee questionnaire*

Table 3 summarizes key demographic information for sample customers who are active users of CBE-Birr banking services. When we look at the educational qualification of CBE-Birr service users, they have 26.3% primary, 24.1% secondary, 11.3% college/TVT and 38.3% university degree or above. In the positive side, majority of the service users are relatively educated. However, the service partly excludes the section of the society who does not have formal education and this can be taken as one of the barriers to use the service.

Moreover, 7.5% of CBE-Birr users earn a monthly income of between 600 to 1650 Birr, 30.1% of users earn between 1651 to 3200 Birr, 43.6% earn between 3201 to 5250 Birr, 16.5% earn between 5251 to 7800 Birr, and 2.3% earn between 7801 to 10900 Birr. This implies that majority of CBE-Birr users are mainly middle-income group and the customer who has good income are involved in agent banking.

More than half (51.1%) of the users, work for government institutions, while 24.8% work for private institution and 24% for other sectors. This shows that most of the staffs working in government institutions are requiring flexibility in the way they access and use their salary income.

When we come to respondents banking experience, 62.4% of them have at least five years of banking experience, 22.6% of them have six to seven years of experience, while 15% of respondents have ten or more years of experience. This shows that a customer who has more experience of banking services are willing to use agent banking.

#### 4.2 Trend, Use and Service Diversity of Agent Banking System in CBE

As part of assessing the challenges and prospects of agent banking service (CBE-Birr), this section examines the types of agent banking services offered by Commercial Bank of Ethiopia to its customers, the overall trend of use of CBE-Birr services, and the purpose for which CBE-Birr is used by active customers. The researcher also assessed how frequently customers use the service and gather information to what extent they receive support services from the bank. In addition to customers, the experience and opinion of bank employees in selected CBE branches is included to have balanced evidence about CBE-Birr.

Commercial bank of Ethiopia had 3,211 CBE-Birr agents, 589,071 CBE-Birr customers (CBE annual report, 2018). By the year 2019, as per CBE annual report (2019), CBE-Birr agents increased to 5,135 and CBE-Birr customer increased to 1,254,128. It shows that CBE-Birr services are increasing through time to time.

**Table 4: Consumers Use and Application of CBE-Birr banking service**

		Frequency	Percent	Cumulative Percent
<b>Use of e-banking products</b>	ATM and CBE-Birr	36	27.1	27.1
	Mobile banking and CBE-Birr	16	12	39.1
	ATM and POS and CBE-Birr	9	6.8	45.9
	ATM, Mobile banking and CBE-Birr	72	54.1	100
	Total	133	100	
<b>Frequency of Use of CBE-Birr service</b>	Regularly	21	15.8	15.8
	Very Regularly	42	31.6	47.4
	Sometimes	67	50.4	97.7
	Rarely	3	2.3	100
	Total	133	100	
<b>Purpose of CBE-Birr</b>	Bill payment	65	48.9	48.9
	Buying mobile airtime	68	51.1	100
	Total	133	100	
<b>CBE staffs provide info about CBE-Birr</b>	Yes	45	33.8	33.8
	No	88	66.2	100
	Total	133	100	

*Source: survey report using consumers' questionnaire*

As indicated in Table 4, most of the selected respondents (54.1%) use ATM, Mobile banking and CBE-Birr together. Furthermore, 6.8% of respondents jointly use ATM, POS and CBE-Birr, about 12% of consumers use mobile banking and CBE-birr, while the remaining 27.1% use ATM and CBE-Birr. It is important to note that all customers use CBE-Birr service together with other e-banking services or products. When we look at the frequency of use of CBE-Birr, 31.6% of customers use it very regularly, 15.8% regularly, 50.4% sometimes, and 2.3% rarely. As a new financial service/product, it is highly promising to see that most people are using CBE-Birr with considerably high frequency.

When it comes to the purpose of use, most respondent (51.1%) use CBE-Birr service for the purpose of buying mobile airtime and the rest 48.9% use it for bill payments such as electricity and telephone bill payments. The majority respondents (66.2) argued that the CBE staffs do not provide adequate information about CBE-Birr and only 33.8% of respondents receive detailed information about the advantages and uses of CBE-Birr banking services.

### **4.3 Challenges of Agent Banking (CBE-Birr) from the perspectives of the customers and bank employees**

In this section, the main challenges of agent banking services are discussed in details. The challenges significantly affected by environmental, organizational and customer-related factors and attributes discussed below. These factors help promote and limit the adoption of regarding agent banking services (CBE-Birr).

#### **4.3.1 Organizational Challenge**

Factors related to institutional and organizational challenges that affect the provision of agent banking services. This can be seen from the point of view of service users (customers) and service provider (banking institution). In this study, the researcher tries to capture this using different variable such as system quality, service quality, security, staff profile, and institutional support system. Thus, the discussion and analysis focuses on how these factors constrain the adoption of agent banking (CBE-Birr) by considering how they affect service users and service providers.

**System quality**

**Table 5: System quality (employee perspective)**

		<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
<b>1.Agent-banking e.g., CBE-Birr enhances the speed and efficiency of banking services</b>	Strongly Disagree	1	1	1
	Disagree	5	5.1	6.1
	Neutral	6	6.1	12.1
	Agree	34	34.3	46.5
	Strongly Agree	53	53.5	100
	Total	99	100	
<b>2. The bank provide CBE-Birr coupled with high quality system</b>	Strongly Disagree	7	7.1	7.1
	Disagree	51	51.5	58.6
	Neutral	7	7.1	65.7
	Agree	20	20.2	85.9
	Strongly Agree	14	14.1	100
	Total	99	100	

*Source: survey report using employees' questionnaire*

Sample CBE employees were asked whether the bank provides agent banking service coupled with quality system, and they also provided response on the service affect the speed and efficiency of banking service. Around 54% of respondents strongly agree to the claim that CBE-Birr enhances speed and efficiency of banking, whereas only 6% of the respondents show their opposing view and another 6% reveal their neutral view. As employees' response indicated in Table 5, majority of the employees (58%) believes that the bank is not in a position to provide CBE-Birr service coupled with quality service, while only 34% of them have positive evaluation. Overall, sample respondent response suggests that the system quality is weak and requires improvement to effectively provide CBE-Birr agent banking service.

Questions relevant to system quality are provided to customers to know their experience and perception towards CBE-Birr system quality. About 80% of the respondents revealed their level of disagreement, whereas only 20% of the customers provide positive opinion about system quality (see Table 6). As the responses from employees and consumers clearly show, there is weak quality system to provide CBE-Birr banking system.

**Table 6: System quality (customers' perspective)**

<b>The bank provides CBE-Birr service with high quality system so that it helps me to complete banking activities more quickly and easily</b>				
Level of agreement	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	86	64.7	64.7	64.7
Disagree	20	15	15	79.7
Agree	14	10.5	10.5	90.2
Strongly Agree	13	9.8	9.8	100
Total	133	100	100	

*Source: survey report using consumers' questionnaire*

As the findings from consumers and employees survey show, the system has weakness to provide agent banking service. Therefore, it is very important to disaggregate system quality and identify the weak components to forward remedial actions. According to Petter *et al.* (2008), system quality is the characteristics of ease of use, system flexibility, and system reliability, ease of learning, intuitiveness, sophistication and response time. Therefore, any effort by CBE to improve system quality thus expand agent banking should address these system components. This finding has got support from previous studies such as Yaser *et al.*(2014), which states that the quality of the system has a significant impact on the acceptance of the system.

### Service quality

**Table 7: Service quality (employee perspective)**

Service quality Components		Frequency	Percent	Cumulative Percent
<b>1. Agent-banking e.g., CBE-Birr improves the quality of banking service</b>	Strongly Disagree	3	3	3
	Disagree	7	7.1	10.1
	Neutral	6	6.1	16.2
	Agree	31	31.3	47.5
	Strongly Agree	52	52.5	100
	Total	99	100	
<b>2. The bank is committed to strengthen the services provided using CBE-Birr</b>	Strongly Disagree	3	3	3
	Disagree	6	6.1	9.1
	Neutral	11	11.1	20.2
	Agree	27	27.3	47.5
	Strongly Agree	52	52.5	100
	Total	99	100	

Service quality Components		Frequency	Percent	Cumulative Percent
<b>3. The use of electronic banking (CBE-Birr) reduces the costs associated with banking service provision</b>	Strongly Disagree	52	52.5	52.5
	Disagree	22	22.2	74.7
	Neutral	8	8.1	82.8
	Agree	13	13.1	96
	Strongly Agree	4	4	100
	Total	99	100	
<b>4. There are no/minimum number of complaints related to CBE-Birr service provision</b>	Strongly Disagree	55	55.6	55.6
	Disagree	24	24.2	79.8
	Neutral	3	3	82.8
	Agree	10	10.1	92.9
	Strongly Agree	7	7.1	100
	Total	99	100	

*Source: survey report using employees' questionnaire*

As can be seen from Table 7, about 52.5% of the employees strongly agree on the idea of agent banking improve the quality of banking service and supports the bank's commitment to strengthen the services provided using CBE-Birr. In addition, the service cost reduction implication of CBE-Birr is opposed by 74.4% of the respondents and employees receive complaint from consumers (79.8% of the respondents provide the service with complaints). Overall, there is commitment from the bank to deal with complaints due to lack of service quality and cost reduction possibilities.

**Table 8: Service quality (customer perspective)**

<b>The bank gives me CBE-Birr service with high quality so I do not have complain about it</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	74	55.6	55.6	55.6
Disagree	32	24.1	24.1	79.7
Neutral	13	9.8	9.8	89.5
Agree	14	10.5	10.5	100
Total	133	100	100	

*Source: survey report using consumers' questionnaire*

For users of CBE-Birr, service quality is crucial component. Around 80% of sampled respondents either strongly disagree or disagree with the idea that the bank gives CBE-Birr

service with high quality service (Table 8). Therefore, to improve the wider adoption and use of CBE-Birr, the bank has to exert more effort to improve its service quality.

More than half of respondents (both employees and customers) agreed on lack of service quality to effectively provide agent banking service. According to Parasuraman et al. (1985), quality service can be expressed in the concept of reliability, responsiveness, and assurance. Therefore, the bank (CBE) should look into these components to improve the slacks in its service quality and to expand its CBE-Birr customer base. As Athanassopoulos et al. (2001) and Lee et al. (2000) argue, unsatisfied customers are likely to switch to other service providers in search of improved service quality. Thus, the bank should take note of these service quality improvement mechanisms to reach more customers and also satisfy the existing ones.

### Security

**Table 9: Security (employees' perspective)**

		Frequency	Percent	Cumulative Percent
<b>1. There is a user privacy policy about CBE-Birr which is mentioned on the website to strengthen trust of customers</b>	Strongly Disagree	55	55.6	55.6
	Disagree	23	23.2	78.8
	Neutral	4	4	82.8
	Agree	9	9.1	91.9
	Strongly Agree	8	8.1	100
	Total	99	100	
<b>2. There is lack of confidence with the security aspects of CBE-Birr</b>	Disagree	7	7.1	7.1
	Agree	33	33.3	40.4
	Strongly Agree	59	59.6	100.0
	Total	99	100.0	

*Source: survey report using employees' questionnaire*

Concerning the security aspect, Table 9 shows that majority of respondents (55.6%) strongly disagree on the idea of user privacy policy mentioned on the website of the bank to strengthen the trust of customers. In the provision of banking service, trust plays crucial role for the users to feel that their privacy and secrecy is considered. About 60% of the respondents suggest that they are not confident concerning security aspect of CBE-Birr banking service. Hence, lack of privacy policy and confidence on the security aspect are key challenges the bank should deal with to

build the confidence on the service. Ignoring this problem could limit the level of adoption of CBE-Birr.

**Table 10: Security (customers' perspective)**

	Frequency	Percent	Cumulative Percent
Valid Strongly Disagree	72	54.1	54.1
Disagree	19	14.3	68.4
Neutral	13	9.8	78.2
Agree	29	21.8	100.0
Total	133	100.0	

*Source: survey report using consumers' questionnaire*

The consumers also strongly stated that security is their concern. About 54% of the sample customers indicated that CBE-Birr service is not highly secured and they have limited trust on it. Only 21.8% of the respondents agree on the idea that CBE-Birr service is secure. The bank needs to reduce the vulnerability and avoid the possibilities of fraud, trickery and hacking during online transactions. There have been plenty of cases in which web surfers were accidentally exposed to the financial details of online bankers. Most of the banks try to make their sites secured by implementing latest network security software (Ruby and Pankaj, 2011). As per the survey result concerning security aspect, both employee and customer suggested that the lack of security erodes users' confidence to use agent banking and exposes their financial privacy. This finding has got support from Yikber (2018) stating that lack of confidence negatively affects the possibility of adopting agent banking services.

### Staff profile

**Table 11: Staff profile (employee perspective)**

	Frequency	Percent	Valid Percent	Cumulative Percent
<b>1. The management of the bank provides training courses for its staff when introducing new e-</b>	Strongly Disagree	56	56.6	56.6
	Disagree	20	20.2	76.8
	Neutral	5	5.1	81.8
	Agree	7	7.1	88.9
	Strongly Agree	11	11.1	100

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banking services such as CBE-Birr	Total				
<b>2. All employees/staffs of the bank have adequate knowledge about agent banking or CBE-Birr service provision</b>	Strongly Disagree	12	12.1	12.1	12.1
	Disagree	56	56.6	56.6	68.7
	Neutral	12	12.1	12.1	80.8
	Agree	14	14.1	14.1	94.9
	Strongly Agree	5	5.1	5.1	100
	Total	99	100	100	
<b>3. In the bank, there is lack of technical and managerial skills on the adoption of CBE-Birr banking service</b>	Strongly Disagree	15	15.2	15.2	15.2
	Disagree	17	17.2	17.2	32.3
	Neutral	2	2	2	34.3
	Agree	53	53.5	53.5	87.9
	Strongly Agree	12	12.1	12.1	100
	Total	99	100	100	

*Source: survey report using employees' questionnaire*

Concerning the provision of training, 57% of the staffs showed their strong disagreement and 20% revealed their moderate level disagreement. It seems that there is limitation concerning access to trainings by staffs. Another question under staff profile is about staffs' knowledge related to agent banking. Around 56.6% of respondents indicated that staffs do not have adequate knowledge about CBE-Birr banking service. As per the feedback obtained from respondents of selected branch of commercial bank of Ethiopia, 53.5 % of respondents are agreed on the idea that there is lack of technical and managerial skill related to CBE-Birr services. This shows that, lack of technical and managerial skill is a challenge for the bank to promote adoption of agent banking or CBE-Birr.

**Table 12: Staff profile (customer perspective)**

<b>All employee of the bank has full knowledge about the service they are given especially CBE-Birr</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	72	54.1	54.1	54.1
Disagree	38	28.6	28.6	82.7
Neutral	23	17.3	17.3	100.0
Total	133	100.0	100.0	

*Source: survey report using customers' questionnaire*

As Table 12 show, 54.1 % and 28.6% of respondents are strongly disagreed and disagreed respectively on the idea of knowledge of commercial staff about e-banking service especially CBE-Birr. And 17.3% of respondents choose to be neutral. Therefore, the survey data show that there is knowledge gap in the staff about CBE-Birr service. Agent banking is still not progressing well in commercial bank of Ethiopia. There were lack of technological knowledge among the managers, employees, agents and customers of the bank. Therefore, the lack of qualified and motivated staffs is one of the organizational challenges for wider adaptation of agent banking. The impact of able and capable manpower on agent banking service deliver has got support from the findings of Yikber (2018) stating that lack of support and commitment of top level management, lack of availability of well-trained manpower to build agent network, lack of skill of IT personnel, lack of technical and managerial skill of staffs are challenge of adopting mobile and agent banking.

### **Support system**

**Table 13: Support system (employee perspective)**

<b>There is a strength of ICT equipment and network, software and reorganization for agent banking/CBE-Birr service</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	60	60.6	60.6	60.6
Disagree	23	23.2	23.2	83.8
Neutral	4	4.0	4.0	87.9
Agree	6	6.1	6.1	93.9
Strongly Agree	6	6.1	6.1	100.0
Total	99	100.0	100.0	

*Source: survey report using employees' questionnaire*

From the total of 99 respondents, majority of the respondents (83.8%) either strongly disagreed or disagreed on the idea of the ICT infrastructure is strong. Only 6.1% agreed on its strength and 4% remain neutral. According to the respondent's feedback, which is shown in Table 15, it was observed that lack of ICT equipment and network possess challenge on implementing agent banking or CBE-Birr service.

**Table 14: Support system (customers' perspective)**

<b>Support system of the bank (ICT infrastructure) is very strong to support CBE-Birr service</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	79	59.4	59.4	59.4
Disagree	54	40.6	40.6	100.0
Total	133	100.0	100.0	

*Source: survey report using customers' questionnaire*

From the total of 133 CBE-Birr users, 59.4% and 40.6% strongly disagreed and disagreed, respectively on the strength of ICT infrastructure. According to the respondent's feedback which is shown Table14, it was observed that lack of strength of ICT take place as a challenge in implementation of agent banking or CBE-Birr service.

The ongoing global expansion of a high-tech telecommunications infrastructure, coupled with the increased availability of advanced information technology services, is having an impact on almost every emerging industry (Cohen, 2002). As the evidence from employee and customer show, the support system and ICT infrastructure of commercial bank of Ethiopia is reported to be weak and acts a limiting factor for the adoption of agent banking,. This finding is supported by Alemayehu and Jacqueline (2011) stating that, mobile and agent banking requires a generally good infrastructure in terms of road network, communication and information technology. It is also supported by the conducted by Wondwossen and Tsegai (2005) stating that lack of sufficient telecommunication infrastructure is one of the basic challenges in the development of Electronic payment system adoption in Ethiopia.

#### **4.3.2 Environmental challenges**

In this section, some the key environmental variables which affect the adoption of CBE-Birr banking system are briefly discussed. These include access to power and network stability. The researcher has analyzed how environmental challenge affects to implement the adoption of agent banking/CBE-Birr.

##### **Access to power**

**Table 15: Access to power (employee perspective)**

<b>There is frequent power disruption in the bank to process CBE-Birr service</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	3	3.0	3.0	3.0
Disagree	19	19.2	19.2	22.2
Neutral	9	9.1	9.1	31.3
Agree	16	16.2	16.2	47.5
Strongly Agree	52	52.5	52.5	100.0
Total	99	100.0	100.0	

*Source: survey report using Employees' questionnaire*

Regarding access to power, there is frequent power disruption in the bank to process CBE-Birr services. As per Table 15 above, 52.5% strongly agreed and 16.2% agreed on power disruption in the bank, while only 22.2% disagreed either disagreed or strongly disagreed. This indicates that power disruption in the bank is a challenge for the adoption of agent banking or CBE-Birr.

**Table 16: Access to power (customer perspective)**

<b>There is high power disruption when I go to the bank to access e-banking such as CBE-Birr</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	4	3.0	3.0	3.0
Disagree	9	6.8	6.8	9.8
Neutral	16	12.0	12.0	21.8
Agree	70	52.6	52.6	74.4
Strongly Agree	34	25.6	25.6	100.0
Total	133	100.0	100.0	

*Source: survey report using Customers' questionnaire*

Regarding access to power, there is frequent power disruption when the customers go to the bank to process CBE-Birr service. As per table 16 shown above, 52.6% agreed and 25.6% strongly agreed on power disruption in the bank. Majority of respondents (employees and customers) agreed on the claim that power disruption in the bank negatively affects the effectiveness of

agent banking service delivery. This indicates that power disruption in the bank is a challenge for the adoption of agent banking or CBE-Birr. As a result, access to power is an environmental challenging factor to expand agent banking. Similarly, Yikber (2018) and Flaming et al. (2011) found that power disruption is a challenge to operate and expand agent banking.

### Network stability

**Table 17: Network stability (employees' perspective)**

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>1. The Bank provides an alternative way to use agent banking (CBE-Birr) services when there is network instability.</b>	Strongly Disagree	56	56.6	56.6	56.6
	Disagree	23	23.2	23.2	79.8
	Neutral	7	7.1	7.1	86.9
	Agree	6	6.1	6.1	92.9
	Strongly Agree	7	7.1	7.1	100
	Total	99	100	100	
<b>2. There is a limitation in network infrastructure for agent banking (CBE-Birr)</b>	Strongly Disagree	4	4	4	4
	Disagree	12	12.1	12.1	16.2
	Neutral	11	11.1	11.1	27.3
	Agree	21	21.2	21.2	48.5
	Strongly Agree	51	51.5	51.5	100
	Total	99	100	100	

*Source: survey report using Employees' questionnaire*

The results of the survey presented in Table 17 shows that 51.5% strongly agreed, and 21.2 % agreed on limitation of network infrastructure for CBE-Birr services delivery, while only 16.1% of respondents disagreed and the rest 12.1% chose to be neutral. Furthermore, 56.6% and 23.2% of respondents are strongly disagreed and disagreed respectively on the availability of alternative banking services when there is network instability to use agent banking. This shows that network instability and the lack of alternative options to provide CBE-Birr service adversely affect the adoption and expansion of agent banking/ CBE-Birr.

**Table 18: Network stability (customer perspective)**

<b>The mobile network/connection is creating challenge to effectively use CBE-birr services</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	24	18.0	18.0	18.0
Agree	38	28.6	28.6	46.6
Strongly Agree	71	53.4	53.4	100.0
Total	133	100.0	100.0	

*Source: survey report using Customers' questionnaire*

The results of the survey presented in Table 18 shows that, 53.4% of respondents strongly agreed and 28.6% agreed on network instability when they are using CBE-Birr service. And 18% respondents indicated that the network is okay while using the service. This shows that network instability is challenge that could limit the adoption and expansion of agent banking or CBE-Birr. And this study finding supported by supported by Gichana (2013) stating that unavailability and redundant failure of network is a major challenge to agency banking implementation.

### 4.3.3 Customer/User Attributes

Customers are key stakeholders in agent banking service provision. They are the ones who buy or use the service for various purposes. Therefore, the factors that affect the behavior of customers need to be analyzed in detail. In this sub-section, variables related to exposure to technology, use of agent banking practices and their risk taking behavior are discussed. They discussion and analysis focuses on how these variables affect the challenges and prospects of CBE-Birr adoption and expansion.

#### Exposure to technology

**Table 19: Exposure to technology (employee perspective)**

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>1. CBE-Birr products are successfully</b>	Strongly Disagree	9	9.1	9.1	9.1
	Disagree	54	54.5	54.5	63.6
	Neutral	11	11.1	11.1	74.7

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<b>adopted by the customers of the bank</b>	Agree	11	11.1	11.1	85.9
	Strongly Agree	14	14.1	14.1	100
	Total	99	100	100	
<b>2. Most customers are not willing to accept new product such as CBE-Birr service</b>	Disagree	10	10.1	10.1	10.1
	Neutral	7	7.1	7.1	17.2
	Agree	26	26.3	26.3	43.4
	Strongly Agree	56	56.6	56.6	100
	Total	99	100	100	

*Source: survey report using Employees' questionnaire*

As the results under exposure to technology show, 63% of the respondents either disagreed or strongly disagreed for customers' adoption of CBE-Birr agent banking, while 14.1%, 11.1% and 11.1% of respondents are strongly agreed, agreed and remain neutral, respectively. Another response related to technology exposure show that 56.6% of respondents strongly agree and 26.3% moderately agreed on the idea that customer are not willing to adopt new technological product such as CBE-Birr. This implies that customers' lack of willingness to adopt new technology is a challenge for wider adaptation of agent banking or CBE-Birr.

**Table 20 : Exposure to technology (customer perspective)**

		Frequency	Percent	Cumulative Percent
<b>1. I always expose to new technology that given by the bank for example CBE-Birr.</b>	Strongly Disagree	70	52.6	52.6
	Disagree	19	14.3	66.9
	Agree	20	15	82
	Strongly Agree	24	18	100
	Total	133	100	
<b>2. Without the technical guidance and support, I may not be able to use CBE-Birr services or products</b>	Strongly Disagree	27	20.3	20.3
	Disagree	12	9	29.3
	Neutral	4	3	32.3
	Agree	20	15	47.4
	Strongly Agree	70	52.6	100
	Total	133	100	

*Source: survey report using Customers' questionnaire*

Results under exposure to technology show that, 52.6% and 14.3% of customers are strongly disagreed and disagreed on their exposure to new technology provided by the bank such as CBE-Birr. Only 33% respondents either agreed or strongly agreed on this issue. Furthermore, 52.6% and 15% respondents are strongly agreed and agreed, respectively for the idea that they fail to use CBE-Birr service without technical guidance. Only 29.3% of respondents are willing to use the service independently. This implies that, the lack of willingness to use new technology is a challenge for the adaptation of CBE-Birr and other agent banking services. This finding is supported by Yikber (2018): states that technological factor such as lack of confidence with the security aspect, customer’s fear of risk of new technology innovation, and lack of availability of physical security are challenges of adopting mobile and agent banking. Ruby and Pankaj (2011) discussed why customers fail to use such services and discussed the barriers. Technology continues to be an important element in financial service delivery, understanding the factors that influence the behavior of consumers towards using electronic banking technologies will continue to be an important area of research (Souranta and Mittilia as cited in Gihana, 2013).

### **Risk Taking Behavior**

**Table 21: Risk taking behavior (employee perspective)**

		Frequency	Percent	Cumulative Percent
<b>1. Most customers consider the use of agent banking such as CBE-Birr service very risky</b>	Strongly Disagree	5	5.1	5.1
	Disagree	7	7.1	12.1
	Neutral	9	9.1	21.2
	Agree	20	20.2	41.4
	Strongly Agree	58	58.6	100
	Total	99	100	
<b>2. Consumers have fear of taking risk of using agent banking such as CBE-Birr.</b>	Strongly Disagree	3	3	3
	Disagree	5	5.1	8.1
	Neutral	11	11.1	19.2
	Agree	28	28.3	47.5
	Strongly Agree	52	52.5	100
	Total	99	100	

*Source: survey report using Employees’ questionnaire*

As shown in the above table more than half of the consumer (52.5%) strongly agree on the idea of fear of taking a risk that caused by agent banking for the reason that CBE-Birr service has its own risk(as 58.6% respondents strongly agree). Therefore, it is a challenge for the adoption of CBE-Birr agent banking.

**Table 22 : Risk taking behavior (customer perspective)**

<b>I have fear of using agent banking or CBE-Birr because I feel that it is very risky</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	8	6.0	6.0	6.0
Disagree	10	7.5	7.5	13.5
Neutral	21	15.8	15.8	29.3
Agree	77	57.9	57.9	87.2
Strongly Agree	17	12.8	12.8	100.0
Total	133	100.0	100.0	

*Source: survey report using Customers' questionnaire*

As results shown in Table 22, most respondent (57.9%) agree on the idea of risk taking behavior is a challenge for the adoption of agent banking or CBE-Birr. From 133 respondents, 12.8% strongly agreed, 15.8% neutral, 7.5% strongly disagreed and 6% respondents strongly disagreed on the issue. User risk, infrastructure and software application risk, communication media risks, and agent and third party service provider risks should be ensured when technology is used for the delivery of agent banking service(NBE directives no FIS/01/2012). As Ruby and Pankaj (2011) argue, the risk of technological changes, security, and risks involved in such agreements are pronounced in the case of e-banking service provision.

Majority of the respondents (both employees and customers) agreed on customer fear of risk regarding use of agent banking. Therefore, risk taking behavior of customer is another challenging factor for the adoption of agent banking. This finding is also supported by Yikber (2018) states that technological factor such as: lack of confidence with the security aspect, customer's fear of risk of new technology innovation, and lack of availability of physical security are challenges of adopting mobile and agent banking services.

#### **4.4 Prospects of Agent Banking (CBE-Birr) from the perspectives of the customers and bank employees**

In this section, the main prospects of agent banking services are discussed in details. The prospects significantly affected by environmental, organizational and customer-related factors and attributes discussed below. These factors help promote and limit the adoption of regarding agent banking services (CBE-Birr).

##### **Innovativeness (organizational prospect)**

**Table 23: Innovativeness (employees' perspective)**

		Frequency	Percent	Cumulative Percent
<b>1. The CBE-Birr services or products are highly innovative to be able to persuade/attract customers</b>	Strongly Disagree	5	5.1	5.1
	Disagree	18	18.2	23.2
	Neutral	13	13.1	36.4
	Agree	53	53.5	89.9
	Strongly Agree	10	10.1	100
	Total	99	100	
<b>2. CBE-Birr can make the bank competitive and attractive</b>	Strongly Disagree	10	10.1	10.1
	Disagree	14	14.1	24.2
	Neutral	8	8.1	32.3
	Agree	12	12.1	44.4
	Strongly Agree	55	55.6	100
	Total	99	100	

*Source: survey report using employees' questionnaire*

Innovativeness plays crucial role to promote the adoption of a particular e-banking technology; the innovation should reduce the challenge users are facing. The results of the survey presented in Table 23 shows that more than half of the respondents (53.5%) thought that CBE-Birr services or products are highly innovative to be able to persuade/attract customers and around 56% of CBE employees strongly agreed on the idea of CBE-Birr can make the bank more competitive and attractive. Therefore, the bank should find ways and mechanisms to maintain and improve the innovative aspects of CBE-Birr, and this implies that innovativeness could enhance prospect for adoption of agent banking services.

**Table 24: Innovativeness (customers' perspective)**

<b>When I use CBE birr, I feel like the bank is highly innovative bank</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	23	17.3	17.3	17.3
Agree	35	26.3	26.3	43.6
Strongly Agree	75	56.4	56.4	100.0
Total	133	100.0	100.0	

*Source: survey report using consumers' questionnaire*

From the point of view of the consumers, the perception of innovativeness plays crucial role to use a particular innovation. As depicted in Table 24, close to 56% of the strongly take CBE-Birr as highly innovative product and 26% of respondents moderately agree that it is innovative, whereas 17% showed their disagreement concerning its innovativeness. The innovativeness attribute of CBE-Birr receives considerable support from both employees and customers. As Rogers (1995) argue, innovativeness improves relative advantage, reduces complexity and burden associated with the technology. Therefore, innovativeness could be a driving force for the adoption of agent banking services and contribute to the future growth prospect of the bank using such services.

**Reachability (organizational prospect)**

**Table 25: Reachability (employees' perspective)**

		Frequency	Percent	Cumulative Percent
<b>1. Agent banking is convenient and significantly save time for customers</b>	Strongly Disagree	9	9.1	9.1
	Disagree	7	7.1	16.2
	Neutral	9	9.1	25.3
	Agree	54	54.5	79.8
	Strongly Agree	20	20.2	100
	Total	99	100	
<b>2. Wider adoption of agent-banking could reduce the possibility of opening more branches</b>	Strongly Disagree	11	11.1	11.1
	Disagree	13	13.1	24.2
	Neutral	6	6.1	30.3
	Agree	12	12.1	42.4
	Strongly Agree	57	57.6	100

		Frequency	Percent	Cumulative Percent
	Agree			
	Total	99	100	
<b>3. The use of CBE-Birr ensures banking access for consumers 24 hours and 7 days</b>	Strongly Disagree	4	4	4
	Disagree	56	56.6	60.6
	Neutral	11	11.1	71.7
	Agree	15	15.2	86.9
	Strongly Agree	13	13.1	100
	Total	99	100	

*Source: survey report using employees' questionnaire*

Reachability is one of the most important aspect of agent banking (CBE-Birr). As the information collected from respondents show that more than half (54.5%) of respondents strongly agreed on the idea that agent banking is convenient and time saving. As indicated in Table 25, around 70% of respondents agreed on the idea that adoption of agent banking could reduce the possibility of opening more branches. This implies that agent banking has the potential to reduce cost for the bank. However, consumers are face interruption and they face limitation in their access to the service for 24 hours and 7 days (56.6% showed their disagreement). This implies that reachability attribute improves the prospect of adopting agent banking by improving convenience, availability, and cost related to new branch opening.

**Table 26 : Reachability (customer perspective)**

<b>CBE-Birr services are available in every branch of the bank</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	6	4.5	4.5	4.5
Neutral	15	11.3	11.3	15.8
Agree	14	10.5	10.5	26.3
Strongly Agree	98	73.7	73.7	100.0
Total	133	100.0	100.0	

*Source: survey report using employees' questionnaire*

Concerning reachability of agent banking (CBE-Birr), majority of consumers (73.7%) are strongly agreed and 10.5% agreed on the idea of CBE-Birr services which are available in every

branch of the bank, while 4.5% disagreed and 11.3 remain neutral. This shows that, reach ability is a prospect for the adoption of agent banking or CBE-Birr.

Agent banking is available in all branch of the bank throughout the country. So it can save one's time, affordable and it is much more effective in developing savings. As per the result found from employee and customer about reachability, it is an organizational prospecting factor to implement agent banking. E-banking offers substantial advantage to customers in the form of convenience, saving time and easy access to the banking services. The customers can transact in their account at anytime and anywhere throughout 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 the 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 will be another advantage to the customers. Thus the e-banking provides sophisticated services to the customers (Devamohan, 2002).

**Access to internet (environmental prospect)**

**Table 27 : Access to internet (employees' perspective)**

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>1. The use of CBE-Birr service is often limited by the availability and strength of internet connection</b>	Strongly Disagree	13	13.1	13.1	13.1
	Disagree	54	54.5	54.5	67.7
	Agree	17	17.2	17.2	84.8
	Strongly Agree	15	15.2	15.2	100
	Total	99	100	100	
<b>2. Relatively there is high cost of internet to use CBE-Birr service</b>	Strongly Disagree	51	51.5	51.5	51.5
	Disagree	33	33.3	33.3	84.8
	Neutral	1	1	1	85.9
	Agree	3	3	3	88.9
	Strongly Agree	11	11.1	11.1	100
	Total	99	100	100	

*Source: survey report using employees' questionnaire*

As shown in Table 27, more than 50% of the respondents disagreed and strongly disagreed on the idea that access to internet affects CBE-Birr service use. Majority of employees (68%) strongly believe that access and use of CBE-Birr service is not limited by availability and

strength of internet. This is mainly because of the fact that CBE-Birr can work both online and offline modes. In related to this, most of the participants (85%) indicated that the cost of internet is not a determining factor to use CBE-Birr services. This shows that CBE-Birr service is not essentially limited by access and strength of internet connection.

**Table 28: Access to internet (customer perspective)**

		Frequency	Percent	Cumulative Percent
<b>1. The use of CBE-Birr service is often limited by the availability and strength of internet connection</b>	Strongly Disagree	40	30.1	30.1
	Disagree	70	52.6	82.7
	Neutral	8	6	88.7
	Agree	3	2.3	91
	Strongly Agree	12	9	100
	Total	133	100	
<b>2. Relatively there is high cost of internet to use CBE-Birr service</b>	Strongly Disagree	69	51.9	51.9
	Disagree	52	39.1	91
	Neutral	4	3	94
	Agree	8	6	100
	Total	133	100	

*Source: survey report using Customers' questionnaire*

As shown in Table 28, more than half of CBE-Birr users disagreed and strongly disagreed on the effect of access to internet to affect service use. About 30.1% strongly disagreed, 52.6%disagreed, 2.3% agreed, 9% strongly agreed to this claim or idea, and remain 6% respondents chose to be neutral. Related to cost of internet to affect CBE-Birr service use, 51.9%strongly disagreed and 39.1% disagreed and only 6% and 3% agreed and neutral respectively. This shows that CBE-Birr service is not significantly limited by internet connection. Thus, access to internet is not a limiting factor for the adoption of agent banking or CBE-Birr service.

As survey findings from employees and customers show, internet access may be relevant, but not the most constraining factor; the system can function without internet connection. However, previous studies argued that low level of internet access brings a challenge to expand e-banking services: to mention a few, Worku (2010), Yikber (2018), and Tilahun (2017). According to

Worku (2010), low level of internet penetration and poorly developed telecommunication infrastructure impede smooth development and improvements in e-commerce in Ethiopia. According to Yikber (2018), environmental factor such as poor quality internet is a challenge to expand agent banking. According to Tilahun (2017), the implementation and delivery of agent banking service in Ethiopian banking sector is unsatisfactory due to lack of internet access.

**Support Institution (environmental prospect)**

**Table 29: Support institution (employee perspective)**

<b>The commitment of the government to facilitate the expansion of ICT infrastructure is an opportunity to increase agent-banking practices</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	21	21.2	21.2	21.2
Agree	14	14.1	14.1	35.4
Strongly Agree	64	64.6	64.6	100.0
Total	99	100.0	100.0	

*Source: survey report using Employees' questionnaire*

Regarding support institutions, the above result shows that majority of the respondents (64.6%) strongly agreed on the commitment of government to support the bank by expansion of ICT infrastructure to increase agent banking practices. Only 21.2% of respondents disagreed on the idea that the government is supportive to change the sector. This indicates that the support and commitment of the government is a prospect for the expansion of CBE-Birr agent banking service.

**Table 30: Support institution (customer perspective)**

<b>There is commitment of the government to facilitate the expansion of ICT infrastructure</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	1	0.8	0.8	0.8
Disagree	1	0.8	0.8	1.5
Neutral	21	15.8	15.8	17.3
Agree	70	52.6	52.6	69.9
Strongly Agree	40	30.1	30.1	100.0
Total	133	100.0	100.0	

*Source: survey report using Customers' questionnaire*

Regarding support institution, the above result shows that majority of customers (52.6%) agreed on the commitment of government to support the bank by expansion of ICT infrastructure to increase agent banking practices. This indicates that the availability of support institution gives confidence for customers to adopt and widely use CBE-Birr and agent banking services.

According to Iacovou (1995), government can either directly or indirectly affect the adoption of electronic banking in terms of creating a favorable environment and impetus for banking institutions and their customers so that the services can be diffused with the community. Besides, Tamirat (2017) states that the extinction of government supports are a challenge for the adoption of agent banking. Therefore, the government commitment and support services would helpful to expand the service and would help expand the needed ICT infrastructure. Therefore, support institution is positive environmental factors and prospects for expanding agent banking in CBE.

**Legal Issues (environmental prospect)**

**Table 31: Legal issue (employee perspective)**

<b>There are legal frame works that enforce the bank to adopt technological innovation such as CBE-Birr</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	13	13.1	13.1	13.1
Neutral	10	10.1	10.1	23.2
Agree	23	23.2	23.2	46.5
Strongly Agree	53	53.5	53.5	100.0
Total	99	100.0	100.0	

*Source: Survey report using Employees' questionnaire*

As Table 31 clearly show, 53.5% of respondents strongly agreed and 23.3% of them agreed on the idea that there are legal frameworks to widely adopt banking technologies such as CBE-Birr service. Whereas, only 13.1% of respondents are chose to disagree. Therefore, the existence of strong legal framework for the bank is a prospect to adopt agent banking or CBE-Birr.

As in Table31, around 56% of customers either strongly agree or moderately agree on the idea of legal framework to enforce the bank to adopt CBE-Birr service. The rest 10.5%, 3.8% and 30.1%

respondents chose to be strongly disagreed, disagreed and neutral, respectively. Therefore, legal framework for the bank is a prospect to adopt agent banking or CBE-Birr.

**Table 32: Legal issue (customer perspective)**

<b>There is a legal framework to effectively enforce the adoption and use of CBE-Birr services</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	14	10.5	10.5	10.5
Disagree	5	3.8	3.8	14.3
Neutral	40	30.1	30.1	44.4
Agree	69	51.9	51.9	96.2
Strongly Agree	5	3.8	3.8	100
Total	133	100	100	

*Source: survey report using Customers' questionnaire*

Employees as well as customers agreed on the existence of legal framework in commercial bank of Ethiopia about CBE-Birr agent banking. Therefore, it shows that legal issue is one of the opportunities to expand agent banking, and NBE directive no.FIS/01/2012 also support this finding. As per the directive, financial institution that intends to provide mobile and agent banking service shall seek approval from the National Bank. And it shall enter into a written contract with third party service providers such as technology service providers and telecom companies and such contracts shall clearly define the roles and responsibilities of each party in the provision of mobile and agent banking services. On the other hand, Worku (2010) states that lack of suitable legal and regulatory frameworks for e-payment in Ethiopia, and Ethiopian current laws do not accommodate electronic contracts and signatures. Ethiopia has not yet enacted legislation that deals e-payments and e-commerce concerns including enforceability of the validity of electronic contracts, digital signatures and intellectual copyright and restrict the use of encryption technologies.

#### **4.5 Discussions and Results of Interview with Employees'**

This section presents the results and conduct discussions on the key informant interview with e-payment manager and information technology manager of commercial bank of Ethiopia. They were asked different questions relevant to the challenges and prospects of CBE-Birr agent banking services in special branches of CBE.

As per the interviews conducted with payment manager of commercial bank of Ethiopia, all electronic banking services (ATM, POS, internet banking, mobile banking, and agent banking/CBE-Birr) are provided by commercial bank of Ethiopia and there is a research on innovation of new other in e-banking products. As they report, there are barriers to expand CBE-Birr agent banking services, including security and privacy issue, weak infrastructure, lack of knowledge, risk related to use, and low acceptance for new technology. The commitment of the government to strength ICT infrastructure and reachability of the service could be considered as opportunities to improve the prospect of adoption. They managers suggested that CBE has a vision to become a world class bank by the year 2025 G.C and improving the service is consistent with its future aspiration.

According to the interview with e-payment manager, he stated that most of the staffs have adequate knowledge about the agent banking services. He also indicated that the use of such service has different advantages to the customers: including, it reduces customers' visit of the bank for minor service, improves efficiency of service delivery, helps standardize the service, enhance service convenience, and helps reach more customer without opening more branches. Overall, customers could save their time and money due the use of CBE-Birr agent banking.

Another interview was made with information technology manager of commercial bank of Ethiopia. As per question raised by researcher, the IT manager responded the bank provides all e-payment services (ATM, POS, internet banking, mobile banking, and agent banking/CBE-Birr). Besides, risk taking behavior of customer, security aspect, lack of trained and efficient staff/agent for the service of agent banking, poor infrastructure are barriers/challenges of agent banking, whereas and reachability and commitment of the government to strength ICT infrastructure are the opportunities to improve the prospect of adoption. The IT manager

suggested that the bank is working and investing on staffs to get training and update their knowledge related to agent banking system. The IT manager acknowledges the staffs do not have adequate knowledge about agent banking services. Therefore, providing related training could bridge the knowledge gap.

#### **4.6 Results and Discussions on Interview with Agents**

This section presents the results and discussions conducted with selected agents that provide CBE-Birr services to the customers. The research tries to investigate the challenges and prospects of e-banking service from the point of view of the agents of CBE. The researcher had an interview with five agents selected from four branches of CBE. One agent is selected from Finfine, one from Gofa-Sefer, two from Nifas-Silk and one from Senga-Tera branch.

As per interviewed with Finfine branch agent, the respondent works on supply of different cosmetics and has been an agent of CBE since November, 2018. Most customers use CBE-Birr service of buying airtime. The respondent stated that the challenges of offering agent banking services are: customers' lack of knowledge about the service, lack of risk taking and security aspects because most customers do not believe that the agents work as a bank. The agent mentions two challenges: frequent system failure and the lack of adjustment in the commission.

Another interview was made with Gofa sefer branch agent who works on small boutique. And the respondent has banking experience of more than a year as an agent. As per the response, customers use CBE-Birr service for the purpose of opening new CBE-Birr account and buying airtime but most of them have doubt about its security aspect. The agent indicated that the bank staffs are committed to fix any issue. The respondent gets a commission of 11.50 Birr when a customer opens new CBE-Birr account and 3.5 Birr when the new account credited by an amount. So, the agent receives 15 Birr by opening one new CBE-Birr account with deposited amount.

In Nifas-Silk two agents work on small market usually called shop. They have more than one year of experience as agent. As per their answers, most customers use the service for only buying airtime. There is lack of knowledge by customers as well as by agents, and this has led to lower

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level of confidence on the service and puts challenge the adoption process. The agents were not positive about the prospect of CBE-Birr. As per their response, they complain about the amount and payment mechanism of the commission.

The final interview was made with Sengatera agent who works on electronics maintenance shop. The respondent has an experience of more than a year as an agent. Most customers use the service for buying airtime and they don't use the service more than that. Similar to the previous agents, he strongly argued that the knowledge and skill gap is making users to afraid of service and puts challenge to convince people to adopt CBE-Birr. The commission is also discouraging agents to use the service frequently. The bank is supportive when problems happen regarding CBE-Birr.

The above results show that there is lack of knowledge about agent banking products; customers are highly risk averse to use the service and they have doubt about its security leading to lower level of confidence on the services; and agents are also not happy about the commission they get from using the services. Although they mention these challenges, they equally appreciate its advantage of reachability.

## **CHAPTER FIVE: SUMMARY, CONCLUSION ANDRECOMMENDATION**

In this chapter, the researcher briefly presents the summary of key findings, the concluding remarks, and the possible recommendations drawn from the study results that helpful to improve the adoption and use of agent banking practices in the context of commercial bank of Ethiopia.

### **5.1 Summary**

This study has identified a number of challenges and prospects for the adoption innovative agent banking services (CBE-Birr). These challenges and prospects have been looked from the perspectives of employees, customers and agents. According to Parasuraman et al (1985), the service delivery must be reliable to the customer and last variable of good service delivery is the concept of tangibility. The researcher finds that the major organizational challenges from the perspective of employee are related to system quality and service quality; during the survey 51.5% of employees disagree on the system quality of the bank and 55.6% of them show their disagreement on service quality.

Customers should never share personal information like PIN numbers, passwords etc with anyone, including employees of the bank. It is important that documents that contain confidential information are safeguarded (Ruby and Panjak, 2011).The security and privacy aspects of the bank are challenged by 55.6% of respondents and 60% of the respondents also lack confidence on the system security and privacy. About 54% of the employees agree to the idea that there is lack of technical and managerial skill to deliver agent banking services. Around 57% of the staffs of CBE suggested that further training is required to build the capacity of staffs about agent banking and customers' awareness training is required to enhance the basic knowledge and use of CBE-Birr agent banking services. Moreover, majority of employees (60.6%) indicated the challenge associated with ICT infrastructure, network instability. Alemayehu & Jacqueline (2011) states that, mobile and agent banking requires a generally good infrastructure in terms of road network, communication and information technology. It is also supported by the study of stating that lack of sufficient telecommunication infrastructure is one of the basic challenges in the development of Electronic payment system adoption in Ethiopia (Wondwossen and Tsegai , 2005)

From the point of view of the consumers, the organizational challenges of lack of system quality and service quality affects the use of CBE-Birr agent banking. The findings show that 64.7% of the consumers think that the system quality is low, also 55.6% argue that the service quality is not the expected level. Concerning the strength of ICT infrastructure for agent banking, 59.4% of customers believe that the IT infrastructure is weak. Customers also shared their concern about the security aspect of CBE-Birr; 54.1% of customers strongly disagree on the system security. The service users (54.1%) also complain about staffs' lack of knowledge about CBE-Birr services.

The environmental challenges by the study include power disruption, network instability and the lack of options to offer agent banking services. In the survey findings, 52.5% of employees and 52.6% of customers argued that these factors affect the way they promote the adoption of CBE-Birr agent banking. About 53.4% of customers indicated that network instability strongly affects CBE-Birr service use. In addition to network instability, there is lack of alternative mechanisms to effect transaction when network instability occurs, as 56.6% of respondents disagree on the availability of alternative network. According to Gichana 2013, the major challenge of agency banking implementation is unavailability and redundant failure of network.

The challenges that emerge from the behavior and attributes of customers include: lack of exposure to technology and lack of willingness to accept and use new technologies/innovations. From the survey findings 54.5% and 56.6% of respondents argue that lack of exposure and willingness affect CBE-Birr adoption. The lack of technological exposure expressed by the finding that 52.6% of customers unable to use CBE-Birr service without technical guidance and support from CBE staffs. Another customer attributes, which challenge adoption include lack of risk taking behavior and 57.9% of customers believe that CBE-Birr agent banking is risky.

The main advantages that determine the growth prospect of agent banking identified by this study are: innovativeness and reachability. As 53.5% of employees argue, CBE-Birr product attracts customers and 55.6% of them suggested that CBE-Birr can make the bank competitive and attractive. Furthermore, 56.4% of customers responded that CBE-Birr agent banking fulfils

their definition of innovativeness. Concerning reachability, 51.5% of employees and 73.7% of customers strongly agree to the idea that CBE-Birr service enhances reachability of the bank.

The institutional and legal supports for agent banking are environmental factors that improve the future prospects of adoption of agent banking. Since CBE-Birr can work with or without internet, so the availability and cost of internet could necessarily limit its adoption. More than 50% of the respondents from customers and employees gave supporting evidence concerning internet access and cost. The government is supportive and there is legal guideline for agent banking. In the survey, 51.5% of customers and 53.5% of employees agree to the claim that there is legal framework to effectively enforce the adoption and use of CBE-Birr services.

## **5.2 Conclusions**

In this study, the research examines the different factors that affect the adoption and expansion of one product of agent banking services (CBE-Birr). Thus, it tries to capture what triggers adoption (prospects) and what limits (challenges) adoption. The results of this study show that *organizational attributes* (system quality, service quality, innovativeness, security, reach ability, staff profile, and support system), *environmental attributes* (access to internet, access to power, support institution, and legal issue), and *customer attribute* (age, gender, level of education, income level, occupation, exposure to technology, and risk taking behavior) affects the challenge and prospects of introducing/adopting agent banking services in Commercial Bank of Ethiopia.

As the survey findings show, agent banking system is not well-adopted by commercial bank of Ethiopia due to lack of system and service quality. In addition, security aspect (lack of privacy policy about agent banking/CBE-Birr and lack of confidence), lack of knowledge by staffs about agent banking/CBE-Birr, lack of training about agent banking for frontline bank staffs, lack of technical and managerial skill, limited IT support system for agent banking/CBE-Birr), frequent power disruption faced by banks and agents, network instability, lack of knowledge and exposure to new technology, and highly risk averse behavior of consumers are the main challenges to promote wider adoption of CBE-Birr agent banking service.

This study also identified the prospects, advantages, and opportunities of agent banking in commercial bank of Ethiopia. The first one is derived from the nature of the technology, which reduces time, effort, cost and burden. CBE-Birr is innovative. Innovativeness: CBE-Birr can make the bank more competitive and attractive for potential customers. The second prospect is reachability: CBE-Birr agent banking service is equivalent to increasing the number of virtual (office-less) branches and customers do not personally need to go to the branch. From the point of view of the bank, it can reach many customers with improved service and reduced cost. From the customers' perspective, they can access banking services at home using or without using internet connection; it is accessible, convenient, and cheaper means of getting banking service.

### **5.3 Recommendations**

CBE-Birr agent banking system is the new technological concept in Commercial Bank of Ethiopia, which introduced to achieve the objectives of increasing efficiency and effectiveness of banking services. Although it is facing various challenges from different stakeholders, it has brought opportunities and advantages to the bank, customers and agents that could enhance the prospect of widely adopting agent banking service. Based on the information gathered from different parties and findings of the study, the researcher recommends the following points;

- ✓ System and service qualities take a major role to attract customers and to offer banking services with efficiency. However, employees, customers and agents clearly indicated that the system and service quality of the bank weak and requires huge attention and intervention. Therefore, the bank should make progress to strength its system quality by hiring highly qualified and committed Information System personnel. In addition to acquiring more staffs, further training should be provided to its operation and frontline staffs to be able to provide quality service to its customers.
- ✓ Most customers have doubt and they feel insecure while using CBE-Birr agent banking services. Overall, they feel less confident about the service. Therefore, more awareness creation events, educational programs, promotion and trust building programs should be planned and implemented to help customer build their confidence on the service.

- ✓ The bank should facilitate and provide enough training and technical support to agents and staffs who are providing agent banking/CBE-Birr related activities. After training, the bank should coach and mentor the agents for them to be able to master the operation. In the long-term, the bank should train all staff to increase cope with number of support that comes from customers and agents.
- ✓ The bank should strength its support system such as ICT infrastructure by working with relevant government institutions such as ethio-telecom. This will be helpful to deal with the problem of network instability. At branch level, the bank needs to solve the problem of power disruption by using of automatic generator to reduce customers' dissatisfaction.

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## **Appendix I**

### **Questionnaire for employee**

**Addis Ababa University**  
**College of Business and Economics**  
**Department of Master of Business and Administration**

Dear Madam/Sir,

I am Hana Tilahun Demeke, a student of Master of Business and Administration (MBA) at Addis Ababa University. I am undertaking a research on the topic “*The Challenges and Prospects of e-Banking System in Commercial Bank of Ethiopia: A case study of agent banking (CBE-Birr)*” for the partial fulfillment of the requirements of the degree of Master of Business and Administration. This questionnaire aims at exploring and assessing the Challenge and prospects of agent banking (CBE-Birr) in Commercial Bank of Ethiopia (CBE). As a crucial input for the research, I would like to gather information from key stakeholders. Therefore, I would like to thank you in advance for your time. All the information gathered will be kept strictly confidential and used only for academic purpose.

Tel: 0913551637

E-mail: [hanatilahun14@yahoo.com](mailto:hanatilahun14@yahoo.com)

#### **For CBE employee**

Please put (√) sign on the appropriate space as per your choice for each closed-ended question and the appropriate reason for open-ended question.

#### **Part I**

1. Sex of respondent:     1 Male             2 Female
2. Age:                     1 16-29             2 30-39             3 40-49             4 above 50
3. Educational level of respondent
- 1 College Diploma     2 University Degree     3 Masters Degree     4 Doctoral Degree

*The Challenges and Prospects of E-Banking System in Commercial Bank of Ethiopia: A Case Study of Agent banking (CBE-Birr)*

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4. Years of experience in the banking sector

- 1 Less than 1 Year     
  2 1 Year to 3 Years     
  3 3 Years to 5 Years  
 4 5 Years to 10 Years     
  5 above 10 Years

5. Position

- 1 Junior officer     
  2 Branch banking officer     
  3 senior branch banking officer  
 4 Manager     
  5 Customer Service Manager

6. From the following e-banking services, which one does your branch provide?

- 1 ATM     
  2 POS     
  3 Mobile banking     
  4 Internet banking  
 5 CBE Birr     
  6 All the above E-banking product

7. According to your observation of CBE-Birr banking service use, how is the trend overtime?

- 1 Sharply increasing     
  2 moderately increasing     
  3 almost constant  
 4 Slowly Decreasing     
  5 Sharply decreasing

Below are list of statements related to the adoption or use of e-banking services. Therefore, please indicate your level of agreement with each statement by putting (√) sign on the spaces provided corresponding to your degree of agreement.

**Part II: Organizational Attributes**

Where, 1= Strongly Disagree (SD) 2= Disagree (D) 3= Neutral (N) 4=Agree (A) 5=Strongly agree (SA)						
S.No	Dimension	1	2	3	4	5
	<b>System Quality</b>					
1	Agent-banking or CBE-Birr enhances the speed and					

*The Challenges and Prospects of E-Banking System in Commercial Bank of Ethiopia: A Case Study of Agent banking (CBE-Birr)*

Where, 1= Strongly Disagree (SD) 2= Disagree (D) 3= Neutral (N) 4=Agree (A) 5=Strongly agree (SA)						
S.No	Dimension	1	2	3	4	5
	efficiency of banking services					
2	The bank provide CBE-Birr coupled with high quality system					
	<b>Service Quality</b>					
1	Agent-banking or CBE-Birr improves the quality of banking service					
2	The bank is committed to strengthen the services provided using CBE-Birr					
3	The use of electronic banking (such as agent-banking) reduces the costs associated with banking service provision					
4	There are no/minimum number of complaints related to CBE-Birr service provision					
	<b>Innovativeness</b>					
1	The CBE-Birr services or products are highly innovative to be able to persuade/attract customers					
2	CBE-Birr can make the bank competitive and attractive					
	<b>Security</b>					

*The Challenges and Prospects of E-Banking System in Commercial Bank of Ethiopia: A Case Study of Agent banking (CBE-Birr)*

Where, 1= Strongly Disagree (SD) 2= Disagree (D) 3= Neutral (N) 4=Agree (A) 5=Strongly agree (SA)						
S.No	Dimension	1	2	3	4	5
1	There is a user privacy policy about CBE-Birr which mentioned on the website to strengthen trust of customers					
2	There is lack of confidence with the security aspects of CBE-Birr					
	<b>Reach ability</b>					
1	Agent banking is convenient and significantly save time for customers					
2	Wider adoption of agent-banking could reduce the possibility of opening more branches					
3	The use of CBE-Birr ensures banking access for consumers 24 hours and 7 days.					
	<b>Staff Profile</b>					
1	The management of the bank provides training courses for its staff when introducing new e-banking services such as CBE-Birr					
2	All employees/staffs of the bank have adequate knowledge about agent banking or CBE-Birr service provision					

*The Challenges and Prospects of E-Banking System in Commercial Bank of Ethiopia: A Case Study of Agent banking (CBE-Birr)*

Where, 1= Strongly Disagree (SD) 2= Disagree (D) 3= Neutral (N) 4=Agree (A) 5=Strongly agree (SA)						
S.No	Dimension	1	2	3	4	5
3	In the bank, there is lack of technical and managerial skills on the adoption of CBE-Birr banking service					
	<b>Support System</b>					
1	There is a strength of ICT equipment and network, software and reorganization for agent banking/CBE-Birr service					

**Part III: Enabling Environment**

Where, 1= Strongly Disagree (SD) 2= Disagree (D) 3= Neutral (N) 4=Agree (A) 5=Strongly agree (SA)						
S.No	Dimension	1	2	3	4	5
	<b>Access to Internet</b>					
1	The use of CBE-Birr service is often limited by the availability and strength of internet connection					
2	Relatively there is high cost of internet to use CBE-Birr service					
	<b>Access to Power</b>					
1	There is frequent power disruption in the bank to process					

*The Challenges and Prospects of E-Banking System in Commercial Bank of Ethiopia: A Case Study of Agent banking (CBE-Birr)*

Where, 1= Strongly Disagree (SD) 2= Disagree (D) 3= Neutral (N) 4=Agree (A) 5=Strongly agree (SA)						
S.No	Dimension	1	2	3	4	5
	CBE-Birr service					
	<b>Network Stability</b>					
1	The Bank provides an alternative way to use agent banking (CBE-Birr) services when there is network instability					
2	There is a limitation in network infrastructure for agent banking (CBE-Birr)					
	<b>Support Institution</b>					
1	The commitment of the government to facilitate the expansion of ICT infrastructure is an opportunity to increase agent-banking practices					
	<b>Legal Issues</b>					
1	There is a legal frame works that enforce the bank to adopt technological innovation such as CBE-Birr					

**Part IV: Customer Attributes**

Where, 1= Strongly Disagree (SD) 2= Disagree (D) 3= Neutral (N) 4=Agree (A) 5=Strongly agree (SA)						
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*The Challenges and Prospects of E-Banking System in Commercial Bank of Ethiopia: A Case Study of Agent banking (CBE-Birr)*

S.No	Dimension	1	2	3	4	5
	<b>Exposure to technology</b>					
1	CBE-Birr products are successfully adopted by the customers of the bank					
2	Most customers are not willing to accept new product such as CBE-Birr service					
	<b>Risk taking behavior</b>					
1	Most customers consider the use of agent banking such as CBE-Birr service very risky					
2	Consumers have fear of taking risk of using agent banking such as CBE-Birr.					

**Is there barrier or challenge of agent-banking service provision? If any, please specify in the space provided below:**

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**Is there prospect of agent-banking service provision? If any, please specify in the space provided below:**

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**Thank You!**

## **Appendix II**

### **Questionnaire for customer English and Amharic Version**

**Addis Ababa University**  
**College of Business and Economics**  
**Department of Master of Business and Administration**

Dear Madam/Sir,

I am Hana Tilahun Demeke, a student of Master of Business and Administration (MBA) at Addis Ababa University. I am undertaking a research on the topic “*The Challenges and Prospects of e-Banking System in Commercial Bank of Ethiopia: A case study of agent banking (CBE-Birr)*” for the partial fulfillment of the requirements of the degree of Master of Business and Administration. This questionnaire aims at exploring and assessing the Challenge and prospects of agent banking (CBE-Birr) in Commercial Bank of Ethiopia (CBE). As a crucial input for the research, I would like to gather information from key stakeholders. Therefore, I would like to thank you in advance for your time. All the information gathered will be kept strictly confidential and used only for academic purpose.

Tel: 0913551637

E-mail: [hanatilahun14@yahoo.com](mailto:hanatilahun14@yahoo.com)

#### **For Customer**

Please put (√) sign on the appropriate space as per your choice for each closed-ended question and the appropriate reason, explanation or justification for open-ended question.

#### **Part I**

1. Sex of respondent:       1 Male       2 Female
2. Age (in years):       1 16-29       2 30-39       3 40-49       4 above 50
3. Marital status:       1 Married       2 Single       3 Widowed       4 Divorce
4. Educational level of respondent
- 1       2       3       4       5

*The Challenges and Prospects of E-Banking System in Commercial Bank of Ethiopia: A Case Study of Agent banking (CBE-Birr)*

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Illiterate      Primary      Secondary      College Diploma      University  
degree or above

5. Monthly income (in Ethiopian Birr)

- 1 Less than 600     2 600-1650     3 1651-3200     4 3201-5250  
 5 5251-7800     6 7801-10900     7 greater than 10900

6. Occupation

- 1 Government     2 Private     3 Other

7. For how long have you been using banking service? Mention the number of years

\_\_\_\_\_ Years

8. From the following e-banking services, which one do you use? Multiple answers are possible.

- 1 ATM     2 POS     3 Mobile banking     4 internet banking     5 CBE Birr     6 All

9. If you are user of CBE-Birr e-banking service, how often do you use?

- 1 Regularly     2 Very regularly     3 sometimes     4 rarely     5 Very rarely

10. For what purpose do you use CBE-Birr?

- 1 For local money transfer     2 for bill payment     3 for buying mobile airtime  
 4 For buying goods

11. Do CBE staffs provide adequate information about the particular e-banking service such as CBE-Birr?

- 1 Yes     2 No

*The Challenges and Prospects of E-Banking System in Commercial Bank of Ethiopia: A Case Study of Agent banking (CBE-Birr)*

Below are list of statements related to the adoption or use of e-banking services. Therefore, please indicate your level of agreement with each statement by putting (√) sign on the spaces provided corresponding to your degree of agreement.

**Part II: Organizational Attributes**

Where, 1= Strongly Disagree (SD) 2= Disagree (D) 3= Neutral (N) 4=Agree (A) 5=Strongly agree (SA)						
S.No	Dimension	1	2	3	4	5
	<b>System Quality</b>					
1	The bank give CBE-Birr service with high quality system so it help me to complete banking activities more quickly and easily					
	<b>Service Quality</b>					
1	The bank gives me CBE-Birr service with high quality so I do not have complain about it					
	<b>Innovativeness</b>					
1	When I use CBE birr I feel like the bank is highly innovative bank.					
	<b>Security</b>					
1	CBE-Birr service is highly secure and I believe in it.					
	<b>Reach ability</b>					
1	CBE-Birr services are available in every branch of the bank.					
	<b>Staff Profile</b>					

*The Challenges and Prospects of E-Banking System in Commercial Bank of Ethiopia: A Case Study of Agent banking (CBE-Birr)*

Where, 1= Strongly Disagree (SD) 2= Disagree (D) 3= Neutral (N) 4=Agree (A) 5=Strongly agree (SA)						
S.No	Dimension	1	2	3	4	5
1	All employee of the bank has full knowledge about the service they are given especially CBE-Birr					
	<b>Support System</b>					
1	Support system of the bank (ICT infrastructure) is very strong to support CBE-Birr service					

**Part III: Enabling Environment**

Where, 1= Strongly Disagree (SD) 2= Disagree (D) 3= Neutral (N) 4=Agree (A) 5=Strongly agree (SA)						
S.No	Dimension	1	2	3	4	5
	<b>Access to Internet</b>					
1	The use of CBE-Birr service is often limited by the availability and strength of internet connection					
2	Relatively there is high cost of internet to use CBE-Birr service					
	<b>Access to Power</b>					
1	There is high power disruption when I go to the bank to access e-banking such as CBE-Birr					
	<b>Network Stability</b>					

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Where, 1= Strongly Disagree (SD) 2= Disagree (D) 3= Neutral (N) 4=Agree (A) 5=Strongly agree (SA)						
S.No	Dimension	1	2	3	4	5
1	The mobile network/connection is creating challenge to effectively use CBE-birr services					
	<b>Support Institution</b>					
1	There is no commitment of the government to facilitate the expansion of ICT infrastructure					
	<b>Legal Issue</b>					
1	There is a legal framework to effectively enforce the adoption and use of CBE-Birr services					

**Part IV: Customer/User Attributes**

Where:1= Strongly Disagree(SD) 2=Disagree(D) 3=Neutral(N) 4=Agree(A) 5=strongly agree(SA)						
S.No	Dimension	1	2	3	4	5
	<b>Exposure to technology</b>					
1	I always expose to new technology that given by the bank for example CBE-Birr.					
2	Without the technical guidance and support, I may not be able to use CBE-Birr services/products					

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Where:1= Strongly Disagree(SD) 2=Disagree(D) 3=Neutral(N) 4=Agree(A) 5=strongly agree(SA)						
S.No	Dimension	1	2	3	4	5
	<b>Risk taking behavior</b>					
<b>1</b>	I have fear of using agent banking or CBE-Birr because I feel that it is very risky					

**Is there barrier or challenge of adopting agent-banking service provision? If any, please specify in the space provided below:**

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**Is there an opportunity of adopting agent-banking service provision? If any, please specify in the space provided below:**

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**Thank You!**

**አዲስአበባዩኒቨርሲቲ**

**የቢዝነስአናየኢኮኖሚክስኮሌጅ**

**የማስተርስአናቢዝነስኤንድአድሚኒስትሬሽንዲፓርትመንት**

ውድ/የኢ.ን.ባደንበኞች፣

እኔህናጥላሁንደመቀየሩዲስአበባዩኒቨርሲቲየማስተርስአናቢዝነስአናአድሚኒስትሬሽንተማሪስሆንዩድህረምረቃየመመረቁያፅሁፊ።

ንበኢትዮጵያንግድባንክየአሌክትሮኒክስባንኪንግአገልግሎትንውጤታማየሚያደርጉእናእንደችግርየሚታዩመንገዶችበዋናነትበሲ

ቢኢ-ብርላይጥናቴንእየሰራሁአገኛለሁ። የዚህመጠይቅአላማምበኢትዮጵያንግድባንክየሲቢኢ-

ብርአገልግሎትዝርጋታላይውጤታማየሚያደርጉእናእንደችግርየሚታዩመንገዶችንለመጠቆምይረዳል።

ስለዚህለመጠይቁንበአትሲባልየእርስዎመጠይቁንመሙላትአስፈላጊሆኖተገኝል።

በቅድሚያግዜዎትንስለሰጡኝአመሰግናለሁ።

ሁሉምመረጃሚስጥራዊነቱየተጠበቀእናለትምህርትአገልግሎትብቻየሚውልነው።

ስልክ:0913551637

ኢ-ሜል: [hanatilahun14@yahoo.com](mailto:hanatilahun14@yahoo.com)

**ለደንበኛ**

እባክዎትይህንን (✓) ምልክትበትክክለኛውቦታያስቀምጡ። እንዲሁምበክፍትቦታዎችላይአስፈላጊውንመልስያስቀምጡ።

**ክፍል I**

1. ጾታ:  1 ወንድ ሴት  2
2. እድሜ:  1 16-29  2 30-39  3 40-49  4 ከ50 በላይ
3. የጋብቻሁኔታ:  1 ያገባብቸኛባ  2 ተለየተፋታ  3  4
4. የትምህርት ደረጃ
  - 1 ግሪምጀል  2 ደረጃሁለተኛ ደረጃ የኮ  3 ዲፕሎማዩኒቨርሲ  4 ግሪአናከዚያ በላይ  5
5. የወርገቢ (በኢትዮጵያ ገንዘብ)
  - ከ600  1 ፍ  2 600-  3 165  4 200  5 3201-  6
  - 5 5251-7800  6 7801-10900  7 ከ10900 በላይ

6. የስራ-ሁኔታ

የመንግስት የግልሌላ  1  2  3

7. ለምን ያህል ጊዜ የባንክ አገልግሎት ተጠቅመዋል? እባክዎ የተጠቀሙበትን አመት ይግለጹ

\_\_\_\_\_ አመታት

8. ከሚከተሉት የኢ-ባንክ ንግድ አገልግሎት የቱን ይጠቀማሉ? ከአንድ በላይ መልስ ይቻላል.

ኤቲኤ  1 ስም ባይል ባንክ  2 ኢንተርኔት ባንክ  3 ሲ.ቢ.ኢ.-ብር  4  
ሁሉንም  6

9. የሲ.ቢ.ኢ.-ብር ተጠቃሚ ከሆኑ በምን ያህል ጊዜ ይጠቀማሉ?

በ  1 ዝቅተኛ መጠን ለገንዘብ ጥያቄ  2 ዳንድ እዜ አልፎ አልፎ በ  3 ለፎካል ገደብ  4  5

10. ሲ.ቢ.ኢ.-ብርን ለምን አገልግሎት ይጠቀሙታል?

ብር ለመላ  1 ለመክፈል የምባይል ካርድ  2 ለመላት እቃ ለመግዛት  3  4

11. የኢትዮጵያን ግድባን ክስራተኞች ስለ ኢ-ባንክ (ሲ.ቢ.ኢ.-ብር) አገልግሎት በቁኔታዎቻቸው ስንት ይስጣሉ?

አዎ ይሰጣሉ አይሰጡም  1  2

ከዚህ በታች በኢትዮጵያን ግድባን ክስራተኞች (ሲ.ቢ.ኢ.-ብር)

አገልግሎት ወጤታማ የሚያደርጉ እና እንደ ግርዶሽን ገደብ ለመግዛት ጥያቄዎች ተቀምጠዋል። የእርስዎን

መልስ በጥያቄዎቹት ይይዩ። (✓) ምልክት በማስቀመጥ ሃሳብን በተቀመጡት ምርጫዎች መሰረት “በጣም አልስማማም”

“አልስማማም” “ገለልተኛ” “አስማማለሁ” ወይም “በጣም እስማማለሁ” በሚል ከ 1-5

በተገለጹት አማራጮች እንዲመልሱ ማድረግ ይቻላል።

**ክፍል II: የድርጅቱ ባህሪ (Organizational Attributes)**

ማስታወሻ: 1 = በጣም አልስማማም 2 = አልስማማም 3 = ገለልተኛ 4 = እስማማለሁ 5 = በጣም እስማማለሁ						
ተ.ቁ	ልኬት (Dimension)	1	2	3	4	5

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ተ.ቁ	ልኬት(Dimension)	1	2	3	4	5
	<b>የሲስተምጥራት(System Quality)</b>					
1	የባንኩሲቢኢ.- ብርአገልግሎትየአሰራርጥራትየባንኪንግእንቅስቃሴዎችንበቀላሉእናበፍጥነትእንድፈፅምአድርጎኛል					
	<b>የአገልግሎትጥራት(Service Quality)</b>					
1	ባንኩሲቢኢ.- ብርአገልግሎትንበጥራትስለሚሰጠኝስለአገልግሎቱምንምቅሬታየለኝም					
	<b>አዲስሀሳብግኝት(Innovativeness)</b>					
1	ሲቢኢ.- ብርአገልግሎትንስጠቀምባንኩአዲስግኝትላይበትልቁእንደሚሰራአሰባለሁ					
	<b>ደህንነት(Security)</b>					
1	ሲቢኢ.- ብርአገልግሎትደህንነቱየተጠበቀሰለሆነአተማመንበታለሁ					
	<b>ተደራሽነት(Reach ability)</b>					
1	የወኪልባንኪንግ (ሲቢኢ.-ብር) አገልግሎትበሁሉምየባንኩቅርንጫፎችይሰጣል					
	<b>የሰራተኞችመገለጫ(Staff Profile)</b>					
1	የባንኩሰራተኞችስለሚሰጡትአገልግሎትማለትምስለሲቢኢ.- ብርአገልግሎትበቂእውቀትአላቸው					
	<b>የሲስተምድጋፍ (Support System)</b>					
1	የሲቢኢ.-					

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ተ.ቁ	ልኬት(Dimension)	1	2	3	4	5
	ብርአገልግሎትአሰራርንየሚደግፉለምሳመሰ ረተልማቱበጣምጠንካራእናአስተማማኝነው					

**ክፍል III: አስቻይሁኔታዎች (Enabling Environment)**

ማስታወሻ, 1= በጣምአልሰማምም 2= አልሰማምም 3= ገለልተኛ 4=እስማማለሁ 5=በጣምእስማማለሁ						
S.No	ልኬት(Dimension)	1	2	3	4	5
	<b>የኢንተርኔትአጠቃቀም(Access to Internet)</b>					
1	ሲቢኢ- ብርአገልግሎትአጠቃቀምበኢንተርኔትግንኙነትአቅምየተገታነው					
2	ከሌሎቹአገልግሎቶችየሲቢኢ- ብርኢንተርኔትወጪከፍተኛነው					
	<b>የሀይልአጠቃቀም(Access to Power)</b>					
1	የወኪልባንኪንግማለትምየሲቢኢ- ብርአገልግሎትንለመጠቀምወደባንክበምሄድ በትሰዓት-በዙግዜየሀይልመቆራረጥይገጥመኛል					
	<b>የአውታረመረብመረጋጋት(Network Stability)</b>					
1	የሞባይልኔትወርክ/ግንኙነትየሲቢኢ- ብርውጤታማበሆነመልክ-እንዳልጠቀምአግዶኛል					
	<b>አጋዥድርጅቶች(Support Institution)</b>					
1	የአይሲትመሰረተልማትዝርጋታላይመንግስት ችልተኛነው					
	<b>የህግጉዳይ(Legal Issue)</b>					

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S.No	ልኬት(Dimension)	1	2	3	4	5
1	የሲ.ቢ.ኢ.-ብርአገልግሎትንለመጠቀምየሚመራ ጠንካራየህግመዋቅርአለ					

**ክፍል IV: የደንበኞች ባህሪ (Customer/User Attributes)**

ማስታወሻ, 1= በጣምአልስማማም 2= አልስማማም 3= ገለልተኛ 4=እስማማለሁ 5=በጣምእስማማለሁ						
S.No	ልኬት(Dimension)	1	2	3	4	5
	<b>ቴክኖሎጂን የመቀበል ልምድ (Exposure to technology)</b>					
1	ሁልጊዜም ለአዲስ ቴክኖሎጂ አገልግሎት ቅርብ ነኝ ለምሳሌ ሲ.ቢ.ኢ.-ብር					
2	ያለሙያዊ መምሪያ እና እርዳታ የሲ.ቢ.ኢ.-ብር አገልግሎትን መጠቀም ላልችል እችል ነበር					
	<b>አደጋን የመቀበል ባህሪ (Risk taking behavior)</b>					
1	ሲ.ቢ.ኢ.-ብርን መጠቀም እፈራለሁም ከንጹህ ተያይዞ የሚመጣውን ችግር እፈራለሁ					

የወኪል ባንክ ንግን (ሲ.ቢ.ኢ.-ብር) ለመጠቀም እንደ ችግር የሚታዩ ጉዳዮች አሉ? ካሉ, እባክዎትክታችባለው ክፍት ቦታ ይጥቀሱ:

የወኪል ባንክ ንግን (ሲ.ቢ.ኢ.-ብር) ለመጠቀም ውጤታማ የሚያደርጉ መንገዶች አሉ? ካሉ, እባክዎትክታችባለው ክፍት ቦታ ይጥቀሱ:-

አመሰግናለሁ!

## **Appendix III**

### **Interview for employee**

**Addis Ababa University**  
**College of Business and Economics**  
**Department of Master of Business and Administration**

Dear Madam/Sir,

I am Hana Tilahun Demeke, a student of Master of Business and Administration (MBA) at Addis Ababa University. I am undertaking a research on the topic “*The Challenges and Prospects of e-Banking System in Commercial Bank of Ethiopia: A case study of agent banking (CBE-Birr)*” for the partial fulfillment of the requirements of the degree of Master of Business and Administration. This questionnaire aims at exploring and assessing the Challenge and prospects of agent banking (CBE-Birr) in Commercial Bank of Ethiopia (CBE). As a crucial input for the research, I would like to gather information from key stakeholders. Therefore, I would like to thank you in advance for your time. All the information gathered will be kept strictly confidential and used only for academic purpose.

#### **Interview questionnaires designed for commercial bank of Ethiopia e-payment manager and IT manager.**

Your position please: \_\_\_\_\_

1. What are the main Electronic banking services your bank provides? (Example: ATM, POS, Internet banking, mobile banking, Agent banking (CBE-Birr) or if others, please specify \_\_\_\_\_)
2. What are the basic barriers related to the adoption and expansion of agent banking system such as CBE-Birr?
3. What are the opportunities/prospects of adopting and expanding agent banking system such as CBE-Birr?
4. What is your opinion and evaluation of the progress, current status, and operating style of CBE associated with e-banking system?

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5. Do all employees of CBE have adequate knowledge and understanding about agent banking service provision?

**Yes No**

1

2

6. If your answer is **No** for question 5, what is/are the main reason(s) and what do you think are the solutions ?

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7. As far as service delivery to customers is concerned, what are the main benefits your institution and customer obtained from the adoption or expansion of agent banking (CBE-Birr)?

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**Thank You!**

**Appendix IV**

**Interview for agent (Amharic Version)**

**አዲስአበባዩኒቨርሲቲ**

**ኮሌጅአፍቢዝነትኤንድኢኮኖሚክስ**

**ዲፓርትመንትአፍማስተርሰኦክፍቢዝነትኤንድኢኮኖሚኒስትራሽን**

ውድዮኢ.ን.ባወኪሎች

እኔህናጥላሁንደመቀየሩአዲስአበባዩኒቨርሲቲየማስተርሰኦክፍቢዝነትኤንድኢኮኖሚኒስትራሽንተማሪስሆንዮድህረምረቃየመመረቁያፅሁፊ ንበኢትዮጵያንግድባንክየአሌክትሮኒክስባንኪንግአገልግሎትንውጤታማየሚያደርጉእናእንደችግርየሚታዩመንገዶችበዋናነትበሲቢኢ-በርላይጥናቴንእየሰራሁእገኛለሁ። የዚህመጠይቅአላማምበኢትዮጵያንግድባንክየሲቢኢ-

በርላይግሎትዝርጋታላይውጤታማየሚያደርጉእናእንደችግርየሚታዩመንገዶችንለመጠቆምይረዳል።

ስለዚህለመጠይቁባንክትሲባልየእርስዎቃለመጠይቅአስፈላጊሆኖተገኝል። በቅድሚያግዜዎትንስለሰጡኝአመሰግናለሁ። ሁሉምመረጃሚስጥራዊነቱየተጠበቀእናለትምህርትአገልግሎትብቻየሚውልነው።

**ለኢትዮጵያንግድባንክወኪሎችየተዘጋጀቃለመጠይቅ**

የስራዎአይነት : \_\_\_\_\_

1. የኢትዮጵያንግድባንክወኪልሆነውመስራትከጀመሩስንትግዜይሆንዎታል?
2. ደንበኞችየወኪልባንክን (ሲቢኢ-በርን) ይጠቀማሉ? ለምንአገልግሎትይጠቀሙታል?
3. የወኪልባንክ (ሲቢኢ-በር) አገልግሎትየበለጠእንዳይስፋፋመሰናክሉምንድንነውብለውያስባሉ?
4. የወኪልባንክ (ሲቢኢ-በር) አገልግሎትመስፋፋትንስኬታማያደርጉታልብለውየሚያስቡትካለይጥቀሱልን?
5. ባንኩበስራውላይችግርከገጠምዎምንያህልያግዝዎታል?
6. ወኪልሆነውበመስራትዎትምንያገኙትጥቅምአለ?

**አመሰግናለሁ!**