

**Factors Affecting CBE-Birr Agent Banking System in Commercial  
Bank of Ethiopia: A Case Study in Jimma city Commercial bank of  
Ethiopia**

*A Proposal Submitted to the School of Graduate Studies of Jimma University in  
Partial Fulfilment of the Requirements for the Award of the Degree of Master of  
Business Administration (MBA)*

BY:

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**JIMMA UNIVERSITY  
COLLEGE OF BUSINESS & ECONOMICS  
MBA PROGRAM**

**JUNE 18, 2021**

**JIMMA, ETHIOPIA**

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Under the guidance of

Mr. Wubshet Mengesha (Ass.prof)

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## CERTIFICATE

This is to certify that the thesis entitles “*Factors Affecting CBE – Birr Agent Banking System in Commercial Bank of Ethiopia: A Case Study of CBE-Birr Agent*”, submitted to Jimma University for the award of the Degree of Master of Business Administration (MBA) and is a record of bona fide research work carried out by Mr. Samuel Tigabu, under our guidance and supervision.

Therefore, we hereby declare that no part of this thesis has been submitted to any other university or institutions for the award of any degree or diploma.

<i>Main Adviser's Name</i> Mr.Wubshet Mengesha _____	<i>Date</i> _____	<i>Signature</i>
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## **DECLARATION**

I hereby declare that this thesis entitled “*Factors Affecting CBE – Birr Agent Banking System in Commercial Bank of Ethiopia: A Case Study of CBE-Birr Agent*”, has been carried out by me under the guidance and supervision of Mr.Wubshet Mengesha (Ass.prof) and Mr.Firew Mulatu.

The thesis is original and has not been submitted for the award of any degree or diploma to any university or institutions.

Researcher's Name

Date

Signature

Samuel Tigabu

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## **Abstract**

*This research intends to examine factors affecting the adoption 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 study adopted both qualitative and quantitative research approaches. The study was conducted based on the data collect from four branches of commercial bank of Ethiopia: Jimma main, AbaJifar ,Awetu and Sedecha. To select survey respondents (employees, customers and agents) from the selected branches, proportional random sampling method was be applied. The collected data was analyzed using descriptive and explanatory methods of data analysis. The study assessed 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.*

**Key words:** Adoption, CBE-Birr, Agent banking, factors affecting

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AGENT BANKING OR CBE-BIRR

## **List of Acronyms**

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



# CHAPTER ONE

## 1. INTRODUCTION

This chapter presents an overview of the entire study. It includes the background of the study, statement of the problem, objective of the study, research questions, significance of the study, limitations of the study, limitation of the study and organization of the study.

### **1.1 Background of the study**

More than ever before there is a global concern to establish financial deepening access to previously overlooked areas due to some areas considered economically unviable where majority of the customers operate their businesses. In a growing number of countries, banks and other commercial financial service providers are finding new ways to make money delivering financial services to unbanked people. Rather than using bank branches and their own field officers, they offer banking and payment services through postal and retail outlets, including grocery stores, pharmacies, and gas stations among others. For poor and rural people, retail agents may be far more convenient and efficient than going through a bank.

In the present time 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 established 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 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 leading medium of exchange, and electronic payment systems are at an embryonic stage. In the face of rapid development 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 enhanced efficiency and convenience, it has also posed several challenges to the regulators and supervisors (Uppal and Jatana, 2007).

## **1.2. Background of the organization**

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 occupied 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 a variety of 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 effective 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 intend 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.



### **1.3. 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).

Although According to (Kassahun 2016, Tilahun 2017), studies 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 study was 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).

## **Research question**

This study seeks to answer the following research questions:

1. What are the opportunities/prospects due to the expansion of CBE-Birr agent banking?
2. What are the factors affecting for adopting of E-Banking in CBE?

### **1.4. Objective of the study**

#### **1.4.1. General Objective**

The main objective of the study was to investigate factors affecting the adoption of CBE-Birr agent banking system in Commercial Bank of Ethiopia.

#### **1.4.2. Specific Objective**

The specific objectives of this study are to:

- To examine organizational attributes that affect the adoption of CBE-Birr agent Banking adoption.
- To investigate user attributes that affects the adoption of CBE-Birr agent Banking adoption.
- To examine environmental factors that influences the adoption of CBE-Birr agent Banking adoption.

- a. To assess factors affecting for adopting of CBE agent banking.

### **1.5. Significance of the study**

Since CBE-Birr agent banking is in an infant stage in CBE, by investigating factors affecting the adoption of CBE-Birr agent banking system in Commercial Bank of Ethiopia, for the adoption of this service delivery and by recommending solutions for the identified problems. Further, it helps to fill significant knowledge gaps about CBE-Birr agent; thereby it was give insight to researchers and students about the problem and stimulates further investigation of the issue.

### **1.6. Scope of the study**

The scope of this study is delimited to the assessment of factors affecting the adoption of CBE agent banking service in selected branches of CBE which are located in Jimma Town. This study specifically focused on Jimma District selected four branches in Jimma Town, which were under taken from February 23 – June 2021.

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

Because of time, cost, work load constraints it is difficult to study all Commercial Bank of Ethiopia branches. Therefore, this study is delimited only to investigate adoption of CBE-Birr agent banking system in Commercial Bank of Ethiopia in jimma city

### **1.8. Organization of the study**

This study is organized under five chapters. They are discussed below; Chapter one is concerned with introduction that includes the study background, statement of the problem, research questions that needs to be answered, general and specific objectives that the research needs to be attained at the end, importance of the study, range of the study, curb of the study, overall meaning of key terms used throughout the research and organization of the study. Chapter two includes review of literature hence it contains a review of existing literatures written on the area of CBE birr agent banking related studies, and finally conceptual framework. Chapter three is about research methodology that consists of research design, research approach, population of the study, sample size, sampling procedures, method of data collection and data analysis, validity and reliability of the study and ethical considerations has been discussed. Chapter four and Chapter five presents findings from the survey result, general conclusions and possible recommendations to the problems drawn from the survey result.

## **CHAPTER TWO**

### **2. REVIEW OF LITERATURES**

#### **2.1. Introduction**

The literature review chapter describes and examines related and supporting theories, approaches of the research problem.

#### **2.2. Theoretical review**

##### **2.2.1. Agent banking**

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. (Chiteli, 2013).

According to CGAP (2010) Branchless banking is defined as the delivery of financial services outside conventional bank branches, often using agents and relying on information and communications technologies to transmit transaction details typically card-reading point-of-sale (POS) terminals or mobile phones.

In recent years there are many more agent banking platform vendors have been emerged due to the opportunities of the service since it is found a new and profitable business worldwide. According to Celloscope (2017) their Platform is designed to cater to different financial institutions with common as well as unique need. The platform is flexible enough to be used by for-profit and not-for-profit organizations alike. The Platform helps banks increase service penetration, enhance customer loyalty and stickiness, reduce cost of operations and increase revenue.

As stated by the other well-known technology vendor in Ethiopia: Belcash (2017), with mobile banking, banks can empower its customers (directly or through agents) to securely access their bank accounts using mobile phones to get information of their accounts like available balance, transactions. The Platform will give banks a competitive advantage over other banks offering same kind of services to their clientele. It will allow banks to come to market with new and enhanced banking services in a shorter time frame with a significant cost reduction.

### **2.2.2. 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 immediately 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).

### **2.1.2 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.

### **2.1.3. 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).

### **2.1.4. 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).

#### **2.1.5. 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 reduction of the cost for printing cash notes and its related distribution ,enhancement of aggregate deposit, banking the un-banked and Increasing the potential for hard currency generation

#### **2.1.6. 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.

## **2.2. Factors affecting the adoption of CBE birr agent banking**

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 Factors affecting the adoption of Agent banking to adopt it. Therefore, the study identified organizational factor, environmental factor, and customer factor to study agent banking adoption factors..

### **2.2.1. Organizational Factor**

The study 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 .

### **2.2.2. 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.

### **2.2.3. 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.

### **2.2.4. 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.

### **2.2.5. 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).

### **2.2.6. 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.

### **2.2.7. 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)

## **2.3. Environmental factor**

Environmental factors that identified by study 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 favourable 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.

#### **2.4.Customer Attribute**

Customer factors, exposure to technology and risk taking behavior, identified by study 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 some time, 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).

## 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.

### **2.5.5. 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.

#### **2.5.6. 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.

## **2.6. Empirical review**

The study 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 factors affecting the adoption 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.

When technology is rapidly growing and the numbers of participant increasing, the banking sector needs up-to-date studies to identify factors affecting 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). “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 factors affecting the adoption of agent banking in commercial bank of Ethiopia with both customer and employee perspectives. 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 factors affecting the adoption of agent banking by using both employee and customer perspective

## **2.7. 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 factors affecting the adoption 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 (Adrianet. al, 2016)

The conceptual framework of this study has been designed based on the framework put forward by Adrianet. al (2016). It shows that the factors affecting the adoption 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:

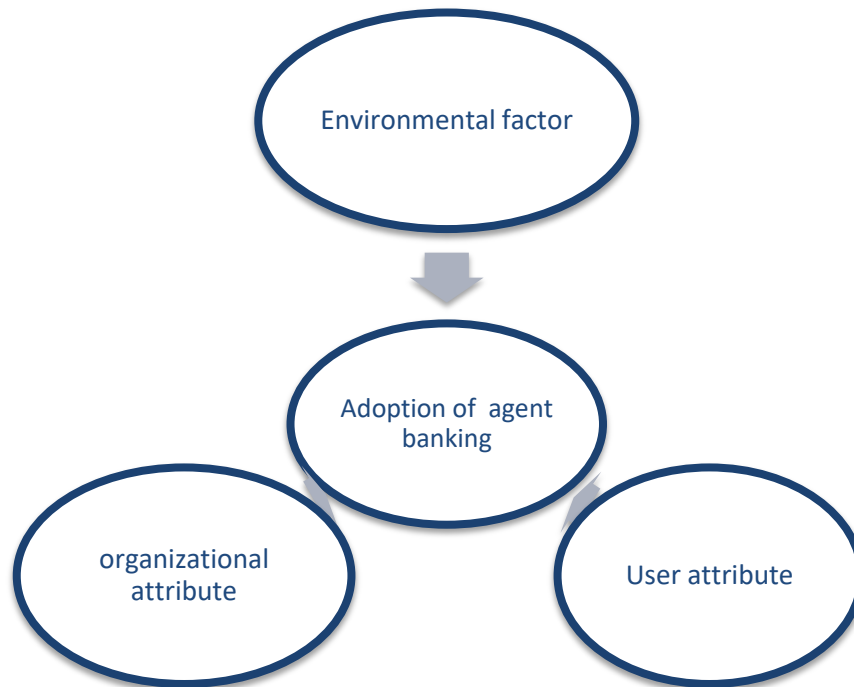


Figure-1: Conceptual Framework on the factors affecting the adoption of agent banking or CBE-Birr

Different factors could affect the adoption of e-banking technologies. Different factors constructed in the proposed model was 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 reach ability 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**

### **3. Methodology**

In this chapter, the study was briefly examined the research design, data sources, methods of data collection, and method of data analysis.

#### **3.1. Research design**

The study was adopted descriptive and explanatory research design to gather information that is relevant to examine the key factors affecting the adoption of CBE-Birr agent banking system. Descriptive survey design aimed to describe opportunity and challenges in adoption of agency banking in commercial bank of Ethiopia. Explanatory research design was selected to explain the way that CBE-Birr agent banking works and factors affecting it. The design provides a qualitative and quantitative description of trends, attitudes, or opinions of a population by studying a sample.

#### **3.2. Research approach**

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

#### **3.3. Data source and collection method**

##### **3.3.1 Data source**

To conduct this research, both primary and secondary data sources was used. 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.

### 3.3.2 Data collection method

To conduct this research data collection method used in the study was unstructured type of questions 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 study was 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 used for the study.

### 3.4 Sample size and sampling technique

The study was applied multi- stage sampling process to select target branches and respondents. At first, the study applied cluster sampling method to choose the target branches from Jimma District. Under this district, the branches are divided into Grade-1, Grade-2, Grade-3, and Grade-4. The branch grading system is based on deposit performance, customer base and number of transactions. Therefore, this study chooses four of the branches in Jimma district by using the purposive sampling method because these branches can represent the vast branches of CBE in Ethiopia ,these branches are Jimma main, Awetu ,Aba Jifar And Sedecha depending on their deposit performance,customer base and number of transactions from grade 4(Jimma main) ,from grade 2 (Aba Jifar) and from grade 1 (Awetu and Sedecha) branches . In selecting respondents from branch, the study used proportional simple random sampling.

According to CBE’s electronic payment report in Dec,2020 there are 44,814 CBE-Birr customers in Jimma main,AbaJifar,Awetu and Sedecha .Out of these the study used 10% of the total CBE-Birr customers (see Table 1). From total number of customers, the study considers 10% active customers who are using CBE-Birr service for more than one year. It is because the study believes that those customers are experienced enough and can have adequate knowledge of CBE-Birr agent banking system.

Table 3. 1 Distribution of CBE-Birr customers and agent in selected branches of Jimma District

S.No	BranchName	Total number of CBE -Birr	Total number of CBE -Birr	Active CBE -Birr customers	Inactive CBE -Birr customers	CBE-Birr agent
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		customers up to Dec,2020	customers more than one year	more than one year	more than one year	up to Dec ,2020
1	<b>Jimmamain</b>	1700	1133	944	189	26
2	<b>Aba Jifar</b>	1568	1119	1047	73	19
3	<b>Awetu</b>	518	346	280	66	16
4	<b>Sedecha</b>	695	463	416	47	18
<b>Total</b>		4481	3061	2687	375	79

Source: Based on CBE E-Payment report (DEC,2020)

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

$$n = \frac{N}{1 + \frac{N * (e)^2}{2799}} = 350$$

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

The total population of employees and customers in selected branches of Jimma District are obtained from human resource and E-payment departments upon formal request.

Table 3. 2 shows the details regarding the sample of respondent, employees and customers.

S.No	Branch name	Total population in each branch				Sample respondents selected for the study			
		Total number of CBE Employee up to Dec,2020		Active CBE-Birr Customer more than one year		Employee		Customer	
		Freq	%	Freq	%	Freq	%	Freq	%
<b>1</b>	<b>Jimma main</b>	62	0.022	944	0.337	7.7	0.022	118	0.337
<b>2</b>	<b>Aba Jifar</b>	23	0.008	1047	0.374	2.8	0.008	131	0.374

<b>3</b>	<b>Awetu</b>	15	0.005	278	0.099	1.75	0.005	35	0.099
<b>4</b>	<b>Sedecha</b>	14	0.005	416	0.148	1.75	0.005	52	0.148
	Total	<b>114</b>		<b>2685</b>		<b>14</b>		<b>336</b>	
<b>Total number of population</b>		<b>N=2799</b>				<b>n = 350</b>			

Source: based on CBE Human Resource and E-Payment Department (Dec, 2020)

This study has total number of population (2799): 114 total employees and 2865 total active CBE-Birrcustomers. By using the previously described formula, the study collects primary data from 14 employees and 336 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 factors affecting the adoption of agent banking service provision, the study also conducted key informants interviews with other stakeholders. To this end, the study 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 by using descriptive and explanatory 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 was examined, Moreover, the findings and key results for the general objective were was presented using tables coupled with detailed explanations, interpretations and for the specific objective, also discussed under each tables on the topics.

### **3.6. Validity**

Validity is the degree to which a measure accurately represents what it is supposed to .It is concerned with how well the concept is defined by the measure(s). Therefore this study tried to addresses validity through the review of literature and adapting instruments used in previous research. Moreover, pre -test of questionnaire was conducted to 38 respondents based on the information obtained some adjustment was made.

### **3.7. Reliability**

Reliability is concerned with the internal consistency of the items. Hair et al. (2007) defined reliability as the extents to which a variable or a set of variable is consistent in what it is extended to measure. As the current study uses multiple items in all variables, internal consistency analysis was carried out through Cronbach alpha reliability tests. Duffy, and Kilbourne (2001) asserted, Cronbac's  $\alpha$  measure the consistency with which participants answer items within a scale. Duffy et al. (2001) further stated, a high  $\alpha$  (greater than .70) indicates that the items within a scale are measuring the same Construct. SPSS version 20 used to produce the values for Cronbach's  $\alpha$ .

### **3.7. Ethical consideration**

There are certain ethical protocols that have been followed by the researcher. The first is soliciting explicit consent from the respondents. This ensures that their participation to the study is not out of their own volition. The researcher also ensured that the respondents were aware of the objectives of the research and their contribution to its completion. One other ethical measure exercised by researcher is treating the respondents with respect and courtesy (Leary2004). This was done so that the respondents were at ease and more likely to give honest responses to the questionnaire. There were also ethical measures that have been followed in the data analysis. To ensure the integrity of data, the researcher checked the accuracy of encoding of the survey responses. This was carried out to ensure that the statistics generated from the study are truthful and verifiable (Leary2004).

## Chapter Four

### 4. Results and discussion

#### 4.1. Introduction

This chapter discusses and analyzes the data collected from various sources related with identifying factors affecting the adoption of the establishment of capital market in Ethiopia. The data were obtained both primary and secondary data sources. The data was presented and analyzed by the form of quantitative method; The data was obtained through questionnaires from employees using the questionnaire distributed is presented by using descriptive statistics .The response rate was that, out of the 350 potential respondents, a total of 265 questioners were collected and the remaining 85 were not returned.

#### 4.2. Demographic characteristics of respondents

This part commences with the analysis of the demographic data gathered from the respondents using frequencies and percentages. Accordingly, the general respondent’s characteristics including: sex, age, marital status, educational level and work experience are presented in Table4.1 below

Demographic variables

Description	Frequency	Percent
Educational level		
• Primary	28	10.5%
• Secondary	65	24.5%
• Collage	83	31.5%
• Above degree	89	34%
Monthly income		
• 600 to 1650	55	20.7%
• 1651 to 3200	80	30.1%
• 3201 to 5250	82	30.9%
• 5251 to 7800	28	10.5%
• Above 7800	13	4.9%
Occupation		2.6%
Government	143	53%
Private	93	35%
Other	51	19.2%
banking experience		
less than 1 year	13	4.9%
2-4	155	58%
5-7	62	23%
8-10	35	13%

Source: survey result 2021

Table 4.1, above describe demographic characteristics of respondents. As we can see from the result the educational level of respondents were (10.5%), primary, (24.5%) secondary, while (31.5%) and (34%) collage and above degree respectively, this shows as most respondent users were educated. this is an indication that most of the respondents engaged in this study had bachelor's degree as their highest levels of education.

Regarding monthly income of respondents, 55 or 20.7 % of CBE-Birr users earn a monthly income of between 600 to 1650 Birr, 30.1%of users earn between 1651 to 3200 Birr, (30.9%) earn between 3201 to 5250 Birr, (10%) earn between 5251 to 7800 Birr, and (4%)earn above 7800 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. Further concerning occupation, the result shows that most of respondents, 143 or (53%)half of the users, work for government institutions, 95 or (35%) work for private institution and while the rest 19 % 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.

Regarding to the question that the respondents answered is “banking experience?” and according to the survey result,4.9 % of them have less than one year experience have at least five years of banking experience, 58%of them have 2-4 years of experience, 23% have 5-7 years' experience while the rest while 13% of respondents have 8-10 seven years of experience. This shows that a customer who has more experience of banking services are willing to use agent banking.



### 4.3. Trend, use and service diversity of agent banking system in CBE

Based on the survey result trend, use and service diversity of agent banking system in CBE birr are identified and discussed as follows.

**Table 4.2. Consumers Use and Application of CBE-Birr banking service**

Description	SD	D	NW	A	SA
Agent-banking or CBE-Birr enhances the speed and efficiency of banking services	6%	17%	7%	67%	3%
The bank provides CBE-Birr coupled with high quality system	8%	20%	9%	57%	6 %
Agent-banking or CBE-Birr improves the quality of banking service	6%	23%	14%	47%	10%
The bank is committed to strengthen the services provided using CBE-Birr	12%	26%	7%	44%	11%
The use of electronic banking (such as agent-banking) reduces the costs associated with banking service provision	15%	24%	4%	42%	14%
There are no/minimum number of complaints related to CBE-Birr service provision	14%	23%	9%	41%	13 %
The CBE-Birr services or products are highly innovative to be able to persuade/attract customers	32%	21%	11%	23%	12%
CBE-Birr can make the bank competitive and attractive	13%	27%	12%	39%	9 %

Source: survey result 2021

As a result, 4.2, above table shows, 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 67% of respondents strongly agree to the claim that CBE Birr enhances speed and efficiency of banking, only whereas only 6% of the respondents respond negatively. On the other hand, majority of the employees (54%) argued that the bank is in a position to provide CBE-Birr service coupled with quality service, while the remaining 63 % of them have argue the bank is not in a position to provide service with quality service. Majority of sample respondent response suggests that the system quality is weak and requires improvement to effectively provide CBE-Birr agent banking service.

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.

As can be seen from above table, about 47 % 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 54 % of the respondents and employees receive complaint from consumers (56 % 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.

For users of CBE-Birr, service quality is crucial component. Around 53% of sampled respondents either strongly disagree or disagree with the idea that the bank gives CBE-Birr service with high quality service. 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.

#### **4.4. Challenges of agent banking (CBE-birr) from the perspectives of the customers and bank employees**

Based on the survey result, 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. A total number of 8 questions on trend, use and service diversity of agent banking system in CBE birr were asked to show the extent to which each respondent agrees to corresponding closed ended statements rated on a five-point Likert type scales ranging from '1' "Strongly Disagree" to '5' "Strongly Agree".

**Table 4.3. factor influence agent banking**

Description	SD	D	NW	A	SA
There is a user privacy policy about CBE-Birr which mentioned on the website to strengthen trust of customers	6%	17%	7%	67%	3%
There is lack of confidence with the security aspects of CBE-Birr	18%	27%	11%	38%	6 %
Agent banking is convenient and significantly save time for customers	6%	23%	14%	47%	10 %
Wider adoption of agent-banking could reduce the possibility of opening more branches	12%	26%	7%	44%	11%
The use of CBE-Birr ensures banking access for consumers 24 hours and 7 days.	15%	24%	4%	42%	14 %
The management of the bank provides training courses for its staff when introducing new e banking services such as CBE Birr	14%	23%	9%	41%	13 %
All employees/staffs of the bank have adequate knowledge about agent banking or CBE-Birr service provision	25%	21%	11%	31%	12%
In the bank, there is lack of technical and managerial skills on the adoption of CBE-Birr banking service	22%	30%	12%	27%	9 %
There is a strength of ICT equipment and network, software and reorganization for agent banking/CBE-Birr service	19%	36%	12%	24%	9 %

Source survey result 2021

The study set out to the challenges of agent banking, concerning the security aspect, the above table 4.4, shows that majority of respondents (70%) 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 44 % 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. The consumers also strongly stated that security is their concern. About 46 % of the sample customers indicated that CBE-Birr service is not highly secured and they have limited trust on it.

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). Concerning the provision of training, 52 % of the staffs showed their strong disagreement and 12 % 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 46% % of respondents indicated that staffs do not have adequate knowledge about CBE-Birr banking service. This shows that, lack of technical and managerial skill is a challenge for the bank to promote adoption of agent banking or CBE-Birr. As Table above show, 25 % and 21 % of respondents are strongly disagreed and disagreed respectively on the idea of knowledge of commercial staff about e-banking service especially CBE-Birr. And only 11 % 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 in the study area. 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.

Limitation in availability and quality of ICT infrastructure (telecommunication, electricity, software and hardware) majority respondents 54% respond negatively, which is disagreed and strongly disagreed, only 33 % agreed and strongly agree. This shows as, there is lack of ICT equipment and network possess challenge on implementing agent banking or CBE-Birr service.

#### **4.5. Environmental factors affecting**

Table 4.5, below discuss about the question relate to key environmental variables which affect the adoption of CBE-Birr banking system. These include access to power and network stability. The study has analyzed how environmental challenge affects to implement the adoption of agent banking/CBE-Birr.

**Table 4. 4 .Environmental factors**

Variables	SD	D	NW	A	SA
The use of CBE-Birr service is often limited by the availability and strength of internet connection	12%	16%	11%	44%	15%
Relatively there is high cost of internet to use CBE-Birr service	6%	9 %	10%	65%	10 %
There is frequent power disruption in the bank to process CBE-Birr service	15%	14%	4%	52%	14 %
The Bank provides an alternative way to use agent banking (CBE Birr) services when there is network instability	14%	23%	9%	41%	13 %
There is a limitation in network infrastructure for agent banking (CBE-Birr)	15%	16%	11%	41%	17%

Source: survey result 2021

As per Table 1 5 above, 44 % strongly agreed and 15 % agreed on the use of CBE-Birr service is often limited by the availability and strength of internet connection in the bank, while 16 % 12 % disagreed strongly and disagreed respectively. This indicates that there is a limitation on the use of CBE Birr service due to limited availability and strength of internet connection

Concerning to access to cost of interment, as per table 4.5, above shown,65% agreed and 10% strongly agreed here is high cost of internet to use CBE-Birr service, around 62% Agree on There is frequent power disruption in the bank to process CBE-Birr service, while 39% disagreed. 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.

The results of the survey presented also shows that, about 41% strongly agreed, and 17 %agreed on limitation of network infrastructure for CBE-Birr services delivery, while only 15%of respondents disagreed and the rest 11 % chose to be neutral. 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.

#### 4.5. User attributes

Below table 4.5 discuss about factors that affect the behavior of customers. Different variables related to willing to accept new product such as CBE Birr service ,use of agent banking practices and their risk-taking behavior are discussed.

Table 4.5: User Attributes

Description	SD	D	NW	A	SA
CBE-Birr products are successfully adopted by the customers of the bank	56%	11%	7%	23%	13%
Most customers are not willing to accept new product such as CBE-Birr service	15%	14%	4%	52%	14 %
Most customers consider the use of agent banking such as CBE-Birr service very risky	14%	23%	9%	41%	13 %
Consumers have fear of taking risk of using agent banking such as CBE-Birr.	15%	12%	11%	45%	17%

Source: survey result 2021

As the results under exposure to technology show, 67 % of the respondents either disagreed or strongly disagreed for customers' adoption of CBE-Birr agent banking, while 23 %, 13% and 7 % of respondents are strongly agreed, agreed and remain neutral, respectively. Another response related to new product exposure show that 52% of respondents strongly agree and 14 % moderately agreed on the idea that customer is not willing to adopt new technological product such as CBE-Birr. This implies that customers' lack of willingness to adopt new product is a challenge for wider adaptation of agent banking or CBE-Birr.

Furthermore, 41% and 13% respondents are strongly agreed and agreed, respectively for the idea that they fail to use CBE-Birr service CBE Birr service very risky. Only 37 % of respondents are willing to use the service independently. This implies that, the lack of willingness to use new product is challenge for the adoption 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.

As shown in the above table more than half of the consumer (57 %) 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.

Therefore, it is a challenge for the adoption of CBE-Birr agent banking. 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.

#### **4.5. Factors affecting of agent banking (CBE-birr) from the perspectives of the customers and bank employees**

In the following section the 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).

Table 4.6: factors affecting of agent banking (CBE-birr)

Description	SD	D	NW	A	SA
The bank gives CBE-Birr service with high quality system so it helps me to complete banking activities more quickly and easily	6%	17%	7%	67%	3%
The bank gives me CBE-Birr service with high quality so I do not have complain about it	8%	20%	9%	57%	6 %
When I use CBE birr, I feel like the bank is highly innovative bank.	6%	16%	14%	54%	10%
CBE-Birr service is highly secure and I believe in it.	12%	26%	7%	44%	11%
CBE-Birr services are available in every branch of the bank.	17%	4%	4%	55%	27%
All employee of the bank has full knowledge about the service they are given especially CBE-Birr	14%	23%	9%	41%	13 %
Support system of the bank (ICT infrastructure) is very strong to support CBE-Birr service	15%	21%	11%	40%	12%

Source: survey result 2021

As we can see from the above table 4.6, the results of the survey shows that more than half of the respondents (70%) thought that CBE-Birr services or products are highly innovative to be able to persuade/attract customers and around 57 % 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 or adoption of agent banking services.

From the point of view of the consumers, the perception of innovativeness plays crucial role touse a particular innovation. 54 % of the strongly take CBE-Birr as highly innovative product and only 14 % of respondents moderately agree that it is innovative, whereas 12 % 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 is one of the most important aspect of agent banking (CBE-Birr). As the information collected from respondents show that more than half (42 %) of respondents strongly agreed and 14 % agree on the idea that agent banking is convenient and time saving.



Furthermore, regarding availability the service in every branch of the bank, users are face interruption and they face limitation in their access to the service for 24 hours and 7 days (52 % 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.

Concerning reachability of agent banking (CBE-Birr), majority of consumers are 82% agreed on the idea of CBE-Birr services which are available in every branch of the bank, while only 21% disagreed and 4% 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.

### Access to internet

**Table 4.7. Access to internet employee and customer perspective**

Description	SD	D	NW	A	SA
The use of CBE-Birr service is often limited by the availability and strength of internet connection	6%	17%	7%	52 %	3%
Relatively there is high cost of internet to use CBE-Birr service	8%	20%	9%	57%	6 %
There is high power disruption when I go to the bank to access e- banking such as CBE-Birr	6%	23%	14%	47%	10%
the mobile network/connection is creating challenge to effectively use CBE-birr services	12%	26%	7%	44%	11%
There is no commitment of the government to facilitate the expansion of ICT infrastructure	15%	10%	4%	56%	14%
There is a legal framework to effectively enforce the adoption and use of CBE-Birr services	14%	13%	9%	51%	13 %
<b>Employee perspective</b>					

The use of CBE-Birr service is often limited by the availability and strength of internet connection	6%	17%	7%	52 %	3%
Relatively there is high cost of internet to use CBE-Birr service	8%	20%	9%	57%	6 %
There is high power disruption when I go to the bank to access ebanking such as CBE-Birr	6%	23%	14%	47%	10%
the mobile network/connection is creating challenge to effectively use CBE-birr services	12%	26%	7%	44%	11%
There is no commitment of the government to facilitate the expansion of ICT infrastructure	15%	14%	4%	55%	14%
There is a legal framework to effectively enforce the adoption and use of CBE-Birr services	21%	13%	9%	24%	33%

Source: survey result 2021

As From the above table 4.7 shown, most of 55% of the respondents disagreed and strongly disagreed on the idea that access to internet affects CBE-Birr service use. However, 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 (63%) 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. 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.

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.

Regarding support institutions, the above result shows that majority of the respondents (68%)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. Regarding support institution, the above result shows that majority of customers (66%) 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 is 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.

As Table 31 clearly show, 57 % of respondents either strongly agreed or agreed on the idea that there are legal frameworks to widely adopt banking technologies such as CBE-Birr service. Whereas, 33% 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.

In relation to legal frame work, 64% of customers either strongly agree or moderately agree on the idea of legal framework to enforce the bank to adopt CBE-Birr service. Therefore, legal framework for the bank is a prospect to adopt agent banking or CBE-Birr, furthermore 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.

## CHAPTER FIVE

### 5. CONCLUSION AND RECOMMENDATION

#### 5.1 Conclusion

This particular study titled with “factors affecting the adoption of e-banking system in commercial bank of Ethiopia: a case study of CBE -birr agent banking” main objective of the study is to assess factors affecting the adoption of e-banking system in commercial bank of study area. The result of the study shows that, around majority of respondents strongly agree to the claim that CBE Birr enhances speed and efficiency of banking, only whereas only 6% of the respondents respond negatively. On the other hand, majority of the employees (54%) argued that the bank is in a position to provide CBE-Birr service coupled with quality service, while the remaining 63 % of them have argue the bank is not in a position to provide service with quality service. Majority of sample respondent response suggests that the system quality is weak and requires improvement to effectively provide CBE-Birr agent banking service.

The result of the study revealed that lack of availability of appropriate Agent Banking channels, lack of customer awareness, customer lack of confidence with the security aspects, new Product Image in the Society due to Agent inappropriate act and Limitation in availability and quality of infrastructure ICT are the other challenges for implementation and expansion of CBE – BIRR mobile money service in commercial bank of study area

The study found, lack of Access 24/7 services and time saving, reduce risk and also identified the, factors affecting, agent banking in commercial bank of Ethiopia in case of CBE agent banking system in the study area 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. And factor related to accessibility or 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

## **5.2. Recommendations**

The researcher recommends that:

- More information and awareness should be put in public to build confidence and trust in agency banking as a secure, efficient and modern way of banking. Banks should launch campaigns to create direct awareness to potential adopters, issues such as fear of the lack of privacy and security, together with relative advantages of using agent banking services.
- Without an adequate development level and quality of a national ICT infrastructure, Agent banking and E-banking adoption and use cannot do well, so Ethio - telecom have to support banking industry by investing on ICT infrastructure development in order to improve service of the telecom
- More should be done to improve mobile network accessibility in agent banking service. Those that want to carry out agent business should also be encouraged to access loans to improve their affordability to engage in agency banking as their main business activity to improve the services in the area.
- Commercial bank of Ethiopia should also consider ways of automatically topping up agents' float to assist clients especially those affected by float related problems and extend into the interior to serve residents.
- Based on the findings, the study recommends that to manage fraud levels, banks should adopt a risk-based approach to the supervision and regulation of agency banking because customers must develop the same level of confidence with bank agents as they do when they visit branches.

## **5.3. Recommendation for future research**

Investigating in to the factors that affect the adoption of agent banking service in commercial bank of Ethiopia, from the customers point of view impact of agent banking with customer satisfaction access to unbanked population and the impact of agent banking service on the performance of banks are future promising research areas.

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**Appendix I**  
**Questionnaire for employee**  
**Jimma University**

**College of Business and Economics Department of Management**

Dear

Madam/Sir,

I am a student of Master of Business Administration (MBA) Jimma University. I am undertaking a research on the topic “*Factors affecting the adoption 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 assessing factors affecting the adoption 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: 0912420115

E-mail: [samueltigabu@gmail.com](mailto:samueltigabu@gmail.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:     Male     Female

2 .Age:

16-29     30-39     40-49     above 50

3. Educational level of respondent

.College Diploma     University Degree     Masters Degree     Doctoral Degree

4. Years of experience in the banking sector

Less than 1 Year     1 Year to 3 Years     3 Years to 5 Years     5 Years to 10 Years     above 10 Years

5. Position

Senior officer Branch banking officer senior  Branch banking officer Manager (  Customer Service Manager  )

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

ATM POS  Mobile bank  Internet banking C  Birr All the above  Banking product

7. According to your observation of CBE-Birr banking service use, how is the trend overtime? Sharply increasing moderately increasing almost constant Slowly Decreasing 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)

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 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>					
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					
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 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)						
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 CBEBirr service					
	<b>Risk taking behavior</b>					
1	Most customers consider the use of agent banking such as CBEBirr service very risky					
2	Consumers have fear of taking risk of using agent banking such as CBE-Birr.					

**Is there factors affecting on adopting of agent-banking service provision? If any, please specify in the space provided below:** \_\_\_\_\_

\_\_\_\_\_

**Thank You!**

**Appendix II**  
**Questionnaire for customer**

**Jimma University**

**College of Business and Economics Department of Management**

Dear;Madam/Sir,

I am a student of Master of Business Administration (MBA) Jimma University. I am undertaking a research on the topic “*Factors affecting the adoption 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 assessing factors affecting the adoption 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: 0912420115

E-mail: [samueltigabu@gmail.com](mailto:samueltigabu@gmail.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:  Male  Female

2. Age (in years):  930-39  40-49  50-59  60 and above

3. Marital status:  Married  Single  Widowed  Divorced  Other

4. Educational level of respondent

Illiterate  Primary  Secondary  College  Diploma  University  Degree or above

5. Monthly income (in Ethiopian Birr)

Less than 600  600-1650  1650-3200  3200-5000  5000-7800  7800-10900  greater than 10900

6. Occupation

Government  Private  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.

POS  Mobile banking  internet banking  CBE Birr  All

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

Regularly  Every regularly so  Mesrarely  Very rarely

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

Local money transfer for bill  Payment for buying mobile airtime For buying goods

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

Yes

Below are list of statements related to Factors affecting the adoption of E-banking system. 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>					

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 ebanking such as CBE-Birr					
	<b>Network Stability</b>					
1	he 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
	Exposure to technology					
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					
3	Risk taking behavior					
4	I have fear of using agent banking or CBE-Birr because I feel that it is very risky					



**Is there factors affecting on adopting of agent-banking service provision? If any, please specify in the space provided below:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Thank You!**