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ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF MANAGEMENT

**FACTORS AFFECTING THE ADOPTION OF AGENCY BANKING
(CBE BIRR) SERVICE IN THE CASE OF COMMERCIAL BANK OF
ETHIOPIA**

**A Thesis Submitted to the Department of Management for the Partial
fulfillment of the Requirement of MBA Degree in Management**

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June, 2019

Addis Ababa, Ethiopia

ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF MANAGEMENT

This is to certify that this thesis entitles as “factors affecting the adoption of agency Banking (CBEbirr) service in the case of Commercial bank of Ethiopia”, submitted in partial fulfillment of the requirement for the degree of Master of Arts in Management to the department of Management, done by Alealign Wassie is an authentic work carried out by his under our guidance. The theme embedded in this thesis has been submitted earlier for the award of any degree or diploma in any other university to the best of knowledge.

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This is to certify that Alelign Wassie has carried out his research project work under my supervision, on the topic of factors affecting the adoption of agency Banking/CBE birr service in the case of Commercial bank of Ethiopia. This work is original in its nature and it is suitable for Submission in partial fulfillment of the requirement for the award of Degree MBA in Management.

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I, AlelignWassie, declare that the study entitled “factors affecting the adoption of agency Banking (CBEbirr) service in the case of Commercial bank of Ethiopia” is the result of my own effort in research undertaking. All information in this document has been obtained and presented in accordance with academic rules and ethical conduct. The study has not been submitted to any Degree or Diploma in any college or university. It is submitted in the partial fulfillment of the requirement of the Degree of Master of Business Administration. Lastly I have fully cited, acknowledged and referenced all material and results that are not original to this work.

Name: Alelign Wassie

Signature_____ Date_____

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List of Acronyms and Abbreviations

ATM	Automatic Teller Machine
ICT	Information Communication Technology
CBE	Commercial Bank of Ethiopia
CGAP	Consultative group to assist the Poor
NBE	National Bank of Ethiopia
POS	Point of Sale

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ABSTRACT

This research paper aims to identifying factors which influence the adoption of agent banking by commercial Bank of Ethiopia. Clear understanding of these factors will enable agent banking service providers to develop suitable marketing strategies, business models, processes, and pilot projects. To address the research objective 126 sampled customers were selected. Purposive and convenience sampling methods were used. Questioners were distributed to 126 different managers, from which 117 sample respondents replied appropriately to the questionnaire. Data gathered were analyzed based on these 117 responses using SPSS 20 software package. Descriptive statistics and explanatory research approach were employed. All out puts were reported using frequency, mean, correlation and multiple linear regression analysis results such as ANOVA and coefficient and regression results were used. The result indicates that Compatibility, perceived support, perceived trust, Perceived Benefit, and Financial Literacy major factors influencing adoption of CBE Birr Service. But security factors were not significant. Among these factors Financial Literacy, and Perceived trust were the most statistically significant factors adopting agency banking. Financial literacy found to have a positive significant influence on mobile money adoption. This implies that users' knowledge, ability and skills are needed to use the new information technology.

The study recommended that adoption can be increased by developing better functions in terms of flexibility, security and accessibility features to enhance consumers' confidence to adopt CBE Birr services and users' knowledge, ability and skills are needed to use the new information technology. Available support structures and strong top management support becomes an essential measure to encourage CBE Birr adoption.

Keywords: CBE, agency banking, CBE Birr, support, benefit, trust, compatibility, security, financial literacy

CHAPTER ONE

1. INTRODUCTION

1.1 Background of the study

As Bayers and Leadrer, (2001) the banking industry constantly responds to the changes in customer preferences and needs. Increasing competition from non-banks, changes in demographic and social trends, information technology advances, channel strategies, and government deregulations of the financial service sector. Success or failure of many retail banks is depending upon the capabilities of management to anticipate and react to such changes in the financial market place (Marous, 2015). In the search for sustainable competitive advantages in the competitive and technological financial service industry, banks have recognized the importance to differentiate themselves from other financial institutions through distributions channels. This has resulted in banks developing, and utilizing new alternative distribution channels to reach their customers (Daniel, 1999; Thornton & White, 2001).

An agency bank is a company/organization that acts in some capacity on behalf of another bank. It, thus, cannot accept deposits or extend loans in its own name; it acts as agent for the parent bank. Agency banking refers to a retail 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. Agency banking first developed in Brazil in 1999. Although by 2000, only 1,600 municipalities in Brazil had bank branches, by 2010, some 170,000 agents cover all of the 5,500 municipalities, and nearly 12 million accounts have opened at agents over three years (Kumar, Nair, Persons & Urdapilleta, 2006).

In United States, agency banking is a form of organization commonly used by foreign banks to enter the US market. Using an agency bank allows a foreign bank to engage in financial activity on US soil. People in the United States who want to do business with the parent bank can do so through the agent, with representatives at the agency bank taking care of issues like currency exchange, transfers of funds, and deposits among others. In Africa, the finance sector has a pivotal role to play in economic development. Across the continent, a number of banks are

championing sustainability and reengineering their operations to integrate agency-banking models. However, in Africa, agency banking is a new concept, with the model/concept being highly implemented in Kenya and South Africa. In South Africa, the first agency banking implemented in 2005 (Mwangi, 2011).

The national bank of Ethiopia (NBE) the supervisory body of the financial sector has issued a directive for the mobile and agent banking operation through its directive no FIS/01/2012. NBE issued the directive to strengthen the financial inclusion and widen the financial sector accessibility to the unbanked population especially the rural areas, which are far distant from the areas where banking services are located. Ethiopian banks have been using electronic banking through ATMs and POS terminals to give services for their customer beyond their branches. Now, to increase accessibility and cut costs they are in a way of adopting agent banking which has practiced in different countries. Following the NBE directive agent, banking considered as one of the competitive advantage by Ethiopian banks and has focus. The directive issued aiming the use of technology and innovative financial service delivery channels such as mobile devices and agents have significant contribution in deepening financial service accessibility to the wider section of the population at an affordable price (NBE regulation, 2012). The regulation is one factor, which influences commercial banks to adopt agent banking. The Ethiopian banking industry is in a stiff competition where using innovative financial services delivery channels such as agent banking as competitive advantage to win the competition. Agent banking also helps the banks in resource mobilization and broadens their customer base. Thus, commercial banks to win the competition and become the first should adopt agent banking to deliver their product and services as alternative channel.

Thus, technological innovations play a crucial role in the banking industry in creating value for banks and customers to enable customers perform banking transactions without visiting a conventional brick and mortar banking system. Agency banking service has enabled banking institutions to compete more effectively in different countries 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 the agency banking system is a recent phenomenon in Ethiopia. Thus, the researcher is interested to assess factors that affect the adoption of the agency banking in Commercial Bank of Ethiopia where the numbers of bank branches are ever increasing to outreach customers with significant amount of investment.

1.2 Statement of the Problem

According to Gardachew (2010), the banking industry in Ethiopia is underdeveloped and therefore, there is an all immediate need to embark on capacity building arrangements and modernize the banking system by employing the state of the art of technology being used anywhere in the world. With a growing number of import-export businesses, and increased international trades and international relations, the current banking system is short of providing efficient and dependable services.

The study by Mas and Siedek (2008) point out that Agent banking improves the bank's geographical coverage and competitiveness, so that, existing and potential customers can benefit from a greater level of convenience in accessing banking services. This convenience is offered through agents of the bank and when combined with new services can expand the bank's target beyond the traditional markets. Agency-banking technology is improved efficiency and effectiveness of the operations so that, transactions can be processed faster and most conveniently. Thus, it has enhanced customer services, effective distribution, improved operations, faster access to information and improved internal processes. This implies that customers benefit ranges from reduced frequency of going to the banking halls to handling of cash.

As of the study by Sewagegnhu, (2015) with agent banking, it is possible to collect a small number of customers around each agent and introduce the name and the service of the bank to potential clients. This could ease the operation of a new branch in the area. However, despite this importance of agency banking there are still long queues seen in some banking halls even as customer still handle too much cash, and inadequate awareness of available agency banking production and services.

According to the author by Meaza (2013), Electronic Banking has been widely used in developed countries and is rapidly expanding in developing countries. In Ethiopia, however, cash is still the most dominant medium of exchange, and electronic payment systems are at an embryonic stage. In the face of rapid expansion of electronic payment systems throughout the developed and the developing world, Ethiopia's financial sector cannot remain an exception in expanding the use of the system. Currently commercial banks in Ethiopia have started adopting

agency banking (CBEbirr) systems to improve their operations and to reduce costs. Out of the eighteen commercial banks in Ethiopia, currently, above six banks have started providing agency-banking services as per NBE (2015) data. Even though the penetration of agency banking among the banks continues to grow in significant numbers year after year, the users' adoption of agency banking service within these banks remains very low. Commercial Bank of Ethiopia officially launched its mobile money services dubbed CBEbirr (agent banking) on December 11, 2017 after successfully testing its functionality for six months.

Zhao (2008) in order to encourage further E-banking adoption in developing countries especially in Ethiopia, a better understanding of the barriers and drivers impacting E-banking adoption is critical. By gaining an in-depth understanding of the factors and conditions that influence a developing country's ability to fully adopt and realize its benefits, strategic implications can be generated for the researchers and practitioners regarding how to promote the growth of E-banking and Agency Banking in the developing countries. Although agent banking is gaining a lot of interest from the banking industry, but it has not received a lot of attention from the scholars. As the second highest populous nation in Africa, Ethiopia has the lowest financial inclusion rate (banked population) as compared to Sub-Saharan African Countries and yet having alarmingly increasing mobile penetration rate which can be used as a tool for financial inclusion. After the National Bank of Ethiopia recently finalized a draft order on how mobile banking services should be structured, different banks and financial institutions are showing interest in starting mobile banking services. CBEbirr technology service empowers one of the leading mobile money service CBEbirr which enables different micro financial institutions in Ethiopia to provide mobile money services to their customers officially starting from September 2015. Even though the CBEbirr customers in Commercial Bank of Ethiopia are increasing through time the activity level of the registered customers seems as low comparing to the total number of customers. Agent banking system was not well known for the banking industry of Ethiopia. It is therefore important to isolate the factors that affect agency banking in commercial bank of Ethiopia.

These problems have created a research gap that this study seeks to fill by investigating the factors influencing the adoption of CBEbirr service in Addis Ababa. The study tried to identify the factors that affect the CBEbirr service adoption in Addis Ababa from the distribution network

coverage, customers' perspective of adoption of new technologies and benefit point of view. Therefore, this study is intended to assess factors affecting adoption of Agent in Commercial Bank of Ethiopia based on the research problems discussed above.

1.3 Research Questions

1. What are the factors influencing users to adopt Agency banking/CBEbirr services?
2. What is the relationship between adoption of Agency banking/CBEbirr and the factors that influence to adopt the CBEbirr service?

1.4 Objective of the study

The general objective of this study was identifying factors that influence the adoption of agent banking (CBEbirr) in commercial bank of Ethiopia.

1.4.1 Specific Objective

The specific objectives of the study are:

1. To identify the factors that influence users to adopt Agency banking/CBEbirr innovations in commercial bank of Ethiopia.
2. To examine the relationship between Adoption of Agency banking/CBEbirr and factors that influence to adopt the service.

1.5 Hypothesis Formulation

The following hypothesis was formulated

H1: Compatibility of agency banking has significant and positive influence on adoption of Agency banking

H2: There is significant and negative relationship between Security factors and intention to adopt Agency banking

H3: Perceived Support will have significant and positive influence to adopt agency banking services.

H4: There is significant and positive relationship between perceived trust and adoption of agency banking

H5: There is significant and positive relationship between perceived benefit of agency banking and intention to adopt agency banking.

H6: There is positive relationship between financial literacy and intention to adopt agency banking.

1.6 Significance of study

Understanding the challenges and prospects related with adoption of new technology and service distribution channels and its advantages in providing service to their customers have potential value to financial institutions, particularly banks. The factors relating to institutions ability to provide the conditions conducive to the introduction and acceptance of innovations will map out of this research to Ethiopian banks and researchers in Ethiopia. Some of those are as follows:

- The acceptance of Agent banking is a new topic in Ethiopia and so it is worthwhile to conduct this study, whose result could be to improve the banking sector and enhance the quality of Agency service in Ethiopia for the future.
- It intends to help bank managers and National Bank of Ethiopia to identify challenging factors that hinder the adoption of Agent banking in order to increase the use of service as well as to encourage the general acceptance of new IT services and to monitor the development and growth of agent banking.

After all, the researcher finding and recommendation from this study assumes to be an indication or implication to design appropriate strategies and directives that can support to address all bank customers for CBEbirr service.

1.7 Scope of the study

The study was limited in scope subject to collect data from managers of Commercial Bank of Ethiopia selected branches. From these branches only 61 branches and 126 different managers were sampled. Therefore, this study did not address and include managers, staffs and customers

of all branches. The study was limited to geographic location in Addis Ababa. Thus, this study could not include and address respondents outside of study area.

The study was delimited in scope to assess effect of demographic characteristics on customers 'adoption of CBEbirr technology. Therefore, the study was limited its scope to study only on factors influencing Adoption of CBEbirr technology service identified in Conceptual framework. The study was limited its time scope to collect data and complete the study from January up to June 1/ 2019.

1.8 Limitation of the study

Only 61 branches that found to have the large portion of customers were selected even though there are many branches in Commercial Bank of Ethiopia found in Addis Ababa. This Was due to time limitation. Thus, this reduces the sample size of the study. Lack of sufficient previous studies in Ethiopia concerning the Adoption of agency banking factors was the other limitation.

During data collection there were problems; for example, some respondents were not willing to fill and give appropriate response. The other limitation was budget; this limits the researcher to provide stationary like pen, and tea to respondents in order to have initiative and voluntary respondents.

CHAPTER TWO

2. LITRATURE REVIEW

2.1 Theoretical literature Review

2.1.1 E-banking

The term e-banking is a broad concept that describes the provision and delivery of banking products, services, and solutions through electronic channels (Muzividzi et al., 2013) Forms of e-banking now include ATMs, Point-of-sale Transfer Terminals (POS) using debit and credit cards, online/Internet banking, and mobile banking (Ayana, 2014). E-banking also can be categorized on the basis of the instruments used: telephone connection, personal computers, means of payment [bank cards] and self-service zones.

According to Mohammed (2008), cited in Beza (2010) electronic Banking is transforming the financial services industry through various innovations. The quantity of cross-border trading and other financial activities is increasing geometrically make possible by technology. It has made possible by technology, particularly information technology to generate, collect and process information about bank operation and bank customers efficiently and effectively. It provides the ability to create more effective systems of controls in individual institutions and in the market themselves. Compared to the paper based operation, Electronic Banking Systems, in its most proficient form, offer instant verification and transfer and reduces the flow of costly paper in the record keeping process. Application of technology in banking offer opportunity for reduction of both paper and people, banks have developed electronic banking service for three main reasons.

2.1.2 Mobile Money Development in Ethiopia

Banking through mobile phones has been common in developed countries for years. But the real potential of “m-banking” may be to make basic financial services more accessible to millions of poor people across the world (Flaming, 2011).

According to another study by Mckinsey in (2011), more than a billion people in emerging and developing markets have cell phones but no bank accounts. Many low-income people store and

transfer money using informal networks, but these have high transaction costs and are prone to theft. Mobile money is beginning to fill this gap by offering financial services over mobile phones, from simple person-to-person transfers to more complex banking services.

To date, there have been more than 100 mobile-money deployments in emerging markets; at least 84 of them originated in the past three years. Only a handful of these deployments have reached a sustainable scale; some notable examples include M-Pesa in Kenya, MTN Uganda, and Vodacom Tanzania, FNB in South Africa, and GCASH and Smart Money in the Philippines. Even these players have not gained much traction for financial services beyond simple transfers and payments.

The National Bank of Ethiopia (NBE) issued “Regulation of Mobile and Agent Banking” directive for the first time on 31st of December 2012. The directive addressed the definition of relevant terms and conditions, modes of business conduct, limits on mobile banking transactions, application processes and procedures for financial institutions, system technology, customer due diligence, agent management, customer protection and reporting requirements with its effective date 1st January. As of the study by Afework (2015), like all other social entities financial institutions in Ethiopia are being constantly expanding with technological innovations. For instance, till recently, bank customers were used to stand in line to get financial services, but now because of the multi-channel service outlets they can perform it from anywhere at any time. Funds are transferred electronically between financial institutions and individual accounts, and between individual accounts using agent banking service.

In Ethiopia there are different banks who launches mobile and agent banking services and on NBE’s pending list for the approval of the service from different technology service vendors including Bole Atlantic Mobile Wallet Technologies for United Bank S.C, Rewire for Addis International Bank, M-Fino for Dashen Bank, MOSS ICT for M-Birr, Techno Brain for Oromia International Bank, Belcash for Wegagen Bank S.C and S2M ICT for Awash International Bank and Abay International Bank S.C.

2.1.3 Agency Banking

As of the study by Saat (2011), agency banking refers to the provision of banking services by a third party to customers on behalf of a licensed and prudentially regulated financial institution

such as a bank or other deposit taking institutions. In this case the agency banks are given the capacity to undertake transactions on behalf of the mother bank except that it cannot accept deposits or offer loans on its own name. Most importantly, only the owner of the agency bank or an employee of the retail outlet offers services to the clients by allowing them to pay their bills, check their account balances, transfer cash or even receive government benefits.

According to National Bank of Ethiopia Directives (2012) agent means “a person engaged in a commercial/ business activity and has been contracted by a financial institution to provide the services of the financial institution on its behalf” and Agent banking means “the conduct of banking business on behalf of a financial institution through an agent using various service delivery channels”. The study by Chitelli (2013), a banking agent 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.

According to Lyman (2008) defined a banking agent as a retail outlet contracted by a financial institution to process clients’ transactions. Ignacio (2008) states that rather than a bank 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 even get direct deposit from their employer. Globally, these retailers are increasingly utilized as important distribution channels for financial institutions.

According to Chaia (2011) agent banking has become one of the most promising strategies for offering financial services in emerging markets. In this model, financial institutions work with networks of existing nonbank retail outlets such as convenience stores, gas stations, and post offices to deliver financial services. This approach can be especially powerful when serving the unbanked poor because of its ability to reduce banks costs and reach low income workers where they live. Agent banking benefits a range of stakeholders. The poor gain convenient access to financial services in their own communities. Financial institutions reach a vast new customer segment. Agents increase their sales volumes and have an opportunity to develop deeper relationships with the customer. However, implementing correspondent strategies can be tough. It may be hard to build networks of partners that can fulfill the correspondent role.

As the author by Mas and Siedek (2008) agency banking is branchless banking based on ICT that allows financial institutions to offer financial service outside the traditional bank premises (It allows customers to conduct a limited type of financial transactions at third party outlets that include post offices, supermarkets, general and grocery stores, pharmacies, and gas stations etc located in remote areas.

2.1.4 The CBEbirr Mobile Money Service

CBEbirr is a mobile based banking whereby the bank selects, trains and authorizes agents to provide banking services on behalf of the bank through a mobile phone. CBE Birr is believed to contribute a lot to build up saving culture of the public and streamline financial transaction and payment system of the country (www.combanketh.et, 2019).

CBEbirr 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.

The CBE Birr Service includes: money deposit, money withdrawal, domestic money transfers to both registered and non-registered users, Mobile airtime Top-up (Ethio telecom credit), checking account balances, other administrative services (PIN change, language change, and statement), loan repayment, bulk disbursement and payment of goods. Once money has been deposited on his/her account, it is very convenient for the Subscriber to transfer money anywhere within Ethiopia. Of course the recipient must either be a Subscriber or simply have a mobile phone. It is much faster and more convenient than going to a bank: If a Subscriber lives in Addis Ababa, and wants to send money to his family back in Jimma, it's as easy as sending a text: typing some numbers on a mobile phone, and within a few seconds, the recipient gets a message in his/her mobile. He/she then goes to his local Agent (shop, petrol station, butcher, etc.) and collects the money right away. The user can use for mobile card payment system.

According to the national bank of Ethiopia directives (2012), Once registered on the CBE Birr System, subscriber can access the CBE Birr service by dialing*847# and hit send, like a normal phone call. To select the operation, with a very simple method of navigation, the user shall type

in the number of the menu he/she wishes to access, and hit the ‘Send’ button to receive the next screen, with more options. Some models of mobile will require subscribers to select a reply option in order to enable typing the number of the menu item you wish to access. All transactions and accesses to the system by the Branch and the agent are free of charge. All M-BIRR Mobile customers’ accounts have debit and balance limits set by the National Bank of Ethiopia. A maximum daily debit limit of 6,000birr and a maximum account balance of 25,000birr.

2.1.5 Adoption of Agency Banking

According to Straub (2009), adoption of agency banking can be defined as the individual’s decision whether to integrate an innovation into his or her life, intention to decide to use branchless banking based technology that allows financial institutions to offer financial service outside the traditional bank premises (It allows customers to conduct a limited type of financial transactions at third party outlets.

Sun (2014) defines adoption as awareness, embracing and using technology fully; while Kiwanuka (2015) defines adoption as the use of a technology for the first time. The adoption theory explains why an individual accepts or rejects an innovation (Straub, 2009).

In a study by Osah and Kyobe (2017), they found that a users’ level of M-pesa (mobile payment app) use can be enhanced if the user has identified a feature of the service that at least matches his or her task requirement. In the same vein, users will adopt mobile payment apps if they enhance the accomplishment of their tasks. If a consumer encounters obstacles, such as cost, risk, insecurity or discomfort in mobile payment app transactions, this could lead to disappointment, resulting in the rejection of the mobile payment app. Adoption thus takes place if the mobile payment app is appropriate for the task at hand in terms of convenience and compatibility with their values, beliefs and lifestyle, and whether their pre-use expectations are met or confirmed.

According to the author by Setterstrom (2013), continuance intention can be defined as the degree to which an individual currently using a mobile phone to purchase products or services has developed conscious plans to continue using it in the future.

2.2 Factors Affecting Adoption of Agency Banking

There are different factors influencing Agency banking adoption, the following section show theories related to adoption of agency banking service and the factors impeding users from using the service.

2.2.1 Financial Literacy of the Agents

According to the study by Mohammed (2010), specific individual skills such as achievement, motivation, knowledge, skills, and locus of control determine one's suitability to run a business. Most organizations use education as an indicator of a person's skill levels or productivity. They frequently employ it as a prerequisite in hiring decisions. Human capital theory suggests that the abilities and knowledge acquired by individuals are likely to be rewarded with higher earnings in the labor market and, that education and work experience is positively related to job performance. As of Mohamed & Tarek, (2013), education and professional development programs have a positive impact on ability, knowledge, and work values; and by extension task performance. These attributes have been linked to the overall performance of a business.

According to the study by Pauline (2017), a well-trained and alert teller is normally the first line of defense against fraud attacks and a lot of fraud is frustrated at this level. The challenge in this case is how the banks will ensure that agent employees are brought to the same standard. In agent banking in Kenya, the principal requirement of agents is to adhere to a set of minimum requirements. This means that the professional cadre of the agents is not vetted by the banking institutions even though there is a relationship between professional operations of some agents may not represent the corporate face of the financial institution, and neither do some have the capacity and ability to employ technology to make their businesses even more efficient and profitable.

As the study by Mizruchi (2011), people with higher business intelligence have the ability of processing information more quickly and accurately than others. Further, these individuals also have the ability of absorbing new information and developing innovative ideas when compared to those without the professional knowledge necessary for running a business

According to Charles (2014) banks also are finding it hard to identify agents who are capable of handling cash transactions efficiently. Despite the advantages brought about by agency banking

and the low uptake that the model has received in Narok County, no scientific study/research has been done to assess the factors affecting uptake of agency banking among rural customers in Kenya. It is against this background that this study embarks to assess the factors affecting adoption of CBE Birr services in commercial bank of Ethiopia.

Lehman (2010) argues that because of this characteristic feature of the poor and unbanked, the agents should be well trained, trusted by customers, strategically and conveniently located, and given incentives properly to follow procedures if the promise of extending financial services to the worlds unbanked is to bear fruit.

2.2.2 Security

Researches done by Charles (2014) indicated that society depends on computer systems. Interactions in business and with the government are often carried out over the Internet, and even social networks are moving online. While people get convenient access to important services around the clock, great challenges also emerge in terms of security and privacy. There are various risk implications of use of agents by banks. Entrusting retail customer Contact to the agents is riskier than these same functions in the hands of bank officer in a Conventional bank branch. The time lag between collection from customers and depositing the same to the bank by the retail agents generates credit risk. There are chances of customer or retail agents committing fraud, loss of bank's equipment or other property from a retail agent's premises, data leaks or data loss from hacker attacks, inadequate physical or electronic security or poor backup systems. All these factors lead to operational risk.

According to Saat (2011) security is a fundamental and increasingly important issue in today's banking industry. Over the last few years, the number of fraudulent transactions committed by third parties has risen tremendously. Consequently, fraud prevention has become a central concern to banks, customers, and public policy makers. Sara (2015), as banking fraud might ultimately affect customer relationship quality and customer loyalty, fraud prevention and its effective communication is an important topic for academic research. This is because banking fraud hurts both banks and their customers. Banks incur substantial operating costs by refunding customers' monetary losses, while bank customers experience considerable time and emotional losses. They have to detect the fraudulent transactions, communicate them to their bank, initiate

the blocking and re-issuance or reopening of a card or account, and dispute the reimbursement of their monetary losses. Becoming a fraud victim may also impact customers' perception of feeling secure and protected at their bank. Accordingly, fraud may damage the bank-customer relationship because of shattered trust and confidence as well as increased dissatisfaction because of a perceived service failure. This, in turn, may negatively affect customer loyalty and stimulate switching behavior, thereby posing a great challenge to banks by hurting the banks' reputation and impeding the attraction of new customers (Mohamed & Tarek, 2013).

In recent decades the definition of perceived risk has changed as people have engaged in online transactions. Initially perceived risk was primarily related to fraud or product quality, but today perceived risk is related to financial, psychological, physical, or social risks in online transactions. A portable list of PIN codes may also pose security threats as the list may be lost. For instance, Rachdi and Ben (2011), report that some bank customers fear that the hackers may get access to their bank account via personal identification numbers (PIN). Physical security can pose a challenge with regard to security of cash and even the people managing and working with agents. The specific security challenges are robbery, theft and fraud.

2.2.3 Trust

In agency banking, information has value and therefore bank statements, personal information, credit card numbers, trade secrets or even government documents that are dealt with in one way or another by these bank agents ought to be confidential. According to Nyarumba (2011) it is important to appreciate that the confidential banker-customer relationship contains aspect of agency which if not dealt with appropriately affect the confidential banker-customer relationship for instance the obligation of secrecy and loyalty is imposed upon an agent towards his principal.

Confidentiality therefore becomes a challenge in agency banking if this relationship is betrayed which common in rural areas since security is not is guaranteed. Customers 'confidence about privacy and security of a system may significantly influence adoption agency banking. In this study, trust is defined as the extent to which an individual believes that using agency banking is secure and has no privacy threats. According to Wei (2009) perceived trust therefore is an important construct which affects customer behavior and determines the success of agency banking adoption

A study by Bhattacharjee (2002) provided a definition and measurement of the customer 's trust of an e-commerce service provider, based on the three dimensions or typology of trust: ability, integrity and benevolence. This author defined these as follows:

a) Ability refers to the perception of the customer about the competency and salient knowledge of the mobile banking service provider to deliver the expected service; b) Integrity refers to users 'perceptions that the service provider will be fair, honest and adhere to reasonable conditions of transactions; c) Benevolence refers to the extent to which a service provider will demonstrate receptivity and empathy towards the user. The service provider will make a good faith effort to resolve users 'concerns and intends to do good to the users beyond profit motives. Hamilton & Hewer (2002) Trust is important because it helps customers overcome perceptions of uncertainty and risk and helps build appropriate favorable expectations of performance and other desired benefits. In any business or commerce deal trust is an important element. When dealing with technological and information technology enabled system for commerce activities like electronic commerce and mobile commerce then it is important to comprehend about the security and privacy concerns.

2.2.4 Benefits of Agent banking

Agent banking allows customers to access their account using mobile phone at any time which promotes flexibility (Asfaw, 2015). After full implementation, customers can pay their bills without physically appearing in offices. Users of Agent banking can make payments using their cell phone while reducing the risk of carrying cash. According to the researcher Agent banking has also many advantages for financial institutions. Through agent banking, banks can reduce cost involving with operating traditional bank branches and it also gives them competitive advantage because of its accessibility to the society. Additionally, after creating awareness of using financial services with agent banking, it will also have positive impact to banks' customer base.

According to Kpodar & Andrianaivo (2011), in addition to agency banking minimization benefits ICT and mobile banking technologies increase the market share of microfinance institutions and contribute to their growth through providing technologies that are reliable, accessible and safe.

Many previous empirical studies like by Khalifa and Shen (2008), further show that perceived ease of use has a positive influence in the adoption of mobile commerce. Lee (2009) found in his study that time plays an important role in adopting mobile banking service by the users. It has been observed by researchers that when user perceives relative advantage or relative usefulness of a new technology over an old one, they tend to adopt it. Therefore, mobile banking adoption and intention to use is affected by the benefits available such as immediacy, convenience and affordability to customers.

2.2.5 Compatibility

Compatibility is the degree to which an innovation is perceived as being consistent with the existing values, needs, and past experiences of potential adopters (Worku, 2015). Perceived compatibility is the degree to which an innovation fits the values, previous experiences and needs of the potential adopter (Rogers 1995). On the basis of the definition thus an attempt has been taken to explore the significance of compatibility on attitude toward adoption (or continuing to use) mobile banking from three dimensions as follows: Compatibility with individual values, Compatibility with experience, and Compatibility with banking needs. Vijayasarathy (2004) identified Perceived compatibility as the best perception-based indicator of attitude towards online transactions.

Compatibility refers to the degree to which a service is perceived as consistent with users' existing values, beliefs, habits and present and previous experiences (Chen, 2004). Compatibility is defined as the degree to which an innovation is perceived as being consistent with the existing values, past experiences and the needs of potential adopters. An innovation can be compatible or incompatible with socio-cultural values and beliefs; with previously introduced ideas; or with client needs for innovations (Rogers, 2003). The compatibility of an innovation, as perceived by members of a social system, is positively related to its rate of adoption. Compatibility is a vital feature of innovation as conformance with user's lifestyle can propel a rapid rate of adoption.

2.2.6 Support

According to Rangsan & Titida, (2013), Customer support includes before sell and after sell support. Before customer make decisions, the company should give some support to attract them,

let customers feel they are at home. The relationship is like a good friend not like a business. After customers buy the services or products, company should solve the problem that customers met or respond to customers' questions immediately and according to the problems, company can ameliorate them. In the e-banking industries, support is also important. Not everyone is good at different technology so they need guide on how to use the service. Sometimes, after services on the e-banking, customers might have questions waiting to answer, so he or she also needs support. Thus support is very important for customers.

2.3 Empirical Literatures

2.3.1 Empirical Literatures in the case of Ethiopia

The study made by Henos (2018) on Challenges and Prospects of Agent Banking in Ethiopia: the case of M-BIRR and CBE Birr. He found that the major challenges presented in his research includes; Lack of Awareness of both agents and customers, NBE regulations and limitations, lack of budget, Poor advertisement, unavailability of new and additional services, illiteracy, dependability of the service and Poor network quality. He recommends that the service should be available with voice or other channel to illiterate customers who can't read and write available services additional services should be added and it needs more advertisement, promotion and other awareness creation programs to attract customers.

Another research was done by Elfagid (2015) on the challenges and prospects of mobile and agent banking. In this research the researcher tried to assess Ethiopian mobile and agent banking practice at that time. As of the author the challenges of mobile and agent banking service include low level of ICT and road infrastructures, limited number of agents in rural areas and educational level of both customers and agents. On the other hand, he also indicates possible prospects for this emerging technology these includes, untapped potential market, agent banking support banks to increase their market share and number of customers. Favorable political, social, technological and economic conditions and the growth of mobile penetration are also considered as prospects for Ethiopian agent banking.

The research study by Gugsu (2015) on Barriers and drivers of adoption of agent banking innovation in Ethiopia, the researcher was gathered from four commercial banks and the

collected data is analyzed using descriptive statistics. He identified several external barriers to the development of agent banking in Ethiopia, such as lack of legal framework, under developed ICT infrastructure including poor network connectivity, lack of competition among banks, lack of sufficient government support and customer trust towards the service. He recommended that, the central bank should prepare and issue legal framework that govern agent banking, the government has to support the banking sector by developing ICT infrastructure for successful implementation of agent banking and banks should work on technology based competition to increase their number of customers, participate in awareness creations and making the system easy for use.

The study made by Gardachew (2010) on the title of the opportunities and challenges of E-banking in Ethiopia. The purpose of his study was focused on analyzing the status of electronic banking in Ethiopia and investigates the main challenges and opportunities of implementing E-banking system. The researcher conducted a survey on the existing operating style of banks and identifies some challenges of using E-banking system, such as, lack of suitable legal and regulatory frame works for E-commerce and E- payments, political instability in neighboring countries, high rates of illiteracy and absence of financial networks that links different banks.

According to the study made by Ayana (2012) on the title that says factors that affect adoption of E-banking in the Ethiopian banking industry. The study was conducted based on the data gathered from four banks in Ethiopia; three private banks (Dashen bank, Zemen bank and Wegagen bank) and one state owned bank (commercial bank of Ethiopia). A mixed research approach was used to answer the research questions that emerge through the review of existing literature and the experiences of the researcher in respect of the E- banking system in Ethiopia. The study statistically analyzes data obtained from the survey questionnaire. The result of the study indicated that, the major barriers Ethiopian banking industry faces in the adoption of Electronic banking are: security risk, lack of trust, lack of legal and regulatory frame work, Lack of ICT infrastructure and absence of competition between local and foreign banks. The study suggests a series of measures which could be taken by the banking industry and by government to address various challenges identified.

2.3.2 Empirical Literatures in Global Studies

According to the study made by Ndungu and Njeru (2014) on the title of “Factors affecting the taking up of agency banking in Kenya using the case of Kajiado North Sub County”. The study concentrated on three independent variables: convenience, customer service and quality of agents. The findings indicate that system availability contributes to service reliability. High reliability increases the adoption of agency banking. Complaints resolution time does not affect the adoption of agency banking. Agency banking was delivering convenience in form of extended hours of banking and by bringing the banking service closer to the customers leading to increased adoption of agency banking. High quality of agents increases the adoption of agency banking while poor quality agents inhibit the adoption of agency banking. Commissions earned by agents grew from one period to the other signifying adoption and growth of agency banking.

Another study made in Kenya by Watiri (2013) conducted a study on the taking up of agency banking by a common Bank in Kenya (Equity Bank Kenya Limited) in its business undertakings that are across borders. The study made use of case study research design as the unit of analysis was 19 only one organization – Equity Bank Kenya Limited. The study applied qualitative technique for making inferences as the data collection involved interviews. The findings indicated that the functions of the agency department majorly play roles of reconciliation of agents accounts, pay agents’ commissions, branding agents premises, check the systems robustness, opening agents accounts, linking accounts to easy 247 and dormant account activation among other functions. The main factors identified to be influencing the adoption of agent banking included: cost reduction, enhancement of customer service, expanded presence by banks particularly in remote areas.

According to the study made by Sadi and Noordin (2011), in an exploratory analysis of the factors influencing adoption of M-commerce in Malaysia reveals that trust identified as a key factor influencing the adoption of M-commerce. A similar study carried out by Mashagba (2013) revealed that trust, risk and security had an effect on mobile banking adoption. Customers tend to use those facilities which they believe to be the secured one.

On the other hand, the descriptive study conducted by Kanini (2011) that aimed at determining the factors affecting adoption of agent banking amongst commercial banks in Kenya. The author

used a census survey design by use of questionnaires sent out to the respondents. The findings of the study revealed that the main factors influencing the adoption of agent banking among commercial banks in Kenya are, (I) Cost reduction (ii) Enhancement of customer service (iii) Expanded presence by banks particularly in remote areas. The most important factor was cost reduction in the provision of banking services. Another key factor was the prospect of customer service enhancement owing to a greater level of convenience that comes with the presence of retail agent outlets. The study found that the introduction of third party retail agents presents several risk factors with regard to effective regulation and supervision of banks, and therefore recommends that the regulator closely monitors the banking sector and strictly enforces compliance with the agent banking guidelines, while the banks continuously ensure careful vetting of agents.

As of the research by Atandi (2013) who tried to determine the extent to which insecurity affects agent banking, it is found that there is no problem with the security situation in the assessed areas of operation, however there is fears about the security situation as robbers are likely to attack them, this makes agents close their businesses early enough hence limiting the time available for customers to transact. On the side of clients, agents argued that they had lost clients due to fear of being attacked while withdrawing or depositing large amounts, resulting them to prefer do visit traditional bank branches implies not few potential segment of the population not using the agent banking hence not accessing financial services.

According to Charles (2014), society depends on computer systems. Interactions in business and with the government are often carried out over the Internet, and even social networks are moving online. While people get convenient access to important services around the clock, great challenges also emerge in terms of security and privacy. There are various risk implications of use of agents by banks. Entrusting retail customer Contact to the agents is riskier than these same functions in the hands of bank officer in a Conventional bank branch. Special attention should be paid to credit risk, operational risk, Liquidity risk and reputation risk. The use of retail agents potentially raises special concerns regarding consumer protection and compliance with rules for combating money laundering and financing of terrorism which deserves the institution's attention. The time lag between collection from customers and depositing the same to the bank by the retail agents generates credit risk. There are chances of customer or retail agents

committing fraud, loss of bank's equipment or other property from a retail agent's premises, data leaks or data loss from hacker attacks, inadequate physical or electronic security or poor backup systems. All these factors lead to operational risk. Retail agents that are relatively small, unsophisticated and remote may not have enough cash to meet customer's requests for withdrawals and may lack experience in the more complex liquidity management required for offering financial services.

A descriptive research design was used by Musau and Jagongo (2015) in conducting an analysis of the utilization of agency banking on the performance of Kenyan banks. The research findings provide a chronology on how banks across developing countries are embracing branchless banking with the intention of increasing the financial levels inclusion in their regions especially low income households. The objectives of the study included: assessing how agency liquidity affects banks performance; determining how agency costs influences the banks performance; evaluating the effects of agency security on the performance of banks; and evaluating how security agency influence regulations on the performance of banks. Descriptive statistics was used including: mean, standard deviation, frequency distribution and percentage points in the analysis. The findings indicate that agency banking had enabled cost saving and accessibility of financial services by banks and customers as well. Agency banking had enabled banks to reach the unbanked population.

Chiteli (2013) states that Challenges faced by commercial banks in operating agent banking operations include reputational risk, anti-money laundering, consumer protection and legal risk. Mwachofi (2013) Studied in Karatina and Likuyani Sub Counties identified main challenges as adoption of mobile and agency banking technology to be cost related, compatibility, lack of institutional pressure, competition between adopters, culture related, inadequate resource, inadequate relevant training, skills, knowledge and attitudinal which are categorized as internal and external factors to the SME.

Njuki (2012) indicated that agency banking has helped to raise banks' profits and spread reach of financial services in Kenya. As such and owing to the accelerated competition of banking services in Kenya today, 13 out of 44 Kenyan commercial banks have embraced agency banking model. Keen to take advantage of the cost-saving, accessibility and better customer service

brought about by the agency banking model, Kenyan financial institutions have over the last two years embarked on an aggressive entry into this segment.

Wambugu (2011), in his study on factors influencing the adoption of agency banking by commercial banks in Kenya, the objective of the study was to explain the factors influencing Kenyan commercial banks to have agents. The research adopted a descriptive study approach focusing on the commercial banks in Kenya that were operating agency banking model. The population of the study consisted of four (4) commercial banks, with a target respondent of 45(staff) members. The study indicated that the factors that influenced the adoption of agency banking included; increasing customer coverage, enhancing revenue, expanding customer base outside the existing branch network high penetration to the unbanked and diverting customers from the crowded banking halls. This was inferred by the researcher to mean that, the major driving forces of commercial banks while adopting agency banking is increasing the banks operational capacity, while increasing revenues but at the same time reducing the operation cost.

The other descriptive case study analysis conducted by Khalfan (2006) on ‘Factors influencing the adoption of internet banking in Oman, aimed to identify the main potential factors or impediments that are currently inhibiting the incorporation or adoption of E-commerce applications in the Omani Banking sector. Data, used in their study were collected using semi structured interviews and survey questionnaire as well as reviewing some bank documents. The results of their study provide a Pragmatic picture about the adoption of E-Commerce applications in the core financial sector domain of Oman. One of the main findings is that security and data confidentiality issues have been a major barrier. The banking sector was reluctant to use E-commerce applications as they felt that transactions conducted electronically were open to hackers and viruses, which are beyond their control. Lack of top management support is the other inhibiting factor in the adoption of electronic commerce applications as per their finding.

As of the study by Kithuka (2012) looked at the factors influencing growth of agency banking in Kenya: the case of Equity bank, Kwale County, Kenya. The findings revealed security influenced the growth of agency banking in Kenya, distance does not influence the frequency of customer transactions, perceived usefulness influences the growth of agency banking, financial education enhances knowledge, attitude and practice in agency banking and lack of coordination between banking agencies influence the growth of agency banking in Kenya.

Gacheri (2012) did an investigation of challenges facing agent banking implementation in Kenya. The study set to establish whether the risks associated with agency banking, Policies, procedures governing Agency banking, technological, operations and awareness were hindrances to the implementation. This study was conducted within the Nairobi Commercial Business District (CBD) and primary data collection method was used. The study targeted 6 banks, 3 banks that had implemented agent banking, Equity, Co-operative bank, and Kenya Commercial Banks and three other banks that had not implemented agent banking. Data was collected through questionnaire to the banks and secondary data was what other scholars had written on agent banking. A questionnaire was designed to capture the various variables of the study. The questions were structured as open and closed ended, where open ended allowed free responses and closed were restricted to the alternatives stated, Yes or No. This study established that stringent bank 25 regulations and need to maintain sound financial status limited the implementation of agent banking in Kenya.

2.4 Research Gap

In line with the above theoretical as well as empirical review, it can be concluded that it is of dominant importance to have in place an effective agent banking system towards enhancing financial institutions and encouraging economic development. In this regard, banks, micro finances institutions and agent banking system vendors play a leading role in the enhancement of quality customer services especially for the rural and unbanked societies.

However, limited research has been conducted in the area with a specific reference to the banking sector. Therefore, the findings of this study can contribute to the endeavor of delivering efficient and customer base services in light of contemporary initiations globally.

So far, all over the world different researches have been made in identifying the factors affecting the adoption of Agency Banking, for instance Kumar Nair, Parsons, and Urdapilleta (2006) explored expanding bank outreach through retail partnership in Brazil. Similarly, Rodgers (2006) diffusion of innovation, he looks at how technology has only adopted. Hernandez-Coss (2009) explored the impact of introducing banking agents in Mexico. Wambugu (2011) sought to determine the factors influencing the adoption of agency banking by commercial banks in Kenya and noted that factors that influenced the adoption of agency banking. Mwachofi (2013)

investigated technology adoption and the banking agency in rural Kenya and noted that though a variety of mobile and agency banking services are on offer, only a very small proportion of customers who access it, actually use it.

In the Ethiopian context, mobile and agent banking is at its infant stage and banks are under implementation stage since the issuance of the NBE directive on Mobile and Agent banking service in 2012. But, till recently only six banks (Dashen bank, United Bank, Lion Bank, and cooperative bank of Oromia, commercial bank of Ethiopia, and Wegagen bank) banks are recently announced the launching of the service. Those banks announced the launching of the service is not effective. However, there is quite literature gap and little local research works have been conducted in the field except the research works by Ayana (2012), Abdulkadir (2014) and Henok (2015), and Hayat (2017) having its own gap in scope as specified below.

In addition to this, since technology is rapidly growing and the numbers of participant banks in the growing technology are increasing the sector needs up-to-date studies identifying challenge and prospects of the adoption to overcome challenges and harness the opportunity of adoption of mobile and agent banking. However, there are no adequate studies that have been done to find out the factors that influence the adoption of CBEbirr in Commercial Bank of Ethiopia. This has created a research gap that this study seeks to fill by investigating the factors influencing the adoption of CBEbirr service in Commercial Bank of Ethiopia. The study tried to identify the factors that affect the CBE Birr service adoption in Commercial Bank of Ethiopia from the distribution.

2.5 Conceptual Framework

Based on revising different scholarly literature reviews the following framework has been formulated.

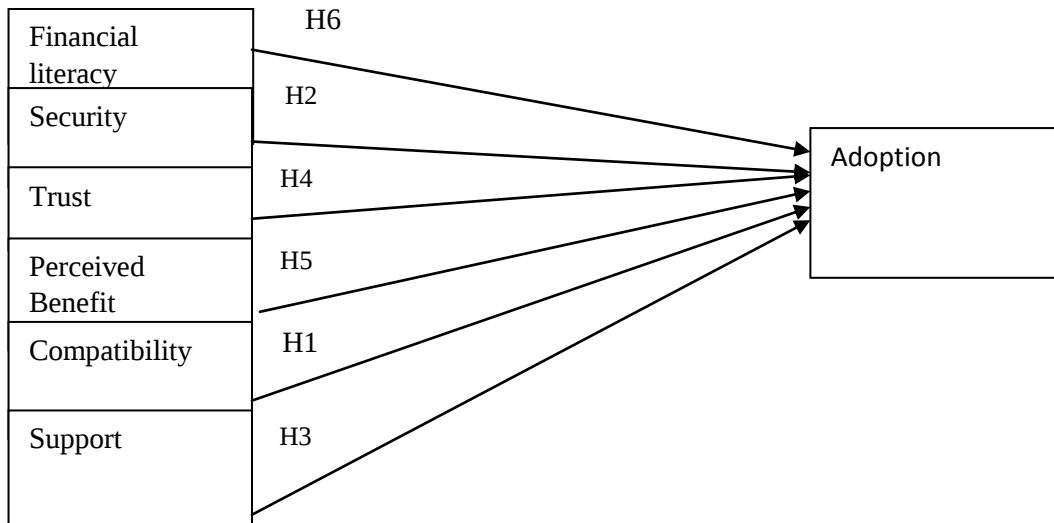


Figure 2.1: Conceptual frame work Source: Davis, (1985) & Tobbin, (2012)

CHAPTER THREE

3. METHODOLOGY

This section contains five major components; the first part discussed the research approach, the second part contains research design part presented target populations and third part contains sampling frame and fourth part presents issues related to data collection methods and sources and Finally, the fourth, the fifth and sixth parts discussed the data processing, data analysis and presentation method, validity assurances and research ethics respectively.

3.1 Research Approach

Quantitative research is a study that makes use of statistical analysis to obtain findings. Its key features include systematic and formal measurement of phenomenon and the use of statistics. Since this research uses systematic collection and measurement of data as well as application of statistical tools to obtain the findings, it is a quantitative research. The researcher used quantitative research approach due to the group to be studied result is reported with correlation, regression model and statistical significance of findings.

3.2 Research Design

The main objective of this study was identifying various factors, which influence the adoption of agent banking by commercial bank of Ethiopia. Thus, both explanatory type and descriptive type of research designs were employed.

Descriptive research studies are those studies which are concerned with describing the characteristics of a particular individual, or of a group like describing their age, gender, educational level and whether they purchase or not, and analyzing the response on respondent's agreement state on factors influencing user's intention to adopt the service.

Explanatory designs try to establish cause-and-effect relationships. The primary purpose of explanatory research design is to determine how events occur and which ones may influence particular outcomes, which looks for the relationship among the different factors influencing user's intention to adopt the service as per the conceptual model.

3.3 Target Population of the study

Population is the entire aggregation/total of items from which samples can be drawn. This study was focused on commercial bank of Ethiopia especially selected grade three; grade four and special grade four branches (61 branches), in three managerial levels in each branch, which is 61×3 which has a total population of 183. The Commercial Bank of Ethiopia branches are controlled by 15-district offices. Currently, in Addis Ababa there are four districts. In each district there are a number of branches and managers. CBE branches classified in to five groups (Grade 1, 2, 3, 4 and special) based on numbers of staff, volume of transaction, opened year and resource mobilization capability. The smallest branch is Grade 1 and the largest branch is special. However, in Addis Ababa there is few Grade one branch since it is the capital of Ethiopia with high number of transaction and more ability for deposit mobilization. Therefore, the target study population was comprised of particular (Manager Sales, business manager and operational manager) employees of the two districts in commercial bank of Ethiopia who have on managerial levels

Table 3.1 Target population of the study

District	South	East	<i>Total</i>
Number of Branch	32	29	61
Number of manager	$32 \times 3 = 96$	$29 \times 3 = 87$	183

Source: own research survey, 2019

Therefore, the population of interest is about 183 different CBE employees found in South and East Addis Ababa districts.

3.4 Sampling Technique and Sample size

This study was conducted on employees of Commercial Bank of Ethiopia in total 61 branches. The researcher selected two districts from four districts in Addis Ababa such as East Addis Ababa and south Addis Ababa districts using convenience sampling technique for the purpose of suitability of contacting, interviewing and collecting sufficient data from branches that are giving agency banking services around nearby Addis Ababa. Then, using Purposive sampling technique based on the data the researcher selected 61 grade three, grade four, and special grade four

branches among the two districts. In order to get the sample size from 61 branches the following Yamene's (1967) formula has been used.

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

Where: n= sample size; N = size of population; and e = precision level

Therefore, number of suitable size of sample from all branches was decided using the above formula by taking 5% confidence level as follows:

$$n = \frac{183}{1 + 183(0.05)^2}$$

$$n = 126$$

Depends on the above information the researcher found 126 sample employees of Commercial Bank of Ethiopia.

3.5 Data collection Procedure

The First Step was to council and taking advice from the advisor. The Second step after building the questionnaire was to run the pre-test for checking the efficiency and appropriateness of questionnaire in order to explore the relevant and irrelevant items in the questionnaire. The last step was to conduct the survey and collecting data.

3.6 Data Sources and Collection Methods

This study used primary and secondary source of data. Secondary data was used only for documentation and literature review. Regarding the primary data sources, the researcher used structured questionnaire as a main instrument to collect data from different branch sample managers to gather the information needed for the research by using a five point Likert response scale. The questionnaire has two parts first part focuses mainly about the personal profiles of sample respondents such as age; gender, education status etc., whereas part two of the questionnaire deals with state of agreement by respondents on different factors influencing adoption of agency banking.

The questionnaire was distributed to 126 sampled respondents; among the 126 distributed samples only 117 samples were appropriately filled and returned. Thus, analysis was made based on these samples.

3.7 Data Analysis and Presentation

Both the descriptive and inferential analysis was conducted using statistical software called Statistical Package for Social Science V20.

Descriptive analysis was used to analyze data gathered through questionnaires. The data gathered through questionnaires was fed into SPSS to make the data ready for processing. At last presentation and report was done through graphs, figures, and tables. The arithmetic mean is a measure of central tendency which may be used to represent data in an entire population. Standard Deviation is a widely used to measure the variability in statistics and probability theory. It shows how much variation there is from the mean. Multiple regression analysis was also applied for the research to address research objectives. And the inferential statistics was used to examine the relationship and the direction of the relationship between explanatory variables and adoption of agency banking. The study tests five assumptions, linearity, Normality, and autocorrelation, Multicollinearity, and homoscedasticity tests. In order to study the relationships between the independent and dependent variables a Pearson's correlation analysis was used.

The multiple regression models for the study were as follows:

$$\text{Intention to Adopt} = \beta_0 + \beta_1 S + \beta_2 C + \beta_3 T + \beta_4 B + \beta_5 \text{SUP} + \beta_6 \text{FL} + \varepsilon$$

Where, β_0 =Adoption of agency banking in absence of Support, Perceived benefit, compatibility, financial literacy, Security factors, and trust.

β_1 =the partial change in the adoption due to one unit change in Security factors while other things remain constant

β_2 = the partial change in the adoption due to one unit change in Compatibility while other things remain constant

β_3 = the partial change in the Adoption due to one unit change in Trust while other things remain constant

β_4 = the partial change in the Adoption due to one unit change in Benefit while other things remain constant

β_5 =the partial change in the Adoption due to one unit change in Support while other things remain constant

β_6 =the partial change in the Adoption due to one unit change in Financial Literacy while other things remain constant

ε = other factors undefined

S=Security

C=Compatibility

SUP=Support

T= Trust

FL=Financial Literacy

B=Perceived Benefit

3.8 Measurement of Variables

Table 3.2 measurement of variables

No	Variable name	Definition	Measurement
1	Security Factor	The degree to which a person believes adopting and using agency banking is risk free.	<i>Five point Likert scale (1= Strongly disagree, 5= strongly agree)</i>
2	Compatibility	the degree to which an innovation fits the values, previous experiences and needs of the potential adopter	<i>Five point Likert scale (1= Strongly disagree, 5= strongly agree)</i>
3	Support	Presence of technical and substantial assistance before product sell and after sell.	<i>Five point Likert scale (1= Strongly disagree, 5= strongly agree)</i>
4	Perceived Benefit	Agency banking allows customers to access their account using mobile phone at any time and the possible benefit with this service.	<i>Five point Likert scale (1= Strongly disagree, 5= strongly agree)</i>
5	Perceived Trust	Perceived Trust is the extent to which an individual believes that adopting and using agency banking is secure	<i>Five point Likert scale (1= Strongly disagree, 5= strongly agree)</i>
6	Financial Literacy	Financial literacy is the competence or knowledge in bank agency banking	<i>Five point Likert scale (1= Strongly disagree, 5= strongly agree)</i>
7	Intention to adopt	A person readiness to adopt agency banking.	<i>Five point Likert scale (1= Strongly disagree, 5= strongly agree)</i>

Source: own research survey, 2019

3.9 Reliability

To ensure the reliability of the measurement scales, Cronbach's alpha was used in the calculation. Where by a higher value of above 0.6 indicated that the variables were reliable while the values above 0.9 are regarded as most reliable but anything below 0.6 was regarded inconsistent with the reliability scales as according to George & Mallery, (2003) who suggested that in order for a scale to be reliable, the Cronbach's alpha value should be above 0.6.

Table 3.3: Cronbach's Alpha Coefficients for the Pilot Test

Variables	Cronbach's Alpha	No. of items
Security Factors	0.803	3
Compatibility	0.912	3
Support	0.841	3
Perceived Trust	0.877	3
Perceived Benefit	0.848	3
Financial Literacy	0.899	3

Source: Own Research Result, 2019

Table 3.1 above shows the reliability test for the independent variables security factors, compatibility, support, trust, benefit, and literacy. The Reliability Test for security factors consisted of three questions and the result is 0.803 representing 80.3% scale reliable. The questions regarding security are reliable. The reliability test result for financial literacy is 0.899 consisted of three questions representing 89.9% scale reliable. This result is considered high according to the Alpha Coefficient Range and thus the researcher concludes that the questions regarding literacy are acceptable. As shown in table 3.1 above for the reliability test Cronbach's Alpha coefficients for adoption of agency banking factors range from 0.841 to 0.899.

Based on the examination of the research scales and constructs, it can be concluded that each variable represents a reliable and valid construct.

3.10 Validity

Validity is the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure. The questionnaire was carefully designed and tested with a few members of the population for further improvements. Content validity of the survey questionnaire was validated by professionals, and the research advisor. A pilot test was used to ensure validity, a pre-test was sent to ten respondents to see if the questionnaire contains anything that was hard to interpret and using the ten sampled questionnaires validity test was made. Thus, using Kaiser-Meyer-Olkin(KMO) Measure of Validity test method the following results were found.

Table 3.4 Validity Test result

Variables	Kaiser-Meyer-Olkin(KMO) Measure of Validity test
Security factors	0.703
Compatibility	0.740
Support	0.725
Perceived Trust	0.725
Perceived Benefit	0.691
Financial Literacy	0.747

Source: Own Research Result, 2019

According to Sharma S. (1996 as cited in Gezahegn Bacha, 2015), it is said to be acceptable measure if the KMO value above 0.60 is Acceptable. From the above table 3.2, all values of the variables are above 0.60.

3.11 Research Ethics

According to Leedy and Ormrod, (2013), in doing any research, there is an ethical responsibility to do the work honestly and with integrity. The basic principle of ethical research is to preserve and protect the human dignity and rights of all subjects involved in a research project in this regard, the researcher assured that the respondents' information was confidential and used only for the study purpose. Before the data collection, the ethical issues were taken in to consideration when the study is conducted. Appropriate communication was undertaken with the staff of the bank. During data collection respondents was informed the objective of the research. Anyone who may not interest to involve and bring any information was not included in the study. For the purpose of respondents' security their names were not written on the questionnaire. As a general rule, therefore the study was not raising any ethical anxiety.

CHAPTER FOUR

4. RESULTS AND DISCUSSIONS

4.1. Introduction

In this chapter, the data collected has been analyzed and interpreted. The primary focus of this study is to assess factors influencing adoption of agency/CBE Birr banking in Commercial Bank of Ethiopia. The data collected is mainly based on respondents' expectations and perceptions of the various items. The first part of the questionnaire consists of demographic information of the respondents are presented in figures below. The second part of the questionnaire presents the descriptive analysis on variables of the study and the next part deals with the results of regression and correlation between factors influencing adoption of agency banking and intention to adopt agency banking. In this analysis SPSS version 20.0 was used to make the necessary calculations. A total of 126 questionnaires are distributed to potential respondents and 117 were workable questionnaires and analyzation was made based on this data.

4.2 Demographic Characteristics

This part shows the demographic information of the study participants. The study participants on survey questionnaire have different personal information; besides these differences they introduce different responses towards adoption of agent banking, and the challenge and prospects of its adoption. The study sought to establish the gender, age category, level of education, and service year status of the respondents in the bank. The respondent profile who participated in the study is presented the demographic characteristics of the 126 respondents.

4.2.1 Gender profile of the respondents

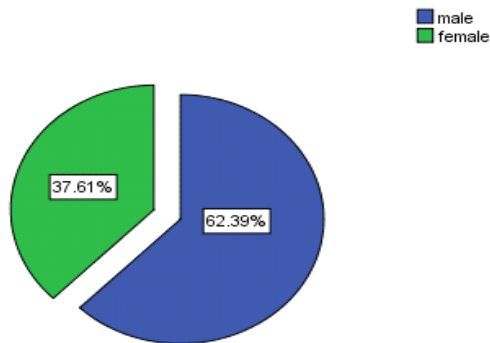


Figure 4.1 Gender Characteristics of the respondents

From the above figure 4.1 we can see that about 37.61% of the respondents were female and about 62.39% of the respondents was male. Here, we infer that most of the respondents were male. Here, we infer that most of the respondents were male. From this finding one can infer that both genders were involved in the study and thus the finding of the study did not suffer from gender bias.

4.2.2 Age Category of the respondents

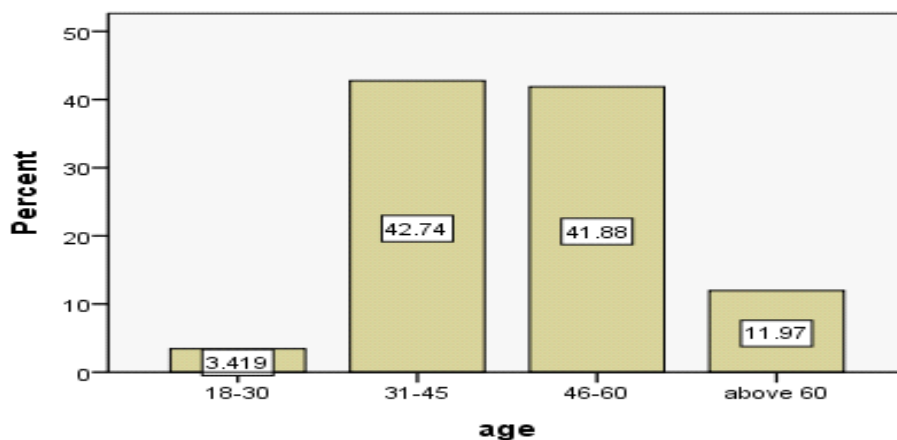


Figure 4.2: Age category of the respondents

From the above figure 4.2 result about 3.419% of them were within the age of 18-30, about 42.74% of the respondents were within the age of 31-45 years old. About 41.88% of them were within the age of 46-60 years old and about 11.97% of the respondents were above the age of 60 years old. Here from the finding most of the respondents were within the age of 31-45 years old and within the age of 46-60 years old. This is an indication that respondents were well distributed in terms of their age category. The age category implies that the respondents were comprised of heterogeneous groups; which in turn enabled the researcher to get varied responses across the sample units" fairly distributed. Hence, again the study did not suffer from age bias.

4.2.3 Educational Level of the respondents

The study also requested the respondents to indicate their highest level of education. The result is presented in below figure.

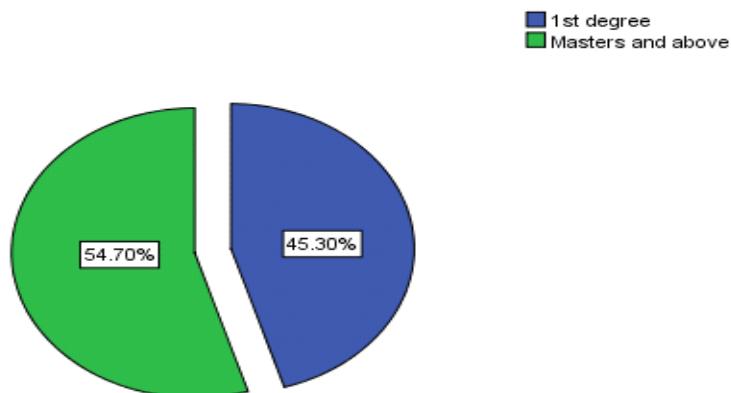


Figure 4.3: Educational level of the respondents

From the figure 4.3 result about 54.7% of the respondents have masters and above in their educational level while about 45.3% of the respondents have 1st degree education level. Thus, most of the respondents were master's degree and above holders. Therefore, one can infer that respondents might have best educational level, there is a good knowledge and a good understanding in the agency banking implementation process, problems and the way how to solve it.

4.2.4 Service year Status of the respondent

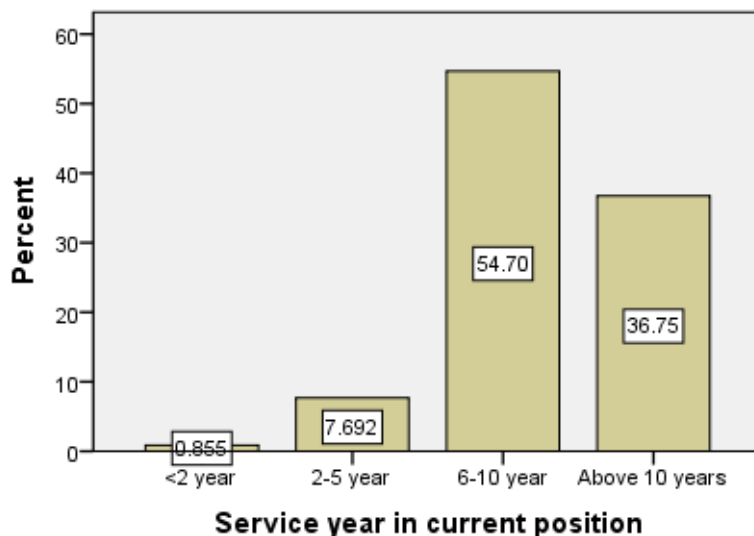


Figure 4.4: Service year of the respondents in the bank

From the above figure 4.4 results about 0.855% of the respondents had less than 2-year experience, about 7.692% of the respondents had 2-5 service year, about 54.7% of the respondents had 6-10 years' experience, about 36.75% of them had above 10-year service year experience.

From the Above figure 5 result majorities of the respondents had 6-10 years' service year experience in the bank. Therefore, a majority of the staff at 54.7 % have worked for the bank for at least 6 years. These employees must have joined the bank in the initial stages of agency banking introduction in the market thus they are fully aware or have a clue what agency banking entails. Thus one can infer that respondents might have best experience in the agency banking implementation process, problems and the way how to solve it.

4.3 Descriptive Statistics Result

The study established that agency banking can engender high outcome uncertainty because the temporal and the spatial separation between the consumers and the physical bank does not allow consumers the experience of witnessing the transactional situation in the same way they can in

the experience of face-to-face transactions with bank personnel, Consumers’ intention to adopt agency banking depends on whether their perceptions of rewards gained exceed the incurred costs of adopting agency banking, the smooth and secure processing of online transactions depends on the functioning of the hardware and software as well as on the security of the data exchange services including the Information technology protocols that are used. Responses were measured on five point Likert scale with 1= Strongly Disagree; 2= Disagree; 3= Neutral; 4= Agree; and 5 = Strongly Agree as used by Worku(2015). To make easy interpretation using mean value, the following ranges of values were assigned to each scale: 1.50 or less = Strongly Disagree; 1.51- 2.50 = Disagree; 2.51- 3.49 = Neutral; 3.50 – 4.49 = Agree; and 4.50 and greater = Strongly Agree as used by Desalegn (2010).

4.3.1 Security Factors

Table 4.1 Descriptive Statistical summary result of security factors and agency banking adoption

Questions	Responses						
	Strongly disagree	Disagree	Neutral	Agree	strongly agree	mean	std.dev
I’m worried about using CBEbirr banking because other people may be able to access customers’ account.	22(18.8%)	7(6%)	11(9.45)	37(31.6%)	40(34.2%)	3.56	1.482
Managing credit risk, operational risk, liquidity risk, and reputation risk greatly influence agent banking	20(17.1%)	12(10.3 %)	10(8.5%)	31(26.5%)	44(37.6%)	3.57	1.499
Customers of our bank fear risk to adopt and use CBEbirr banking.	20(17.1%)	10(8.5%)	12(10.3%)	32(27.4%)	43(36.8%)	3.58	1.481
Total Grand mean						3.57	

Source: own research result, 2019

From the above table 4.1 concerning the first sub-construct about 18.8% of the respondents were strongly disagreed, about 6% of them were disagreed, about 9.45% of them were neutral, about 31.6% of them were agreed and about 34.2% of them were strongly agreed on the statement "I'm worried about using CBEbirr banking because other people may be able to access customers' account." Most of them were strongly agreed on the questions. The mean value 3.56 indicates that their level of agreement lies on agreement state with standard deviation value of 1.482. Thus, one can conclude that respondents were worried about using CBEbirr banking because other people may be able to access customers' account.

From the second sub-construct about 17.15% of the respondents were strongly disagreed, about 10.35% of them were disagreed, about 8.5% of them were neutral, about 26.5% of them were agreed, and about 37.6% of the respondents were strongly agreed on the questions that Managing credit risk, operational risk, liquidity risk, and reputation risk greatly influence agent banking. The mean value 3.57 indicates that most of the respondents were agreed that Managing credit risk, operational risk, liquidity risk, and reputation risk greatly influence agent banking with standard deviation value of 1.499.

Based on the third sub-construct about 17.1% of the were strongly disagreed, about 8.5% of them were disagreed, about 10.3% of them were neutral, about 27.4% of them were agreed and about 36.8% of them were strongly agreed that Customers of our bank fear risk to Adopt and use CBE Birr Banking. The mean value 3.58 indicates that most of the respondents were agreed that Customers fear risk to Adopt and use CBEbirr Banking. The standard deviation value 1.481 indicates that high response variation from the mean.

Generally, from the total grand mean value 3.57 indicates that respondents were agreed that security factors affect customers to adopt and use agency banking because they worried about using CBE Birr banking because they thought that other people may be able to access their account fear to use it.

The finding of this study would supported by the study made by Sadi and Noordin (2011), Mashagba (2013) in an exploratory analysis of the factors influencing adoption of M-commerce in Malaysia reveals that trust identified as a key factor influencing the adoption of M-commerce. A similar study carried out revealed that trust, risk and security had an effect on mobile banking adoption. Customers tend to use those facilities which they believe to be the secured one.

4.3.2 Compatibility and CBEbirr Adoption

Table 4.2 Descriptive statistics result summary of Compatibility of agency banking

Questions	Responses						
	Strongly disagree	Disagree	neutral	Agree	strongly agree	mean	std.dev
CBE Birr banking service are compatible with the bank's existing service offering	49(41.9%)	23(19.7%)	10(8.5%)	15(12.8%)	20(17.1%)	2.44	1.545
The hardware used by agent banking system are easy to understand by the agents and their personnel	54(46.2%)	26(22.2%)	10(8.5%)	10(8.5%)	17(17.9%)	2.23	1.470
Using agent banking fits well with the way I like to control and manage my banking transactions.	56(47.9%)	18(15.4%)	9(7.7%)	13(11.1%)	21(17.9%)	2.36	1.584
Total Grand mean						2.34	

Source: own research result, 2019

From the table 4.2 about 41.9% of the respondents were strongly disagreed, about 19.7% of them were disagreed, about 8.5% of the respondents were neutral, about 12.8% were agreed, and about 17.1% of them were strongly agreed that CBEbirr banking service are compatible with the bank's existing service offering. The mean value 2.44 indicates that respondents were disagreed that Agency banking is compatible with banks' existing service offering. One can infer that CBE Birr is not compatible with banking existing service offering.

The second sub-construct indicates that about 46.2% of the respondents were strongly disagreed, about 22.2% of them were disagreed, about 8.5% of them were neutral, about 8.5% were agreed, and about 17.9% of the respondents were strongly agreed on the questions that says "The hardware used by agent banking system are easy to understand by the agents and their personnel." The mean value 2.23 indicates that most of the respondents were disagreed on this sub-construct with standard deviation value 1.470. Thus, one can infer that the hardware used by agent banking system are not easy to understand by agents and their personnel.

Based on the third sub-construct about 47.9% of the respondents were strongly disagreed, about 15.4% of them were disagreed, about 7.7% of the respondents were neutral, about 11.1% of them were agreed, about 17.9% of the respondents were strongly agreed that Using agent banking fits well with the way I like to control and manage my banking transactions. The mean value 2.36 indicates that most of the respondents were disagreed that using agent banking fits well with the way they like to control and manage their banking transactions. We can conclude that using agent banking doesn't fit well with the way they like to control and manage their banking transactions.

Generally, the total grand mean value which is indicates that 2.34 indicate that they were disagreed on the compatibility of the agency banking with users and banking existing service offering. Thus, agency banking is not compatible with users and bank existing service. The finding of this study is supported with the finding by Mwachofi (2013) Studied in Karatina and Likuyani Sub Counties identified main challenges as adoption of mobile and agency banking. He found that technology incompatibility categorized as internal and external factors to the SME.

4.3.3 Perceived Support and adoption of Agency Banking

Table 4.3 Descriptive statistics result summary of Perceived support and adoption of agency banking

Questions	Responses						
	Strongly disagree	Disagree	neutral	agree	strongly agree	mean	std.dev
Lack of sufficient government support will affect customers willingness to use technological innovation	19(16.2%)	13(11.1%)	4(3.4%)	26(22.2%)	55(47%)	3.73	1.54
There is no substantial and technical support available from the my bank	8(6.8%)	18(15.4%)	9(7.7%)	35(29.9%)	47(40.2%)	3.81	1.299
End user training is critical for the success of CBEbirr banking	18(15.4%)	10(8.5%)	9(7.7%)	28(23.9%)	52(44.4%)	3.74	1.482
Total Grand mean						3.76	

Source: own research result, 2019

Concerning the support factors construct of table above about 16.2% of the respondents were strongly disagreed, about 11.1% of the respondents were disagreed, about 3.4% of them were neutral, about 22.2% of them were agreed and about 47% of them were strongly agreed that Lack of sufficient government support will affect customer's willingness to use technological innovation. The mean value 3.73 indicates that most of the respondents were agreed on this sub-construct. The standard deviation value 1.54 indicates that high variation of respondent's

response from the mean. Based on the second sub-construct about 6.8% of the respondents were strongly disagreed, about 15.4% of the respondents were disagreed, about 7.7% of the respondents were neutral, about 29.9% of the respondents were agreed, and about 40.2% of the respondents were strongly agreed on the questions that there is no substantial and technical support available from my bank. The mean value 3.81 indicates that most of the respondents were agreed with this sub-construct with the standard deviation value 1.299.

From the third sub-construct about 15.4% of the respondents were strongly disagreed, about 8.5% of the respondents were disagreed, about 7.7% of the respondents were neutral, about 23.9% of the respondents were agreed, about 44.4% of the respondents were strongly agreed on the statement “End user training is critical for the success of CBEbirr banking.” The mean value 3.74 indicates that most of the respondents were agreed that end user training is critical for the success of CBEbirr banking.

Generally, from the support factors questions the total grand mean value 3.76 indicates that respondents were agreed on the construct questions of support factors in that Lack of sufficient government support will affect customer’s willingness to use technological innovation, there is no substantial and technical support available from the bank, and End user training is critical for the success of CBE Birr. The finding is consistent with the finding by Khalfan (2006) on ‘Factors influencing the adoption of internet banking in Oman, aimed to identify the main potential factors or impediments that are currently inhibiting the incorporation or adoption of E-commerce applications in the Omani Banking sector. Lack of top management support is the other inhibiting factor in the adoption of electronic commerce applications as per their finding.

4.3.4 Perceived Trust and adoption of Agency Banking

Table 4.4 Descriptive statistics summary result perceived trust on adoption of agency banking

Questions	Responses						
	Strongly disagree	disagree	neutral	agree	strongly agree	mean	std.dev
Lack of trust on bank agent is considered as barriers for the adoption of CBEbirr Banking in Ethiopia	18(15.4%)	12(10.3%)		30(25.6%)	50(42.7%)	3.70	1.487
Benevolence of the service provider has important influence in adopting agent banking service	17(14.5%)	19(16.2%)	9(7.7%)	29(24.8%)	43(36.8%)	3.53	1.483
Integrity of the service provider has important influence in adopting CBEbirr banking service	18(15.4%)	13(11.1%)	8(6.8%)	32(27.4%)	46(39.3%)	3.64	1.477
Total Grand mean						3.62	

Source: own research result, 2019

From the above table perceived trust constructs about 15.4% of the respondents were strongly disagreed, about 10.3% of them were disagreed, about 6% of them were neutral, about 25.65 of the respondents were agreed, about 42.75 of the respondents were strongly agreed that Lack of trust on bank agent is considered as barriers for the adoption of CBEbirr Banking in Ethiopia. The mean value 3.70 indicate that most of the respondents were agreed on this sub-construct with

high standard deviation value of 1.487. The second sub-construct about 14.5% of the respondents were strongly disagreed, about 16.2% of the respondents were disagreed, about 7.7% of the respondent's neutral, about 24.8% of the respondents were agreed, and about 36.8% of the respondents were strongly agreed that Benevolence of the service provider has important influence in adopting agent banking service. The mean value 3.53 indicates that most of the respondents were agreed on this sub-construct. The standard deviation value 1.483 indicates that there is deviation of response from the mean.

From the third sub-construct about 15.4% of the respondents were strongly disagreed, about 11.1% of them were disagreed, about 6.8% of them were neutral, about 27.4% of them were agreed, and about 39.4% of the respondents were strongly disagreed on the statements that Integrity of the service provider has important influence in adopting CBEbirr banking service. The mean value 3.64 indicates that most of the respondents were agreed on this sub-construct with the standard deviation value of 1.477.

The total grand mean value 3.62 indicates that respondents were agreed that Lack of trust on bank agent is barriers for the adoption of CBEbirr Banking, Benevolence of the service provider has important influence in adopting agent banking service, and integrity of the service provider has important influence in adopting CBEbirr banking service. The finding was supported by the finding of Khalfan (2006) on 'Factors influencing the adoption of internet banking in Oman, aimed to identify the main potential factors or impediments that are currently inhibiting the incorporation or adoption of E-commerce applications in the Omani Banking sector. He found is that security and data confidentiality issues have been a major factor influencing agency banking adopters and users.

4.3.5 Perceived Benefit and adoption of Agency Banking Technology

Table 4.5 Descriptive statistics summary result of benefit of agency banking

Questions	Responses						
	Strongly disagree	Disagree	neutral	agree	strongly agree	mean	std.dev
CBEbirr banking makes me more comfortable to communicate with banks	15(12.8%)	9(7.7%)	11(9.4%)	32(27.4%)	50(42.7%)	3.79	1.399
CBEbirr banking is more Advantageous than other banking services	21(17.9%)	10(8.5%)	13(11.1%)	32(27.4%)	41(35%)	3.53	1.489
CBEbirr banking enables more time and effort savings	13(11.1%)	8(6.8%)	11(9.4%)	35(29.9%)	50(42.7%)	3.86	1.338
Total Grand mean						3.73	

Source: own research result, 2019

Based on the perceived benefit construct of the above table indicates that in the first sub-construct about 12.8% of the respondents were strongly disagreed, about 7.7% of them were disagreed, about 9.4% of them were neutral, about 27.4% of them were agreed, and about 42.7% of them were strongly agreed that CBE Birr banking makes me more comfortable to communicate with banks. The mean value 3.79 indicates that most of the respondents were strongly agreed on this sub-construct with standard deviation value 1.399.

From the second sub-construct about 17.9% of the respondents were strongly disagreed, about 8.5% of the respondents were disagreed, about 11.1% of the respondents were 27.4% of the respondents were agreed and about 35% of the respondents were strongly agreed on the statement that CBE Birr banking is more advantageous than other banking services. The mean value 3.53

indicates that most of the respondents were agreed on this sub-construct; with the standard deviation value 1.489.

The third sub-construct about 11.1% of the respondents were strongly disagreed, about 6.8% of the respondents were disagreed, about 9.4% of them were neutral, about 29.9% of them were agreed, and about 42.7% of the respondents were strongly agreed on the statement that CBE Birr banking enables more time and effort savings. The mean value 3.86 indicates that most of the respondents were agreed on this sub-construct with the standard deviation value 1.338.

Generally, from the total grand mean value of perceived benefit of agency banking the result 3.73 indicates that respondents were agreed that CBE Birr banking makes me more comfortable to communicate with banks, CBE Birr banking is more advantageous than other banking services, and CBE Birr banking enables more time and effort savings.

This finding was consistent with the finding by Njuki (2012) who indicated that agency banking has helped to raise banks' profits and spread reach of financial services in Kenya. As such and owing to the accelerated competition of banking services in Kenya today, 13 out of 44 Kenyan commercial banks have embraced agency banking model. Keen to take advantage of the cost-saving, accessibility and better customer service brought about by the agency banking model, Kenyan financial institutions have over the last two years embarked on an aggressive entry into this segment.

4.3.6 Financial Literacy and Agent Banking

Table4.6 Descriptive statistics result on financial literacy on agency banking adoption

Questions	Responses						
	Strongly disagree	disagree	neutral	agree	strongly agree	mean	
Our agents have a good educational level and skill	32(27.4%)	15(12.8%)	14(12%)	28(23.9%)	28(23.9%)	3.04	1.561
Banking agents are usually equipped with regulations and policies of agency banking	30(25.6%)	25(21.4%)	14(12%)	24(20.5%)	24(20.5%)	2.89	1.507
Users' bank experience don't influence on Adoption of CBEbirr	27(23.1%)	23(19.7%)	13(11.1%)	28(23.9%)	26(22.2%)	3.03	1.506
Total Grand mean						2.99	

Source: own research result, 2019

From the above table result about 27.4% of the respondents were strongly disagreed, about 12.8% of the respondents were disagreed, about 12% of them were neutral, about 23.9% of the respondents were agreed and about 23.9% of the respondents were strongly agreed that Our agents have a good educational level and skill. The mean value 3.04 indicates that most of the respondents were indifferent about agent's educational level and skills with standard deviation value 1.561. Based on the second sub-construct about 25.6% of the respondents were strongly disagreed, about 21.45 of the respondents were disagreed, about 12% of the respondents were neutral, about 20.5% of the respondents were agreed, and about 20.5% of the respondents were strongly agree. The mean value 2.89 indicates that most of the respondents were neutral on this sub-construct with high standard deviation value of 1.507.

Generally, from the financial literacy of agents construct the most of the respondents were disagreed on our agents have a good educational level and skill, and Banking agents are usually equipped with regulations and policies of agency banking. But most of them were agreed Users' bank experience don't influence on Adoption of CBEbirr.

This finding can be supported by the finding made by Gardachew (2010) on the title of the opportunities and challenges of E-banking in Ethiopia. The purpose of his study was focused on analyzing the status of electronic banking in Ethiopia and investigates the main challenges and opportunities of implementing E-banking system. The researcher conducted a survey on the existing operating style of banks and identifies some challenges of using E-banking system, such as, lack of suitable legal and regulatory frame works for E-commerce and E- payments, political instability in neighboring countries, high rates of illiteracy and absence of financial networks that links different banks.

4.4 Inferential Statistical Analysis

This section describes the inferential statistical analysis of data which includes correlation analysis, coefficient of determination, analysis of variance and multiple regression analysis.

4.4.1 Correlation Analysis Result

The primary objective of correlation analysis is to measure the strength or degree of linear association between two variables. The correlation coefficient examines the strength and direction of the linear relationship between two variables. The correlation coefficient can range between -1 and +1, the larger the absolute value of the coefficient; the stronger the relationship between the variables. Zero (0) indicates no relationship between two variables. The sign of the relationship indicates the direction of relationship. $P\text{-value} \leq \alpha$: The correlation is statistically significant; if the p-value is less than or equal to the significance level, then we can conclude that the correlation is different from 0. $P\text{-value} > \alpha$: The correlation is not statistically significant; if the p-value is greater than the significance level, then you cannot conclude that the correlation is different from 0.

As such the following table shows the correlation between Agency banking Adoption and independent variables (Security factors, compatibility, support, perceived trust, perceived benefit, and financial literacy of agents).

Table 4.7 Correlation analysis result

		Security	Compatibility	Support	Perceived Trust	Perceived benefit	Financial Literacy	Adoption
Security Factors	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	117						
Compatibility	Pearson Correlation	.169	1					
	Sig. (2-tailed)	.068						
	N	117	117					
Support Factors	Pearson Correlation	-.130	-.027	1				
	Sig. (2-tailed)	.162	.769		.			
	N	117	117	117				
Perceived Trust	Pearson Correlation	-.293**	.370**	.119	1			
	Sig. (2-tailed)	.001	.000	.202				
	N	117	117	117	117			
Perceived Benefit	Pearson Correlation	-.215*	.310**	.056	.467**	1		
	Sig. (2-tailed)	.020	.001	.552	.000			
	N	117	117	117	117	117		
Financial Literacy	Pearson Correlation	-.152	.407**	-.004	.499**	.472**	1	.
	Sig. (2-tailed)	.103	.000	.969	.000	.000		
	N	117	117	117	117	117	117	
Adoption	Pearson Correlation	-.221*	.556**	.213*	.711**	.653**	.822**	1
	Sig. (2-tailed)	.017	.000	.021	.000	.000	.000	
	N	117	117	117	117	117	117	117

**, Correlation is significant at the 0.01 level (2-tailed).

*, Correlation is significant at the 0.05 level (2-tailed).

From the above 4.7 correlation table, we can see that most of the independent constructed variables were correlated with Adoption of Agency banking. Among the variables the highest and strong correlation coefficient was found between Financial Literacy and Adoption of agency banking service (0.822), between Perceived trust and Adoption of Agency banking (0.711), and followed by variables between Perceived Benefit and Adoption of Agency banking (0.653), between Perceived compatibility and adoption of agency banking (0.556), and between Support factors and adoption of agency banking (0.213) and between Security factors and adoption of Agency banking(-0.221). Therefore, from the above table we can conclude that five of the constructed variables have positive and significant correlation with Adoption of agency banking service because the p (sig) value is less than $\alpha=.05$ level while security factors had negative and significant correlation with adoption of agency banking.

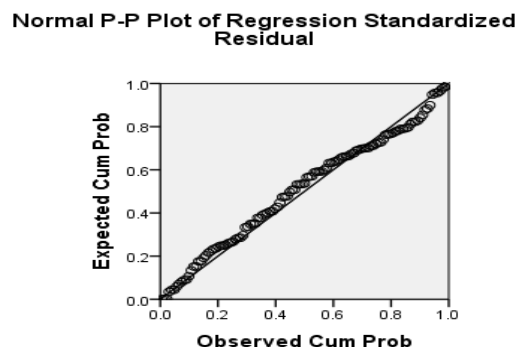
4.4.2 Diagnosis test About Assumptions of Regression Analysis

Before applying regression analysis, some tests were conducted in order to ensure the appropriateness of data to assumptions regression analysis as follows.

4.4.2.1 Linearity test

Linearity refers to the degree to which the change in the dependent variable is related to the change in the independent variables. To determine whether the relationship between the dependent variable Adoption of Agency banking and the independent variables security factors, compatibility, support factors, trust, benefit, and financial literacy is linear; plots of the regression residuals through SPSS V20 software had been used.

Figure 4.5: Linearity test.



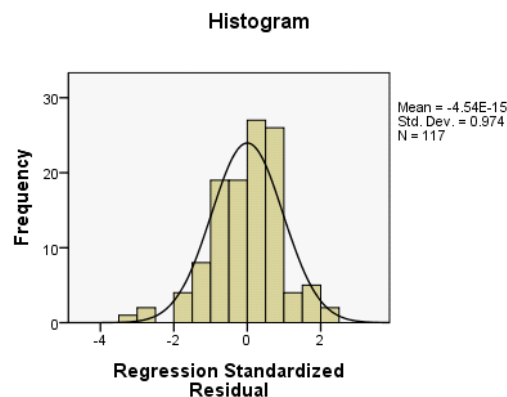
Source: SPSS out put

From the above figure 4.5 the scatter plot of residuals shows no large difference in the spread of the residuals as you look from left to right on figure 6. This result suggests the relationship we are trying to predict is linear.

4.4.2.2 Normality test

Secondly, the linear regression analysis requires all variables to be multivariate normal. This assumption can best be checked with a histogram and a fitted normal curve or a Q-Q-Plot. As per the Classical Linear Regression Models assumptions, the error term should be normally distributed or expected value of the errors terms should be zero ($E(u_t) = 0$).

Figure 4.6 Normality test



Source: SPSS out put

Figure 4.6 shows the frequency distribution of the standardized residuals compared to a normal distribution. As you can see, although there are some residuals (e.g., those occurring around 0) that are relatively far away from the curve, many of the residuals are fairly close to 0. Moreover, the histogram is bell shaped which lead to infer that the residual (disturbance or errors) are normally distributed. Thus, no violations of the assumption normally distributed error term.

4.4.2.3 Multicollinearity Test between Study Variables

Thirdly, linear regression assumes that there is little or no multi-co linearity in the data. Multi-co linearity occurs when the independent variables are not independent from each other. A second important independence assumption is that the error of the mean has to be independent from the independent variables. Thus we can test using the following criteria.

1. Correlation matrix – when computing the matrix of Pearson's Bivariate Correlation among all independent variables the correlation coefficients need to be smaller than 1. Thus from this research finding correlation table indicates that all independent variables have correlation coefficient less than one.

2. Tolerance – the tolerance measures the influence of one independent variable on all other independent variables; the tolerance is calculated with an initial linear regression analysis. Tolerance is defined as $T = 1 - R^2$ for these first step regression analysis. Thus from the finding in coefficient table all tolerance values were less than one. See table 4.8 below.

3. Variance Inflation Factor (VIF) – the variance inflation factor of the linear regression is defined as $VIF = 1/T$. Similarly, with $VIF > 10$ there is an indication for multicollinearity to be present; with $VIF > 100$ there is certainly multicollinearity in the sample. Thus from the coefficient table all VIF values are less than 10. Simply the values are not more than 1.663 (see the VIF value at Table 4.11 below). This confirms us there are no violations of little or no Multicollinearity between independent variables.

Simply, when we can see table 4.7 above there is no strong pair-wise correlation between the explanatory variables. As a rule of thumb, inter-correlation among the independent variables above 0.80 signals a possible multi-co linearity problem. In this study the maximum value of the correlation coefficient is 0.499 (between financial literacy and perceived Trust). Thus, it can be concluded that all the variables in the study have low correlation power as a result there is no multi-co linearity problem.

4.42.4 Autocorrelation Test

Fourthly, linear regression analysis requires that there is little or no autocorrelation in the data. Autocorrelation occurs when the residuals are not independent from each other. While a scatter plot allows you to check for autocorrelations, you can test the linear regression model for autocorrelation with the Durbin-Watson test. The value of Durbin Watson assumes to be between 0 and 4, values around 2 indicate no autocorrelation. From our test, the value of Durbin Watson is about 1.509. Thus it lies between $0 < 1.509 < 4$ (see table 4.9). The value of Durbin Watson is close to 2 indicates there is no violation of Autocorrelation. Thus, from an explanation of the information presented in the entire

five tests one can conclude that there is no significant data problems that would lead to say the assumptions of multiple regressions have been seriously violated.

Table 4.8 Autocorrelation test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.946 ^a	.894	.888	.300	.894	155.014	6	110	.000	1.509
a. Predictors: (Constant), Security factors, Compatibility, Support, Perceived Trust, Perceived benefit, Financial Literacy										
b. Dependent Variable: Adoption										

4.4.2.5 Homoscedasticity Test

Lastly, homoscedasticity test, which refers to whether residuals are equally distributed, or presence of equality of variance/homogeneity of variance. The following test was done in testing the problem of Heteroscedasticity.

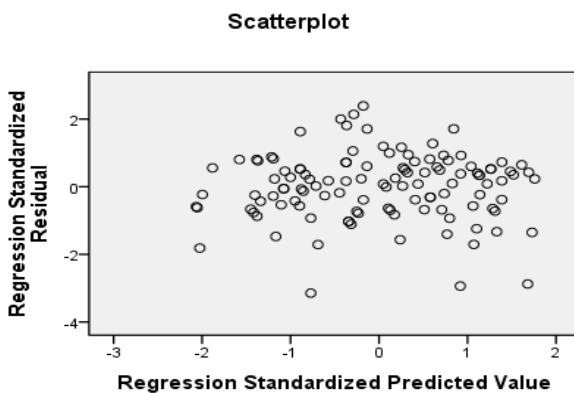


Figure 4.7: Homoscedasticity test

Source: own research result, 2019

This assumption requires even distribution of residual terms or homogeneity of error terms throughout the data. Homoscedasticity can be checked by visual examination of a plot of the standardized residuals by the regression standardized predicted value. If the error terms are distributed randomly with no certain pattern, then the problem is not detrimental for analyses. Figure above shows that the standardized residuals in this research are distributed evenly indicating heteroscedasticity is not a serious problem for this data.

4.4.3 Regression Analysis Result and Discussions

The objective of this study was identifying various factors, which influence the adoption of agent banking by commercial bank of Ethiopia. In order to study the relationship between the dependent and independent variables and specify the best predictors of the dependent variable (Adoption of Agency Banking) a multiple Regression model was applied. Multiple regressions were used for testing the model and hypotheses. It provides information regarding the significance of the variables that were included in the model while the R^2 explains how much variance in the dependent variable is explained by the model or how much the adoption of Agency banking service is explained by the constructed variables. Statements of hypothesis were formulated based on the six variables used in this study in order to come up with the results.

Table 4.9 Regression analysis result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.946 ^a	.894	.888	.300	.894	155.014	6	110	.000

Source: own research result, 2019

Table 4.9 above shows three important elements, thus R, R^2 and the adjusted R^2 . From this table, R shows a significant positive relationship of 0.946 which is 94.6%. The R^2 value = .894 meaning 89.4% of the variance in the model can be predicted using the independent variables or in simple words 89.4 % of adoption of Agency banking is explained by the constructed independent variables. However, the remaining 10.6% changes in adoption of agency banking in CBE are caused by other factors that are not included in the model. Therefore, the constructed adoption of agency banking factors (Compatibility, Perceived Trust, perceived benefit, support, and financial literacy of agents) is good explanatory variables of the influencing intention to adopt CBE Birr banking service.

Table 4.10 ANOVA Analysis result

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	83.907	6	13.985	155.014	.000 ^b
	Residual	9.924	110	.090		
	Total	93.831	116			
a. Dependent Variable: Adoption						
b. Predictors: (Constant), Security factors, Compatibility, Support, Perceived Trust, Perceived benefit, Financial Literacy						

From the ANOVA test in table 4.10 it shows the table Sig. value 0.05 is greater than the calculated sig. value of .000. This shows the statistically significant relationships between the six independent variables (Security factors, perceived trust, benefit, support, trust, and financial literacy) and adoption of agency banking at 5% significance level. This means, the six explanatory variables have great impact on users to adopt Agency banking in Commercial Bank of Ethiopia. But it does not mean that all these factors influencing agency banking service have equally significant correlation with adoption of agency banking service. Beside the F statistics (155.014) which is used to measure the overall test of significance of the model was presented, and the model is well fitted at 5 percent level of significance.

Table 4.11 Regression Analysis result

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.403	.175		2.309	.023		
	Security	-.025	.025	-.035	-1.007	.316	.797	1.255
	Compatibility	.127	.024	.200	5.402	.000	.700	1.428
	Support	.125	.023	.174	5.533	.000	.969	1.032
	Trust	.171	.027	.252	6.309	.000	.601	1.663
	Benefit	.157	.027	.216	5.779	.000	.687	1.455
	Financial Literacy	.328	.025	.508	13.039	.000	.634	1.577
a. Dependent Variable: Adoption								

In the table-above 4.11, coefficients indicated how much the dependent variable varies with an independent variable, when all other independent variables are held constant. The beta coefficients indicated that how and to what extent the independent variables influence the dependent variable. Accordingly, the result of coefficient value of regression analysis indicated the highest determinant factor which affect Adoption of Agency banking service was Financial literacy (at Beta value=.508), followed by Trust (Beta=.252), benefit (Beta=.216), compatibility (Beta=.200), and Perceived support(Beta=.174). Thus, from this finding one can infer that financial literacy and Perceived trust has the most significant factors influencing agency banking service. Based on the above table 4.11 finding we can develop the following regression model:

$$\text{Adoption} = 0.403 + 0.328\text{FL} + 0.171\text{T} + 0.157\text{B} + 0.127\text{C} + 0.125\text{Sup} - 0.025\text{S}$$

Where, FL=Financial Literacy

T=Trust

B=Benefit

C=Compatibility

Sup=Support

S=Security

Based on the above model result, all the explanatory variables have positive influence to adopt agency banking service in Commercial Bank of Ethiopia. The B coefficient of Financial literacy =0.328 .i.e. 100% change in Financial literacy leads to 32.8% change in intention to adopt and use agency banking, Perceived Trust=.171 indicating that 100% change in perceived Trust leads to 17.1% increase in intention to adopt agency banking, Perceived Benefit= 0.157 implies that a one unit change in benefit leads to 0.157 unit increase in intention to adopt and use agency banking, compatibility= 0.127 signifies that a one unit change in compatibility results to 0.127 unit increase in intention to adopt agency banking, support beta value=0.125 indicates that a one unit change in support leads to 0.125 units increase in intention to adopt agency banking.

These findings provide significant support for the reliability, transaction efficiency and ease of use literature which advocates that the variables have an influence upon customer satisfaction in Ethiopian commercial banks.

4.4.4 Hypothesis Testing

4.4.4.1 Compatibility and agency banking

H1: Compatibility of agency banking has significant and positive influence on adoption of Agency banking

Based on the coefficient of regression table 4.11 the results in table show that Compatibility has a B coefficient of 0.127 and p-value of .000, holding other explanatory variables constant compatibility was found to have a statistically significant positive association with intention to adopt agency banking. Therefore, the researcher was accepted the H1 hypothesis.

This finding is supported by the Studies Nganga & Mwachofi, (2013) in Karatina and Likuyani Sub Counties identified main challenges as adoption of mobile and agency banking technology to be cost compatibility was found one of the significant which are categorized as internal and external factors to the SME.

4.4.4.2 Security Factors

H2: There is significant and negative relationship between Security factors and intention to adopt Agency banking. Table 4.11 shows that security factors have an unstandardized B coefficient of -0.025 and p-value of .316. Holding other explanatory variables constant security factors was found to have a statistically insignificant negative association with intention to adopt agency banking. Therefore, the hypothesis not supported. Therefore, the Null Hypothesis which says there is insignificant and negative relationship between security factors and intention to adopt agency banking is accepted. Thus, this factor was not significant.

This finding was inconsistent with the finding by Kithuka (2012) that looked at the factors influencing growth of agency banking in Kenya: the case of Equity bank, Kwale County, Kenya. The findings revealed security was one of the factors significantly influenced the growth of agency banking in Kenya

4.4.4.3 Perceived Support

H3: Perceived Support will have significant and positive influence to adopt agency banking services. Table 4.11 shows that Perceived support has an unstandardized B coefficient of 0.125

and p-value of .000. Holding other explanatory variables constant perceived support was found to have a statistically significant and positive association with intention to adopt agency banking and it has statistically significant positive influence on intention to adopt agency banking. Therefore, the researcher was accepted the H3 hypothesis. Thus, this factor was significant.

This finding was consistent with finding by Khalfan (2006) on 'Factors influencing the adoption of internet banking in Oman, aimed to identify the main potential factors or impediments that are currently inhibiting the incorporation or adoption of E-commerce applications in the Omani Banking sector. Lack of top management support is the other inhibiting factor in the adoption of electronic commerce applications as per their finding.

4.4.4.4 Perceived Trust

H4: There is significant and positive relationship between perceived trust and adoption of agency banking

The table 4.11 shows that Perceived trust has unstandardized B coefficient of 0.171 and p-value of .000. Holding other explanatory variables constant perceived trust was found to have a statistically significant positive association with intention to adopt agency banking. Therefore, the researcher was accepted the H4 hypothesis. Thus, this factor was significant.

This finding was supported with the study conducted by Khalfan (2006) on 'Factors influencing the adoption of internet banking in Oman, aimed to identify the main potential factors or impediments that are currently inhibiting the incorporation or adoption of E-commerce applications in the Omani Banking sector. Data, used in their study were collected using semi structured interviews and survey questionnaire as well as reviewing some bank documents. The results of their study provide a Pragmatic picture about the adoption of E-Commerce applications in the core financial sector domain of Oman. One of the main findings is that security and data confidentiality issues have been a major barrier. The banking sector was reluctant to use E-commerce applications as they felt that transactions conducted electronically were open to hackers and viruses, which are beyond their control.

4.4.4.5 Perceived Benefit

H5: There is significant and positive relationship between perceived benefit of agency banking and intention to adopt agency banking. Table 4.11 shows that Perceived Benefit has a coefficient of 0.157 and p-value of .000. Holding other explanatory variables constant perceived benefit was found to have a statistically significant positive association with intention to adopt agency banking. Therefore, the researcher was accepted the H5 hypothesis. Thus, this factor was statistically significant.

This finding was supported by research finding by Njuki (2012) indicated that agency banking has helped to raise banks' profits and spread reach of financial services in Kenya. As such and owing to the accelerated competition of banking services in Kenya today, 13 out of 44 Kenyan commercial banks have embraced agency banking model. Keen to take advantage of the cost-saving, accessibility and better customer service brought about by the agency banking model, Kenyan financial institutions have over the last two years embarked on an aggressive entry into this segment.

4.4.4.6 Financial Literacy

H6: There is positive relationship between financial literacy and intention to adopt agency banking.

Based on the coefficient of regression table 4.11, the results in table show that financial literacy has a beta coefficient of 0.328, and p-value of 0.000, holding other explanatory variables constant financial literacy was found to have a statistically significant positive association with intention to adopt agency banking. Therefore, the researcher was accepted the H6 hypothesis.

This finding was consistent with finding by Kithuka (2012) looked at the factors influencing growth of agency banking in Kenya: the case of Equity bank, Kwale County, Kenya. The findings revealed security influenced the growth of agency banking in Kenya, distance does not influence the frequency of customer transactions, perceived usefulness influences the growth of agency banking, financial education enhances knowledge, attitude and practice in agency banking and lack of coordination between banking agencies influence the growth of agency banking in Kenya.

4.4.5 Summary Result of Hypothesis testing

Table 4.12 Summary of Hypothesis testing result

Hypothesis	Result
H1: Compatibility of agency banking has significant and positive influence on adoption of Agency banking	Accepted
H2: There is significant and negative relationship between Security factors and intention to adopt Agency banking	Not supported
H3: Perceived Support will have significant and positive influence to adopt agency banking services.	Accepted
H4: There is significant and positive relationship between perceived trust and adoption of agency banking	Accepted
H5: There is significant and positive relationship between perceived benefit of agency banking and intention to adopt agency banking.	Accepted
H6: There is positive relationship between financial literacy and intention to adopt agency banking.	Accepted

Source: own research result, 2019

CHAPTER FIVE

5. CONCLUSION, SUMMARY, AND RECOMMENDATION

5.1 Summary

The objective the study was to identifying factors, which influence the adoption of agent banking by commercial bank of Ethiopia through investigating the various aspects of potential and eminent challenges facing agents and banks in implanting Agent banking business in Ethiopia as well as exploring its multi-dimensional prospects to various stakeholders as a new frontier for financial inclusion in Ethiopia. Accordingly, this part of the research summarizes the major findings of the study from the various factors influencing adoption of agent banking adoption.

The study found out that from the demographic profile most of the respondents were male, and most of the respondents' age category is within 31-45 years old, most of the respondents had educational level masters' degree and above degree holders. Most of the respondents' service year in the bank was 6-10 years.

Five point Likert scales were used to measure and define the descriptive statistics result. Accordingly, based on the percentage analysis result most of the respondents were strongly agreed that security factors affect adoption of agency banking. The total grand mean value 3.57 of all questions in security factors indicates that respondents were agreed that security factors affect customers to adopt and use agency banking because they worried about using CBEbirr banking because they thought that other people may be able to access their account fear to use it.

Based on the grand mean value of all construct in compatibility of agency banking which is indicated that 2.34 indicate that they were disagreed on the compatibility of the agency banking with users and banking existing service offering.

From the support factors constructs the total grand mean value 3.76 indicates that most of the respondents were agreed on the construct questions of support factors in that Lack of sufficient government support will affect customer's willingness to use technological innovation, there is no substantial and technical support available from the bank, and End user training is critical for the success of CBEbirr.

The result in perceived trust constructs grand mean value 3.62 indicates that respondents were agreed that Lack of trust on bank agent is barriers for the adoption of CBEbirr Banking, Benevolence of the service provider has important influence in adopting agent banking service, and integrity of the service provider has important influence in adopting CBEbirr banking service.

The result on Perceived benefit of agency banking grand mean result 3.73 indicates that most of the respondents were agreed that CBEbirr banking makes them more comfortable to communicate with banks, CBEbirr banking is more advantageous than other banking services, and CBEbirr banking enables more time and effort savings.

The result in financial literacy of agents construct most of the respondents were disagreed on our agents have a good educational level and skill, and Banking agents are usually equipped with regulations and policies of agency banking. But most of them were agreed Users' bank experience don't influence on Adoption of CBEbirr.

The correlation coefficient result indicates that compatibility, support, perceived trust, perceived benefit, and financial literacy of agents had positive and significant relationship with adoption of agency banking. Security factors have negative and significant relationship with adoption of agency banking. Among the variables the highest and strong correlation coefficient was found between Financial Literacy and Adoption of agency banking service ($r=0.822$), and between Perceived trust and Adoption of Agency banking ($r=0.711$) while the weakest correlation was found between support factors and intention to adopt agency banking.

The inferential statistics result shows that about 89.4% of the variance in the model can be predicted using the independent variables or in simple words 89.4 % of adoption of Agency banking is explained by the constructed independent variables. However, the remaining 10.6% changes in adoption of agency banking in CBE are caused by other factors that are not included in the model. Therefore, the constructed adoption of agency banking factors (such as security factors, Compatibility, and Perceived Trust, perceived benefit, support, and Financial literacy of agents) are good explanatory variables of the influencing intention to adopt CBEbirr banking service. Based on ANOVA result the overall test of significance of the model was presented, and the model is well fitted at 5 percent level of significance and the model explains the relationship between dependent variable with explanatory variables.

All hypothesis was tested and the result indicates that H1, H3, H4, H5, H6 were accepted because the sig. value is <0.05 based on regression analysis result. But, H2 was rejected because the sig. value in regression coefficient was not significant because Sig. value >0.05 i.e. $0.316 > 0.05$. Thus, Compatibility, support, trust, financial literacy, and benefit were statistically significant factors but, security factors were not significant. Among the explanatory variables financial literacy and perceived trust were the most statistically significant factors influencing intention to adopt CBEbirr in Commercial bank of Ethiopia.

5.2 Conclusion

The findings revealed that Agency banking technological compatibility was the factor that impacted the CBEbirr banking services. The findings were supported by majority of the respondents who disagree with the statement that CBEbirr banking service are compatible with bank's existing service offering, the hardware used by agent banking system are easy to understand by the agents and their personnel, and using agent banking fits well with the way I like to control and manage my banking transaction. Thus, we can conclude that CBEbirr technology is not compatible with the culture of the bank. The implication of this result is that if customers perceive agency banking as consistent with their existing beliefs, values, lifestyle and past experience, they are more likely to use these services. Therefore, it can be concluded that when agency banking is found to be compatible by matching with the existing values, past experiences, and needs of potential users then the intention to adopt will increase

Perceived benefit was found to have a significant and positive influence on agency banking adoption. This result suggests that for agency banking technology to be accepted by users, they should perceive it as a useful and quicker way of doing banking transactions compared with the traditional banking system. Therefore; it can be concluded that people will adopt agency banking services when the value and benefit of agency banking is evident.

On the other hand, perceived trust was found to have a significant and positive influence on agency banking adoption. Thus, users with high level of confidence in the service will more readily build initial trust in agency banking. This could imply that when customers do not trust agency banking service and the service provider it will in turn lead to a less willingness to adopt agency banking. Therefore, trust will have a positive impact on agency banking adoption when

the agency banking service providers are perceived to be trustworthy. Thus, one can conclude that Perceived trust was one of the factors affecting users' intention to adopt agency banking.

Financial literacy found to have a positive significant influence on CBE Birr adoption. This implies that users' knowledge, ability and skills are needed to use the new information technology. Financial literacy is one of the factors that affect customers' perception towards agent banking service. Since agent banking service is available through USSD and WEB channel, it requires customers to be literate. At least reading, and writing skill is mandatory to use this service. Agents of both service providers claim that financial literacy has a big impact on customer intention to adopt CBE Birr. The findings could be used by any banking industry when considering their efforts on recruiting agents. This study showed that there were some factors such as agent attitude, even agent experience in business and agent core business that affect the performance under the financial inclusion of the bank. Therefore, financial literacy was one of the factors affecting users' intention to adopt agency banking.

Available support structures and strong top management support becomes an essential requirement when the CBEbirr banking initiatives have to be implemented. With a strong and proactive staff and top management support to agents, banking industry of Ethiopia will be able to launch deep and large scale organizational change programs to facilitate banking. Therefore, presence of available support found positive correlation with intention to adopt and it was one of the factors affecting intention to adopt CBE Birr in Commercial Bank of Ethiopia.

Generally, we can have based on our objectives we can conclude that Perceived Trust, Perceived Support, Compatibility, Perceived Benefit, and Financial Literacy Found to have positive correlation with intention to adopt CBE Birr technology and all are the statistically significant factors influencing intention to adopt CBE Birr innovation in Commercial Bank of Ethiopia.

5.3 Recommendation

Based on the above findings, to improve the adoption of agency banking (CBEbirr) service in commercial bank of Ethiopia the researcher recommends the followings.

- As financial literacy, perceived trust and compatibility were found to be the factors that influence user' behavior intention in adopting CBEbirr services, service developers and

software engineers should focus on the development of CBEbirr facilities. This can be achieved by developing better functions in terms of flexibility, security and accessibility features to enhance user' confidence to adopt CBE Birr services. Users' knowledge, ability and skills are needed to use the new information technology.

- There is need to address security issues associated with CBEbirr technology so as to ensure success of CBEbirr technology. It is important for the bank to project higher security when providing agency banking services and let its customers know how the security issue is revealed in order to yield higher customers' acceptance.
- Since potential adopters want to know the degree to which a new idea is better than an existing practice, the bank should emphasize in designing different banking features of the service considering customers' lifestyle, culture and language.
- Banks should recruit and maintain high quality agents to increase the adoption of agency banking.
- To promote confidence or trust in the technologies, financial education should emphasize that agency banking can be cheaper, safer, and more convenient than traditional banking, the importance of privacy should also be sufficiently explained and emphasized
- To exploit the benefit of CBEbirr system, commercial bank of Ethiopia needs to familiarize their customers with the processes and benefits of the system. Creating continuous social awareness about CBEbirr services by emphasizing its advantage like time saving, low cost and convinces through different forms of media advertising such as brochures, web pages etc.
- Since, financial literacy found to have most statistically significant effect on adoption of agency banking, the bank should emphasize different types of training for their agents in order to ensure their agents are usually equipped with regulations and policies of agency banking.
- The bank should give substantial and technical support to their employees to ensure the potential adopters can easily adopt the services. Since, end user training is critical for the success of CBEbirr banking the bank should give sufficient training to their users.

5.4 Future study

The following are areas that could be considered for future research: The contribution of demographic factors such as age and gender toward the adoption of agency banking services was not given much emphasis in this study; future researchers may investigate the influence of demographic factors in user's adoption of agency banking services. Furthermore, this research was conducted in Addis Ababa selected city branch managerial level employees, further studies may also consider selecting customers from other areas, as well as incorporating additional factors in understanding the intention to adopt agency banking (CBEbirr) services

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Appendices

Appendix I

QUESTIONNAIRE

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF MANAGEMENT

Dear Respondent,

I am an MBA student at Addis Ababa University College of Business and Economics Department of Management. I'm currently undertaking my thesis Entitled "Factors Affecting the Adoption of Agency Banking/CBE Birr Service in the Case of Commercial Bank of Ethiopia". You have been selected as one of the respondents in this study. I therefore request you to kindly facilitate the collection of the required data by answering the questionnaire herein. Please note that the information sought is purely for academic purposes and will be treated with utmost confidentiality.

Please note that all the information collected will serve no other purpose than that of academic research and all names will be kept confidential. The estimated time to complete the questionnaire is about 25 minutes. The questionnaire will be conducted at a convenient time as negotiated with the Manager. Care will be taken that the research does not interfere with normal working time. It is hoped that the feedback receive will add to the ongoing research on the Factors Affecting the Adoption of Agency Banking/CBE Birr Service.

Please try to answer all stated questions and I would like to thank you for your time again.

Please mark your response with "√"

Part One: Demographic Information of Respondents.

1. Sex

Male

Female

2. Age

18-30

31-45

above 45

3. Educational background

Certificate

First degree

Diploma

Master's Degree

Above masters

4. Year of service (experience) in current position

Less than a year 2

2-5 years

6-10 year

above 10 year

Part II: Factors influencing Adoption of CBE Birr Banking

Please indicate your appropriate answer by making (√) mark based on the following rating 1= strongly disagree 2= disagree 3= neutral 4= agree 5= strongly agree

Questions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Security Factors					
1. I'm worried about using CBEbirr banking because other people may be able to access customers' account.					
2. Managing credit risk, operational risk, liquidity risk, and reputation risk greatly influence agent banking					
3. Customers of our bank fear risk to Adopt and use CBEbirr Banking					
Compatibility					
4. CBEbirr banking service are compatib					

bank's existing service offering					
5. The hardware used by agent banking system are easy to understand by the agents and their personnel					
6. Using agent banking fits well with the I like to control and manage my banking transactions.					
Support					
7. Lack of sufficient government support will affect customers willingness to use technological innovation					
8. There is no substantial and technical support available from the my bank					
9. End user training is critical for the success of CBEbirr banking					
Perceived trust					
10. Lack of trust on bank agent is considered as barriers for the adoption of CBEbirr Banking in Ethiopia					
11. Benevolence of the service provider has important influence in adopting agent banking service					
12. Integrity of the service provider has important influence in adopting CBEbirr banking service					
Perceived Benefit					
13. CBEbirr banking makes me more comfortable to communicate					

14. CB birr banking is more advantageous than other banking services					
15. CBEbirr banking enables more time and effort savings					
Financial Literacy of Users					
16. Our agents have a good educational level and skill					
17. Banking agents are usually equipped with regulations and policies of agency banking					
18. Users' bank experience doesn't Influence on Adoption of CBE Birr.					

19. The following questions are regarding your overall attitude toward your customers' purchase intentions (adoption) of agency banking. Please read and tick the appropriate choices from 1= strongly disagree to 5= strongly agree.

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am very confident that our customers will be buying the service of agency banking					
I am somewhat confident that our customers' next purchase of banking service will be through Agents					
I am sure that our customers' next purchase of banking service will be through agents					
These days more customers are interested to buy our banking services through agents					

Appendix II

Descriptive statistics result

I'm worried about using CBE Birr banking because other people may be able to access my account.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	22	18.8	18.8	18.8
	disagree	7	6.0	6.0	24.8
	neutral	11	9.4	9.4	34.2
	agree	37	31.6	31.6	65.8
	strongly agree	40	34.2	34.2	100.0
	Total	117	100.0	100.0	

Managing credit risk, operational risk, liquidity risk, and reputation risk greatly influence agent banking					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	20	17.1	17.1	17.1
	disagree	12	10.3	10.3	27.4
	neutral	10	8.5	8.5	35.9
	agree	31	26.5	26.5	62.4
	strongly agree	44	37.6	37.6	100.0
	Total	117	100.0	100.0	

Customers of our bank fear risk to Adopt and use CBE Birr Banking					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	20	17.1	17.1	17.1
	disagree	10	8.5	8.5	25.6
	neutral	12	10.3	10.3	35.9
	agree	32	27.4	27.4	63.2
	strongly agree	43	36.8	36.8	100.0
	Total	117	100.0	100.0	

CBE Birr banking service are compatible with the bank's existing service offering					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	49	41.9	41.9	41.9
	disagree	23	19.7	19.7	61.5
	neutral	10	8.5	8.5	70.1
	agree	15	12.8	12.8	82.9
	strongly agree	20	17.1	17.1	100.0
	Total	117	100.0	100.0	

The hardware used by agent banking system are easy to understand by the agents and their personnel					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	54	46.2	46.2	46.2
	disagree	26	22.2	22.2	68.4
	neutral	10	8.5	8.5	76.9
	agree	10	8.5	8.5	85.5
	strongly agree	17	14.5	14.5	100.0
	Total	117	100.0	100.0	

Using agent banking fits well with the way I like to control and manage my banking transactions.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	56	47.9	47.9	47.9
	disagree	18	15.4	15.4	63.2
	neutral	9	7.7	7.7	70.9
	agree	13	11.1	11.1	82.1
	strongly agree	21	17.9	17.9	100.0
	Total	117	100.0	100.0	

Lack of sufficient government support will affect customers willingness to use technological innovation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	19	16.2	16.2	16.2
	disagree	13	11.1	11.1	27.4
	neutral	4	3.4	3.4	30.8
	agree	26	22.2	22.2	53.0
	strongly agree	55	47.0	47.0	100.0
	Total	117	100.0	100.0	

There is no substantial and technical support available from the my bank

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	8	6.8	6.8	6.8
	disagree	18	15.4	15.4	22.2
	neutral	9	7.7	7.7	29.9
	agree	35	29.9	29.9	59.8
	strongly agree	47	40.2	40.2	100.0
	Total	117	100.0	100.0	

End user training is critical for the success of CBE Birr banking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	18	15.4	15.4	15.4
	disagree	10	8.5	8.5	23.9
	neutral	9	7.7	7.7	31.6
	agree	28	23.9	23.9	55.6
	strongly agree	52	44.4	44.4	100.0
	Total	117	100.0	100.0	

Lack of trust is considered as barriers for the adoption of CBE Birr Banking in Ethiopia

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	18	15.4	15.4	15.4
	disagree	12	10.3	10.3	25.6
	neutral	7	6.0	6.0	31.6
	agree	30	25.6	25.6	57.3
	strongly agree	50	42.7	42.7	100.0
	Total	117	100.0	100.0	

Benevolence of the service provider has important influence in adopting agent banking service					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	17	14.5	14.5	14.5
	disagree	19	16.2	16.2	30.8
	neutral	9	7.7	7.7	38.5
	agree	29	24.8	24.8	63.2
	strongly agree	43	36.8	36.8	100.0
	Total	117	100.0	100.0	

Integrity of the service provider has important influence in adopting CBE Birr banking service					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	18	15.4	15.4	15.4
	disagree	13	11.1	11.1	26.5
	neutral	8	6.8	6.8	33.3
	agree	32	27.4	27.4	60.7
	strongly agree	46	39.3	39.3	100.0
	Total	117	100.0	100.0	

CBE Birr banking makes me more comfortable to communicate with banks					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	15	12.8	12.8	12.8
	disagree	9	7.7	7.7	20.5
	neutral	11	9.4	9.4	29.9
	agree	32	27.4	27.4	57.3
	strongly agree	50	42.7	42.7	100.0
	Total	117	100.0	100.0	

CBE Birr banking is more advantageous than other banking services					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	21	17.9	17.9	17.9
	disagree	10	8.5	8.5	26.5
	neutral	13	11.1	11.1	37.6
	agree	32	27.4	27.4	65.0
	strongly agree	41	35.0	35.0	100.0
	Total	117	100.0	100.0	

CBE Birr banking enables more time and effort savings					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	13	11.1	11.1	11.1
	disagree	8	6.8	6.8	17.9
	neutral	11	9.4	9.4	27.4
	agree	35	29.9	29.9	57.3
	strongly agree	50	42.7	42.7	100.0
	Total	117	100.0	100.0	

Our agents have a good educational level and skill					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	32	27.4	27.4	27.4
	disagree	15	12.8	12.8	40.2
	neutral	14	12.0	12.0	52.1
	agree	28	23.9	23.9	76.1
	strongly agree	28	23.9	23.9	100.0
	Total	117	100.0	100.0	

Banking agents are usually equipped with regulations and policies of agency banking					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	30	25.6	25.6	25.6
	disagree	25	21.4	21.4	47.0
	neutral	14	12.0	12.0	59.0
	agree	24	20.5	20.5	79.5
	strongly agree	24	20.5	20.5	100.0
	Total	117	100.0	100.0	

Users' bank experience don't influence on Adoption of CBE Birr					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	27	23.1	23.1	23.1
	disagree	23	19.7	19.7	42.7
	neutral	13	11.1	11.1	53.8
	agree	28	23.9	23.9	77.8
	strongly agree	26	22.2	22.2	100.0
	Total	117	100.0	100.0	

Statistics				
		I'm worried about using CBE Birr banking because other people may be able to access my account.	Managing credit risk, operational risk, liquidity risk, and reputation risk greatly influence agent banking	Customers of our bank fear risk to Adopt and use CBE Birr Banking
N	Valid	117	117	117
	Missing	0	0	0
Mean		3.56	3.57	3.58
Std. Deviation		1.482	1.499	1.481

Statistics				
		CBE Birr banking service are compatible with the bank's existing service offering	The hardware used by agent banking system are easy to understand by the agents and their personnel	Using agent banking fits well with the wayI like to control and manage my banking transactions.
N	Valid	117	117	117
	Missing	0	0	0
Mean		2.44	2.23	2.36
Std. Deviation		1.545	1.470	1.584

Statistics				
		Lack of sufficient government support will affect customers willingness to use technological innovation	There is no substantial and technical support available from the my bank	End user training is critical for the success of CBE Birr banking
N	Valid	117	117	117
	Missing	0	0	0
Mean		3.73	3.81	3.74
Std. Deviation		1.535	1.299	1.482

Statistics				
		Lack of trust is considered as barriers for the adoption of CBE Birr Banking in Ethiopia	Benevolence of the service provider has important influence in adopting agent banking service	Integrity of the service provider has important influence in adopting CBE Birr banking service
N	Valid	117	117	117
	Missing	0	0	0
Mean		3.70	3.53	3.64
Std. Deviation		1.487	1.483	1.477

Statistics				
		CBE Birr banking makes me more comfortable to communicate with banks	CBE Birr banking is more advantageous than other banking services	CBE Birr banking enables more time and effort savings
N	Valid	117	117	117
	Missing	0	0	0
Mean		3.79	3.53	3.86
Std. Deviation		1.399	1.489	1.338

Statistics				
		Our agents have a good educational level and skill	Banking agents are usually equipped with regulations and policies of agency banking	Users' bank experience don't influence on Adoption of CBE Birr
N	Valid	117	117	117
	Missing	0	0	0
Mean		3.04	2.89	3.03
Std. Deviation		1.561	1.507	1.506

Inferential Statistical out puts

Correlations								
		MEANSEC	MEANCOMP	MEANSUPP	MEANTRUST	MEANBENEFT	MEANLITRAC	Adoption
MEANSEC	Pearson Correlation	1	.169	-.130	-.293**	-.215*	-.152	-.221*
	Sig. (2-tailed)		.068	.162	.001	.020	.103	.017
	N	117	117	117	117	117	117	117
MEANCOMP	Pearson Correlation	.169	1	-.027	.370**	.310**	.407**	.556**
	Sig. (2-tailed)	.068		.769	.000	.001	.000	.000
	N	117	117	117	117	117	117	117
MEANSUPP	Pearson Correlation	-.130	-.027	1	.119	.056	-.004	.213*

	Sig. (2-tailed)	.162	.769		.202	.552	.969	.021
	N	117	117	117	117	117	117	117
MEANTRUST	Pearson Correlation	-.293**	.370**	.119	1	.467**	.499**	.711**
	Sig. (2-tailed)	.001	.000	.202		.000	.000	.000
	N	117	117	117	117	117	117	117
MEANBENEFIT	Pearson Correlation	-.215*	.310**	.056	.467**	1	.472**	.653**
	Sig. (2-tailed)	.020	.001	.552	.000		.000	.000
	N	117	117	117	117	117	117	117
MEANLITRAC	Pearson Correlation	-.152	.407**	-.004	.499**	.472**	1	.822**
	Sig. (2-tailed)	.103	.000	.969	.000	.000		.000
	N	117	117	117	117	117	117	117
Adoption	Pearson Correlation	-.221*	.556**	.213*	.711**	.653**	.822**	1
	Sig. (2-tailed)	.017	.000	.021	.000	.000	.000	
	N	117	117	117	117	117	117	117
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

Variables Entered/Removed ^a			
Model	Variables Entered	Variables Removed	Method
1	MEANLITRAC, MEANSUPP, MEANSEC, MEANCOMP, MEANBENEFT, MEANTRUST ^b	.	Enter
a. Dependent Variable: Adoption			
b. All requested variables entered.			

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.946 ^a	.894	.888	.300	.894	155.014	6	110	.000	1.509
a. Predictors: (Constant), MEANLITRAC, MEANSUPP, MEANSEC, MEANCOMP, MEANBENEFT, MEANTRUST										
b. Dependent Variable: Adoption										

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	83.907	6	13.985	155.014	.000 ^b
	Residual	9.924	110	.090		
	Total	93.831	116			
a. Dependent Variable: Adoption						
b. Predictors: (Constant), MEANLITRAC, MEANSUPP, MEANSEC, MEANCOMP, MEANBENEFT, MEANTRUST						

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.403	.175		2.309	.023		
	MEANSEC	-.025	.025	-.035	-1.007	.316	.797	1.255
	MEANCOMP	.127	.024	.200	5.402	.000	.700	1.428
	MEANSUPP	.125	.023	.174	5.533	.000	.969	1.032
	MEANTRUST	.171	.027	.252	6.309	.000	.601	1.663
	MEANBENEFT	.157	.027	.216	5.779	.000	.687	1.455
	MEANLITRAC	.328	.025	.508	13.039	.000	.634	1.577

a. Dependent Variable: Adoption

Collinearity Diagnostics ^a										
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	MEANSEC	MEANCOMP	MEANSUPP	MEANTRUST	MEANBENEFT	MEANLITRAC
1	1	6.345	1.000	.00	.00	.00	.00	.00	.00	.00
	2	.229	5.266	.01	.07	.32	.08	.01	.00	.06
	3	.184	5.877	.00	.17	.32	.02	.04	.03	.07
	4	.099	7.993	.00	.16	.26	.34	.02	.01	.32
	5	.069	9.612	.00	.00	.01	.31	.17	.27	.54
	6	.055	10.733	.00	.03	.03	.03	.64	.56	.00
	7	.019	18.136	.99	.56	.06	.22	.12	.14	.00

a. Dependent Variable: Adoption

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.51	4.76	3.27	.850	117
Residual	-.945	.717	.000	.292	117
Std. Predicted Value	-2.067	1.759	.000	1.000	117
Std. Residual	-3.146	2.389	.000	.974	117

a. Dependent Variable: Adoption