



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

**FACTORS AFFECTING THE ADOPTION OF AGENT  
BANKING:  
(THE CASE OF LION INTERNATIONAL BANK S.C)**

**BY  
ABREHAM DESTA**

**June, 2018  
Addis Ababa, Ethiopia**

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BANKING:**

**(THE CASE OF LION INTERNATIONAL BANK S.C)**

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## Acronyms & Abbreviations

ATM	Automatic Tellers Machine
E-banking	Electronic Banking
IB	Internet Banking
ICT	Information Communication Technology
IT	Information Technology
NBE	National Bank of Ethiopia
POS	Point of Sale
S.C.	Share Company
SPSS	Statistical Package for the Social Sciences
TAM	Technology Acceptance Model
TOE	Technology Environment Organization
CBE	Commercial Bank of Ethiopia
C.C	Credit Cards
D.C	Debit Cards
TPO	Third Party Operators
AB	Agency Banking
LIB	Lion International Bank
AVR	Automated Voice Response
PU	Perceived Usefulness
PEOU	Perceived Ease of Use
KYC	Know Your Customer
PR	Perceived Risk
CGAP	Consultative Group to Assist the poor
TRA	Theory Reasoned Action
PB	Perceived Benefit

## **Abstract**

*The main objective of this study was to assess factors affecting the adoption of agency banking the case of Lion International Bank S.C. An explanatory research design was used for analyzing the effect of the identified factors on adoption of Agency Banking. In order to achieve the objective of this study, quantitative research approach was used and self-administered data was collected through questionnaires. The study has used both types of data primary and secondary data using a self administered questioner. The participants of the study were taken customers of the bank that comprises of 485 which were selected by employing simple random sampling methods. To analyze the data both descriptive and inferential statistics were used while the descriptive was used to analyze the demographic data & Mean and Standard deviation the inferential statistics were used to measure the relationship between the variables and to evaluate the effect of the proposed independent variables (Technological, Organizational and Environmental) factors on the depend variable (the adoption of agent banking). The findings of the study reveal that the technological factors, organizational factors and environmental factorshave a positive and significant relationship with the adoption of agency banking. The regression result also shows that all variables of the study have significant effect on agent banking; the beta coefficient analysis shows that technological factors has the highest effect on the adoption of agency banking. Finally, the study concludes that by highly recognizing and managing Technological, Organizational and Environmental factors had likely to support and facilitate in the adoption of agency banking, availability of developed ICT infrastructure, believe the technology which is provided by the bank, creating awareness of the services. Finally based on the result recommendation were forwarded that; the bank should also embark on regular training of the agents to ensure they are familiar they understand Agent Banking services and expanding their network coverage of these Agent Banks around the country to ensure that customers have easy access to these services.*

**Key words :** *Adoption of agency banking, Environmental factors, Organizational factors, Technological Factors*

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Agency banking is branchless banking based on ICT that allows financial institutions to offer financial service outside the traditional bank premises (Mas, 2008; Mas and Siedek, 2008). 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 (Warii, 2011).

Agent Bank is a company or organization that acts in some capacity on behalf of another bank but it cannot accept deposits or extend loans in its own name and it acts as agent for the parent bank. A retail outlet contracted by a financial institution or a mobile network operator that processes clients' transactions could be cited as instance. It is the retail outlets that conduct the transaction and lets clients deposit or withdraw cash, transfer funds, effect bill payment, inquire about an account balance, or receive government benefits or a direct deposit from their employer rather than a branch teller (Siedek, 2008).

Globally, retailers and post offices are highly utilized as important distribution channels for financial institutions. The point of services range from the post offices in Australia where clients from all banks can conduct their transactions, to rural France where the bank Credit Agricole uses corner stores to provide financial services, to small lottery outlets in Brazil at which clients can receive their social payments and access their bank accounts (Ivatury and Lyman, 2006). However, agency banking can be traced to Brazil in 1999 where it exponentially grew from 1,600 agents in 2000 to 170,000 agents in 2010 (McKay, 2011).

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 (AfeworkGugsa, 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 multichannel 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 e-banking system (Shyamapada et al, 2011). The business environment has globally changed and it has been characterized by stiff competition and this is not an exception to banks. Competition has pushed commercial banks towards becoming more innovative. These innovations include credit cards, ATMs, internet banking, mobile banking, youth oriented accounts, women oriented banking, Interest free banking and agency banking which are most recently introduced in the banking sector (Bold, 2011).

The appearance of E-banking in Ethiopia goes back to the late 2001, when the largest state owned, commercial bank of Ethiopia (CBE) introduced ATM to deliver service to the local users. But, due to lack of appropriate infrastructure it failed to reap the fruit of its membership. Despite being the pioneer in introducing ATM based payment system and acquired visa membership, CBE Lagged behind Dashen bank, which worked aggressively to maintain its lead in E-payment system. As CBE continues to move at a snail's pace in its turnkey solution for Card Based Payment system, Dashen Bank remains so far the sole player in the field of E-Banking since 2006. (Gardachew2010) As per the directive No. FIS /01/2012 stated on its article No.6.4, United bank and Lion international bank S.C. Starts agency banking in 2014/2015 by getting approvals from National Bank of Ethiopia (Ayana G. (2012).

Regarding E-banking, some related studies are conducted by different researchers in different parts of the world. However, there are limited numbers of studies conducted in Ethiopia on the adoption of technological innovation. Specifically, Gardachew (2010) conducted research on the opportunities and challenges of E-banking in Ethiopia. According to Gardachew (2010), low level of internet penetration, poorly developed telecommunication infrastructure, lack of infrastructure for telecommunications, lack of suitable legal and regulatory framework for e-commerce and e-payment, inadequate banking system, political instabilities are some of the challenges of using E-Banking systems.

Afework Gugsa (2015) conducted research on assessment of adoption of agency banking innovation in Ethiopia: barriers and drivers. According to Afework Gugsa (2015), lack of suitable legal frameworks, low level of ICT infrastructure, lack of customers trust and awareness towards the technology and customers' fear to use the technologies are the challenges to adopt agency banking system.

Tesfaye Molla(2016) also studied on factors influencing the adoption of agency banking in selected private banks in Ethiopia. According to Tesfaye Molla(2016), demography, competition, untapped market, and regulation and consumer behavior are the factors which influences commercial banks to adopt agent banking.

The above researcher tries to see the challenges and opportunities of E-Payments in Ethiopia and factors influencing the adoption of agency banking and finds that adequate legal structure and security framework, risk, lack of trust, technology, competition, untapped market, consumer behavior, low level of internet, political instability are the challenges that affect the adoption of E-Payment.

Therefore, the researcher is interested to assess factors affecting the adoption of agency banking the case of Lion International Bank S.C.

## **1.2 Statement of the Problem**

The agency banking services, which operates by integrating transactions with ATMs, Debit cards, Credit cards, Mobile banking, Point-of-Sale (POS) devices and others through third party operators, are new to the Ethiopian banking sectors. Agency banking system mainly uses modern technology and it allow customers to access banking services electronically through mobile devices and Bank agents to deposit and withdraw cash, transfer fund, make bill payments, obtain content trading.

Banking services for a long time have been known to be characterized by long queues and low turnaround. These slow operations often resulted in long queues, high costs, wastages, due to paper protocol and bureaucracy making it hard for timely services. Therefore any form of improvement to enhance efficiency in the banking sector is very much welcomed through the adoption of new technology.

Yet, sub-Saharan African financial and banking systems remain underdeveloped. The banking systems in the region are highly concentrated and generally inefficient at financial intermediation; they are characterized by their small size and low intermediation, and despite little barriers to entry and exit - as evidenced by the dominant market share of foreign banks - competition is still limited. In this context, access to finance in sub-Saharan Africa is among the lowest in the world and presents one of the key obstacles to the activity and growth of enterprises. This in turn constrains the region from achieving its full growth potential. However, the relatively stable macroeconomic and financial environment, together with the current reform momentum and expected strong economic growth in many countries in the region, bode well for further development of the banking system. Moreover, the on-going structural changes in the banking sector, such as the emergence of mobile and agency banking as well as Pan-African banking groups, have a great potential to transform the existing business models, improve competition and efficiency, as well as access to finance and financial inclusion (Montfort et al, 2013).

When we come to our country case, the banking industry in Ethiopia is still 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 (Gardachew 2010).

One of the emergent alternative delivery channels, agent banking, is fast gaining momentum in many countries in Latin America (Brazil, Columbia and Peru), Asia (India) and South Africa (Kumar et al. 2006). Agent banking, which leverages heavily on ICT, is a component of branchless banking that allows financial institutions to offer financial services outside the traditional brick and mortar bank premises (Mas and Siedek, 2008).

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.

One of the major significance of agency banking services 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.

However, despite this importance of agency banking, closer observation shows that there are still long queues seen in some banking halls even as customer still handle too much cash, problem of frequent network failure which have adverse effect and inadequate awareness of available e-banking production and services, even as empirical evidence shows that level of understanding of a product and its commensurate benefits determines the reactions of customers to it and patronage (Balanchandler, 2010).

Considering the low extent of development of ICT infrastructure in developing countries, risk, when compared with the developed countries, E-banking has not really been able to diffuse into society given the low rate of internet access & Catherine 2004).By gaining an in-depth understanding of the factors and conditions that influence 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 Agency Banking in the developing countries.

Generally, the slow diffusion of agent banking has been attributes to a number of issues like; long queues, risk, and problem of network failure which have adverse effect on the adoption of agency banking. That is why the researcher is targeted to study on the factors affecting the adoption of agency banking.

Therefore, considering the slow diffusion of agent banking in Ethiopia; factors enumerated above and other challenges are serious to pose further scientific investigations to give appropriate fix by the concerned bodies. Thus, this study is designed to analyze factors affecting adoptions of agency banking service in the case of Lion International Bank S.C.



### **1.3 Research Question**

The main purpose of this research was to examine factors influencing the adoption of agency banking in the case of Lion International Bank and the following questions was addressed.

- 1) What are the effects of environmental factors on adoption of agent banking in Lion International Bank S.C.?
- 2) What are the effects of organizational factors on adoption of agent banking in Lion International Bank S.C.?
- 3) To what extent technological factors influences adoption of agency banking in Lion International Bank S.C.?

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

#### **1.4.1 General Objective**

The general objective of this research study is to determine factors affecting the adoption of Agent Banking the case of Lion International Bank S.C.

#### **1.4.2 Specific objectives**

The study specifically strives to achieve the following specific objectives:-

- To identify the effect of environmental factors on adoption of agency banking in lion international bank S.C.
- To examine the effect of organizational factors on adoption of agency banking in lion international bank S.C.
- To analyze the extent to which technological factors affect adoption of agency banking in Lion International Bank S.C.

### **1.5 Scope of the Study**

Agent banking is implemented in united bank, Lion bank, Commercial bank of Ethiopia, Dashen bank, Wegagen bank, Cooperative bank of oromia and Abay Bank. It would have been more comparable to consider all banks serving agent banking, however, it becomes hard to do, due to of time and cost constraints the study is limited to Lion International Bank S.C. The study is limited to the bank customers but it would have been more productive if the study includes the

bank and agents of the service. The study was carried at Addis Ababa, Ethiopia. Therefore, this study examines factors influencing the adoption of agent banking in Lion international Bank S.C. at Addis Ababa selected branches. The factors being studied are the stated variables (environmental, organizational and technological factors) that affect adoption of agency banking.

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

Agency banking is new and very recent for the country and for lion International bank S.C. and the bank is pioneer in adopting it, the paper tries to determine the factors in adopting agent banking. As a result, it would help as a reference for Lion International Bank and other banks intended to adopt agent banking in their modernization of services. The importance, advantage and disadvantage of agent banking adoption to Lion International bank and customers would be seen by the study. The relative challenges faced by the Lion International bank is identified and discussed. Generally, the study has tried to identify the factors and their relationship with the adoption of agent banking where the findings was helped in monitoring development and growth of agent banking.

In addition, this study is expected to help other researchers who are interested to conduct further study regarding the issue under investigated by providing useful information and academician's too.

Finally based on the result financial institutions benefited from the study motivates them to engage in the Agency banking services and serve their customers in order to compete to other competitors and the study may provide recommendations for banks about changes needed to accelerate adoption of the system to deliver service to customers through technological innovation.

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

The research consists of five chapters. Chapter one the introductory part contains background of the study, statement of the problem, research questions, research objectives, significance of the study, scope of the study and Organization of the study.

Chapter two provides a literature review informing the reader of what is already known in this area of study. Chapter three discusses the methodology employed in the study, including, research design, sample size and sampling technique, data source and collection method, procedure of data collection and method of data analysis. Chapter four describe the result and discussion containing the introductory, details of the respondent profile, result presentations, description and analyses of data collected via proposed instruments, Finally, chapter five contains conclusions and recommendations.

### **1.8 Definition of Basic Terms**

- ❖ **Agency:** Agency addresses the relationship where in a contract ‘one or more persons (the principal(s)) engage another person, the agent, to perform some service on their behalf by delegating authority to make some decisions to the agent (Jensen and Meckling, 1976). Agency is a contract where by a person, the agent, agrees with another person (the principal) to represent him and perform on his behalf one or several legally binding acts (Ethiopian Civil Code art, 2199).
- ❖ **Agent:** As per the National Bank of Ethiopia Directive (FIS-01-2012) issued to regulate the Mobile and Agent Banking services “**agent**” means a person engaged in a commercial or business activity and has been contracted by a financial institution to provide the services of the financial institution on its behalf in a manner specified in these directives
- ❖ **Agent banking:** means the conduct of banking business on behalf of a financial institution through an agent using various service delivery channels as permitted under these directives (NBE Directive, FIS-01-2012).
- ❖ **Adoption of agency banking** is a service outlet contracted by financial institution or mobile network operator to process client’s transactions rather than a bank teller.

## **CHAPTER TWO:**

### **LITERATURE REVIEW**

#### **INTRODUCTION**

In this chapter theoretical and empirical literatures are reviewed with the purpose of providing readers with scientifically proven information about the factors influencing the adoption of agency banking overview, its Benefits, Purpose, methods and findings of the previous studies in the area, and also related theoretical framework underlying the study.

#### **2.1 Agency Banking**

Agency Banking is a service outlet contracted by financial institution or mobile network operator to process client's transactions rather than a bank teller. It is the owner or an employee of the retail outlet who conducts the transaction and lets its client deposit, withdraw and transfer funds, pay their bills, inquire about an account balance, or a direct deposit from their employer, or receive government benefits. Banking agents can be pharmacies, supermarkets, conveniences stores, lottery outlets, post offices etc.(Ivatury& Layman, 2006)

Agency addresses the relationship where in a contract 'one or more persons (the principal(s)) engage another person, the agent, to perform some service on their behalf by delegating authority to make some decisions to the agent (Jensen and Meckling, 1976). Agency is a contract where by a person, the agent, agrees with another person (the principal) to represent him and perform on his behalf one or several legally binding acts (Ethiopian Civil Code art, 2199).

As per the National Bank of Ethiopia Directive (FIS-01-2012) issued to regulate the Mobile and Agent Banking services "**agent**" means a person engaged in a commercial or business activity and has been contracted by a financial institution to provide the services of the financial institution on its behalf in a manner specified in these directives; and "**agent banking**" means the conduct of banking business on behalf of a financial institution through an agent using various service delivery channels as permitted under these directives (NBE Directive, FIS-01-2012).

## **2.2 Historical Overview of Agency banking.**

The banking industry is constantly responding to 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 (Byers & Lederer, 2001).

Electronic innovation in banking industry can be traced back to 1970, when the computerization of financial institutions gained momentum (Malak 2007), However; a visible presence of this was evident to the customers since 1980, with the introduction of ATM. Innovative banking has grown since then, aided by technological developments in the telecommunications and information technology industry. The early decade of the 1990s witnessed the emergence of automated voice response (AVR) technology. By using the AVR Technology, banks could offer telephone banking facilities for financial services. With further advancements in technology, banks were able to offer services, through PC owned and operated by costumers at their convenience, through the use of intranet propriety software. The users of these services were, however, mainly corporate customers rather than retail ones (Sohail & Shanmugham 2003). The security first network bank was the first e-banking in the world that was built in 1995 in USA.

After that some famous banks introduced their internet banking one after another, such as Citibank and bank of America.

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). Literature also points to the fact that agent banking is a more convenient and efficient way of extending financial services to the poor, unbanked and marginalized communities (Lyman, Ivatury & Staschen, 2006). For example, in 2001, agent banking (also referred to as correspondent banking) was introduced in Brazil. In a short span of 9 years, this alternative delivery channel has radically transformed access to financial services in the Latin American country.

## **2.3 Benefits of Agency Banking**

### **2.3.1 Increased Customer Outreach**

Agency banking took effect in Rwanda in May 2012 after the publication of prudential guidelines by the National Bank of Rwanda. Agency banking has been practiced in a number of Countries such as Brazil, Kenya, Columbia, Pakistan, South Africa and Indonesia. The organization keeping money retail approach is intended to help banks increment their effort without bringing about extra expenses of setting up.

The business banks and non-keeping money monetary organizations offer corporate and retail managing an account benefits yet a little number, chiefly involves the huge banks, offer different administrations including speculation saving money (CGAP,2003).

### **2.3.2 Improvement in Customer Satisfaction**

According to Ivatury (2006), agency banking functions include; enabling customers to pay their bills, inquire about an account balance or receive government benefits or a direct benefit from their employer. It also helps bank customers to make payment of rent and insurance premium. Besides these, it accepts deposits from customers and allows withdrawals and transfer of funds. As a result, this leads to improved customer satisfaction. Masila, BellahandShibairo (2015) investigation was how agency banking has influenced customer satisfaction in Kenya. This target population was customers using agent bank services in the selected regions in Kenya. The target population was 250 agent banking customers. The research used stratified random sampling. It was divided into various strata of gender, age and employment status. The study showed that most customers were satisfied with agent bank services. The factors that led to this were such as banking agents being highly qualified and responsive towards customer satisfaction. The customers said that they would prefer to go to agent bank outlets other than the bank itself. They also said that they were regular agent banking customers and would recommend it to others. Ndungu and Njeru (2014) assessed some of the factors that contribute to the adoption of agency banking in Kenya. High reliability increases the adoption of agency banking. Complaints resolution time did not affect the adoption of agency banking. Agency banking delivered 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.

### **2.3.3 Improved the Brand Image of the Bank**

Banks must provide training for the members of the agency network both in the products and services offered and in how to use and maintain the equipment they have been provided with. These agents basically become brand ambassadors for the bank and for many clients would be the new face of the bank. Giving them adequate training is important to maintaining the banks brand image (iVeri Whitepaper, 2014).

Branding helps banks distinguish and differentiate themselves from competitors. A brand can only be strong if it has loyal customers. Brand loyalty gives the brand stability of future sales (Miller, 2003). Tuyishime, Memba and Mbera (2015) sought to find the extent at which the bank's brand is recognized in Rwanda. According to the findings most of the respondents (85%) confirmed that the brand name of the bank is recognized in Rwanda. It is thus confirmed that as the brand is recognized it will positively affect the performance of the bank. Brands are important intangible assets that significantly impact firm performance (Morgan & Rego, 2009). It is therefore ascertained that the brand recognition would affect the financial performance.

### **2.3.4 Reduced Overcrowding at the Banking Halls**

Managing an account operator help money related foundations to occupy existing clients from swarmed branches giving a reciprocal, frequently more advantageous channel of getting to bank administrations. Budgetary organizations, in creating markets, achieve an extra customer fragment or geology. Achieving poor customers in provincial regions is frequently restrictively costly for money related foundations since exchange numbers and volumes don't take care of the expense of a branch (Kitaka, 2011).

Customers are the most important factor to any organization. It is therefore important for organizations to ensure that their customers are satisfied with the organizations products and services. Statistics are bandied around that suggest that the cost of keeping a customer is only

one tenth of winning a new one. Therefore, when they win a customer, they should hang on to them. Once an organization has set its goals to satisfy customers in all aspects it has to ensure that the customers' expectations and needs are met according to their specifications. Banks need to identify the various techniques and methods that can be used to satisfy customers and to understand how to apply them .For example, banks have adopted agent banking as a way to reduce congestion and to reach more customers in remote and unbanked areas (Masila, Bellah, &Shibairo, 2015).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 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.

### **2.3.5 Ease of Implementation**

Complexity, which is comparable to TAM's perceived ease of use construct, is 'the degree to which an innovation is seen by the potential adopter as being relatively difficult to use and understand'. In a commercial banking context, complexity relates with the ease of implementing the agency banking model. Akturan and Tezcan (2010) investigated the effect of innovation characteristics on mobile banking adoption intention. The study noted that complexity do not influence the adoption intention of mobile banking. Wungwanitchakorn (2002) conducted an investigation on Adoption Intention of Banks' Customers on Internet Banking Service. The study found that Complexity and is important factor that must be taken into account when designing an Internet banking web site. Transactions should be simple and user friendly.

### **2.3.6 Ease of Operation**

Perceived ease of use is predicted to influence perceived usefulness, because the easier a system is to use, the more useful it can be. These constructs reflect users' subjective assessments of a system, which may or may not be representative of objective reality. System acceptance will suffer if users do not perceive a system as useful and easy to use (Davis, 1989).Kesharwani and Bisht (2012) conducted a study on the impact of trust and perceived risk on internet banking adoption in India by looking at an extension of technology acceptance model. The paper revealed that perceived risk has a negative impact on behavioral intention of internet banking adoption



and trust has a negative impact on perceived risk. A well-designed web site was also found to be helpful in facilitating easier use and also minimizing perceived risk concerns regarding internet banking usage.

### **2.3.7 Compatibility with the Culture of the Bank**

The culture of an organization defines the social context in which an organization functions. It provides guidance to the organizational members in decision making, time management and energy investment, what kind of people to work for the organization and any other social activity done in the organization. Pearce and Robinson, (2003) states that culture affects the way managers behave in an organization including the decisions they make that affect the relationship between the organization, its strategy and the environment. Appropriate culture will facilitate successful strategy implementation. Bankole, Bankole and Brown (2011) investigated agency banking adoption in Nigeria. The authors used both questionnaires and interviews for data collection. Their results showed that culture is the most important factor influencing agency banking adoption behavior in Nigeria.

### **2.3.8 Comprehension of the Benefits**

Davis characterizes Perceived Usefulness as 'how much a man trusts that utilizing a specific framework would improve his or her employment execution (Davis, 1989), and PEOU as how much a man trusts that utilizing a specific framework would be free of exertion (Davis, 1989).

Achieving poor customers in rustic zones is regularly restrictively costly for money related foundations since exchange numbers and volumes don't take care of the expense of a branch (Kitaka, 2011). In such situations saving money specialists that piggy back on existing retail foundation and lower set up and running expense can assume an indispensable part in offering numerous low salary individuals their first time access to a scope of budgetary administrations. Additionally, low pay customers regularly feel greater managing an account at their nearby store than strolling into a marble branch (Adiera, 2005).

The client benefit from the agents banks with lower transaction cost, service closer to clients home; customer would visit store in any case for perishables, longer opening hours, shorter lines than in branches, More available for unskilled people and the extremely poor who may feel

scared in branches. Expanded deals from extra pedestrian activity, separation from different organizations, notoriety from alliance with surely understood monetary establishment, Additional income from commissions and motivating forces, expanded client base and piece of the overall industry, expanded scope with minimal effort arrangement in zones with conceivably less number and volume of exchanges, expanded income from extra venture, intrigue, and charge salary, enhanced circuitous branch efficiency by lessening clog( Cohen, 2012).

### **2.3.9 Arrangement of Results to the Banking Staff**

Other than marking an agreement with the money related foundation it is working for, the managing an account operator is permitted to open a financial balance. It is likewise expected that the store stores a specific measure of money into that record which will serve as the managing an account specialists working capital. As a rule, as opposed to requesting that the specialist think of the money store, the monetary establishment will develop the store a credit line (Pandrey, 2004).

Customer stores cash (trade out exchange): operator record is charged in same sum. In the event that the operators credit line had achieved its breaking points, and the specialist s ledger does not have adequate assets, to cover the got reserves, the POS will square and must be unblocked if the assets have been kept in the following financial balance (Pandrey, 2004).

## **2.4 Legal Framework on Agency Banking in Ethiopia**

In late 2012, National Bank of Ethiopia has issued a directive cited as “Regulation of Mobile and Agent Banking Services under Directives No. FIS/01/2012”with effective date of January 1, 2013. This directive has clarified and framed the business modality of the agent and mobile banking services in Ethiopia. Only financial institutions that are licensed by the National Bank of Ethiopia are allowed to engage in the mobile banking services as we follow a bank led model in the financial services. Mobile and agency banking service shall be carried out only within Ethiopian geographic boundary and only with Ethiopian Birr. Banks can deliver mobile banking through their agents as specified in the directives (National Bank of Ethiopia Directives No. FIS/01/2012” January 1, 2013)

As per same directive, the following are permissible activities of an agent; an agent, on behalf of the principal financial institutions as agreed between it and the financial institution and as may be specifically perform customer due diligence and Know Your Customer (KYC) requirement of natural persons and make registration: shall open regular saving account of natural persons, open mobile account of natural persons, perform cash-in and cash-out services, transfer funds between different parties, perform various payment services. But notwithstanding the provision stated above, agents shall not undertake banking transaction that involves the use of check and other check related instruments and any other operation related with provision of credit (<https://www.nbe.gov.et/pdf/directives/bankingbusiness/FIS-01-2012>).

The directive also clearly stipulates that where financial institutions carryout mobile banking services through agents;

- ✓ The financial institution/principal shall be fully responsible and liable for all actions and omissions of its agents and this responsibility shall extend to actions of the agents,
- ✓ All transactions involving deposit, payment, withdrawal or transfer of cash from or to an account shall be made in a real time basis and financial institutions shall ensure that agents are able to carry out same,
- ✓ Agents shall not under any circumstance accept funds from customers in excess of their prepaid balance with banks,
- ✓ Financial institutions shall automatically debit or credit the agents' or customers' account upon conduct of any transaction that necessitates reduction or increase of the account balance of the agent or customer and
- ✓ A bank shall have a mechanism to uniquely identify each of its agents.

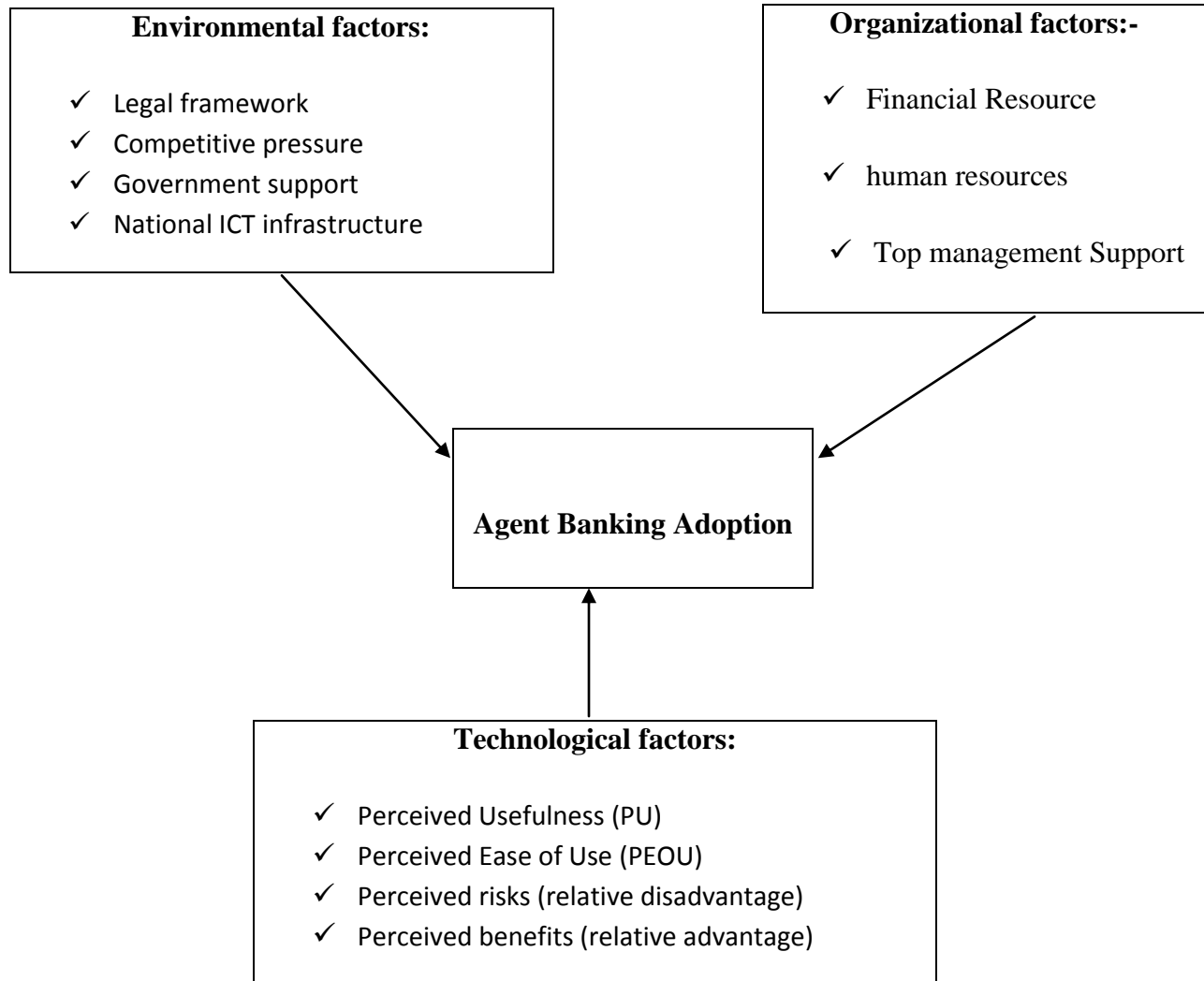
## **2.5 Theoretical Framework**

Researchers have been used different frameworks in the study of adopting new technological innovation. Among frameworks that have been developed in different studies includes, Technology-Organization-Environment framework (TOE) and Technology Acceptance Model (TAM) are the major ones. The researcher is also intending to use TOE and TAM to describe the factors affecting the adoption of agency banking in lion international bank S.C.

### **2.5.1 Technology-Organization-Environment (TOE) Framework**

TOE framework is designed to study the likelihood of success to the adoption of technological innovations. TOE is a comprehensive and well acknowledged framework in the context of innovation adoption by different organizations and has been used in many studies (Salwani et al, & Ellis, 2009; Chang et al, 2007, Zhu & Kraemer, 2006). According to Tornatzky and Fleischer (1990) technology adoption within an organization is influenced by factors pertaining to the technological, organizational and external environment context.

The technological factor refers to adopter's perception of E-banking attributes. Typical characteristics of technology considered in technology adoption studies are based on the assumption of Roger's diffusion of innovation (Rogers 2003) that include relative advantages (perceived benefits), and relative disadvantages (perceived risks). While the organizational factor refers to the organization's characteristics that influence its ability to adopt and use of E-banking system. The environmental factor refers to the external environment in which an organization operates and its condition for supporting the development of e-banking services. Various factors have been identified from the literature for each context with reference to the frameworks developed by Tornatzky and Fleischer (1990) but only those factors that are considered relevant for e-banking adoption are included in the following framework (Ayana, 2012). No new constructs have been added to the framework but little theoretical synthesis has occurred.



Source: Ayana (2012)

**Figure2.1. Technology-Organization-Environment (TOE) framework**

### 2.5.1.1 Technological Factors

Different researchers described technological factors differently Hart O. et al, (2012) for example explained that adoption depends on the pool of technologies both inside and outside the firm as well as the application’s perceived relative advantage (gains), complexity (learning curve), compatibility (both technical and organizational), observability (visibility/imagination), trial ability (pilot test/experimentation). Salwani (2009) also explained technology competence covering the existing technology infrastructure and skills that enables to utilize the technology. Tornatzky and Fleischer (1990) considered characteristics of technologies and availability while

Kvin Z. et al. (2004) described technological context as both external and internal technologies relevant to a firm, which includes existing technologies inside the firm as well as in the market. Perceived benefits and perceived risks are considered suitable from the technological factors as presented by Ayana (2012) for this study to avoid overlap between organizational and technology contexts.

**Perceived Benefits:** - It covers both the direct and indirect benefits for the banking industry as well as for the consumers; where direct benefits include savings on operational cost, improved organizational functionality, improved efficiency, increased profitability and productivity gain. Indirect benefits, on the other hand, include the opportunity or intangible benefits such as improved customers' satisfaction through improved services, improved banking experience and fulfillment of their changing needs and lifestyle (Iacovou 1995, Kuan&Chau 2001 and Lu et al. 2005)

**Perceived Risks:** - One of risk faced by bank institutions in offering e-banking services is the customers' resistance to use the services that significantly hinder the growth of e-banking (Laforet 2005 and Zhao et al. 2008). Issue related to security is also a concern when dealing with technologies related to online transactions such as e-banking (Chang 2007 & Rogers 2003). Therefore, the perception of the risks regarding the e-banking is expected to influence its adoption (Ayana, 2012).

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

According to Davis (1989) TAM assume two sets of beliefs, i.e. Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) to look at individual's technology acceptance. TAM proposes perceived usefulness (PU) and perceived ease of use (PEOU) as fundamental determinants of technological adoption where an individual's intention to use an application is predicted and explained by once perception of the technological usefulness and its simplicity (Hart O. et al, 2012).

**Perceived Ease of Use** refers to the level of degree where an individual believes that using a particular system would be free of physical and mental effort. It measures the prospective user's assessment of the mental efforts required of the use of the target applications (Davis, 1993). Opia (2008) claimed that innovations with perceived complexities of user interface and steep learning

curve, which thought risky to adopt. Empirical findings confirm the positive relationships between attitude towards use and ease of use (Venkatesh& Davis, 2000) and show that PEOU is a proven key determinant of users' intention to accept IT (Venkatesh, 2000). Thus, ease of use is a powerful determinant of intention to accept innovation(s) (Hart O. et al, 2012).

**Perceived Usefulness** on the other hand is related to users' perception of the degree to which using a system will be beneficial (Alsabbagh&Molla, 2004). It provides diagnostic lenses into how actual use and intention to use or attitude towards using are influenced. The near- term results are synonymous with postulates of PU; and the long-term consequences refer to consequential results in one's career or social image, which reflects Rogers' (1995) important motivation for adoption of innovation. The attainment of perceived near-term usefulness paves way for long-term usefulness (Hart O. et al, 2012). It relates with the cost and time saving and it considered from the perspective of improving service delivery and creating more access to users. Decomposing PU as (Triandis, 1980) and (Chau, 1996) did explicitly provides more specific lenses into understanding user perception of IT's usefulness.

### **2.5.3 Integration of TAM and TOE Framework**

The Technology Acceptance Model (TAM) of (Davis, 1989), is adapted from the Theory of Reasoned Action (TRA) (Ajzen and Fishbein, 1975) where the TAM states that a users' adoption of innovation is determined by that users' intention to use the system, which in turn is affected by the users' beliefs about the system. Consequently, this study will employ the TAM theory by investigating how customers perceived adoption of agency banking. However, TAM is not sufficient model to deal adoption of innovation hence there will be a need to adopt other theories that include other factors. The perceived ease of use and perceived usefulness may not fully explain behavioral intentions towards the use of agency banking; necessitate a search for supplementary factors that can better predict the adoption of agency banking (Hanna &Muturi, 2014). As per the explanation of Hart O. et al, (2012) upgrading constructs of original TAM and T-O-E models to a more comprehensive level promote and facilitate improved explanatory and predictive lenses of IT adoptions.

Thus, the researcher considered the TOE framework to summarize possible key factors affecting agency banking adoption.

- ✓ The technological factor refers to the adopter's perception of agency banking attributes. Typical characteristics considered in technology adoption studies are based on the assumption of Roger's diffusion of innovation (Rogers, 2003), which include relative advantages (perceived benefits), and relative disadvantages (perceived risks).
- ✓ The organizational factor refers to the organization's characteristics that influence its ability to adopt and use of agency banking innovation.
- ✓ The environmental factor refers to the external environment in which an organization operates and conditions that support the development of the agency banking services.

TAM was developed to explain and predict particular IT system usages and it has been used by many researchers to study the adoption and diffusion of various IT technologies (Ayana, 2012). For this study, the researcher used two basic factors of TAM, i.e. perceived ease of use and perceived usefulness to describe the perception of users in adoption of agency banking in Ethiopia. Various factors have been identified from literatures but only those considered relevant to the agency banking adoption are included in the context of each framework like time saving, cost saving and other benefits in connection with the PEU and some other lists of items in connection with minimizing effort to adopt Agency banking system. Thus, the researcher opted to use the integrated frameworks.

#### **2.5.1.2 Organizational Factors**

Organizational factor captures firm's business scope, organizational culture, top management support, complexity of organizational structure measured in terms of centralization, vertical differentiation, and formalization, the quality of human resource, and size related issues such as specialization and internal slack resources (Jeyaraj A. Et al, 2006). Iacovou (1995) and Grover (1993) also argued that organizations influenced by a number of factors, like firm size, top management support and financial and human resources in their preference to adopt technological innovation. As per Kvin Z. et al. (2004) and Tornatzky and Fleisher (1990) it is defined in terms of several descriptive measures: firm size and scope; the formalization, centralization and complexity of its managerial structure; the quality of its human resources and the amount of internally available slack resources. Accordingly, the researcher considered the



financial and human resources as the organizational factor in the framework for the study as discussed below.

### **Financial, Human Resources and Top Management Support**

**Financial resources** are an important factor in facilitating innovation adoption for any organization and they are often correlated with the firm size (Iacovou 1995 and Kuan 2001). The availability of financial resources and costs related with adoption of innovations has paramount importance and deserves consideration.

**Human resources** that enable banks to obtain the required technical and managerial skills and expertise to adopt and implement technological innovations like that of agency banking system are also found important to consider as factors without disregarding the customer sides.

**Top Management Support:**-Organization keeping money fruitful usage requires compelling top administration. There is little uncertainty that senior administration authority is basic to the achievement of an office keeping money usage (Auditor General Victoria [AGV], 2003). The top administration group (directing advisory group) must include the task supervisor, any experts working with the panel, and organization staff to build up a usage system (ECOM, 2002).

In such manner, extensive consideration and bolster should be given by senior administration to guarantee that the office keeping money change has been surely known in the office (S&A, 2003). Besides, the official administration group is in charge of setting the vision and objectives, realizing aggregate duty for change in procedure and authoritative structures, and detailing the arrangements and techniques important to set up an office saving money activity (WB, 2003).

#### **2.5.1.3 Environmental factors.**

Environmental factors mainly relates to different facilitating and inhibiting factors in areas of operations (Al-Qirim, 2006). The arena in which a firm conduct its business in adopting technological innovations; its industry, competitors, access to resources supplied by other externals and dealings with government are claimed to be covered under environmental contexts (Kvin Z. et al. 2004). Legal frameworks, the National ICT infrastructure, Competitive pressure and Government supports are amongst significant factors to be considered in the study (Ayana, 2012) as described here under.

**Legal Frameworks:** - The existence and maturity of legal frameworks on the e-commerce within a country to influence the diffusion of online transactions including electronic banking as indicated in various studies (Tan & Wu, 2002 and Martinson, 2001).

**National ICT Infrastructure:** - National ICT infrastructure is a major factor that supports the adoption of e-banking system as the case for other initiatives. Without an adequate development and quality of a national ICT infrastructure, e-banking adoption and use cannot do well (Efendioghu 2004 & Scupola 2003).

**Competitive pressure:** - Competitive pressure can strongly influence any bank to develop and adopt e-banking initiatives and it may affect the bank's perception towards innovation (Quaddus & Hofmeyer 2007). Intense competition stimulates the adoption of innovation (Mansfield et al. 1977).

**Government Support:** - Government can either directly or indirectly affect the adoption of E-banking in terms of creating a favorable environment and momentum for banking institutions and their customers so that the services can be diffused with the community (Kuan 2001 & Iacovou 1995)

## **2.6 Empirical Studies Related with Agency Banking Adoption**

Some related studies are conducted by different researchers in different parts of the world. However, there are limited numbers of studies conducted in Ethiopia on the adoption of technological innovation. Specifically, Gardachew (2010) conducted research on the opportunities and challenges of E-banking in Ethiopia. The aim 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 author 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 Gardachew (2010), Opportunities offered by ICT through e learning programs and Commitment of the governments on development of ICT infrastructures is considered as drivers of using E-commerce and E-payment systems.

Wondwossen and Tsegai (2005) also studied on the challenges and opportunities of E-payments in Ethiopia; their objective was studying of E-payment practices in developing countries, Africa and Ethiopia. The authors employ interview and on site observation to investigate challenges to E-payment in Ethiopia and found that, the main obstacles to the development of E-payments are, lack of customers trust in the initiatives, Unavailability of payment laws and regulations particularly for E-payment, Lack of skilled manpower and frequent power disruption. According to Wondwossen and Tsegai (2005), an adequate legal structure and security framework could foster the use of E payments, which is contradicting with the finding of the previous study. Ayana (2014) conducted research to identify factors that affect adoption of E-banking in Ethiopian banking industry. the Author conducted a Survey, interviews and document analysis in order to identify factors that affect adoption of E-Banking and found that, 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 as major barrier that face Ethiopian Banking industry in adoption of E-Banking and suggest that establishing a clear set of legal framework on the use of technology in banking industry, supporting banking industry by investing on ICT infrastructure and banks needs to be focused on technological innovation competition rather than traditional bases of retail bank competition as a series of measures which could be taken by the banking industry and by government to address various challenge.

Despite much international attention and enthusiasm from many development organizations and private businesses, agency banking does not provide a fit-for-all solution of financial inclusion (Ivatury& Pickens, 2008). Admittedly, the development of any agency banking system takes quite longer time and preparation as it implies analyzing and taking action regarding the business case of each stakeholder, the customer value proposition, and the local legal and regulatory environment (Sunguti, 2013).

According to the Consultative Group to Assist the Poor (CGAP) Technology Program (2007) in the paper; banking the unbanked that describe different approaches pioneers in Latin America have taken in establishing and managing network of banking agents and the benefits to the different actors involved, it was observed that banking agents increase customer convenience, productivity and efficiency, expands customer base and reduces upfront cost by leveraging on

existing infrastructures. The study also observed that the cost of establishing and operating one branch is equal to forty banking agents.

Brazil has the highest banking agent network in the world with more than 113,000 agents in the year 2009 out of which close to 40,000 offers a broad range of banking services such as cash-in, cash-out, bill payments, account opening and loan application according to CGAP (2009). The study concluded that the growing interest in agency banking was mainly as a result of reduced costs.

As per the literatures reviewed, the major reason for the adoption of agency banking in many countries relates with the effort to reach the unbanked at minimal cost. The unbanked can simply be described as those individuals who have no any form of account with a bank. As defined by Anderson (2007) the unbanked are diverse group of individuals who remain outside the banking mainstream for different reasons. Ladipo (2008) also revealed a survey carried out by Enhanced Financial Innovation & Access (EFInA) that cuts across all the states of Nigeria over a five year period on national integrated survey of sampled households, which is 74% i.e. equivalent to 64 million adult population in the country that have never been banked. The results of the EFInA access to the financial service in Nigeria 2012 showed that 34.9 million or 39.7% of the adult population were financially excluded [www.efina.org.ng](http://www.efina.org.ng).

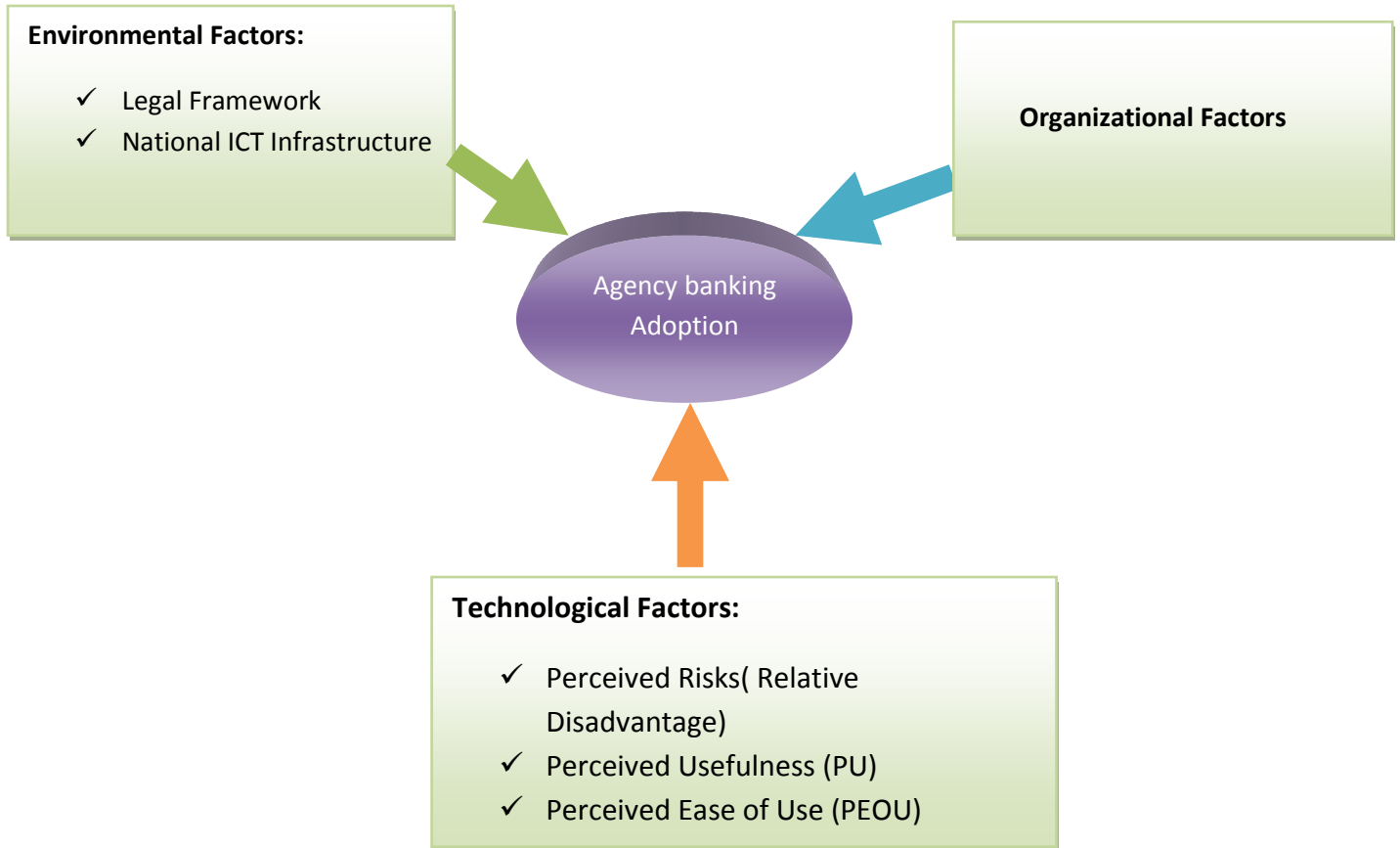
According to Chaiaet. al. 2011 agent banking has become one of the most promising strategies for offering financial services in emerging markets. In this model, financial institutions work with networks of existing nonbank retail outlets such as convenience stores, gas stations, and post offices to deliver financial services. This approach canbe 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.

## **2.7. Conceptual Framework**

To explore the key factors affecting the adoption of agent banking in Ethiopia, this study is guided by integrating the technology–organization–environment (TOE) and technology-acceptance model (TAM) framework proposed by Tornatzky and Fleischer (1990), and Davis (1989) which is designed for studying the likelihood of adoption success of technology innovations. This framework is a comprehensive and well received framework in the context of innovation adoption by organizations and has been used in many studies. According to Tornatzky and Fleischer (1990), and Davis technology adoption within an organization is influenced by factors pertaining to the technological context, the organizational context, and the external environment.

Based on this, the researcher developed research framework to summarize factors affecting the adoption of agent banking. The environmental context refers to the external environment in which an organization operates and its condition for supporting the development of agent banking services, while the organizational context refers to the organization’s characteristics that influence its ability to adopt and use agent banking. The technological context refers to adopter’s perception of agent banking attributes. Typical characteristics of technology considered in technology adoption studies are based on Roger’s (1995) diffusion of innovation theory which include relative advantages (perceived benefits), compatibility, trial ability, complexity and perceived risks. For each context, various factors have been identified from the literature but only those that are considered relevant for agent banking adoption are included in the framework.

**Figure 2.2: Conceptual Framework**



**Source: Compiled from Literature (2018)**

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 Research Design**

Research design is usually a plan or blue print which specifies how data relating to a given problem should be collected and analyzed (Kamuzora et al., 2008). It provides the procedural outlines for the conduct of any investigation.

Since the main objective of the research is to analyze factors affecting the adoption of agency banking, Explanatory research design was used. Explanatory research design attempts to clarify why and how there is a relationship between two or more aspects of a situation or phenomenon.

#### **3.2 Research approach**

In order to achieve the objective of this study, quantitative research approach was used. The data was collected through questionnaires that are self-administered. A questionnaire was developed and pre-tested in order to obtain the information required.

Quantitative approach is useful as it helps the researcher to prevent bias in gathering and presenting research data (Creswell, 2003). Quantitative research approach also allows the researcher in order to use objective measurement, to quantifying the relationships between variables. The study is cross-sectional in the sense that relevant data was collected at one point in time.

#### **3.3 Target Population**

The target population is the specific population about which information is desired. According to (Ngechu, 2004), a population is a well-defined set of people, services, elements, event, and group of things or households that are being investigated. Therefore, the target population of this study was customers of the selected four branches.

Sampling frame or Target population taken is customers of agent banking of this selected branch. Total populations in Addis Ababa of this study are 3, 168 and the target population at these selected branches is 485.

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

A sample is a small proportion of an entire population. The size of sample should be neither excessively large, nor small, it should be optimum. An optimum sample is one which fulfills the requirements of efficiency, representativeness, reliability and flexibility (Kothari, 2004).

In order to locate the respondents, the selected branches are from Yeka sub city 'Yeka' branch, from Bole sub city 'Athlet Haile Gebressilassie' branch, from Nifas silk lafto sub city 'Gotera' and 'Saris' branch. Each branch is selected based on their size in terms of operation, and location to accommodate from each direction of the city (Addis Ababa) and in terms of number of agent customers they have. Moreover, as per the information gained from each branch, their locations are assumed reasonably to justify the representation of the respondent from different occupation. For instance, 'Yeka' branch represent from where most trader located and high number of agents, 'Gotera' and 'Saris' branch represent for most of trader located and 'highly populated resident area and Athlet Haile Gebressilassie' branch' with most trader located, market and high number of agents are available as per the information obtained from each branches. The study used simple random sampling for selecting samples from the population.



As to the sample size determination, from the different methods available, the one, this was developed by J Carvalho. It is shown as follows:

**Table.3.1: Sample Size Determination**

<i>Population Size</i>	<i>Sample Size</i>		
	<i>Low</i>	<i>Medium</i>	<i>High</i>
<i>51-91</i>	<i>5</i>	<i>13</i>	<i>20</i>
<i>91-150</i>	<i>8</i>	<i>20</i>	<i>32</i>
<i>151-280</i>	<i>13</i>	<i>32</i>	<i>50</i>
<i>281-500</i>	<i>20</i>	<i>50</i>	<i>80</i>
<i>501-1200</i>	<i>32</i>	<i>80</i>	<i>125</i>
<i>1201-3200</i>	<i>50</i>	<i>125</i>	<i>200</i>
<i>3201-10000</i>	<i>80</i>	<i>200</i>	<i>315</i>
<i>10001-35000</i>	<i>125</i>	<i>315</i>	<i>500</i>
<i>35001-150000</i>	<i>200</i>	<i>500</i>	<i>800</i>

**Source: J Carvalho, 2005)**

According to J Carvalho, sample determination table above the sample selected from 485 total population of the study is 80.

### **3.5 Data Source**

In order to answer the proposed research questions, Primary and secondary data are examined to understand the relationship between the independent i.e. factors of agency banking and dependent variable which is adoption of agency banking. The primary data is obtained through questionnaire and Secondary data undertaken by reviewing documents such as books, journals and magazines, and referring to relevant published and unpublished materials that are related to factors affecting in adopting agency banking.

### **3.6 Data Collection Methods**

The researcher used a questionnaire as primary data collection instrument. The purpose of using questionnaire is because of the direct response and feedback from the respondents in an easy manner and short period of time. The questionnaire had closed-ended or structured question which makes easy the processes of analyzing data from the respondents. Thus, the results gathered from respondents increased the speed and accuracy of recording, as well as more comparable.

The questionnaire is developed in English language using five point scales: - Strongly agree (5), Agree (4), Uncertain (3), Disagree (2) and Strongly Disagree (1). Mean and standard deviation has been used to analyze the result. Readers should note that as the likeret scale used ranges from 5 being strongly agree to 1 being strongly disagree a mean of a value less than 3 was shown negative response and vice versa. Self-Administer Drop off survey data collection technique was be used.

### **3.7 Methods of Data Analysis**

To analyze variables inferential statistics were used. To see the association between the independent variables (technological factors, organizational factors and environmental factors) and the dependent variable (adoption of agency banking). To do this a Pearson correlation was used. To measure how the dependent variable is explained by the proposed factors multiple regression analysis was applied. Finally it was supported by interpretation for all quantitative results.

A descriptive analysis is used to present and interpret the demographic data this includes, Frequency tables, Percentages employed to analyze the responses of the respondents.

### **3.8 Validity and Reliability**

The factors that are used to describe the factors affecting the adoption agency banking study were developed and adopted after thorough review is made on different researchers' work and detailed evaluation of technology adoption frameworks was done. Validity refers to the appropriateness, meaningfulness, and usefulness of the specific inferences" made from measures (Dooley, 2005). That means effectiveness of research instruments to measure what is intended to be measured like attitude, knowledge and practice.

**Table 3.2 Measure of Internal Consistency- Cronbach's Alpha**

<b>Variables</b>	<b>Number of Items</b>	<b>Cronbach's Alpha</b>
Technological Factors	15	95.20
Organizational Factors	5	60.2
Environmental Factors	10	86.40
Adoption of Agent Banking	3	61.10

**Source: Own survey, 2018**

The reliability of the questionnaire was evaluated through Cronbach's Alpha which measures the internal consistency. The Alpha measures internal consistency by establishing if certain item measures the same construct. As indicated in the Table above, the Cronbach's Alpha for customers 0.988 indicates very high consistency. It's showing a very strong internal consistency among the measurement items. According to George & Mallery (2003), the value of alpha should be greater than 0.7 so as to accept the instrument. And the closer Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale.

Validity is the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure (Kothari, 2004). In order to ensure the validness of this study the instruments were checked and evaluated by professionals in the subject matter area. Moreover my advisor had evaluated and commented on the instruments before they are distributed to the respondents.

### **3.9 Ethical Considerations**

Before the research is conducted, Ethical clearance was primarily obtained from St. Marry University and then permission from Lion International Bank S.C. was obtained. Finally informed written and verbal consent were obtained from the study subjects and data collection was undertaken on the basis of their voluntarily participation. Participating respondents was ensured that information obtained was strictly confidential. There was no victimization in the process of data collection.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSIONS**

#### **Introduction**

This part provides with the discussion of the final results and the process through which the results were obtained. This includes background information of respondents, the statistical methods of analysis, i.e. descriptive analysis. The study targeted a total of 80 respondents. However, only 68 respondents responded and returned their questionnaires contributing to 85% response rate. According to Mugenda and Mugenda (2003) a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent; therefore, this response rate is adequate for analysis and reporting.

Analyzing the data is to provide meaning to the raw data collected. The method of data illustration used to express the different opinions in detail, involve the use of graphs, tables and diagrams.

#### **4.1.Descriptive Analysis**

##### **4.1.1. Background Information of Respondents**

This aspect of the analysis deals with the personal data of the study participants which include: gender and level of education. The table below shows the details of background information of the respondents.

**Table 4.1 Background information of respondents**

<b>Employees</b>		
<b>Demographic Variables</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>		
Male	40	58.8
Female	28	41.2
Total	68	100
<b>Age</b>		
18-24	8	11.8
25-34	40	58.8
35-44	16	23.5
45-54	4	5.9
55 and above	0	0
Total	68	100.0
<b>Educational Background</b>		
Diploma	9	13.2
BA/BSC	55	80.9
MA/MSC	4	5.9
Total	68	100.0

**Source: own survey, 2018**

Analyzing the data obtained from the questionnaire, table 4.1 reveals that most of the sample employees who had participated in this study are male with total of 40(58.8%) while the remaining 28(41.2%) were female. Table 4.1 also shows the age composition of the respondents. 40participants of customers were between 25-34 years representing the majority of which is 58.8%. 16 participants of customers were between 35-44 years which represents 23.5%. 8participants of customers were between 18-24 years which represents 11.8%.While the remaining 4customers were in the category of 45-54 which represents 5.9% from the total customer’s participant of this study.

This implies that customers are mature enough to provide accurate data which improves the quality of the study and it is possible to say that respondents from different age group have participated in this study.

As shown in the above table, it is evident that respondents hold a range of educational qualifications. Majority of the customer's sample group were BA/BSC holders with total number of 55 which represents 80.9% from the total customer's participant of this study. While 9 of the sample customer's respondents were Diploma graduates which represents 13.2% from the total customer's participant of this study. The remaining 4 or 5.9% of the respondents have MA/MSc. With regard to the respondents educational background it shows that all of them are literate enough in order to understand and answer the research instruments correctly and respondents with different educational background are represented in the study.

#### 4.2. Mean and Standard Deviation of Technological, Organizational and Environmental factors and adoption of agency banking.

The objective of this study is to point out the effect of Technological, Organizational and Environmental factors on adoption of agency banking in the case of Lion International Bank S.C. In order to measure the extent of actual practices 33 items were provided for customers that were selected. Table summarizes the data collected from customers with regard to their independent factors and adoption of agency banking.

**Table 4.2 Mean and Standard Deviation of factors affecting adoption of agency banking.**

No	Factors Affecting Adoption of Agency Banking	N	Mean	Std. Deviation
<b>Technological factor</b>				
<b>Perceived usefulness</b>				
1	Agency Banking service creates accessible to users.	68	3.78	.569
2	Agency banking service is time-saving.	68	3.40	.831
3	Agency banking service is easy to use for the customers.	68	3.13	1.021
4	Agency banking improves service efficiency to customers.	68	4.21	.612
5	Agency banking improves banking customer satisfaction.	68	4.06	.620
6	Agency banking is a solution to the customer at a critical time.	68	4.04	.656
<b>Perceived ease of use</b>				

7	Agent banking is easy to understand for the customers.	68	4.46	.502
8	It is easy to operate agency banking for the customer.	67	4.22	.647
9	Making transaction is easy though agent banking.	68	4.50	.504
10	Agent banking can be used easily by any cell phone.	68	3.79	.587
11	Overall, I believe that agency banking is easy to implement.	68	2.76	.831
<b>Perceived Risk</b>				
12	Customers feel secured to use Agency Banking system.	68	4.50	.504
13	Customers trust the technology used to provide Agency Banking.	68	3.79	.587
14	Customers are trustful on using agency Banking	68	2.76	.831
15	Agents are trustful in providing agency Banking services.	68	2.90	.672
<b>Aggregate Mean</b>			<b>3.75</b>	
<b>Organizational Factors</b>				
16	The bank support agents by availing promotional materials.	68	4.50	.504
17	The bank creates awareness of agency banking using different communication channels.	68	2.84	.587
18	The bank capacitates Agents by providing adequate and continuous training.	68	2.76	.831
19	The bank support agents by continuous follow-up.	68	4.06	.620
20	The bank provides the necessary agency banking operating equipment to the agent.	68	4.04	.656
<b>Aggregate Mean</b>			<b>3.83</b>	
<b>Environmental Factors</b>				
<b>Legal and Regulatory framework</b>				

21	Agents are officially certified by the bank to conduct agency banking services.	68	4.20	.643
22	The bank has internal policy, procedure and manuals to operate agent banking.	68	3.78	.578
23	Internal policy, procedure and manuals are sufficiently communicated.	68	2.70	.789
24	There is legal agreement between the bank and the agent.	68	4.05	.610
25	There is a transparent way of dispute handling mechanism.	68	4.50	.504
<b>ICT Infrastructure and service</b>				
26	There is suitable internet access to deliver agency banking.	68	2.49	.587
27	The mobile connection is good enough to conduct agent banking services.	68	2.76	.831
28	There is adequate ICT infrastructure to support Agent banking	68	2.46	.502
29	The technical and managerial staffs of the bank are skilled to use and support agent baking technology	68	4.13	.731
30	The development levels of ICT infrastructure supports the adoption of Agent banking	68	3.51	.635
<b>Aggregate Mean</b>			<b>3.45</b>	
<b>Adoption of Agency Banking</b>				
1	I plan to use agency banking	68	4.50	.504
2	I am determined to use agency banking	68	3.79	.587
3	Customers regularly use agency banking	68	2.76	.831
<b>Aggregate Mean</b>			<b>3.68</b>	



As portrayed in the Table 4.2 above the first major factors of adoption of agency banking is a technological factor, which was measured by fifteen indicators. Using a five-point Likert scale, respondents were asked to state their agreement or disagreement with the statements; Based on the corresponding arithmetic mean and standard deviation respondents asked agency banking service is easy to use for the customers, for the third statement, on the Technological factors (perceived usefulness).

A majority of respondents reported their agreement to the statements; Agency banking service is easy to use for the customers. The Mean Value of 3.13 and Standard deviation 1.021 the respondents either agreed or strongly agreed with it.

According to the respondents (perceived usefulness) is considered as a factors for the adoption of agency banking with Mean value 3.13, and this is above the average cut-off point of three. Which shows that majority of the respondent's agree that Technological Factors (perceived usefulness) have a significant influence on attitude and intention to use or adopt agency banking and this is a good indication of perceived usefulness has positive impact on the adoption of agency banking.

The second major indicator of agency banking adoption of technological factors is perceived ease of use, which was measured by five indicators. Using a five-point Likert scale, respondents were asked to state their agreement or disagreement with the statements; Based on the corresponding arithmetic mean and standard deviation respondents asked; agent banking is easy to understand for the customers, for the first statement, a majority of the respondents strongly agreed with all statements.

A majority of respondents reported their agreement to the statements; agent banking is easy to understand for the customers. The Mean Value of 4.46 and Standard deviation .502 the respondents either agreed or strongly agreed with it.

According to the respondents perceived ease of use is considered as a factor for the adoption of agency banking with Mean value 4.46 and this is above the average cut-off point of three. Which shows that majority of the respondent's agree that Technological Factors (perceived ease of use) have a significant influence on attitude and intention to use or adopt agency banking and this is a good indication of perceived ease of use has positive impact on the adoption of agency banking.

The last major indicator of agency banking adoption of technological factors (Perceived risk), which was measured by four indicators. Using a five-point Likert scale, respondents were asked to state their agreement or disagreement with the statements; Based on the corresponding arithmetic mean and standard deviation respondents asked Customers are trustful on using agency Banking, for the third statement, a majority of the respondents strongly disagreed with the statements.

A majority of respondents reported their disagreement to the statements; Customers are trustful on using agency Banking. The Mean Value of 2.76 and Standard deviation .831 the respondents either disagreed or strongly disagreed with it.

Furthermore, the above descriptive statistics clearly indicates that, perceived risk is considered as a factor for the adoption of agency banking with mean value 2.76, and this is below the average cut-off point of three. This shows that, technological Factors (perceived risk) have significant and negative impact on the adoption of agency banking. There for, this a good indication of respondents that there is fear of risk and lack of confidence with the security aspects in using agency banking.

According to the respondents organizational factors are considered as a factors for the adoption of agency banking in the likert scale with average responses of the respondents (Mean=3.83), and this is above average cut-off point of three. Which shows that majority of the respondent's agree that organizational factors have a significant influence on adoption of agency banking and good indication of organizational factors has positive impact on the adoption of agency banking. However, the bank capacitates agents by providing training and continuous follow up of the agents a Mean Value of (2.76) & Standard deviation .831 and this is below the average cut-off point of three. This implies that the bank capacitates agents by providing training and continuous follow up of the agents is weak and customers are moderately affected with these statements.

Similarly, organizational factors mainly relates with availability of financial, skilled human resources and top management support in implementing a system (Ayana, 2012). In this study costs related with technical and managerial skills required to adopt agency banking system were considered as organizational factors.

As portrayed in the Table 4.2 above the major factors of agency banking adoption is an environmental factor, which was measured by ten indicators. Using a five-point Likert scale, respondents were asked to state their agreement or disagreement with the statements; Based on the corresponding arithmetic mean and standard deviation whether agents are officially certified by the bank to conduct agency banking services, for the first statement, a majority of the respondents strongly agreed with the statements that agents are officially certified by the bank to conduct agency banking services. The Mean Value of 4.20 and Standard deviation .643 the respondents either agreed or strongly agreed with it.

According to the respondents environmental factors are considered as a factors for the adoption of agency banking in the likert scale with average responses of the respondents (Mean=4.20), and this is above average cut-off point of three. Which shows that majority of the respondent's agree that environmental factors have a significant influence on adoption of agency banking and good indication of environmental factors has positive impact on the adoption of agency banking.

A relatively high percentage of respondents indicated their agreement to most of the group indicators of Legal and Regulatory framework and are considered as factors for the adoption of agency banking and Mean Value above the average cut-off point of three. Which shows that majority of the respondent's agree that Legal and Regulatory framework have a significant influence on adoption of agency banking and this is a good indication of environmental factors has positive impact on the adoption of agency banking. However, the respondent's disagreed that the bank internal policy, procedures and manuals are not well communicated with a Mean Value of (2.70) and Standard deviation .789 and this is below the average cut-off point of three. This implies that the internal policy, procedures and manuals are weakly communicated and customers are moderately affected with these statements.

The second major indicator of agency banking adoption of environmental factors is ICT infrastructure, which was measured by five indicators. Using a five-point Likert scale, respondents were asked to state their agreement or disagreement with the statements; Based on the Mean and Standard deviation of ICT infrastructure and Service, for the third statement, a majority of the respondents strongly disagreed with the statement that; there is adequate ICT

infrastructure to support agent banking. The Mean Value of 2.46 and Standard deviation .502 the respondents either disagreed or strongly disagreed with it.

This shows that high percentage of respondents indicated their disagreement and the mean value 2.46 and this is below the average cut-off point of three. Therefore, this is good indication of ICT infrastructure has impact on the adoption of agency banking.

Similar to this, previous research results show that considering the low extent of development of ICT infrastructure in developing countries, risk, when compared with the developed countries, E-banking (agent banking is one of the products of E-Banking) agency banking has not really been able to diffuse into the society given the low rate of internet access (Banji & Catherine 2004).

**Table 4.3 summary of Mean and Standard Deviation Factor Indicators and Adoption of agent banking**

	N	Mean	Std. Deviation
Technological factors	68	3.7539	.44315
Organizational factor	68	3.8324	.50739
Environmental factors	68	3.458	.46316
Adoption of agency banking	68	3.6863	.49166

**Source: Own Survey, 2018**

The above descriptive statistics clearly indicates the corresponding arithmetic mean and standard deviation of every construct totals (total of every individual categorical construct). Thus, technological factors categorical total has a mean of 3.75 and a standard deviation of .443, organizational factor categorical total has a mean of 3.83 and a standard deviation of 0.507, environmental factors categorical total has a mean of 3.45 and a standard deviation of .463 and adoption of agency banking categorical total has a mean of 3.68 and a standard deviation of 0.491 and this is above the average cut-off point of three. Which shows that majority of the respondent's agree that technological factors (perceived usefulness, perceived ease of use and perceived risk), organizational factors and environmental factors (ICT infrastructure & legal and regulatory frame work) have a significant influence on attitude and intention to use or adopt agency banking and has positive impact on adoption of agency banking.

#### 4.4. Correlation Between Variables

According to Pallant (2010), correlation analysis is used to describe the strength and direction of the linear relationship between two variables. Correlation analysis is a useful way of exploiting relation (association) among variables. In this analysis, Bivariate Pearson Product- Moment Coefficient (r) has been used to see the relationship between technology, organization and environmental factors with adoption of agency banking. The value of the coefficient (r) ranges from -1 to +1. The value of coefficient of correlation (r) indicates both the strength and direction of the relationship.

In the variable testing, the item that should be noticed is the probability (p) value. If  $p > 0.05$ , it means that independent variable does not influence the dependent variable. If  $p < 0.05$  it means that independent variable influences the dependent variable (Pallant, 2010). The test also indicates the strength of a relationship between variables by a value that can range from -1.00 to 1.00; when 0 indicates no relationship, -1.00 indicates a negative correlation, and 1.00 indicates a perfect positive correlation (Pallant, 2010). The result tabulated in Table 4.4 below.

**Table 4.4: Interpretation of R Value**

<b>R Value</b>	<b>Description</b>
0.80 or higher	Very high
0.6 to 0.8	Strong
0.4 to 0.6	Moderate
0.2 to 0.4	Low
0.2 or lower	Very low

**Table 4.5: Pearson Correlation between factors of agency banking adoption and adoption of Agency banking.**

		Agency banking adoption
<b>Technological factor Indicators</b>	Pearson Correlation	.969**
	Sig. (2-tailed)	.000
	N	68
<b>Organizational factor</b>	Pearson Correlation	.967**
	Sig. (2-tailed)	.045
	N	68
<b>Environmental factors Indicator</b>	Pearson Correlation	.946**
	Sig. (2-tailed)	.000
	N	68
**. Correlation is significant at the 0.01 level (2-tailed).		

**Source: Own Survey, 2018.**

Correlation results presented in Table 4.4 show that there is significant positive relation between technological factors and adoption of agency banking (sig=.000, r= .969).

There is significant positive relation between organizational factors and adoption of agency banking (sig=.045, r= .967).

There is significant positive relation between Environmental factors Indicator and adoption of agency banking (sig=.000, r= .945).

#### **4.5 Regression analysis**

To analyze the conceptual framework several independent variables were entered into the multiple regression equation. This section reports the results of multiple regressions conducted. multiple regression analysis is “an analysis of association in which the effects of two or more

independent variables on a single, interval scaled dependent variable are investigated simultaneously” (Zikmund et al., 2010, p.584).

According to Hair Jr. et al. (2007), Multiple Regression Analysis, a form of general linear modeling, is an appropriate statistical technique when examining the relationship between a single dependent (criterion) variable and several independent (predictor) variables. They explained that idea of using multiple regression analysis is to use the independent variable whose values are known to predict the single dependent value selected by the researcher.

#### **4.5.1 Assumption Testing for Regression Analysis**

##### **4.5.1.1 Multi-co linearity**

The correlations between the variables in the model are provided in the table below (Table no.4.6). While checking, the independent variables showed little relationship with the dependent variable. Also the researcher checked that the correlation between each of the independent variables is not too high.

Tolerance is an indicator of how much of the variability of the specified independent is not explained by the other independent variables in the model and is calculated using the formula  $1 - R^2$  for each variable. If this value is very small (less than .10), it indicates that the multiple correlation with other variables is high, suggesting the Possibility of multi-co linearity. The other value given is the VIF (Variance inflation factor), which is just the inverse of the Tolerance value (1 divided by T Tolerance). VIF values above 10 would be a concern here, indicating multi-co linearity. Since the lowest tolerance is .268 (i.e.  $>.1$ ) and the highest VIF is 6.68 (i.e.  $<10$ ) there no problem of multi-co linearity.

**Table 4.6 Multi-Co linearity Diagnostics<sup>a</sup>**  
**CollinearityDiagnostics<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	.006	.119		.053	.958	-.231	.243					
TF11	.447	.097	.444	2.602	.000	.253	.642	.969	.499	.116	.268	6.682
OF11	.387	.092	.399	1.223	.045	.204	.570	.967	.467	.106	.371	4.110
EF11	.161	.089	.151	1.814	.000	-.016	.339	.946	.221	.046	.491	2.946

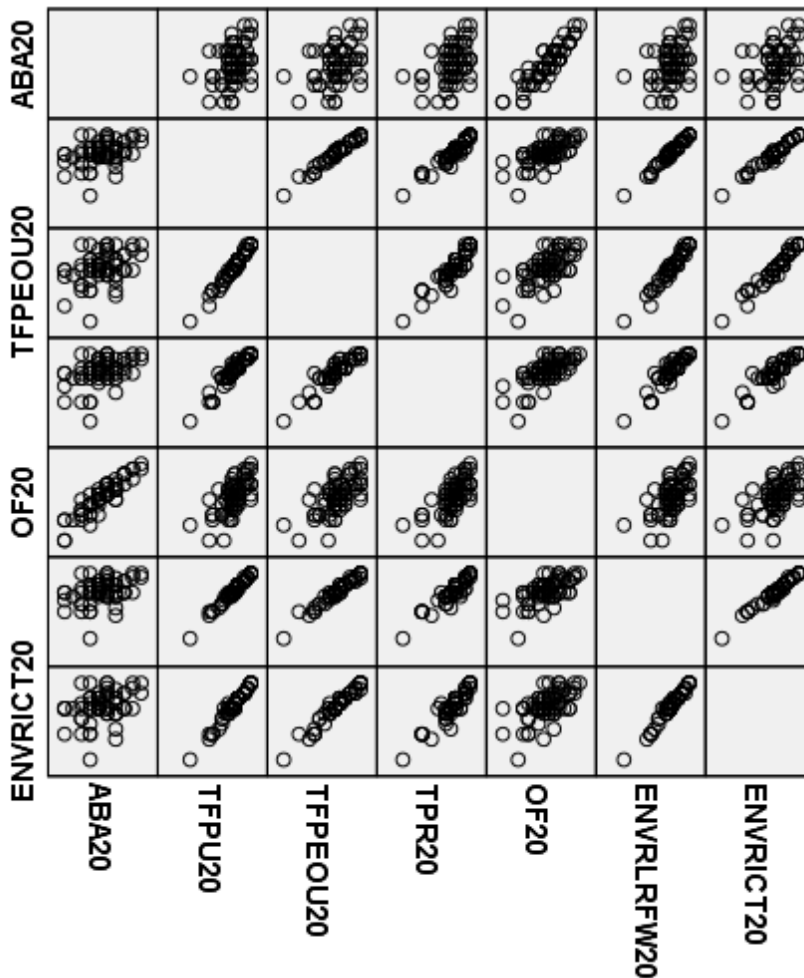
A. Dependent Variable: Adoption of agency banking

#### 4.4.1.2. Linearity

The linearity of the relationship between the dependent and independent variable represented the degree to which the change in the dependent variable is associated with the independent variable (Hair et al., 1998). In a simple sense, linear models predict values falling in a straight line by having a constant unit change (slope) of the dependent variable for a constant unit change of the independent variable (Hair et al., 1998). Conventional regression analysis underestimated the relationship when nonlinear relationships are present, i.e., R<sup>2</sup> underestimates the variance explained overall and the betas underestimate the importance of the variables involved in the non-linear relationship (Malhotra et al. 2007). Substantial violation of linearity implies that regression results may be more or less unusable (Malhotra et al. 2007). The scatter plot of standardized residuals versus the fitted values (see Figure 4.1) for the regression models were visually inspected. The plots did not reveal any systematic pattern, thus providing support for the specified linear relationship, as suggested by (Malhotra et al. 2007).



**Figure 4.1 ScatterPlots of Variables (Test for linearity)**



#### **4.4.1.3. Normality of the Error Term Distribution**

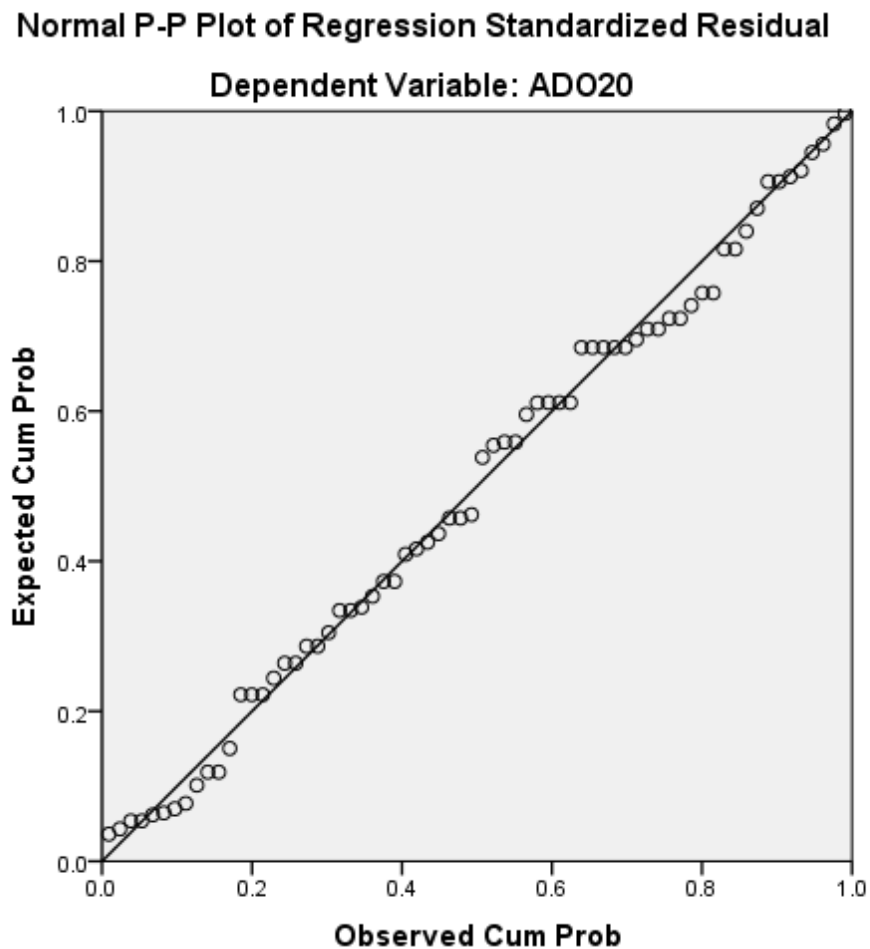
In terms of this assumption, a check for normality of the error term is conducted by a visual examination of the normal probability plots of the residuals (Malhotra et al., 2007). Malhotra et al. (2007) propose that normal probability plots are often conducted as an informal means of assessing the non-normality of a set of data. According to Hair et al. (1998), the plots are different from residuals plots in that the standardized residuals are compared with the normal distribution. In general, the normal distribution makes a straight diagonal line, and the plotted residuals are compared with the diagonal (Hair et al., 1998). If a distribution is normal, the residual line would be closely following the diagonal (Hair et al., 1998).

Malhotra et al. (2007) explain that the “correlation coefficient” will be near unity if the data fall nearly on a straight line. The “correlation coefficient” will become smaller if the plot is curved.

The normality probability plots were plotted to assess normality (see Figure 4.2 below). The P-P plots were approximately a straight line instead of a curve. Accordingly, the residuals were deemed to have a reasonably normal distribution, as suggested by Hair et al.(1998).

In this study step-wise multiple regressions were conducted in order to examine the relationship between Technological, Organizational and Environmental factors with another constructs of the conceptual framework; adoption of agency banking.

**Figure 4.2 Normal P-P plot of regression**



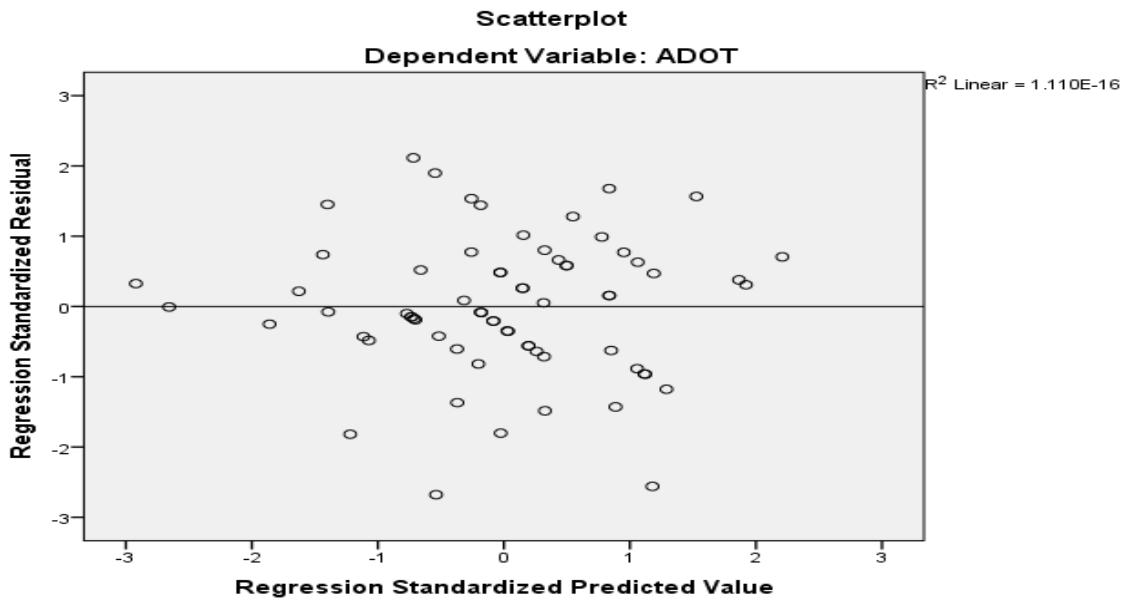
#### **4.4.1.4. Homoscedasticity of the Error Terms**

Hair et al. (1998) identify homoscedasticity as homogeneity of variance. This assumption is referred to as the description of data in which the variance of the error terms ( $e$ ) appears constant over the range of values of an independent variable. The assumption of equal variance of the population  $e$  (where  $e$  is estimated from the sample value,  $e$ ) is critical to the proper application of linear regression. When the error terms have increasing or modulating variance, the data are considered as heteroscedastic (Hair et al., 1998).

In contrast, Maddala (2001) explains two basic consequences of heteroscedasticity: (1) the least squares estimators remain unbiased, but inefficient, and (2) the estimates of the variances are biased. This contributes to underestimation of the true variance of the ordinary least squares estimator, influences the confidence intervals, and invalidates the tests of significance of the independent variables. Hair et al. (1998) show that heteroscedastic variables can be remedied through data transformations similar to those used to reach normality. In addition, Hair et al. (1998) indicate that data transformations provide an approach to modifying variables for one of two reasons: (1) to correct violations of the statistical assumptions underlying the multivariate techniques, or (2) to improve the relationship (correlation) between variables. In general, heteroscedasticity is the result of non-normality of one of the variables, and the correction of the non-normality remedies the unequal dispersion of variance (Hair et al., 1998).

The error terms were expected to have equal variances. In the scattered residual plots (see Figure 4.6 above), the residuals scattered randomly about the zero line and did not exhibit a triangular-shaped pattern, thus providing sufficient evidence to satisfy the assumption for homoscedasticity of the error terms.

**Figure 4.3 Scatter plot of regression**



The decision rule is, if the data appears more random than funneled, this assumption can be accepted.

**Test of Independent of Residuals**

Other criteria for multiple linear regression models, it assumes that the residuals are independent of one another. Here, we can use the Durbin-Watson statistic to test the assumption that our residuals are independent (or uncorrelated). This statistic can vary from 0 to 4. For this assumption to be met, this value should be close to 2. Values below 1 and above 3 are cause for concern and may render the analysis invalid. This assumption is accepted since the Durban Watson is around 2(Field, 2009; Gujarati, D. 2004).

**Table 4.7: Durbin-Watson value**

Model	Durbin-Watson
1	2.023

**Source: Own Survey, 2018**

**Table 4.8 Results of multiple regressions between adoption of agency banking and the combined effect of Technological, Organizational and Environmental factors predictors.**

Model Summary <sup>b</sup>									
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	.980 <sup>a</sup>	.959	.958	.10134	.959	504.385	3	64	.000
a. Predictors: (Constant), Environmental , Organizational, Technological									
b. Dependent Variable: Adoption of agency banking									

**Source: Own Survey, 2018**

According to Table 4.8 above, R-Square (coefficient of determination) is a commonly used statistic to evaluate model fit. R-square is 1 minus the ratio of residual variability. The adjusted R<sup>2</sup>, also called the coefficient of multiple determinations, is the percent of the variance in the dependent explained uniquely or jointly by the independent variables. From the analysis, it is noted that 95.8% of the changes in the adoption of agency banking could be attributed to the combined effect of the predictor variables or there is 95.8% of variation in adoption agency banking due to of technological, organizational and environmental factors

**Table 4.9 Analysis of ANOVA Results between Adoption of agency banking and predictor Variables.**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.539	3	5.180	504.385	.000 <sup>b</sup>
	Residual	.657	64	.010		
	Total	16.196	67			
a. Dependent Variable: Adoption of agency banking						
b. Predictors: (Constant), Environmental , Organizational, Technological						

**Source: Own Survey, 2018**

From the analysis, it is noted that the probability value of 0.000 ( $p < 0.05$ ) indicates that the regression relationship was highly significant in predicting how technological factor (perceived usefulness, perceived ease of use, perceived risk), organization factor, and environmental factors (ICT infrastructure & legal and regulatory frame work) influenced adoption of agency banking. Further, the findings show that the overall model was significant.

**Table 4.10: Regression coefficients of the relationship between adoption of agency banking and the three predictive variables.**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig(p-value)
		B	Std. Error	Beta		
1	(Constant)	.006	.119		.053	.958
	Technological Factors	.447	.097	.444	2.602	.000
	Organizational Factors	.387	.092	.399	1.223	.045
	Environmental Factors	.161	.089	.151	1.814	.000

a. Dependent Variable: Adoption of agency banking

Source: Own Survey, 2018.

#### 4.6 Interpretations of regression results and discussion

The regression coefficient explain the average amount of change in dependent variable that caused by a unit of change in the independent variable. The larger value of Beta coefficient that an independent variable has, brings the more support to the independent variable as the more important determinant in predicting the dependent variable.

The finding of the regression analysis result shows that technological factors had a positive influence on adoption of agency banking. Specifically, when technological factors increase by a level, adoption of agency banking was increased by around 44.4 percent, keeping other factors constant. This is supported by other study which reported significant positive relationship between technological factors and adoption of agency banking (ElizabethMungai, 2016).

This means that technological factors had a great influence on increasing the adoption of agency banking in lion international bank S.C. The statically significance level of this variable is 0.000; this is at 95 percent confidence interval.

The study also found that when organizational factors increase by a level of adoption agency banking would increase by around 38.7 percent, keeping other factors constant. This implies that organizational factors had a significant effect on increasing adoption agency of banking in the study organization. The statically significance level of this variable is 0.0450; this is at 95 percent confidence interval. This is supported by other study which reported significant positive relationship environmental factors and adoption of agency banking with that of Burkman (1987) who stated that the adoption of agency banking required adequate resources. Adequate resources refer to the availability and accessibility of resources needed to implement the innovation. Resources include the existing infrastructure as well as the organization's finances, hardware, software, materials, personnel, and support structures (Ely, 1999, 1990).

Furthermore, the environmental factors had influenced the outcome variable in positive way. This means that an increase in environmental factors was increased the adoption of agency banking in the study organization by around 16.1 percent, keeping other factors constant. The variable is also found to be statically significant at 95 percent confidence interval, which means that the variable is significantly affecting the agency banking adoption.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 SUMMARY OF MAJOR FINDINGS**

The primary objective of this research was to examine factors affecting the adoption of agency banking the case of selected branches in Lion International Bank S.C. The study targeted a total of 80 respondents. However, only 68 respondents responded and returned their questionnaires contributing to 85% response rate. Respondent from different age group and educational background are represented in the data collected.

The result of background of respondents indicated that majority of the total respondents are male with total of 40(58.8%) while the remaining 28(41.2%) were female. With regard to age and highest educational level of the respondents most of them are in the age range of 25-34 (58.8%) and Majority of the customer's sample group were BA/BSC holders with total number of 55 which represents 80.9% from the total customer's participant of this study.

The result obtained with descriptive statics show that majority of the respondent's agree that technological factors (perceived usefulness, perceived ease of use and perceived risk), organizational factors and environmental factors (ICT infrastructure & legal and regulatory frame work) have a significant influence on attitude and intention to use or adopt agency banking and has positive impact on adoption of agency banking.

The correlation analysis result is used to understand the degree of relationship between the independent variable (Technological, Organizational and Environmental factors) and dependent variables (adoption of agency banking). From the analysis, it is noted that there is significant positive relation between technological factors and adoption of agency banking (sig=.000, r= .969), organizational factors and adoption of agency banking (sig=.000, r= .967) and Environmental factors Indicator and adoption of agency banking (sig=.000, r= .945).

Consequently, there is a significant and positive relationship between the Technological, Organizational and Environmental factors and adoption of agency banking.



Multiple regression analysis was conducted to test the influence among predictor variables. The regression analysis results showed that, 95.9% of the changes in the Technological, Organizational and Environmental factors variables could be attributed to the combined effect of the predictor variables and probability value of 0.000 ( $p < 0.05$ ) indicates that the regression relationship was highly significant in predicting how perceived usefulness, perceived ease of use, perceived risk, legal & regulatory frame work and ICT influenced adoption of agency banking.

Moreover, the value of  $p < 0.05$  for the Technological factors ( $P = .000$ ), Organizational ( $P = .045$ ), and Environmental factor ( $P = .000$ ). From the analysis, it is noted that Technological factors, Organizational factor and Environmental factors have significant effect on adoption of agency banking and can be considered as good predictors.

## 5.1 Conclusions

This area introduces the findings of the key discoveries of the study in light of the officially reported exploration questions.

- ✓ Base on the findings, there is a significant and positive relationship between the Technological, Organizational and Environmental factors and adoption of agency banking.
- ✓ The study concluded that relative Advantage or Perceived Usefulness, technology Complexity (perceived ease of use) and perceived risk were the technological factor that affects the adoption of agency banking.
- ✓ Further conclusions can be made that technology significantly affects the adopting of agency banking in Lion International Bank S.C.
- ✓ Agency banking was not well adopted by Lion International Bank, the result obtained with descriptive statics show that majority of respondents responds that this is due to of the low development levels of ICT infrastructure and the poor quality of internet connection and mobile network, lack of customers trust and awareness towards the technology and also customers' fear to use the technologies that holds lion bank to adopt the system. This result were consistent with the findings of Ayana (2012), Ghazi and

Khalid (2012); Khalfan et al (2006) in which all indicted that, technological barriers, such as security risk as hindrance factor for the adoption of e-banking. Improvements are required to enhance client confidence towards the system.

- ✓ The result obtained with descriptive statics show that majority of the respondent's agree that technological factors, organizational factor and environmental factors have a significant influence on attitude and intention to use or adopt agency banking and has positive impact on adoption of agency banking.

Based on the result obtained in the study Lion Bank gained a lot of benefits from adoption of agent banking services. Perceived Ease of use is one of the basic benefits, in which it enables bank customers to perform banking activities in a simple way. In general the finding of the study identified other benefits of agent banking, such as time and cost saving, increased productivity of bank, improves customer service, create wider market coverage, simplify banking activity for staff, reduce bank hall queue for customers, accessible without time limit, enhancing access to the bank service by both existing and new customers and enhancing financial inclusion.

Finally, the study concludes that by highly recognizing and managing Technological, Organizational and Environmental factors had likely to support and facilitate in the adoption of agency banking, as the individual customers would have trusted on the system and feel secured to use the service, availability of developed ICT infrastructure, believe the technology which is provided by the bank, creating awareness of the services through different communication media channels and having good communication the bank with the agents and agents with customers in the process. On the contrary undeveloped ICT infrastructure, feeling the customers discomfort and unsecured while using the services may result in a slower level of adopting agency banking.

### 5.3 RECOMMENDATIONS

One of the major significance of agency banking services 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. The financial institution should embark on intense campaigns or advertising of creating awareness to the customers and the public in general is aware of these services.

- The study recommends Lion Bank should ensure safety and soundness of the Agent Banking Services. These services are believed to provide banking services at a lower cost and to foster financial inclusion. Lion International Bank should ensure that the guideline to carrying out sensitization of their agents, customers and about their agent banking business to the public.
- The banks should embark on regular training of the agents to ensure they are familiar that they can understand Agent Banking services. This can be through public awareness campaigns, brochures and other programs as the nature of the institution's products may require.
- Lion International Bank should also embark on expanding their network coverage of these Agent Banks around the country to ensure that customers have easy access to these services.
- Without an adequate development level and quality of a national ICT infrastructure, Agent banking use cannot do well, so Ethio telecom have to support banking industry by investing on ICT infrastructure development in order to improve service of the telecom.
- Lion International Bank should launch campaigns to create direct awareness to potential adopters, issues such as fear of risk, lack of privacy and security, together with relative advantages of using Agent banking services.
- The agents operating on behalf of the Lion bank should also be trained against risks of fraud and money laundering, how to determine and report such incidences in accordance with the laid down procedures given by NBE& internal policy and procedures of the

Bank. The Bank should also ensure that the agents' outlets or premises are insured against theft so as to secure the agents security.

- The introduction of third party retail agents has several risk factors with regard to effective regulation and supervision of banks, which include operational risks, money laundering, credit risk and reputational risk. It is therefore recommended 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.
- Since agency banking brings about a reduction in operating costs, the study recommends that bank that have not adopted agency banking should adopt because agency banking is not complex, is compatible with the culture of banking as well as the banking system.

### **5.3 Suggestions for Further Research**

This study described the factors affecting adoption of agency banking the case of Lion International Bank in Ethiopia from the customer's perspective. But it did not consider the banks perspective. Therefore, the researcher would like to recommend further researcher's be made on the area especially to capture the banks perspectives.

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## Appendices-I



**St. Mary's University**  
**School of Graduate Studies**  
**Department of Business Administration**  
**Questionnaire**

### **Dear Respondents**

Dear Participants, I am a student of MBA at **St. Mary's University, School of Graduate Studies**. I am conducting a research on **"Factors affecting the adoption of agent banking in the case of lion international Bank S.C"**.

**Confidentiality:** I want to assure you that, this research is only for the academic purpose authorized by **St. Mary's University**. Thus your ideas and comments are highly honored and kept confidentially. To create a conducive environment for the free and genuine responses you are not required to write your name. To the end, I would like to forward my deepest gratitude for your unreserved cooperation in filling the questionnaire.

### **General Instructions**

- In all cases please put tick mark (√) in the appropriate box.

### **Rating Scale**

- Strongly Agree.....5
- Agree.....4
- Moderately Agree.....3
- Disagree.....2
- Strongly Disagree.....1

**Contact Address**

If you have any query, please do not hesitate to contact me and I am available as per your convenience at (Mobile: 09-10-97-70-66 or e-mail: [Abriham.desta@gmail.com](mailto:Abriham.desta@gmail.com)).

**PART I: Demographic Information**

1. Sex: A. Male   
 B. Female
2. Age (in years):  
 A. 18- 25      B. 25-34      C. 35-44      D. 45-54      E. 55 and above
3. Educational Qualification:  
 A. College Diploma     C. Master’s Degree and above   
 B. BA/BSc Degree     D. Other (please state) \_\_\_\_\_

No.	Statements	SD	DA	NU	AG	SA
		1	2	3	4	5
<b>Part One: Technological factors</b>						
<b>Perceived Usefulness</b>						
1	Agency Banking service creates accessible to users.					
2	Agency banking service is time-saving.					
3	Agency banking service is easy to use for the customers.					
4	Agency banking improves service efficiency to customers.					
5	Agency banking improves banking customer satisfaction.					
6	Agency banking is a solution to the customer at a critical time.					
<b>Perceived ease of use</b>						
7	Agent banking is easy to understand for the customers.					
8	It is easy to operate agency banking for the customer.					
9	Making transaction is easy though agent banking.					
10	Agent banking can be used easily by any cell phone.					
11	Overall, I believe that agency banking is easy to implement.					
<b>Perceived risk</b>						
12	Customers feel secured to use Agency Banking system.					
13	Customers trust the technology used to provide Agency Banking.					
14	Customers are trustful on using agency Banking					
15	Agents are trustful in providing agency Banking services.					
<b>Part Two: Organizational Factors</b>						
1	The bank support agents by availing promotional materials.					
2	The bank creates awareness of agency banking using different communication channels.					

3	The bank capacitates Agents by providing adequate and continuous training.					
4	The bank support agents by continuous follow-up.					
5	The bank provides the necessary agency banking operating equipment to the agent.					
<b>Part Three: Environmental factors</b>						
<b>Legal and Regulatory framework</b>						
1	Agents are officially certified by the bank to conduct agency banking services.					
2	The bank has internal policy, procedure and manuals to operate agent banking.					
3	Internal policy, procedure and manuals are sufficiently communicated.					
4	There is legal agreement between the bank and the agent.					
5	There is a transparent way of dispute handling mechanism.					
<b>ICT infrastructure and Service</b>						
6	There is suitable internet access to deliver agency banking.					
7	The mobile connection is good enough to conduct agent banking services.					
8	There is adequate ICT infrastructure to support Agent banking					
9	The technical and managerial staffs of the bank are skilled and to use and support agent baking technology					
10	The development levels of ICT infrastructure supports the adoption of Agent banking					

11. Kindly give any other comments you may have about agent banking

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Your participation and assistance is highly appreciated!

## Appendices-II

### ቅድስተማርያም ዩኒቨርሲቲ የድህረምረቃ ትምህርትቤት የንግድ አስተዳደርክፍል

#### ውድተሳታፊዎች፡

በቅድስተማርያም ዩኒቨርሲቲ፣ የድህረምረቃ ትምህርት ቤት ውስጥ የማስተርስ እና ቢዝነስ አድሚኒስትሬሽን ትምህርት፡፡

«በአንበሳ እንተርናሽናል ባንክ አ.ማ.የኤጀንሲ ባንክ አገልግሎት ላይ ተጽዕኖ የሚያሳድሩ ሁኔታዎች»

በሚል አርዕስት ላይ ጥናት እያካሄድኩ እገኛለሁ፡፡

#### ማረጋገጫ-

የዚህ ጥናት ዓላማ በቅድስተማርያም ዩኒቨርሲቲ ለትምህርት እና ጥናት ላይ ለማዋል መሆኑን እየገለፀኩ ሀሳቦዎ እና አስተያየቶዎ በሚሰጥህ ተቃራኒ ሆኖ ለኛ ምርመራዎች ለማድረግ ለመፍጠር ስምዎን መጻፍ አያስፈልግዎትም፡፡ በመጨረሻም መጠይቁን በመሙላት ያልተቆጠበት ብብር በማድረግ ወላጅዎን ለማወቅ ይቻላል፡፡

#### አጠቃላይ መረጃዎች

• በሁሉም ጥያቄዎች ላይ በተገቢው ሳጥን ውስጥ የ(V) ምልክት ያድርጉ፡፡

የመልስ አሰጣጥ መለኪያ

- ✓ በጣም ተስማምቻለሁ (በ.ተ)..... 5
- ✓ ተስማምቻለሁ (ተ)..... 4
- ✓ ትንሽ ተስማምቻለሁ (ት.ተ)..... 3
- ✓ አልተስማማሁም (አል.)..... 2
- ✓ በጣም አልተስማማሁም (በ.አል)..... 1

#### አድራሻ

እባክዎ ማንኛውም ጥያቄ ካለዎት በ (ሞባይል: 09-10-97-70-66 ወይም ኢሜል: [Abriham.desta@gmail.com](mailto:Abriham.desta@gmail.com)) ለማነጋገር እያመንቱ፡፡

#### ክፍል I: የሰነድ ዝቅጠት

1. ስያሜ ሀ. ወንድ

ለ. ሴት

2. እድሜ (በዓመት)

- A. 18- 25      B. 25-34      C. 35-44      D. 45-54      E. 55 and above

3. የትምህርት ደረጃ

ሀ. የኮሌጅ ደረጃ ለማድረግ  ተርስ ዲግሪ እና ከዚያ በላይ

ለ. ቢ.ኤ/ቢ.ኤ.ሲ.ሲ ዲግሪ መ.  እባክዎ ያሳውቁ

ተ.ቁ	ጥያቄዎች	ቢ.አል	አል	ት.ተ	ተ	ቢ.ተ
		1	2	3	4	5
<b>ክፍል አንድ - ቴክኖሎጂ የሚያሳይ ሁኔታዎች</b>						
<b>ጠቃሚነት</b>						
1	የኤጀንሲ ባንክ አገልግሎት ለተጠቃሚዎች ተደራሽነው።					
2	የኤጀንሲ ባንክ አገልግሎት ጊዜ ቆጣቢነው።					
3	የኤጀንሲ ባንክ አገልግሎት ለደንበኞቻችን በጣም ቀላል ነው።					
4	የኤጀንሲ ባንክ ለደንበኞች የአገልግሎት ቅልጥፍና ንግድ ሻሽል።					
5	የኤጀንሲ ባንክ የባንክ ደንበኞች እርካታ ያሻሽላል።					
6	የኤጀንሲ ባንክ በአንገብ ጋቢ ወቅት ለደንበኛው ሙሉ ትኩረት ይሰጣል።					
<b>ጥቅም ላይ የዋለ የመረዳት ችሎታ</b>						
7	የኤጀንሲ ባንክ አገልግሎት ለተገልጋዮቹ ለመረዳት ቀላል ነው።					
8	ለደንበኛው የኤጀንሲ ባንክ ንግድ ጠቀም ቀላል ነው።					
9	በኤጀንሲ ባንክ የሽያጭ ልውውጥ ለማድረግ ቀላል ነው።					
10	የኤጀንሲ ባንክ ስራዎችን ለማድረግ ለደንበኞች ጠቀም ይቻላል።					
11	በአጠቃላይ የኤጀንሲ ባንክ አገልግሎት ተግባራዊ ለማድረግ ቀላል እንደሆነ አምናለሁ።					
<b>ሊደርስ የሚችል አይጋ</b>						
12	ደንበኞች የኤጀንሲ ባንክ አሰራርን እንዲጠቀሙ ደህንነት ይሰጣቸዋል።					
13	ደንበኞች ለኤጀንሲ ባንክ ንግድ ጠቀም የሚያገለግል ቴክኖሎጂን ያምናሉ።					
14	ደንበኞች የኤጀንሲ ባንክን በመጠቀም ላይ እምነት ይጥላሉ።					
15	ኤጀንሲዎች የኤጀንሲ ባንክ አገልግሎትን ለማቅረብ እምነት ይጥላሉ።					
<b>ክፍል ሁለት - ድርጅታዊ ሁኔታዎች</b>						
1	ባንኩ ኤጀንሲዎችን የማስተዋወቅ ደብዳቤዎችን በማቅረብ ድጋፍ ያደርጋል።					
2	ባንኩ የኤጀንሲ ባንክ ስራዎችን ለማድረግ የሚያስፈልጉትን ጠቀም ፍላጎትን ይፈጥራል።					
3	ባንኩ ኤጀንሲዎችን ለማቆም በቁልፍ የሚያቋርጥ ሥልጠና ይሰጣል።					
4	ባንኩ ለኤጀንሲዎች ተከታታይ የሆነ ድጋፍ እና ክትትል ይሰጣል።					
5	ባንኩ ለኤጀንሲዎች አስፈላጊ የሆነ የኤጀንሲ ባንክ መሳሪያዎችን ያቀርባል።					
<b>ክፍል ሶስት አካባቢያዊ ሁኔታዎች</b>						
<b>የህግ እና የቁጥጥር ማዕቀፍ</b>						
1	ስለ ኤጀንሲ ባንክ አገልግሎት አሰጣጥ ግልጽ የሆነ የብሔራዊ ባንክ መመሪያ አለ።					
2	የባንኩ ወኪሎችን ለመቆጣጠር የውስጥ ስራ ስርዓት መመሪያ እና የአሰራር ሂደት አለው።					
3	የውስጥ ስራ ስርዓት አሰራር እና መመሪያዎች በበቂ ሁኔታ የተናበቡ ናቸው።					
4	በባንኩ እና በተወካዩ መካከል ህጋዊ ስምምነት አለ።					
5	ችግር ሲፈጠር ግልፅ የሆነ የመፍትሄ አሰጣጥ ዘዴ አለ።					
<b>የአይ.ሲ.ቲ መሠረተ ልማት እና አገልግሎት</b>						
6	የኤጀንሲ ባንክ አገልግሎትን ለማቅረብ ለምቹ የሆነ የኢንተርኔት ግንኙነት አለ።					
7	የኤጀንሲ ባንክ አገልግሎትን ለማግኘት በቁልፍ የሆነ የሞባይል ግንኙነት አለ።					
8	የኤጀንሲ ባንኩን ለመደገፍ በቁልፍ የሆነ የኢንፎርሜሽን፣ ኮሙኒኬሽን እና ቴክኖሎጂ መሰረተ ልማት አለ።					
9	የኤጀንት ባንክ አገልግሎትን ለመደገፍ የባንኩ የቴክኒክና የአስተዳደር ሰራተኞች በሙያቸው የተካኑ ናቸው።					
10	የኢንፎርሜሽንና ኮሙኒኬሽን መሰረተ ልማቶች የመሠረተ ልማት ደረጃዎች የብዝሃ ባንክ አገልግሎትን እንዲጠቀሙ ድጋፍ ይሰጣል።					



ስለኤጀንሲባንኪ ንግግንኛውንም አስተያየት ካለዎት ይጠቁሙን።

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የእርስዎ ተሳትፎ እና ድጋፍ በጣም የተከበረ ነው!

## **Declaration**

I, **Abreham Desta Gebre**, declare that this study entitled '**Factors affecting the adoption of agent banking the case of Lion International Bank S.C.**' is carried out by me and only me independently except for the guidance and suggestions of **Mohammed M. (Asst.Prof.)**. The paper was not submitted for any other degree in this or other university by any other person so far. I also declare that I have fully acknowledged all the sources used and I have not committed plagiarism in any form.

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**Name**

**St. Mary's University, Addis Ababa**

**Signature**

**June, 2018**

## **Endorsement**

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

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**Advisor**  
**St. Mary's University, Addis Ababa**

**Signature**  
**June, 2018**