DETERMINANTS OF AGENCY BANKING UTILIZATION IN ETHIOPIAN COMMERCIAL BANKS

(Evidence from selected Ethiopian commercial banks)

A Thesis Submitted to the School of Graduate Studies of Addis Ababa University in Partial Fulfillment of the Requirements for the Degree

Masters of Business Administration

With concentration on Management

By: Yitayal Mossu

June, 2019

Addis Ababa, Ethiopia

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Advisor: Tilahun Teklu (PhD)

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DECLARATION

I, Yitayal Mossu, declare that this thesis is my original work and the study has not been submitted to any other university for the purpose of earning degree. And all sources of materials used for the study have been duly acknowledged.

Name: Yitayal Mossu

Signature: _____

Date: _____

June, 2019

Addis Ababa, Ethiopia

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF MANAGEMENT

MBA Program

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Approved by the Board of Examiners:

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External Examiner		

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ACRONYMS AND ABBREVIATIONS

ATM	Automatic Teller Machine
ABU	Agency Banking Utilization
ANOVA	Analysis of Variance
CLRM	Classical Linear Regression Models
CBE	Commercial Bank of Ethiopia
EBR	Ethiopian Business Review
GR	Government Regulation
KYC	Know Your Customer
NBE	National Bank of Ethiopia
MFIs	Micro Finance Institutions
PIN	Personal Identification Number
POS	Point of Sale Terminals
SPSS	Statistical Package for Social Sciences
SC	Security
TOE	Technology Organization Environment
TI	Telecom Infrastructure
TR	Training
VIF	Variance Inflation Factors

ABSTRACT

This study investigates the factors that affect utilization of agency banking in Ethiopian commercial banks. Descriptive research design and quantitative research approach are adopted. Primary data are collected using questionnaire from four purposively selected commercial banks in Ethiopia; Commercial Bank of Ethiopia, Dashen Bank, United Bank and Lion International Bank. Thus the researcher takes all 78 staffs working in agency banking department of four banks via purposive sampling technique. Multiple regression analysis is used to analysis the data. The study found that all independent variables (Regulation, Telecom, Security and Training) have positive and significant impact on Agency Banking Utilization at 5% level of confidence. The researcher recommended banks to consider the four dimensions (regulation, telecom, security and training) are the major factors that affecting agency banking utilization and should take vital measures in order to exploit the benefit of agency banking. Government also should support banks by assist sufficient telecom infrastructure and issue feasible legal frameworks to facilitate the operation and utilization of agency banking.

Key words: utilization of agency banking, E-banking channels, financial inclusion,

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

According to studies like Sanl and Hobikoglu (2015) banking industry is one of the growing financial sectors realizing the developments and changes within the field of technology innovation. Demand on web based banking products increased as a result of expanding client centered service understanding, decreasing price, its competitive market structure and consumers' went to succeed in banking product, effective, and productive ways. In addition they state that electronic banking provides a vital competition advantage to the banks in terms of time, location and value. Recently, it's targeting the advance technologies that are the source of electronic banking within the interbank competition.

According to Franklin and Balaji, (2016) Electronic Banking is the latest within the series of technological wonders of the recent past. ATMs, POS terminals, Internet Banking, Credit Cards and Debit Cards have emerged as effective delivery channels for traditional banking products. And they agreed that, information technology developments within the banking sector have speed up communication and transactions for customers and internet is the least expensive delivery channel for banking products because it permits the entity to cut back their branch networks and downsize the quantity of staff. So electronic banking is effective for banks to minimize their cost.

The technological improvement together with the growing use of smart phones has, among other functions, facilitated purchase and payment transactions through the mobile phone. This phenomenon occurs worldwide and provides individuals more flexibility and convenience in carrying out their daily activities and the make ease the accessibility of banking services (Abrahao, Moriguchi, and Andrade2016).

Abrahao, Moriguchi, and Andrade (2016) build up their idea by stating that, one of the potential market segments for mobile payment is that formed by users who do not have bank accounts: that portion of the population who uses cash, trust credit or other trading currencies. This would facilitate the purchase of their goods and services, since it makes the use of cash on a daily basis

unnecessary. Mobile payment offers benefits such as the opportunity to gain time, convenience and new consumer experiences to users of mobile technology. On the other hand, all players involved in the process of paying mobile network operators, financial institutions (banks, card companies, and payment processors), governments and technology (hardware and software) and service suppliers can gain from the offer of this new service.

Agency banking is one among electronic banking channel and might be related to marketing distribution channel. A distribution channel is a means by which businesses get their products to their consumers. A distribution channel may involve the use of intermediaries like retailers, post offices, and gas stations. Normally low price mass- market products are oversubscribed through retailers as intermediaries. The agency banking model could be a means of making financial products available to customers. Therefore it represents as a marketing distribution channel. Because agent banking is designed to handle the challenges related to serving low income consumers around rural area whose volume and price of transactions is low they are delivered through an intermediary, the merchant who performs some functions on behalf of the financial institutions (Bizah, Gumbo and Magweva, 2017).

Agent banking is becoming a substitute channel to deliver banking services to the unbanked society and for folks that are set in geographically remote areas. It extremely depends on the use of information technology, specifically the mobile technology. Agent banking permits financial institutions to serve the unbanked societies. And become one of the essential services within the banking sector in bringing their services nearer to the individuals at the grass -root or in remote areas where brick and mortar branches are not present. This technology permits customers to access their account at close agents (retail outlets, post offices, supermarkets and others). The agent provides customers with basic banking services including account opening, cash withdrawal, fund transfer, cash deposit and other services. In return the agent generates commission for every service it provides from the bank (Mwende, Bichanga and Mosoti, 2015).

According to Chaia, et al. (2010) agency banking strategy is effective because it enables organizations to establish a physical presence near their customers without building new branches and thus to expand their reach dramatically at a lower cost. Providers do not have to incur the expense of building new branches and can share fixed outlays with their retail partners. Agent banking models therefore have lower average costs per transaction than traditional bank

branches do. 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 customers.

Agent banking is retail establishments contracted by the banks and authorized by the central banks to render services for banks. They use technology and business arrangements with retailers. Agency banking offer services including savings deposits, withdrawals, bill payments, new account openings, money transfers, etc. The new channel represented by agency banking is expanding significantly, in their many ways of composition with the retailers, lottery outlets, post office, retail store etc. They are truly extensions of banking services installed in their partners' infrastructure (Aduda, Kiragu and Ndwiga, 2013).

In recent years, agency banking has been adopted and implemented with varying degrees of success by different developing countries, particularly in Latin America. Brazil is often recognized as a world pioneer in this area since it was an early adopter of the model and over the years has developed a mature network of agency banks covering more than 99% of the country. Other countries around the world have also utilized the agency banking model to expand financial services, including Pakistan, Philippines, Kenya, South Africa, Uganda, and India (Agalla, 2014).

Ethiopian commercial banks and microfinance institutions offered agent banking services starting from 2013 after NBE issued directives of mobile and agent banking in 2012 as "regulation of mobile and agent banking services Directives Number FIS/01/2012", (NBE 2012). According to NBE, Agent banking means the conduct of banking business on behave of a financial institution through an agent using various service delivery channels as permitted under the directives (NBE, 2012).

Following the NBE directive, agent banking considered as one of the competitive advantage by Ethiopian banks and has got a focus. The directive issued aiming the use of technology and innovative financial service delivery channels like mobile devices and agents have important contribution in financial service accessibility to the broader section of the population at an affordable price and minimum time. The regulation is one factor which influences commercial

banks to adopt agent banking. Banks and microfinance institutions (MFIs) are contracting agents authorized to open accounts and conduct Know Your Customer (KYC) procedures electronically (Spencer, Nakhai and Barth, 2018).

1.2. STATEMENT OF THE PROBLEM

Ethiopia's National Financial Inclusion Strategy, released by the National Bank of Ethiopia in 2017, sets a broad government vision and aggressive targets for increasing financial inclusion. Achieving these goals will require continued growth of diverse financial services powered by mobile technology (NBE, 2017).

Access to financial services contributes vastly to economic growth. This is why nations come up with the right mix of policies to expand financial services. Ethiopia, too, has been reforming its financial sector for the last two decades. However, the sector remains immature, even compared to other Sub-Saharan African countries (Ethiopian Business Review, 2018).

According to NBE report (2018) banks opened five hundred new branches, raising the whole range of branches to 4757 from 4257 in the previous year. As a result, bank branch to population ratio stood at 1:20,286 people in 2017/18. This means that also there are mach of population remaining unbanked and cannot access banking services. 36% of bank branches were operating in Addis Ababa. This shows the physical presence of regulated financial institutions concentration near to or around the city, leaving rural areas underserved and unbanked. Therefore distance remains vital barrier for financial inclusion in Ethiopia. At this reason agency banking will playing critical roles to serve banking services to rural and unbanked population.

The mobile revolution in urban and rural areas in Ethiopia is increasing. According to Ethio-telecom semiannual report (2019), there is 35.4 million active mobile customers in Ethiopia and this can be the golden opportunity for the expansion and utilization of agency banking services because of agency banking is functioning with mobile device. After regulation of agency banking (NBE, 2012), some commercial banks and micro financial institutions began to adopt agency banking and attempting to use and exploit the opportunities. According to EBR (2018) report close to 2 million customers are now using mobile and agent banking, while 16,000 agents operate in the country.

However, compared to other east African countries, agency banking in Ethiopian is underutilized. In 2017, the total number of banking agents in Kenya hit 61,290 with the country's top three banks. The number of banking transactions handled by bank agents grew 34.1 per cent from 104,193,459 transactions in 2016 to 139,751,189 in December 2017. The growth was due to increased transactions in payment of bills, cash deposits, mini statements, and cash withdrawals. The value of banking transactions made through bank agents rose 46.4 per cent from KSh734.2 billion in 2016 to Sh1 trillion in 2017 (Mbogo, 2018).

Studies have been done around the world in the areas of agency banking and alternative banking channels such as; Bizah, et al. (2017) in Zimbabwe did the study on agent banking as a driver of financial inclusion. Ferdous, Al Mosharraf and Farzana (2015)in Bangladesh, they found out Agent banking systems are most cost effective for transactional accounts with low balances and frequent transactions. Kitali, et al. (2015) in Kenya they found out most customers were satisfied with agent bank services. Ndegwa (2017) in Kenya did analysis of the effectiveness of agency banking as a financial inclusion strategy in commercial banks. Mwenda and Ngahu (2016) also did the study and found out agency banking is very relevant to enhancing growth of the banking sector.

However, in Ethiopia few researches were conducted on agency banking and electronic banking systems such as: Kinfe, (2016) and Gemechu, (2012) conducted on Adoption of Electronic banking system in Ethiopian Banking industry the studies were found some factors that affects the adoption of E-banking system in Ethiopia. Girma, (2016) did on challenges and opportunities of electronic banking in Ethiopian banking industry. Tadese A. (2018) conducted on Effects of Agency Banking on Bank Performance in Ethiopian Commercial Banks. However, because of agency banking is a new E-banking system for Ethiopian banking industry the researcher could not found a study conducted on investigating the factors that affecting utilization of agency banking in Ethiopian commercial banks.

1.3. OBJECTIVES OF THE STUDY

1.3.1. General Objective

The main objective of the study is to examine the major factors that affect utilization of agency banking by Ethiopian commercial banks.

1.3.2. Specific Objectives

1. Evaluate the effect of government regulation on utilization of agency banking in Ethiopian commercial banks.
2. Evaluate the effect of telecom infrastructure on utilization of agency banking in Ethiopian commercial banks.
3. Evaluate the effect of security on utilization of agency banking in Ethiopian commercial banks.
4. Evaluate the effects of training on utilization of agency banking in Ethiopian commercial banks.

1.4. RESEARCH QUESTIONS

1. What is the effect of government regulation on utilization of agency banking in Ethiopian commercial banks?
2. What is the effect of telecom infrastructure on utilization of agency banking in Ethiopian commercial banks?
3. What is the effect of security on utilization of agency banking in Ethiopian commercial banks?
4. What is the effect of training on utilization of agency banking in Ethiopian commercial banks?

1.5.RESEARCH HYPOTHESIS

H1:1 Government Regulation has a positive and significant effect on agency banking utilization in Ethiopian commercial banks.

H1:2 Telecom Infrastructures have a positive and significant effect on agency banking utilization in Ethiopian commercial banks.

H1:3 Security has a positive and significant effect on agency banking utilization in Ethiopian commercial banks.

H1:4 Training has a positive and significant effect on agency banking utilization in Ethiopian commercial banks.

1.6. SIGNIFICANCE OF THE STUDY

The results of this study will contribute valuably to the policy makers in addressing problems associated with agency banking and its implementation process. Additionally the study assists commercial Banks to formulate or design appropriate mechanisms to identify and overcome challenges while implementing and utilizing of agency banking. The study hopes to establish the knowledge on agent banking and can be helpful for anyone who wants to know about agent banking. Students and researchers may use the research findings as a reference in their subsequent effort to search for answers to their queries and it will be add value to the existing body of knowledge.

1.7. SCOPE OF THE STUDY

The study takes place in Addis Ababa, Ethiopia and it was delimited to investigate the factors that affecting utilization of agent banking in Ethiopian commercial banks. Since agency banking is a new concept for the Ethiopian banking industry, the study concerns with the selected four commercial banks in Ethiopia which have been approval by NBE and adopted agency banking i.e. Commercial Bank of Ethiopia (CBE), Dashen Bank, Lion International Bank and United Bank. The study delimited to four variables that are government regulation, telecom infrastructure, security and training as major factors that affects agency banking utilization in Ethiopian commercial banks.

1.8. LIMITATION OF THE STUDY

One of the limitations in this study was unwillingness of banks to provide necessary information due to worry of confidentiality and scarce of data due to agency banking is a new electronic banking channel in Ethiopia. Additionally, respondents delay and fail to response some questionnaires.

1.9. ORGANIZATION OF THE STUDY

This research paper is organized into five chapters. Chapter one is introduction part that contain statement of problem, objectives of the study, research question, research hypothesis, significance of the study, scope and limitations of the study. Chapter two contains literature review about the studding area that is theoretical review, empirical review and conceptual frameworks are going to be explored from different publications within the area of agency banking. Chapter three covers research methodology, research design, research approach, and contains target population, sampling technique, sources and instruments of data collection, and method of data analysis. The fourth chapter is containing the results, discussion, summarization and interpretation of the research findings. The final chapter covers the conclusion and recommendation of the study.

1.10. DEFINITION OF TERMS

- **Agency banking -** conduct of banking business on behave of a financial institution through an agent using various service delivery channels.
- **Agency banking utilization –** the action of using something of making practical and effective use of it.
- **Financial inclusion -** has access to useful and affordable financial products and services that delivered in a responsible and sustainable way.
- **E-Banking** – the transfer of funds from one account to another accounts through electronic methods by using internet.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. INTRODUCTION

This chapter is designed to discuss the concept of agent banking, the global aspect of agent banking, briefly discuss the agent banking models and agency theory. In addition, theoretical frame work, empirical review and conceptual frame work of the study was discussed.

2.1.1. Global Aspects of Agent Banking

Agent banking has become one of the most promising strategies in the world to offering financial services in emerging markets. In this model, financial institutions work with existing nonbank retail outlets such as convenience stores, gas stations, and post offices to deliver financial services. This approach can be especially powerful when serving the unbanked poor because of its ability to reduce service cost of banks and reach unbanked and low income workers where they live. In Brazil, where the strategy has enjoyed its greatest successes, about 1,600 municipalities are served solely by agency banking outlets. Brazil's second largest bank, Caixa Econômica Federal (CEF) was the first to enter agent banking system, in 2000, by expanding on its existing partnership with the national chain of lottery shops (Casas Lotéricas). CEF initially contracted Casas Lotéricas to provide services such as the payment of social benefits and bill payment. The largest private bank in Brazil, Bradesco, followed with agency banking arrangement with Brazil's postal services in the year 2001 to provide financial services, following a national auction of the postal franchise (Chaia, et al, 2010 and Kumar, et al, 2006).

According to Chaia et al, (2010) Mexico has more than 5,000 agent outlets, supported by 11 banks, have sprung up since the government authorized agency banking in late 2009. The government is using it to build a basic financial services offering through more than half of the 23,000 state owned Diconsa stores. Since 2009, a pilot program using point of sale devices and fingerprint based identity cards has delivered government payments to nearly 200,000 households. Mexico's government could use the network to reach two million or more beneficiaries to add savings and insurance to the range of services it provides. The other most

effective mobile money service provider in Africa is M-Pesa, a successful mobile money transfer service in Kenya, depends on physical locations that operate like correspondent outlets to give users quick and convenient opportunities to withdraw or deposit cash.

East Africa is the region's mobile money hub and Kenya has a big share. Mobile money accounts have since spread to new parts of Sub- Saharan Africa. The share of adults with a mobile money account has now surpassed 30 percent in Cote d'Ivoire and Senegal and 40 percent in Gabon. Mobile money accounts have also taken root in economies outside Sub Saharan Africa. In some, the share of adults with a mobile money account has reached about 20 percent or more including Bangladesh, Republic of Iran, Mongolia, and Paraguay (Global Findex, 2017).

2.1.2. Financial Inclusion

Financial inclusion remains a key pillar in a formidable economic development and financial growth of a people. The main reason for this is the promise which financial inclusion holds in addressing global poverty, income inequality, under development and welfare. It is believed that when everybody in the world has access to financial services, their joint contributions to the entire development process will create faster and more quantitative impact. This is what inspired introduction of agency banking non convectional banking transactions offered through alternative banking channels have actually overtaken the transactions done at the traditional banking(Ndungu, Okibo and Nyangu, 2015).

Policy makers globally are increasingly recognizing the importance of financial inclusion as a catalyst for economic and social development. To this end national strategies are being crafted that aim at achieving nation specific goals and addressing specific national financial inclusion challenges. This stems from the understanding that no two countries are the same and would therefore face similar challenges. Therefore there is an urgent need to craft national strategies that deal with the specific financial inclusion challenges that each country will be facing (Bizah, et al. 2017).

In Ethiopia national financial inclusion strategy analyzes the state of financial exclusion and creates a cogent framework for acceleration efforts towards financial inclusion based on the country's development priorities. The national payment system has also been undergoing planed

modernization reforms with the objective to supporting a growing and vibrant economy and to create efficient, effective and enabling environment to the finance sector (NBE, 2017).

2.2. THEORETICAL REVIEW

2.2.1. Agency Theory

The first scholars to propose, explicitly, that a theory of agency be created, and to actually begin its creation, were Stephen Ross and Barry Mitnick in the early, 1970s. Research on agency theory has had several findings. Most notably, an agent is more likely to adopt the goals of the principal, and therefore behave in the interest of the principal, when the contract is outcome based. Also, when the agent is aware of a mechanism in place that allows the principal to verify the behavior of the agent, he is more likely to comply with the goals of the principal (Ndungu, et al.2015).

Agency is a theory explaining the relationship between principals, such as a shareholders and agents such as a company's executives. In this relationship the principal delegates or hires an agent to perform work. The theory attempts to deal with two specific problems; first, that the goals of the principal and agent are not in conflict (agency problem), and second, that the principal and agent reconcile different tolerances for risk. Agency theory explains how to best organize relationship in which one party determines the work while another party does the work. In this relationship, the principal hires an agent to do the work, or to perform a task the principal is unable or unwilling to do due to some factors. For example, in corporations, the principal are the shareholders of a company, delegating to the agent i.e. the management of the company, to perform tasks on their behalf. Agency theory assumes both the principal and the agent are motivated by self- interest; this assumption of self interest dooms agency theory to inevitable inherent conflicts (Mwende**,** et al. 2015).

The complexity of agency relationships has created a fertile field for legal and economic analysis. Both a principal and an agency form an agency relationship because they each expect to receive some net benefit. The parties expect that the relationship will lead to an efficient division of labor. Thus, a principal might benefit from the greater expertise of an agent, such as where shareholders of a corporation hire managers to skillfully oversee their ownership interest in the firm. Similarly, agency relationships allow investment in many different productive enterprises

allowing those with wealth to diversify their holdings, insulating them from unforeseeable risks inherent in any one given venture (Agalla, 2014).

This relationship is extended to persons or entities that make use of agents to deliver their business objectives, in this case, banks (principal) and banking agents (agent). Such relationships take the form of a contract necessarily with an offer and a consideration. In an agency relationship, agency cost will most certainly arise. Agency costs arise because of core problems such as conflicts of interest between the principal and the agent (Ndungu, et al. 2015).

2.2.2. Diffusion of Innovation Theory

Diffusion of innovation theory was developed by Rogers in 1962 he defined diffusion as the process by which an innovation is communicated through certain channels over time among the members of a social system. It is a special type of communication, in that the messages are concerned with new ideas. Communication is a process in which participants create and share information with one another in order to reach a mutual understanding. So, the four main elements are the innovation, communication channels, time, and the social system. An innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption. It matters little, so far as human behavior is concerned, whether or not an idea is objectively new as measured by the lapse of time since its first use or discovery. The perceived newness of the idea for the individual determines his or her reaction to it. If the idea seems new to the individual, it is an innovation (Rogers, 1983).

According to Rogers (1983) there are four characteristics of innovations, as perceived by individuals, help to explain their different rate of adoption. **Relative Advantage**: the degree to which the innovation is perceived as being better than the practice it supersedes; **Compatibility**: the extent to which adopting the innovation is compatible and being consistent with what people do; **Complexity**: the degree to which an innovation is perceived as relatively difficult to understand and use; **Trialability**: the degree to which an innovation may be experimented with on a limited basis before making an adoption decision; and **Observability**: the degree to which the results of an innovation are visible to others (Rogers, 1995).

2.2.3. Distribution Channel Model

Distribution is one of the four elements of the marketing mix. Distribution is the process of making a product or service available for the consumer or business user who needs it. This can be done directly by the producer or service provider, or using indirect channels with distributors or intermediaries. According to Park and Keh (2003) distribution channels have two channel structures: (1) the direct channel, where the firm bypasses all forms of intermediary and interacts with consumers directly, and (2) the indirect channel, where the firm uses intermediaries to reach final consumers. However, while these abstractions are useful in helping us understand channel phenomena, they do not typically reflect the marketplace. In reality, many firms use multiple channels to distribute goods and services. A major problem for the manufacturer who relies on the retailer completely for the distributing function is that the price charged to consumers is high and the quantity sold is low due to the double marginalization problem. In the case of services, distribution is principally concerned with access.

2.2.4. Bank-Focused Model

The bank focused model emerges when a traditional bank uses modern and costless delivery channels to provide banking services to its existing customers. Automatic Teller Machines (ATM), Point of Sale (POS) terminals, internet banking and mobile banking are examples of Bank-focus model services. This model is additive in nature also known as additive model and may be seen as a modest extension of conventional branch based banking (Aduda, et al, 2013).

2.2.5. Bank-Led Model

According to Aduda, et al, (2013) Bank-led model offers a distinct alternative to conventional branch based banking. It enables customers to conduct financial transactions at a whole range of retail agents (or through mobile phone) instead of at bank branches or through bank employees. This model substantially increase the financial services outreach by using a different delivery channel like retailers, a different trade partner (telecom / chain store) having experience and target market distinct from traditional banks, and may be significantly cheaper than the other bank-based alternatives.

In the most basic version of the bank-led model of branchless banking, a licensed financial institution (typically a bank) delivers financial services through a retail agent. That is, the bank develops financial products and services, but distributes them through retail agents who handle all or most customer interaction. The bank is the ultimate provider of financial services and is the institution in which customers maintain accounts (Lyman, T., Ivatury, G. &Staschen, S. (2006).

2.2.6. Non-Bank Led Model

In the nonbank-led model of branchless banking, customers do not deal with a bank, nor do they maintain a bank account. A bank may not be involved at all. Instead, customers deal with a nonbank firm either a mobile network operator or prepaid card issuer and retail agents serve as the point of customer contact. Rather than deposit money into and withdraw money from a bank account, customers exchange their cash for e-money stored in a virtual e-money account on the nonbank's server, which is not linked to a bank account in the individual's name **(**Lyman et al, (2006).

Non-bank based model, or transformational model, allows the provision of banking services for the largely unbanked population. MPESA of Kenya and Wizzit of South Africa are mobile banking services operated by telecoms companies that are based on this transformational model (EBR, 2018)

2.2.7. Technology-Organization-Environment (TOE) Model

To study the adoption of technological innovations in general, Tomatzky and Fleischer (1990) developed the technology-organization-environment (TOE) framework to describe the organizational components that affect the firm's adoption decisions. TOE framework asserts that three principle contexts technological, organizational, and environmental influence the process by which an organization adopts and accepts a new technology **(**Lippert and Govindarajulu, 2006).

Technology-Organization-Environment (TOE) framework of Tornatzky and Fleischer (1990) assumes a generic set of factors to predict the likelihood of E-Banking adoption. The theory suggests that adoption is influenced by technology development, organizational conditions, and environment. Organizational context captures firm's business scope, top management support,

organizational culture, complexity of managerial structure measured in terms of centralization, formalization, and vertical differentiation, the quality of human resource, and size and size related issues such as internal slack resources and specialization (Awa, Ukoha and Emecheta,2012).

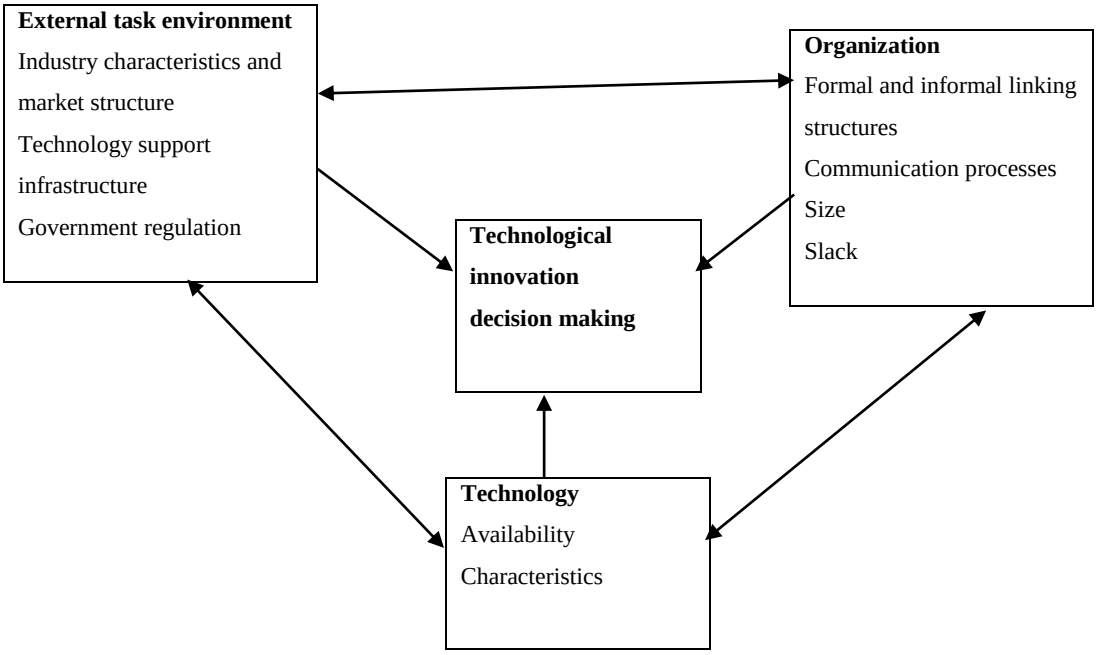


Figure 2.1: TOE Model (Tornatzky and Fleischer 1990)

Technology

Studies show that the successful adoption of technology depends on the importance of internal technology resource- infrastructure, technical skills, developers, and user time; therefore firms with higher levels of technology competence show more likelihood to adopt e-commerce (Awa, et al. 2012).

According to Rogers, (1983) a technology is a design for instrumental action that reduces the uncertainty in the cause-effect relationships involved in achieving a desired outcome. A technology usually has two components: (1) a hardware aspect, consisting of the tool that embodies the technology as material or physical objects, and (2) a software aspect, consisting of the information base for the tool. Technological context describes that adoption depends on the pool of technologies inside and outside the firm as well as the application's perceived relative

advantage (gains), compatibility (both technical and organizational), complexity (learning curve), trialability (pilot test/experimentation), and observability (visibility/imagination).

Organization

A range of descriptive measures characterize the "organizational context": firm size; the centralization, formalization, and complexity of its managerial structure; the quality of its human resources; the amount of slack resources available internally; formal and informal linkages within and outside the firm; decision making and internal communication methods; and boundary spanning mechanisms to communicate with the external environment (Angeles, 2014).

Environment

According to Angeles (2014) the environmental context is the arena surrounding a firm, consisting of multiple stakeholders such as industry members, competitors, suppliers, customers, the government, the community, etc. They can influence how a firm interprets the need for innovation, its ability to acquire the resources for pursuing innovation, and its capability for actually deploying it. These stakeholders could either support or block technological innovation. Changing market and competitive conditions prod firms to use various forms of innovation. Government regulation is also another powerful tool for constraining a firm's operational activities, increasing costs of production, and instigating an investigation of technologies that must meet specified criteria. Finally, dominant customer firms could exert their power to shift their suppliers' production activities to comply with its requirements.

2.3. EMPIRICAL REVIEW

2.3.1. Government Regulation

Government regulation is a powerful tool for constraining a firm's operational activities, increasing costs of production, and instigating an investigation of technologies that must meet specified criteria (Angeles, 2014).

Branchless banking through retail agents appeals to policymakers and regulators because it has the potential to extend financial services to unbanked and marginalized communities. But it also challenges them to ask: What are the risks of these new approaches, and are they different from

those of conventional branch-based banking? How should we respond to these risks, so as to permit branchless banking with retail agents to operate safely and expand access to finance? Thus Banking regulation typically recognizes multiple categories of risk that bank regulators and supervisors seek to mitigate. And the use of retail agents also potentially raises special concerns regarding consumer protection and compliance with rules for combating money laundering and financing of terrorism (R. Lyman, Ivatury, and Staschen, 2006). In our case the first research hypothesis was defined as follows:

Hypothesis 1

H1:1 Government Regulation has positive and significant effect on utilization of agency banking in Ethiopian commercial banks.

H0:1 Government Regulations have not positive and significant effect on utilization of agency banking in Ethiopian commercial banks.

2.3.2. Telecom Infrastructure

Telecommunications companies have substantial leverage in mobile and agent banking, and banks need to sit down and negotiate with them. Banks need to work with mobile operators if they want to create mobile banking services that are highly customer friendly, fast, and secure. Mobile operators' control the attraction of leveraging their distribution networks puts them in a strong negotiating position. This might create a challenge for smaller banks, who might find it more difficult to strike the right deal with mightier operators, or who might simply struggle to get them at the negotiating table. It also may create a tension with the principle of interoperability across networks, because tighter relationships might not be achievable with all networks. (Mas and Kumar, 2008)

On the effect of network capability, banking agents depend on internet connection and telecommunication network in order to process transactions which are provided by other players other than banks. It can be concluded that the strength of the networks used has a security angle because it affect the integrity of the systems used to transact business (Ndungu, Okibo & Nyangau, 2015). Depending on the above empirical review the second research hypothesis of the study defined as:

Hypothesis 2

H1:2 Telecom infrastructures have positive and significant effect on utilization of agency banking in Ethiopian commercial banks.

H0:2 Telecom infrastructures have not positive and significant effect on utilization of agency banking in Ethiopian commercial banks.

2.3.3. Security

Agent banking security and trustworthiness was termed as one of the most important factors within every target customer segment when deciding on the use of a banking service delivery channel**.** Most mobile phones have an embedded chip that can be used to store value or provide secure authorization and identification that does not rely on a card reader, PC and modem combination or a POS terminal (Onwonga, Achokiand Omboi, 2017).As the amount of products and services offered via the Internet grows rapidly, consumers are more and more concerned about security and privacy issues (Jahangir and Bangladesh 2008).The technology platform also will condition the operating processes that must be put in place to ensure appropriate security for banking transactions. The general principle is the less secure the technology platform, the more the bank will need to institute complementary operational security measures (Mas and Kumar, 2008).

According to regulation of NBE (2012) The technology used for delivery of mobile and agent banking services must be secure and should at least ensure the following, which shall be part of the technology risk management program of a financial institution: User Risk (User awareness on their information security including how to secure Personal Identification Number (PIN) and other security features), Infrastructure and Software Application Risk, Communication Media Risks, Agent and Third Party Service Provider Risks, Business Continuity Plan, Interface Feature of the Application (The system should be open). Accordingly the following research hypothesis was defined.

Hypothesis 3

H1:3 Security has positive and significant effect on utilization of agency banking in Ethiopian commercial banks.

H0:3 Security has not positive and significant effect on utilization of agency banking in Ethiopian commercial banks.

2.3.4. Training

Understanding credit, operational and compliance risks are the major worries hindering implementation of Agency banking by commercial banks. Management of agency banking business requires man power and technological resources (Agalla, 2014). A huge number of customers are not aware of the services they can access at the bank agents and thus they keep on flocking the brick and mortar branches. Thus to solve this problems the banks should invest more in training of trainers as well as bank staffs so as to partner with them in improving levels of financial literacy in order to push more end user acceptance (Ndungu, Okibo & Nyangau, 2015). According to the above empirical evidence the fourth research hypothesis was defined as:

Hypothesis 4

H1:4 Training has positive and significant effect on utilization of agency banking in Ethiopian commercial banks.

H0:4 Training has not positive and significant effect on utilization of agency banking in Ethiopian commercial banks.

2.3.5. Agency Banking Utilization

Agency banking utilization is the deployment and exploitation of agency banking technology innovation by banks and microfinance institutions. According to Andrade et al. (2016) the technological improvement together with the growing use of smart phones has, among other functions, facilitated purchase and payment transactions through the mobile phone. Agency banking is one of the important electronic banking technologies.

In Ethiopia some commercial banks and micro finance institutions start to adopt and utilize agency banking starting from 2013 after regulation of NBE "regulation of mobile and agent banking services Directives Number FIS/01/2012", (NBE 2012). Agency banking utilization is important for accessibility of banking service for customers and the technology also permits customers to access their account at close agents (retail outlets, post offices, supermarkets and

others). The agent provides customers with basic banking services including account opening, cash withdrawal, fund transfer, cash deposit and other services. In return the agent generates commission for every service it provides (Mosoti, et al. 2015).

According to Ferdous, et al, (2015) agent banking systems are most cost effective for transactional accounts with low balances and frequent transactions. In the bank branch, fixed costs are distributed over a smaller number of transactions, resulting in significantly higher costs per transaction thus it is costly to open branches in each places. Agent banking systems, on the other hand, receive a commission only if transactions are realized. Agent banking therefore has lower average costs per transaction than traditional bank branches do. Besides cost saving and accessibility of financial services banks utilize agency banking in order to increase their market share and customer base.

2.3.6. Related Studies

Even if agency banking is a recent financial service, there are some studies conducted related to agency baking from different parts of the world. Among these;

Ndungu and Njeru (2014) conducted on Assessment of Factors Influencing Adoption of Agency Banking. The study was a survey on the 214 agents. The research adopted a structured closed and open ended questionnaires administered face to face as the main instruments for collecting data relating to the variables customer service, convenience, agent quality and number of transactions. And the result was High reliability increases the adoption of agency banking. Complaints resolution time does not affect the adoption of agency banking. High quality of agents increases the adoption of agency banking while poor quality agents inhibit the adoption of agency banking.

Ferdous, et al. (2015) conducted on "Agent Banking in Bangladesh - A New Era in Financial Institution by Enhancing Customers' Accessibility and Profitability of Banks". They find out Agent banking systems are most cost effective for transactional accounts with low balances and frequent transactions. The application of agent banking will in no doubt enhance customers' accessibility and profitability of banks.

Mwenda and Ngahu (2016) conducted on role of agency banking and analyzed the effect of economies of scale and financial services accessibility on banking sector's growth. The study used descriptive research design and they found financial services accessibility positively influenced growth of the banking sector. Economies of scale were the most important to growth of banking sector. They concluded that agency banking is very relevant to enhancing growth of the banking sector.

Mosoti, et al (2015) did another study on important of agency banking in banking sector and they explore the functionality and contribution of agency banking. The study used descriptive survey design and they found that agency banking availed banking services closer to the customers hence saving the customers the transport cost since Agents are located near their residence and agency banking efficient in terms of transaction cost and time saving

Bizah, et al. (2017) did the study on agent banking as a driver of financial inclusion in Zimbabwe. The study found that the challenges associated with agent banking are mainly as a result of inadequate capacity of agents in dispensing banking services. This can however mitigated through following proper agent risk management practices such as agent training, agent monitoring and agent selection.

Chiteli (2013) was conducted on agent banking operations as a competitive strategy of commercial banks. The study used descriptive research and the result was the control policies and procedures, technological advancement, and regulations put in place both by the agents and commercial banks have made agent banking operations viable. However the challenges faced by commercial banks in operating agent banking operations such as reputational risk, anti money laundering, consumer protection and legal risk. The agents on the other hand encounter challenges such as liquidity risk, operational risk, and credit risk.

Kitali, et al. (2015) did the research on impact of agency banking on customer satisfaction. The objective of the study was to find out the impact of agency banking on customer. The research design was a survey design and case study. The study showed that most customers were satisfied with agent bank services.

Ndegwa (2017) did on analysis of the effectiveness of agency banking as a financial inclusion strategy in commercial banks. The purpose of this study was to evaluate role of agent banking

services in promoting financial inclusion. The study adopted a cross-sectional survey design. The study used a self-administered questionnaire to collect data. Data analyzed using and inferential statistics. And the result was geographical coverage is the most important benefit and therefore the most significant driver of financial inclusion. The study recommended that banks should seek to provide more services through agent banking to enhance financial inclusion especially in rural areas.

Girma, (2016) did on challenges and opportunities of electronic banking in Ethiopian banking industry. The study used descriptive research method. A research framework developed based on technology-organization-environment framework to guide the study. According to result of the study, the major challenges Ethiopian banking industry faces in the adoption and development of E-banking technology are, high cost of implementation of E banking, lack of customer awareness, limitation in network infrastructure and internet related support services, low levels of computer literacy, low level of ICT infrastructure, lack of sufficient government support, legal and regulatory differences with cross-country security risk and lack of trust.

Abdulkadir, 2015, conducted on assessment of factors affecting adoption of agent banking and electronic banking in Ethiopian banking industry. The study used descriptive serve design and data was analyzed using descriptive statistics. According to the results of the study, the main challenges face the banking industry in adoption of agent banking and e-banking are lack of adequate national ICT infrastructure, Lack of skilled IT personnel's, Lack of government support, Security risk, Lack of legal and regulatory frameworks and lack of competition between local and foreign banks. This study found that the introduction of third party retail agents presents several risk factors with regard to effective regulation and supervision of banks. The study also identified perceived ease of use and perceived usefulness as prospects of adopting agent banking and e-banking system.

Kinfe, (2016) conducted on "Challenges and prospects of E-banking in Ethiopia" and find out some challenges like chances of risk, lack of suitable legal and regulatory framework, absence of networks and poorly developed telecommunication infrastructure, high cost of internet, security concerns are among the major challenges of e-banking service in the country. However, late adopter opportunities, improvement in the banking habit of the society, commitment of the government to facilitate the expansion of ICT infrastructure and willingness among banks to

cooperate in building infrastructure are the major opportunities for the adoption of the system in the banking industry.

2.3.7. Research Gap

According to some studies conducted on agency banking in the world such as Chaia A., et al, (2010) argued agent banking has magnificent benefit for banks and financial institutions, customers and for financial inclusion in general. However banks and financial institutions are not well utilized agency banking system because of different factors. To identify these factors different studies were done around the world related to agency banking like; Mwenda and Ngahu (2016), Bizah, et al. (2017), Mosoti, et al (2015), Ndegwa (2017) have been done on adoption of agent banking, role of agent banking and significance of agency banking for financial inclusion and other related issues. But in Ethiopia it is very limited such as Kinfe, (2016) conducted on "Challenges and prospects of E-banking in Ethiopia". Another study was done by Abdulkadir, (2015), on "assessment of factors affecting adoption of agent banking and electronic banking in Ethiopian banking industry" and focus mainly on adoption of E-banking. But there is no research conducted on investigating of factors affecting utilization of agency banking in Ethiopia. After directive of agency banking (2012), some commercial banks start to adopt and utilize agency banking but the utilization process of in Ethiopia is still immature. This study is, therefore, intending to fill the gap by investigating and evaluating the factors affecting utilization of agency banking in Ethiopian commercial banks.

2.4. CONCEPTUAL FRAMEWORK

The conceptual framework develops to show the relationship of factors that affecting utilization of agency banking as independent variable and utilization of agent banking as dependent variable. In this study Government Regulation, Telecom Infrastructure, Security and Training are the independent variables while Utilization of Agency Banking is the dependent variable. The study was examining the effects of independent variables on the dependent variable.

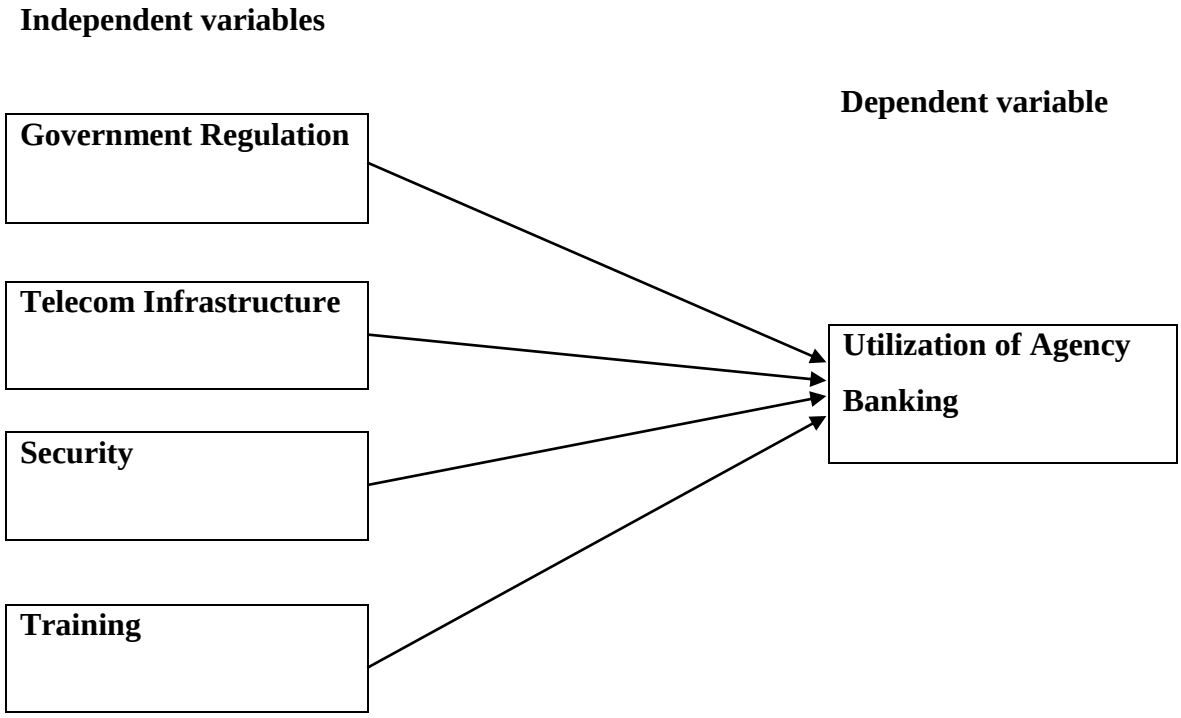


Figure2.3 Conceptual Framework

CHAPTER THREE

RESEARCHMETHODOLOGY

3.1.INTRODUCTION

This section contains methodology of the study and research design, the data collection methods, sampling technique and data analysis method.

3.2.RESEARCH DESIGN

The study used descriptive design which refers to the investigation in which data is collected and analyzed in order to describe the specific phenomena in its current trends, current events and linkages between different factors at the current time. According to Kothari, (2004) the major purpose of descriptive research is description of the state of affairs as it exists at present. Creswell J. (2014) defines survey design as provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. From sample results, the researcher generalizes or draws inferences to the population.

3.3.RESEARCH APPROACH

Research approaches are plans and the procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation (Creswell J. 2014).

There are three research approaches to differentiate both data collection techniques and data analysis procedures. Quantitative is predominantly used questionnaire as data collection technique and used graphs or statistics that generates or uses numerical data to analysis procedure. Qualitative is used predominantly an interview as data collection technique and used categorizing data that generates or use non-numerical data to data analysis. Mixed methods are the general term for when both quantitative and qualitative data collection techniques and analysis procedures are used in a research design (Saunders, Lewis and Thorn hill, 2007).

According to Creswell J. (2014) Quantitative research is an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be

measured, typically on instruments, so that numbered data can be analyzed using statistical procedures.

In this study descriptive research design and quantitative research approach is appropriate and structured questionnaires were used for data collection method.

3.4. TARGET POPULATION

Population can be defined as a complete set of individuals, cases, objects with some common observable characteristics of a particular nature distinct from other population, and target population also defined as the population to which a researcher will generalize the results of a study (Kothari, 2004).

According to national bank of Ethiopia (2018), there are 17 private and government owned commercial banks and one development bank in Ethiopia. The target population of the study was Ethiopian commercial banks that adopted and already commenced agency banking. Since agency banking is a new concept for the Ethiopian banking industry the researcher used four commercial Banks that implemented agency banking in Ethiopia including: Commercial bank of Ethiopia (CBE), Dshen bank, Lion international bank and United bank, that adopted and operating agent banking in Ethiopia.

3.5.SAMPLING TECHNIQUE

A sample design is a definite plan for obtaining a sample from a given population. It refers to the technique or the procedure the researcher would adopt in selecting items for the sample (Kothari, 2004). According to Saunders, et al. (2007) sampling techniques provide a range of methods that enable you to reduce the amount of data you need to collect by considering only data from a subgroup rather than all possible cases or elements.

The study used purposive or judgmental sampling technique which is appropriate and enabling to answer research questions and to meet the objectives. Using purposive sampling is important to get appropriate respondents who have sufficient know-how and experience regarding agency banking. And also this form of sampling is commonly used when working with small samples (Saunders, et al. 2007).

Accordingly, the researcher considered all professional staffs working in agency banking and E-banking department of four banks and questionnaires were distributed to all professional staffs working in agency banking department and officials who participating on implementation of agency banking. Thus the researcher takes all 78 staffs working in agency banking department of four banks via purposive sampling technique. The selected banks and respondents from each bank indicated in the table below.

Table 3.1 sample size

No.	Name of banks	Respondents
1	Commercial bank	22
2	Dashen bank	19
3	Lion international bank	20
4	United bank	17
Total		78

Source: primary data 2019

3.6. DATA COLLECTION METHOD

The research used both primary and secondary data. Primary data were collected using structured questionnaire and secondary data were used from publications, books, research articles and company reports.

The study used structured close ended questionnaire covering issues on the factors that affecting utilization of agent banking. The researcher used five point likert scale questionnaire to ensure collection of data from respondents and respondents were free to give relevant information.

In a Likert scale, the respondent is asked to respond to each of the statements in terms of several degrees of agreement or disagreement. The respondent may respond in any one of the following ways: (5) strongly agree, (4) agree, (3) neutral, (2) disagree, (1) strongly disagree. The Likert type summated scales are regarded as the most useful in a situation wherein it is possible to

compare the respondent's score with a distribution of scores from some well defined group Kothari (2004)

3.7. RELIABILITY AND VALIDITY OF INSTRUMENTS

According to Kothari (2004) Test of reliability and validity is important test of sound measurement. A measuring instrument is reliable if it provides consistent results. In this study prior to the main research a pilot study was done to verify the instrument for data collection i.e. establishes its validity and reliability. Accordingly the researcher selects ten respondent working in commercial bank of Ethiopia and test the reliability of the instrument.

Cronbach's alpha is a coefficient of reliability and it is commonly used as a measure of the internal consistence or reliability test for a sample of examinees. According to Gliem A. and Gliem R., (2003) Cronbach's alpha reliability coefficient is ranges between 0 and 1. However, there is actually no lower limit to the coefficient. The closer Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. A Cronbach's alpha of greater than 0.7 is acceptable. The result is summarized in the following table with each variable.

Table 3.2 Results of Cronbach's Alpha

Variables	**No. items**	**Cronbach's Alpha**
Government Regulation	5	.869
Telecom Infrastructure	6	.775
Security risk	5	.808
Training	6	.861
Utilization of Agency Banking	4	.788
Over all	26	.702

Source: extracted from SPSS, 2019

3.8. DATA ANALYSIS METHOD

The data was carefully examined and checked for completeness. The study used both descriptive and inferential statistics. Descriptive statistics describe the data quantitatively using frequency tables, percentages, mean, and standard deviation. Inferential statistics used for correlation and multiple regression analysis to determine the effects of independent variable on dependent variable. Statistical package for social sciences (IBM SPSS Version 21) also used to analyze the data. Data presentation was done by using tables, graphs, percentages and frequency tables. The study also conducted multiple regression analysis. The general regression equation is:

$$\mathbf{Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon}$$

Model specification for this particular study is:-

$$\mathbf{ABU = \beta 0 + \beta 1\ (GR1) + \beta 2\ (TI2) + \beta 3\ (SC3) + \beta 4\ (TR4) + \varepsilon}$$

Where by **ABU=** Agency Banking Utilization. It is measured by customer base, resource mobilization, market share and financial service accessibility.

The following are the components of the model**: -β0**= Regression Constant
GR1= Government Regulation
TI2= Telecom Infrastructure,
SC3= Security
TR4= Training, and
B1, **B2**, **B3** and **B4** are coefficients of predictors and **ε** is the error margin

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1. INTRODUCTION

This chapter has four sections; the first section describes Respondents' Demographic profile in terms of gender, education level, position and working experience. The second section presents the descriptive statistics with respect to the factors that affecting utilization of agency banking. The third section describes the relationships between the variables which is correlation analysis. Finally, the regression results were discussed.

4.2. RESPONSE RATE

A total of 78 questionnaires were distributed to the respondents of four commercial bank's staffs and out of these a total of 72 questionnaires were successfully completed and returned. The total response rate was 92.3 %. As a result, the analysis of this research is based on the number of questionnaires collected.

Table 4.1 Response rate in four banks

No.	Name of banks	**Target Number of Respondents**	**Number of Questionnaire Returned**	Response rate (%)
1	Commercial bank	22	20	90.9
2	Dashen bank	19	17	89.5
3	Lion international bank	20	18	90
4	United bank	17	17	100
Total		78	72	92.3

Source: primary data, 2019

4.3. DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

The following discussion shows the demographic profile of respondents participated in this study. In this section the respondent's different personal information were discussed like gender, working experience, and job position and education level.

Table 4.2 Demographic characteristics of the respondents

Variables	Classification of variable	Frequency	Valid Percentage
Employer	Commercial bank of Ethiopia	20	27.8
	Dashen bank	17	23.6
	Lion international bank	18	25.0
	United bank	17	23.6
	Total	72	100.0
Gender	Male	47	65.3
	Female	25	34.7
	Total	72	100.0
Education level	Masters degree	21	29.2
	First degree	51	70.8
	Diploma	-	-
	Certificate	-	-
	Total	72	100.0
Job position	Top management	3	4.2
	Middle management	19	26.8
	Lower management	49	69.0
	Total	71	100.0

Experience	0-5 years	58	80.6
	6-10 years	14	19.4
	11-15 years	-	-
	Above 15 years	-	-
	Total	72	100.0

Source: primary data, 2019 extracted from SPSS.

As showed in the table 4.2 above, the participants are taken from selected four banks that are Commercial bank of Ethiopia, Dashen bank, Lion international bank and united bank and the percentages are 27.8 %, 23.6%, 25%, and 23.6% consecutively.

As stated in the table the majority of the respondents (65.35%) was male but it is not big difference with female respondents which is 34.7%.

According to the data indicated from the table, 70.8% of the respondents are first degree holders and 29.2% have master's degree. This implies that the majority of the participants are first degree holder. And respondent's position in the four commercial banks were, 4.2% of the respondents are placed in the top management position, 26.8% respondents are under middle management position, and 69% are placed in the lower management position and from this we can understand that, most of the respondents are officers in the lower level management. As shows in the table service years of respondents were, 80.6% of the respondents had 1-5 years of experience. 19.4% respondents are under 6-10 years experienced. According to this data we can understand that, most of the respondents had 1-5 years of experience.

4.4. DESCRIPTIVE ANALYSIS

The study used descriptive analysis to describe the relevant aspects of the phenomena through using central tendency. Researcher used the mean scores of each variable to demonstrate the average responses of respondents for each question that was included under each dimensions of the independent variable and to reach the grand mean of each dimension. According to Reilly &Pepe (1995) mean scores are divided in to five measurement scale intervals or range, 4.51-5.00

very good, 3.51-4.50 good, 2.51-3.50 average or moderate, 1.51-2.50 fair and 1.00-1.50 is poor. So the interpretation was made based on these scale intervals.

4.4.1.Government Regulation Factors

Table 4.3 descriptive analysis of regulation factors

	N	Mean	Std. Deviation
Lack of legal frameworks limited banking industries to adopt and implement technological innovation.	72	4.83	.375
The existing agency banking regulation has limitation that affects commercial banks to implement Agency Banking.	72	4.83	.375
There are sufficient government supports to use technological innovation in Ethiopian banking industry.	72	1.74	.605
Regulation of mobile and agency banking in Ethiopia is very flexible and ease to practice.	72	2.10	.966
Regulatory framework of agency banking in Ethiopia is rigid and affecting commercial banks to utilize agency banking.	72	4.67	.475
Cumulative scores	72	3.63	.559

Source: primary data, 2019 extracted from SPSS.

According to the response of the participants the higher contribution to the outcome is achieved from the given item that is, The existing agency banking regulation has limitation that affects commercial banks to implement Agency Banking with the mean value of 4.83 and standard deviation .375 respectively. However lower contribution is by the predictor of item that is, there are sufficient government supports to use technological innovation in Ethiopian banking industry with the mean of 1.74 and .605 respectively.

According to the data, the cumulative mean score of regulation factors is 3.63 and .559 respectively. Based on the measurement of scale interval 3.51-4.50 which is good it implies that employee's attitude towards government regulation factors on agency banking utilization was

agreed. That means employees of banks agreed that utilization of agency banking is affected by government regulation factors.

4.4.2. Telecom Infrastructure Factors

Table 4.4 descriptive analysis of telecom infrastructure factors

	N	Mean	Std. Deviation
The existing IT infrastructure in the Ethiopian Banking industry is sufficient to facilitate the growth of agency banking.	72	3.36	1.052
IT Infrastructure development has positive impact on the growth of Agency banking in Ethiopia.	72	3.50	1.138
There is inadequate IT infrastructure in the operation of agent banking in Ethiopia.	72	4.19	.850
Delivering Agency Banking is difficult due to low network coverage and internet access in Ethiopia.	72	4.42	.496
Lack of internet connection affects the utilization and operation of agency banking in Ethiopian commercial banks.	72	4.43	.499
There are network and internet related support service from telecom company.	72	3.18	1.066
Cumulative mean scores	72	3.85	.850

Source: primary data, 2019 extracted from SPSS.

According to the data from the table 4.4, factors of telecom infrastructure with 3.85 cumulative mean score values indicate that employees agreed that telecom infrastructure affects commercial banks to utilize agency banking, according to Reilly & Pepe (1995).the mean score of 3.51-4.50 is under agreed range.

The higher contribution to the mean has come from the item from the variable that is Lack of internet connection affects the utilization and operation of agency banking in Ethiopian commercial banks with the mean and standard deviation of 4.43 and .499 respectively. However a lower contribution was the item that mentions there are network and internet related support

service from Telecom Company with the mean and standard deviation of 3.18 and 1.066 respectively. The mean score of the variables shows that the employees' perception of telecom infrastructure was agreed respected to agency banking utilization.

4.4.3. Security Factors

Table 4.5 descriptive analysis of security factors

	N	Mean	Std. Deviation
Security with regard to customer's personal information is very important for the use of agency banking services.	72	4.68	.470
The existing IT security practices are strong in the Ethiopian banking system.	72	1.64	.657
Strong security has positive impact on agency banking practices in Ethiopian Commercial banks.	72	4.67	.475
In Ethiopia, security threats like system breach and cracking can not affect the usage of Agent Banking services.	72	1.64	.484
Lack of confidence with the security for the operations of agency banking in Ethiopia.	72	4.67	.475
Cumulative mean score	72	3.46	.512

Source: primary data, 2019 extracted from SPSS.

According to the data from table 4.5, the cumulative mean score of the respondent was 3.46 which found within the range of 2.51-3.50 indicates employees of commercial banks perceived and agreed that security affects utilization of agency banking.

Based on the above data, the higher contribution to the outcome is achieved from the given item that is security with regard to customer's personal information is very important for the use of agency banking services with the mean value and standard deviation of 4.68 and .470 respectively. However lower contribution is by the predictors that mention, the existing IT security practices are strong in the Ethiopian banking system with the mean and standard deviation of 1.64 and .657 respectively and the statement that mention, In Ethiopia, security

threats like system breach and cracking can not affect the usage of Agent Banking services with the same mean that is 1.64 and standard deviation of .484 respectively.

The mean score of the variable shows that, the employee's perception regards security factors of commercial banks to utilize agency banking is agreed.

4.4.4.Training Factors

Table 4.6 descriptive analysis of training related factors

	N	Mean	Std. Deviation
The bank provides adequate training for bank agents and creating awareness to customers about agency banking.	72	2.99	1.181
There are knowledgeable bank professionals in agent banking operations.	72	4.68	.470
The management of the bank provides training courses for its staff when introducing Agency Banking services.	72	4.83	.375
Lack of technical and managerial skills on implementation and operations of agency banking.	72	4.67	.475
The bank has investing in staff training for the acquisition of skills and knowledge of agency banking.	72	3.06	1.491
The awareness to modern digital technologies like agency banking is increasing in Ethiopian society.	72	3.47	1.210
Cumulative scores	72	3.95	.867

Source: primary data, 2019 extracted from SPSS.

According to data from table 4.6 above, the higher contribution to the outcome is achieved from the given item that is the management of the bank provides training courses for its staff when introducing Agency Banking services with the mean and standard deviation of 4.83 and .375 respectively**.** However lower contribution is achieved by the predictor of the item which means, the bank provides adequate training for bank agents and creating awareness to customers about agency banking with the mean and standard deviation of 2.99 and 1.181 respectively.

Based on the above data that we got from the respondents, the cumulative mean score was 3.95 and according to measurement of scale interval Reilly &Pepe (1995) which is found within the range of 3.51-4.50 this indicates that employees of commercial banks agreed that training affects utilization of agency banking.

4.4.5. Agency Banking Utilization

Table 4.7 descriptive analysis of agency banking utilization

	N	Mean	Std. Deviation
Operating cost of agency banking is low compared to normal banking practices.	72	4.04	.985
Utilization of agency banking has contributed to financial service accessibility.	72	4.26	1.100
Agency banking increases market share and customer base of the banks.	72	2.72	1.436
Market share increases can allow commercial banks to achieve greater resource mobilization.	72	4.07	.998
Cumulative scores	**72**	**3.77**	**1.130**

Source: primary data, 2019 extracted from SPSS.

Based on the above data, the higher contribution to the outcome is achieved by the given item that is utilization of agency banking has contributed to financial service accessibility with the mean and standard deviation of 4.26 and 1.100 respectively. And the lower contribution of the item that is Agency banking increases market share and customer base of the banks with the mean and standard deviation of 2.72 and 1.436 respectively.

According to the data, the cumulative mean score of the variable is 3.77and standard deviation of .743 respectively. Based on measurement of scale interval it founds within 3.51-4.50 which is good it implies that employee's attitude towards benefits of agency banking utilization for commercial banks was agreed.

4.5. INFERENTIAL ANALYSIS

4.5.1. Correlation Analysis

To identify the relationship between independent variables (government regulation, telecom infrastructure, security and training) and dependent variable (agency banking utilization) the study did Pearson correlation analysis. According to C. Brooks (2014) correlation is the measurement of the degree of linear association between two variables. It stated that there is evidence for a linear relationship between the two variables, and that movements in the two are on average related to an extent given by the correlation coefficient. The results of Pearson correlation presents below in table 4.8.

Table 4.8 correlation analysis

Correlations

		Agency Banking Utilization	Regulation	Telecom	Security	Training
Agency Banking Utilization	Pearson Correlation	1	.625**	.653**	.747**	.640**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	72	72	72	72	72
Regulation	Pearson Correlation	.625**	1	.394**	.592**	.459**
	Sig. (2-tailed)	.000		.001	.000	.000
	N	72	72	72	72	72
Telecom	Pearson Correlation	.653**	.394**	1	.515**	.386**
	Sig. (2-tailed)	.000	.001		.000	.001
	N	72	72	72	72	72
Security	Pearson Correlation	.747**	.592**	.515**	1	.493**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	72	72	72	72	72
Training	Pearson Correlation	.640**	.459**	.386**	.493**	1
	Sig. (2-tailed)	.000	.000	.001	.000	
	N	72	72	72	72	72

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

Source primary data 2019 extracted from SPSS

The correlation matrix in the table 4.8 above indicates that, all independent variables (government regulation, telecom infrastructure, security and training) had positive and significant relationship with agency banking in Ethiopian commercial banks with significance level 0.01 (2-tailed).

The findings of the study indicates that government regulation was positively and significantly associated with agency banking utilization in Ethiopian commercial banks (R=0.625, P- Value= 0.00). Telecom infrastructure and agency banking utilization also has positive and significant relation (R=0.653, P value= 0.00). The result from the tale 4.8 also indicate security and agency banking utilization has positive and significant relationship (R=0.747, P- value= 0.00). Training has positive and significant relationship with agency banking utilization in Ethiopian commercial banks (R=0.640, P-value=0.00. it indicates that all independent variables had positive and significant relationship with dependent variable.

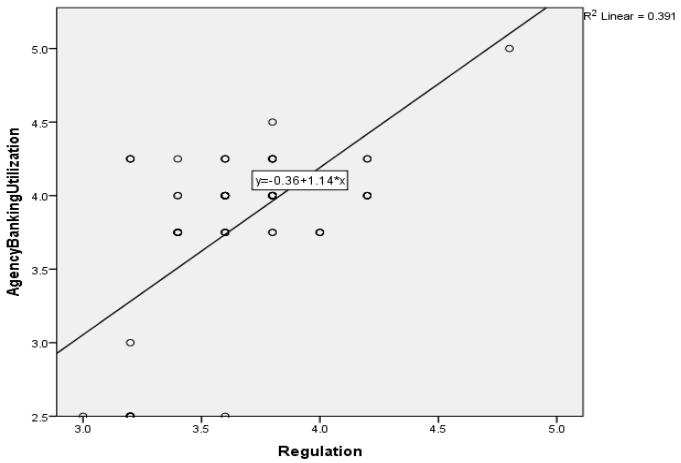
4.5.2. Diagnostic Test of Multiple Regression Models

Before running the model, linear regression model assumptions were tested Brooks (2014) suggests that five assumptions were made relating to the classical linear regression model (CLRM). These were required to show that the estimation technique, ordinary least squares (OLS), had a number of desirable properties, and also so that hypothesis tests regarding the coefficient estimates could validly be conducted. The linear regression model assumptions and their diagnostic tests are discussed below.

1. Test of Linearity Assumption

The first assumption of Multiple Regression is that the relationship between the independent variables and dependent variable should be linear. A simple way to check this is by producing scatter plots of the relationship between each of our independent variables and dependent variable. The researcher test the linearity of all independent variable and dependent variable and the assumption of linearity was not violated. The Figure 4.1 below is an example of the scatter plot one independent variables (regulation) and dependent variable (agency banking utilization) produced by SPSS, we can see that the relationship could be modeled by a straight line suggesting that the relationship between these variables is linear.

The Figure 4.1 Linearity scatter plot



Source: primary data 2019 extracted from SPSS

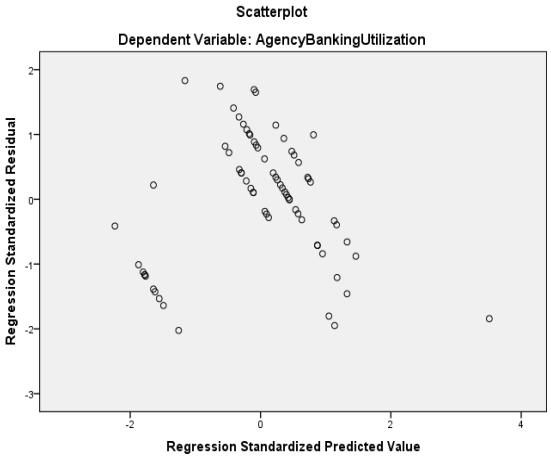
2. **The Average Value of the Errors is Zero**

The other assumption required is that the average value of the errors is zero. According to Brooks (2014), if a constant term is included in the regression equation this assumption will never be violated. Therefore, since the constant term (i.e. β) was included in the regression equation, the average value of the error term in this study is zero.

3. Test the Assumption of Homoscedasticity

Homoscedasticity has been assumed that the variance of the errors is constant. If the errors do not have a constant variance, they are said to be heteroscedastic. The scatter plot is good way to check whether homoscedasticity. According to Hill, Griffiths and Lim (2011) if the errors are homoscedastic, there should be no patterns of any sort in the residuals. If the errors are heteroscedasticity, they may tend to exhibit greater variation in some systematic way. In this study as shown in figure 4.2 it is almost appears more random and no pattern, so this assumption is ok.

Figure 4.2 test of heteroskedasticity



Source: primary data 2019 extracted from SPSS

4. **Test for Multicolinearity**

The term Multicollinearity indicates the existence of exact linear association among some or all explanatory variables in the regression model. When independent variables are multi collinear, there is overlapping or sharing of predictive power. Thus, if multicolinearity is perfect, the regression coefficients of the independent variables are undetermined and their standard errors are immeasurable (Gujarati, 2004)

There are some analyses used to detect multicollinearity, in this study the researcher used the variance inflation factor (VIF) and the tolerance value tests to verify multicollinearity. According to Pallant, (2010) 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. If this value is less than 0.10, it indicates that the multiple correlation with other variables is high, suggesting the possibility of multi Collinearity. And VIF values above 10 would be a concern, indicating multi Collinearity.

The result indicated in the table 4.8 below shows that the tolerance value for each independent variable is more than 0.1 and VIF value shows less than 10; therefore, multi Collinearity assumption is not violated.

Table 4.9 test of multi colinearity

Variables	Collinearity statistics	
	Tolerance	VIF
Regulation	.607	1.647
Telecom	.706	1.416
Security	.524	1.907
Training	.697	1.434

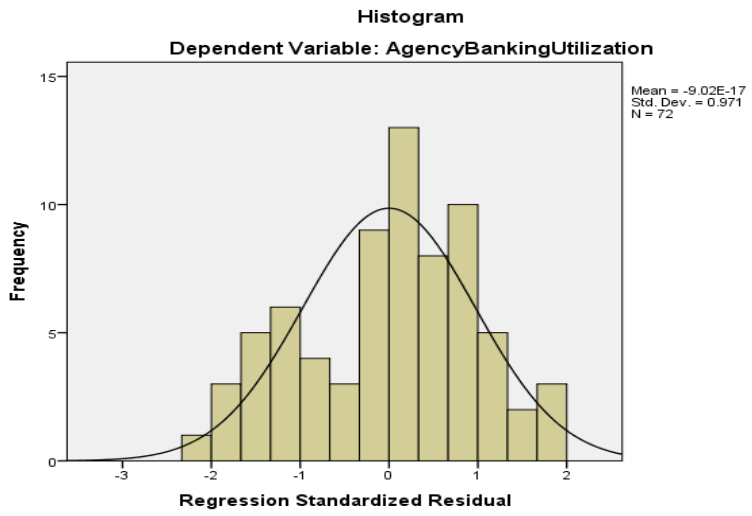
Source: data extracted from SPSS

5. Test of Normality

According to Brooks (2014) if the residuals are normally distributed, the histogram should be bell-shaped. This assumption also can be tested by looking at the **P-P plot** for the model. The closer the dots lie to the diagonal line, the closer to normal the residuals are distributed.

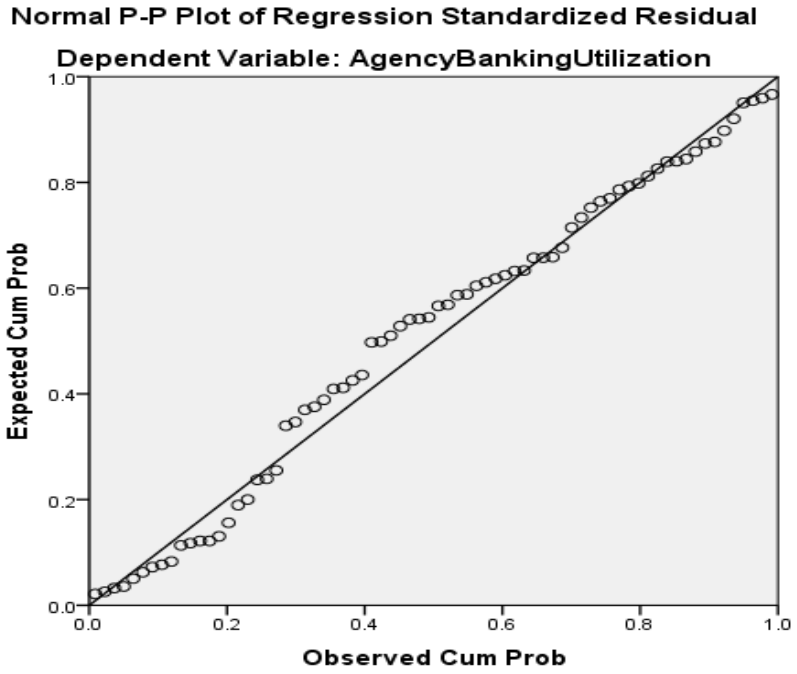
In this study as shown in figure 4.2 and 4.3 below, the histogram shows a fairly normal distribution and have a bell- shaped. And in P-P plot our data points close and touch the line, indicating that assumption of normality not violated. Thus, based on these results the normality of residuals assumption is satisfied.

Figure 4.3 Test of normality (Histogram)



Source: primary data 2019 extracted from SPSS

Figure 4.4 Test of normality (P-P plot)



Source: primary data 2019 extracted from SPSS

4.5.3. Multiple Regression Analysis

In this study regression analysis was used to describing and evaluating the effects of major factors (government regulation, telecom infrastructure, security and training) on agency banking utilization in Ethiopian commercial banks.

Table 4.10 Model summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.861[a]	.742	.726	.3113	.742	48.108	4	67	.000	2.126

a. Predictors: (Constant), Training, Telecom, Regulation, Security

b. Dependent Variable: Agency Banking Utilization

Source: primary data 2019 extracted from SPSS.

In Table 4.10 above, the model summary indicates that (R Square= 0.742) it indicates all independent variables (training, telecom infrastructure, regulation and security) jointly explain 74.2% of the dependent variable (agency banking utilization). And other factors which are not included in the model may affect agency banking utilization which accounts for about 25.8%.The findings shows that there is a strong positive significant correlation between independent variables(training, telecom infrastructure, regulation and security) and dependent variable (agency banking utilization).

Table 4.11 ANOVA

ANOVA[s]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.651	4	4.663	48.108	.000[b]
	Residual	6.494	67	.097		
	Total	25.145	71			

a. Dependent Variable: Agency Banking Utilization

b. Predictors: (Constant), Training, Telecom, Regulation, Security

Source: primary data 2019 extracted from SPSS

The findings on ANOVA table 4.11 above, indicated that the F statistic was significant at 5% level of significance (F=48.108, P=0.000) implying that the model was fit well. This means that independent variables (training, telecom infrastructure, regulation and security) are significantly predicting dependent variable (agency banking utilization).

Tale 4.12 Regression coefficients

Coefficients[a]

Model		Un standardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-3.840	.575		-6.673	.000	-4.988	-2.691		
	Regulation	.311	.145	.171	2.148	.035	.022	.601	.607	1.647
	Telecom	.489	.122	.296	4.001	.000	.245	.732	.706	1.416
	Security	.930	.221	.361	4.213	.000	.489	1.370	.524	1.907
	Training	.351	.097	.269	3.615	.001	.157	.546	.697	1.434

a. Dependent Variable: Agency Banking Utilization

Source: primary data 2019 extracted from SPSS

From the data in the above table 4.11 the established regression equation was

$$\mathbf{Y = \beta 0 + \beta 1X1 + \beta 2\ X2 + \beta 3X3 + \beta 4X4 + \varepsilon}$$

ABU = -3.840 + 0.311 (GR) + 0.489 (TI) + 0.930 (SC) + 0.351 (TR)

Whereby ABU= Agency banking utilization; GR= Government Regulation, TI = Telecom Infrastructure, SC = Security, TR= Training

From the above regression equation it was revealed that holding independent variables regulation, telecom, security and training to a constant zero, agency banking utilization would be at -3.840. And a unit increase in government regulation would lead to increase in agency banking utilization by 0.311, a unit increase in Telecom infrastructure would lead to increase in agency banking utilization by a unit of 0.489, a unit increase in security would lead to increase in agency banking utilization by a factor of 0.930and unit increase in training would lead to increase in agency banking utilization by a factor of 0.351. The regression coefficient indicates that independent variables (regulation, telecom, security and training) have positive and strong relationship with dependent variable (agency banking utilization).

4.5.4. Hypothesis Testing

H1:1 Government regulations have a positive and significant effect on agent banking utilization.

H0:1 government regulation has no positive and significant effect on agency banking utilization.

According to the results of regression coefficients obtained in table 4.12 above, government regulation had positive and significant effect on agency banking (β= 0.311; p <0.05) and it supported H1:1.This implies that, a unit increase in government regulation would lead to increase agency banking utilization by 0.311. That means when government regulation is applicable and workable, banks will eager to utilize agency banking. Moreover, it indicates there is strong relationship between government regulation and agency banking utilization. Tomatzky and Fleischer (1990) also supported the above result in (TOE) model that, regulation is one of environmental factors it affects technological innovation. Mas and Kumar, (2008) also supported the result.

H1:2 Telecom infrastructures have a positive and significant effect on agent banking utilization.

H0:2 Telecom infrastructures have not a positive and significant effect on agent banking utilization.

The results of table 4.12 showed that telecom infrastructure has positive and significant effect (β = 0.489; p < 0.05) and it supported H1:2.It implies that, a unit increase in telecom infrastructure would lead to increase utilization of agency banking by 0.489 and it indicates telecom infrastructure have strong relationship with agency banking utilization. And it supported by Tomatzky and Fleischer (1990) in their (TOE) model that, infrastructure is one of environmental factor it affects technological innovation. Ndungu, et al, (2015) also supported the finding that, agency banking depend on internet connection and telecom network in order to process the operations.

H1:3 Security has a positive and significant effect on agent banking utilization.

H0:3 Security has not a positive and significant effect on agent banking utilization.

The findings supported H1:3 revealed that, security has a positive and significant effect on agency banking utilization (β = 0.930; p < 0.05), this implies that, a unit increase in security

would lead to increase agency banking utilization by a factor of 0.930. And also it indicates there is a strong relationship between security and utilization of agency banking. Onwonga et al. 2015 agreed that Insecurity is negatively but insignificantly associated with growth of agency banking which is consistent with the finding of this study. Musau and Jagongo(2015) and Mas and Kumar, (2008)also supported the idea that security is a major positive contributor to agency banking and the less secure the technology platform, the more the bank will need to institute complementary operational security measures.

H1:4 Training has a positive and significant effect on agent banking utilization.

H0:4 Training has not a positive and significant effect on agent banking utilization.

In addition, the relationship proposed in H1:4 were confirmed; that is, training has a positive and significant effect on agency banking utilization ($\beta = 0.351$; $p < 0.05$).This implies that, a unit increase in training would lead to increase utilization of agency banking by 0.351. And have strong relationship between training and agency banking utilization. The finding consists with the idea of Agalla, (2014) and Ndungu, et al (2015) they agreed investing more in training of bank staffs, agents and customers are improving levels of financial literacy in order to push more end user acceptance.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1.INTRODUCTION

This chapter included summary of findings, conclusions and recommendation made based on findings. And possible future research is mentioned. The main research objective was investigating the factors that affecting agency banking utilization in Ethiopian commercial banks. The data collected through questionnaire were presented, analyzed, interpreted and discussed. Thus, based on the analysis the following findings were summarized, conclusions drawn, and recommendations forwarded.

5.2. SUMMARY OF FINDINGS

The objective of the study was investigating the major factors that affecting agency banking in Ethiopian commercial banks. Primary data was gathered by using structured closed ended questionnaire. Quantitative research approach and descriptive research design was applied to the data gathered to analyze the information obtained. A total of 78 structured close ended questionnaires were distributed to four commercial banks that had been licensed and implemented agency banking in Ethiopia. And a total of 72 questionnaires were returned and based on this returned questionnaires the analysis was made.

In this study four independent variables were under consideration as possible predictors of the agency banking utilization. The variables included: government regulation, telecom infrastructure, security and training. Linear regression model were adopted to investigate relationship between predictor variables and agency banking utilization. Based on analysis of the data obtained from respondents, the following findings were obtained.

The finding of this study indicates that most of employees were agreed that agency banking utilization is affected by government regulation factors with the cumulative mean value and standard deviation of (3.63 and .559) respectively and the higher contribution to the outcome is achieved from the given item that is the existing agency banking regulation has limitation that

affects commercial banks to implement Agency Banking with the mean value of 4.83 and standard deviation .375 respectively .

The respondent also agreed that agency banking was affected by telecom infrastructure with the cumulative mean score and standard deviation of 3.85 and of .850 respectively and The higher contribution to the mean has come from the item from the variable that is Lack of internet connection affects the utilization and operation of agency banking in Ethiopian commercial banks with the mean and standard deviation of 4.43 and .499 respectively**.** The findings further indicates that respondents also agreed that agency banking utilization can be affected by security and training which accounts the cumulative mean and standard deviation of (3.46 and 3.95) and (.512 and .867) consecutively. Based on the findings, the respondent also agreed on utilization of agency banking has contributed to financial service accessibility with the mean and standard deviation of 4.26 and 1.100 respectively. Thus commercial banks should focus on developing the process of agency banking utilization in order to enhance customer satisfaction, reduce their cost and convenience there banking services.

The correlation analysis result shows that there is positive and significant relationship between all independent variables and dependent variable.

In regression result the findings shows that all independent variables accounted for 74.2% of the variance in agency banking utilization that is R Square 0.74. And it indicates that 74.2% of agency banking utilization can be explained by four independent variables (regulation, telecom infrastructure, security and training) and 25.8% is accounted for another factor rather than these four independent variables.

The findings further show that four independent variables (regulation, telecom infrastructure, security and training) have positive and significant effect on agency banking utilization with 95% confidence interval.

5.3. CONCLUSION

The objective of the study was to investigate the factors that affecting agency banking utilization in Ethiopian commercial banks and evaluate the effect of the factors on agency banking utilization.

Agency banking is used as an alternative channel for banks to reach the unbanked population with reduced costs. Therefore, commercial banks are eager to adopt agent banking which is an opportunity to them for rapid expansion and increase customer base. However there are many factors to affect and restrict commercial banks to develop agency banking service in Ethiopia. Based on the findings and summary, the following conclusions were made.

Government regulation had a strong and positive effect on agency banking utilization in Ethiopian commercial banks. It implies that when government regulation rigid and tight, the process of agency banking utilization will decrease and vice versa. Thus NBE should consider and approaching with a clear and ease agency banking regulatory policy which creates a universal platform for all banking institutions. This will enhance agency banking utilization process.

The study also concludes that telecom infrastructures had a positive and significant impact on agency banking utilization in Ethiopian commercial banks. Based on the findings, there is lack of internet connection in Ethiopia that is affects the utilization and operation of agency banking in Ethiopian commercial banks. Thus commercial banks should create strong relationship with Telecom Company and Telecom Company should also develop their infrastructure.

Based on the findings security had positive and significant impact on agency banking utilization. This is supported by Onwonga et al. (2015) and Musau and Jagongo (2015) that agency security is a major contributor to agency banking performance. The banks should understand application level security in agency banking and create strong IT security system to enhance the customer as well as the banks confidence level thereby to boost their agency banking service.

The study further concludes that training had positive and significant impact on agency banking utilization of commercial banks in Ethiopia. Thus commercial banks should invest on awareness creation about agency banking to increase their market share and customer base.

According to the findings of the study we conclude that, the four independent variables (regulation, telecom, security and training) had positive and significant impact on agency banking utilization. Therefore four dimensions and utilization of agency banking has positive and significant relationship in Ethiopian commercial banks.

5.4. RECOMMENDATIONS

Agency banking is a new alternative delivery channels in Ethiopian banking industry and has significant impact in expanding the banking services effectively and efficiently to achieve the required objectives. To do this all stakeholders should play critical roles on their parts. Based on the findings and conclusions of the study, the researcher recommends the following points:

- National bank of Ethiopia should establish a comprehensive legal and regulatory frame works on the use of technological innovation, issue suitable legal frameworks to use agency banking system and use of third party retail agents in banking sector.
- Government should support banking sector by facilitating development of sufficient ICT infrastructure for the successful implementation of agency banking system.
- Commercial Banks in Ethiopia should collaborate with Ethio-telecom to enhance their agency banking service delivery and Ethio-telecom should also develop its telecom infrastructure to help the implementation of Agent Banking service for mutual benefit.
- Commercial banks should improve customers' confidence by providing adequate security system, their integrity in keeping privacy secrets and banks should adopt and regulate a risk-based approach for preventing risks like money laundry and terrorism financing.
- The banks invest more in training should providing proper and continuous training to their employees and agents to understandable the operations of agency banking.
- The bank should invest for awareness creation to customers about the benefits of agency banking through marketing, promotions and awareness campaigns.

5.5. SUGGESTIONS FOR FURTHER RESEARCH

This study conducted on investigating the factors that affects agency banking utilization in Ethiopian commercial banks from bank perspective. Other researchers may conduct a research by participating customers and agent's perspective.

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APPENDIX I: QUESTIONNAIRE

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

Department of Management, MBA Program

Dear Sir/Madam

I am MBA student in Addis Ababa University, college of Business and Economics. And conducting a study on **investigate factors affecting agency banking utilization in Ethiopian commercial banks**, in partial fulfillment of the requirement for the award of degree of Masters of Business Administration (MBA).

I therefore, request you to answer the attached questionnaire to the best of your knowledge. The information you give will be treated with strict confidentiality and for academic purposes only. Your assistance is highly appreciated.

Thank you!

YitayalMossu

Part I: Background Information

Please put (√)mark in the box.

1. What is the name of your bank? _____
2. Indicate your gender
   Male [ ] Female [ ]
3. Indicate your education level
   Master's degree & above [ ]
   First degree [ ]
   Diploma [ ]
   Certificate [ ]
4. Indicate your position in the banking management level

Top management [ ]
Middle management [ ]
Lower management [ ]

5. Indicate your work experience in the bank

1-5 years [ ]

6-10 years [ ]

11-15 years [ ]

Above 15 years [ ]

Part II: Questionnaires related to factors affects utilization of agency banking. Please indicate your choice by ticking (√) mark.

Note: Strongly Agree (SA) = 5, Agree (A) = 4, Neutral (N) = 3, Disagree (DA) = 2, Strongly Disagree (SD) = 1

No.	**Factors affecting utilization of agency banking**	**SA**	**A**	**N**	**DA**	**SD**
		5	**4**	**3**	**2**	**1**
I	Government regulation factors					
1	Legal frameworks limited banking industries to adopt and implement technological innovation**.**					
2	The existing agency banking regulation has limitation that affects commercial banks to implement Agency Banking.					
3	There are sufficient government supports to use technological innovation in Ethiopian banking industry.					
4	Regulation of mobile and agency banking in Ethiopia is very flexible and ease to practice.					
5	Regulatory framework of agency banking in Ethiopia is rigid and affecting commercial banks to utilize agency banking.					
II	**Telecom Infrastructures factors**					
6	The existing IT infrastructure in the Ethiopian Banking industry is sufficient to facilitate the growth of agency banking.					
7	IT Infrastructure development has positive impact on the growth of Agency banking in Ethiopia.					

8	There is inadequate IT infrastructure in the operation of agent banking in Ethiopia.					
9	Delivering Agency Banking is difficult due to low network coverage and internet access in Ethiopia.					
10	Lack of internet connection affects the utilization and operation of agency banking in Ethiopian commercial banks.					
11	There are network and internet related support service from telecom company.					
III	**Security factors**					
12	Security with regard to customer's personal information is very important for the use of agency banking services.					
13	The existing IT security practices are strong in the Ethiopian banking system.					
14	Strong security has positive impact on agency banking practices in Ethiopian Commercial banks.					
15	In Ethiopia, security threats like system breach and cracking can not affect the usage of Agent Banking services.					
16	Lack of confidence with the security for the operations of agency banking in Ethiopia.					
IV	**Training factors**					
17	The bank provides adequate training for bank agents and creating awareness to customers about agency banking.					
18	There are knowledgeable bank professionals in agent banking operations.					
19	The management of the bank provides training courses for its staff when introducing Agency Banking services**.**					
20	Lack of technical and managerial skills on implementation and operations of agency banking.					
21	The bank has investing in staff training for the acquisition of skills and knowledge of agency banking**.**					
22	The awareness to modern digital technologies like agency banking is increasing in Ethiopian society					
V	**Utilization Agency Banking**					

23	Operating cost of agency banking is low compared to normal banking practices.					
14	Utilization of agency banking has contributed to financial service accessibility.					
25	Agency banking increases market share and customer base of the banks.					
26	Market share increases can allow commercial banks to achieve greater resource mobilization.					