

**ADOPTION OF AGENCY BANKING AND OPERATIONAL COST OF THE
COMMERCIAL BANKS IN KENYA**

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF
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UNIVERSITY**

OCTOBER 2020

**DECLARATION
STUDENT**

I the undersigned, declare that this project is my original work and that it has not been presented in any other university or institution for academic credit.

SIGNED

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This research project has been submitted, for the examination with my approval as a university supervisor.

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DEDICATION

I dedicate this research project to my wife for her financial support and constant encouragement throughout my education. I also dedicate it to my classmates who have been of constant help during my MBA program.

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I would like to thank Mr. James Muturi for his valuable and constructive guidance during the entire development of this research proposal work. His willingness to give his time so generously is much appreciated. I wish to thank my family and friends for their support and encouragement throughout the study. God bless

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LIST OF ABBREVIATIONS AND ACRONYMS

ATM	Automated Teller Machine
CAD	Cash Deposits
CAW	Cash Withdrawals
CBK	Central Bank of Kenya
CGAP	Consultative Group to Assist the Poor
DTB	Diamond Trust Bank
EFT	Electronic Fund Transfer
FSD	Financial Sector Deepening
GDP	Gross Domestic Product
KCB	Kenya Commercial Bank
MFBs	Microfinance Banks
MFI	Microfinance Institutions
MFS	Mobile Financial Services
NACOSTI	National Council of Science, Technology and Innovation
NPLs	Non Performing Loans
POS	Point of Sales
ROA	Return on Assets
SMEs	Small and Medium Enterprises
USD	United States Dollar

OPERATIONAL DEFINATION OF TERMS

- A banking agent:** an outlet contracted by a bank to process client's transactions on its behalf under the terms and conditions provided by the main bank. For the purpose of this study individuals who have been licensed by commercial banks will be considered.
- Accessibility:** the ability of individuals or enterprises to obtain financial services, including credit, deposit, payment and withdrawals without necessarily visiting main stream banking hall.
- Adoption:** the process of uptake of technology in facilitating the provision of services.
- Agency banking:** the offering of banking services through a third party (agent) contracted by a commercial bank or any other deposit taking institution.
- Commercial banks:** are financial institutions licensed to provide banking services such as withdrawals, deposits, cheque transactions, current account and other deposits accounts operations among other services.
- Financial Services Availability:** the extent to which commercial banks are able to provide a wide range of financial products and services to its customers through agents.
- Financial inclusion** is the provision of financial services to those people who were initially unable to access financial services because of various reasons such as low income, available and affordability.
- Financial services** refer to the services provided by the finance market. Financial Services is also the term used to describe organizations that deal with the management of money. Examples are the Banks and its agencies
- Operational cost** refers to the expenditure by commercial banks associated with service provision to its customers. These expenditures include general and administrative expenses, service provision expenses

such as rental charges, depreciation charges on fixed assets, director's remunerations, staff costs among others.

ABSTRACT

The adoption of financial innovation by commercial banks has been a strategic move aimed at expanding the market share of most commercial banks. The adoption of agency banking service by most commercial banks has assisted banks to render effective services to its consumers and businesses. Despite most of the studies on agency banking adoption indicating that the aim is to reduce the cost of operations, there remains a gap on studies seeking to establish whether agency banking has had a statistically significant effect on operating costs of the bank such as cost of labor, rental charges, cost of depreciation charge on plant and equipment, cost of utilities and marketing costs hence the motivation for this research. This study sought to evaluate the relationship between adoption of agency banking and operational costs by commercial banks in Kenya. Specifically, the study sought to address the following objectives; to assess the relationship between availability of financial services and operational costs by commercial banks in Kenya, to analyze the relationship between financial inclusion and operational costs by commercial banks in Kenya, to determine the relationship between accessibility to financial services and operational costs by commercial banks in Kenya. The study was anchored on three theories that is; Agency theory, Bank -lead theory and diffusion of innovation theory. The study adopted the cross sectional design in analyzing data from various commercial banks over a period of time. The target population of the study constituted all the 11 commercial banks that have adopted agency banking by 2014 since its authorization in the year 2010. All the 11 banks were considered for the study indicating that a census was appropriate. A research window of four years before and after the adoption and 4 years after the adoption was considered. The data collection was done using a secondary data capture tool where various costs were extracted from the financial statements of the 11 banks between 2006 and 2014. The results were analyzed using descriptive statistics of mean and standard deviations and inferential statics of correlation, simple and multiple regression and t- test to test the significance of the change. The research considered all ethical considerations and norms regarding researches in Kenya and Kenyatta University. The results have indicated that operating costs reduced for those banks that had adopted agency banking since the mean difference before adoption was much more than the difference after the adoption. This was attributed to the fact that financial services were more available to the customers there was increased financial inclusion and also increase in access to financial services by the customers. The results showed that the mean difference measured by the t statistic in the three independent variables (availability, financial inclusion and accessibility) significantly contributed to the reduction in the operational costs among commercial banks that had adopted agency banking in Kenya. The results further indicated that the mean difference of availability, financial inclusion, accessibility and operating costs of commercial banks that had adopted agency banking by 2014 was statistically significance. The study concluded that agency banking adoption has had a very significant effect on the reduction of operational costs. The study recommends that commercial banks need to expand their services offered by agencies in order to reduce the cost incurred at the branch and make their financial services available and accessible to more unbanked customers. The results are expected to benefit the management of the commercial banks, and other stakeholders in the sector as it provided an insight to the agency banking in relation to operational costs.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Globally the adoption of agency banking has been enabled due to network coverage in almost all areas including the rural remote areas (Cetorelli and Goldberg, 2012). The number of people who now operate a bank account has grown to over 400 million globally. However, they are able to transact at any point by depositing, sending and withdrawing money because of agency banking. Kumar, (2016) has noted that agency banking also referred to as branchless banking has been noted to have an influence in the performance of the banking industry. Through agency banking, banks have indicated that there has been fall in set-up and delivering costs and improved services, which brought much convenience and comfort to banking at the local agents than at traditional bank branches.

According to Ignacio, (2016) Brazil for instance, agency banking arrangements form the largest part of retail commercial outlets. In the USA agency banking has enhanced delivery of service and opened avenues for new clients to be reached. Although the agency banking mode aimed at meeting the banking needs of the poor segment of the population it has been noted that the mode serves all sorts of people in the society (CGAP, 2010). The objective of agency banking is far from being achieved given that in most countries in developing economies such as Peru. In countries such as Peru most agencies for the banking sector are concentrated in the urban areas, this indicates that the objective of agency banking could be far from being achieved as most of the targeted groups in the rural and the poor class are still not covered (Neil and Leishman, 2010).

Agency banking is a financial development where the bank gets a retail outlet whether a small market enterprise or corporate or mobile network operator to carry out bank client's transactions (Calleo, 2014). As indicated by Sahut (2011) agency banking can be portrayed as systems that facilitate bank customers to access accounts and to conduct transactions such as cash deposit, cash withdrawal, electronic fund transfers, and payment of bills, account balance enquiry and loan referrals. The agents who are contracted operate in most convenient places such as supermarkets, retail shops and convenience stores (Sahut,

2011). Morawczynski and Mark, (2009) indicated that the contribution of agency banking to development on developing countries cannot be ignored.

As per the CBK (2017) report there are 40 commercial banks in Kenya ,comprising of 1 mortgage finance company, 13 microfinance banks, 9 representative offices of foreign banks, 73 foreign exchange bureaus, 19 money remittance providers and 3 credit reference bureaus. In Kenya, financial inclusion has kept on rising, with the percentage of the residents living within 3 kilometers of a financial services access point growing to 77.0% in 2017 from 59.0% in 2013. 13 counties out of 47 recorded a decrease in the number of physical bank branches as per the CBK (2017) report.

1.1.1 Agency banking

Agency banking refers to the conveyance of financial services outside usual bank branches, frequently utilizing non-bank retail outlets that depend on technologies such as point-of sale (POS) gadgets or mobile phones for real time transaction processing. The points of service range from post offices where clients from all banks can carry out their operations as is the case in Australia, to rural France where the bank Credit Agricole uses corner stores to provide financial services, to small lottery outlets in Brazil (Modupe, 2010). This should be done in real time to wipe out credit risks. Banking agents help financial institutions to redirect existing clients from crowded branches giving a “complementary”, frequently more convenient channel. Other financial institutions, especially in developing markets, use agents to arrive at an “additional” client segment or geography (Mwachofi, 2013).

The style of agent banking is evident in lots of countries worldwide, such as in Australia where post offices are utilized as bank agents, France making use of corner stores, Brazil using lottery outlets to offer financial services and Kenya spearheading the mobile financial services (Siedek, 2008). Competition amongst the commercial banks for better products, better services to customers, effective and efficiency as well as enhanced deposits in the money transfer business has pushed banks towards becoming more innovative. The introduction of agent banking in Kenya in 2010 was with intent to enable institutions to offer banking services more cost effectively to customers, by enhancing access to finance

for those individuals who are presently unbanked or under banked (CBK, 2011). There are three aspects of agency banking that are used to gauge the development of agency banking model. These are availability of financial services, financial inclusion and accessibility to financial services.

1.1.1.1 Availability of financial services

According to Belita (2013), the impact of Agency Banking on financial performance of commercial banks in Kenya, indicates that there is a positive relationship between the volume of deposits, cash deposits and volume of withdrawals and financial performance of commercial banks in Kenya. The performance of the commercial banks was highly influenced by the agency banking. Nation media group on agency banking (2017), established that agency banking has so far delivered dozens of services to commercial banks at a much reduced operational cost. Most customers find it very convenient to pay their bills including school fees, KRA, NHIF utility bills, cash withdrawals among other services. It was also established that majority of the banks that have adopted agency banking are only performing less than 20% of their transaction at the branch with the over 85% being processed through their agencies. The same can be confirmed from the CBK supervisory report (2017) that indicated that the volume and amount of withdrawals, funds transfers and bills payment through agency banking has increased by a large extent because the services are now available to the customers.

1.1.1.2 Financial Inclusion

Muiyuro (2014) asserted that financial inclusion entitles a process that makes it easy for customers to access and utilize the available formal financial system for all their financial services. The aim of the study was to establish the outcomes of financial inclusion on financial performance of commercial banks in Kenya. According to Central Bank of Kenya (2013), it was noted that by 2011 only 11 commercial banks had been authorized by CBK to offer financial services through agency. More than 58.6 million of transactions had been effected through the 19,649 agents with a value of Ksh. 310.5 billion. This was an increase from 11 banks that had contracted 18,082 active agents facilitating over 48.4 million transactions valued at Ksh. 250.1 billion in March 2013, banking survey (2013).

A study by Lyman, Pickens and Porteous (2008) indicated that in Kenya, agency banking has aided in raising banks' profits and extend reach of financial services, but a thing that agency banking has not succeeded to do is to decongest banking halls in Kenya

1.1.1.3 Accessibility of financial services

According to Sarma and Pias (2011) and Beck et al. (2011) having an account is one of the primary indicators of financial inclusion and a key essential measure of bank accessibility. Sunguti (2013) in his study on the features that influence the growth of agency banking in Kenya within the banking industry indicated that agency banking which was commissioned in Kenya in May 2010 has kept on improving access to banking services and it has raised financial deepening countrywide. According to the study the financial industry has seen more Kenyans access financial services with more convenience at low costs, a significant influence of the selected variables on the growth of agency banking. CBK (2017) indicating that the adoption of agency banking improved banks performance as it led to an increase in deposits, bill payment and accounts opening.

1.1.2 Operational cost of commercial banks

According to Johnson and Susan (2012) banks operational costs have an influence on the operation and growth of the institution. Banks need to encourage confidence and stability in the system as a means of improving their operational costs. Attaining and maintaining the operational costs is more essential in today's challenging economic environment than before. A great strain on operational capabilities of any organization is being jointly caused by cost pressures, changing client expectations, stronger competitors and other industry and market disruptions.

Firms consider their operational costs as a requirement for any successful company. To improve the operations of the banks at a most economic cost, there is need for banks to persistently advance their products, services and technologies, in order to facilitate economic transactions and economic development while keeping its focus on the minimization and management of risk (CGAP, 2009). Because of the high costs of operations, banks were forced to restructure and one of the areas of restructuring was the

reduction in the number of bank branches, which decreased from 1,541 in 2016 to 1,518 in 2017. This decrease was partially attributed to the adoption of substitute delivery channels like mobile phone banking, internet banking and agency banking. Despite the adoption of these alternative methods of banking the issues of operation costs among the banks has not yet been a point of focus in research.

According to Ignacio,(2016) the adoption of agency banking innovation was aimed at reducing congestion in the banks and the cost of carrying out the bank operations has been one of the main reasons why the banks have been adopting agency banking but the question of how the adoption has enhanced reduction in operation costs is yet to be addressed in research. Several research studies such as Mauricio and Maudrile (2008) who studied adoption of agency banking in Colombia and Omumi (2010) who assessed the influence of adopting agency banking in Kenya both considered the effects of adoption on performance of the commercial banks. There are limited studies in Kenya that have considered the effect of adoption of agency banking on the operational costs among commercial banks in Kenya, hence there was need for this study.

1.1.3 Commercial Banks in Kenya

In Kenya, out of the 40 registered banks, there were 11 commercial banks which had assumed agency banking by the end of 2017. This accounts for 37.5% of all the banks. The banks that dominate the agency banking sector in Kenya are; Equity bank Ltd controlling 46.77%, Kenya Commercial Bank 23.60%, Cooperative bank of Kenya Ltd 18.29% and the other banks control 11.35%. The banking sector recorded an improvement on performance as showed by the growth in the main categories of number of bank customer deposit accounts and bank loan accounts CBK (2017). Within the same period between 2010 and 2017 banks have adopted a lot of innovations to enhance their operations. Agency banking is one of such innovations that are aimed at enhancing efficiency in banks operations.

1.2 Statement of the Problem

In pursuant of vision 2030, the financial services sector has been identified as key in mobilizing funds to implement the vision 2030 flagship projects. Agency banking roll-out in Kenya was meant to address the low financial inclusion of the bankable population in

Kenya (CBK, 2016). In a bid to take advantage of the cost-saving and accessibility brought about by the agency banking, Kenyan financial institutions over the last decade embarked on an aggressive entry into alternative banking such as agency banking. By 2017, the Kenya commercial banks had contracted 61,290 agents according to the (CBK, 2018). However, the operations of commercial banks in Kenya have over the years been characterized by high operational costs. This had led to the cutting down of workforce by these banks for purposes of meeting up with the high operational costs which they incur (Kimani & Koori, 2018).

Commercial banks in Kenya reported after-tax profit of Ksh 19.7 billion in 2017 compared to Ksh 20.01 billion in 2016, according to CBK financial report 2018. This indicates reduced return on assets and return on the equity for the period. The decrease was due to the high competition among financial institutions due to the adoption of financial innovations. To this end it is unclear on the role played by the adoption of agency banking on the operational cost of commercial banks in Kenya.

Varied studies are conducted on agency banking and financial performance of commercial banks in Kenya. Most studies looked at adoption of agency banking in relations to the financial performance of commercial banks. Ndirangu (2013), established that there is no relationship between the agency banking and operational cost of commercial banks in Kenya. Kimonge (2017), Njagi (2013), Emoru (2012) and Wabwoba (2012), established a common theme about these studies that there is a relationship between adoption of agency banking and performance of commercial banks in Kenya.

These studies were notably based on financial performance and no study has looked into the impact of adoption of agency banking and operational costs of commercial banks in Kenya. Therefore, there was a need for the study to evaluate the impact of the adoption of agency banking and operational costs of commercial banks in Kenya.

1.3 General Objective of the Study

The general objective of this study was to evaluate the impact of adoption of agency banking and operational costs of commercial banks in Kenya.

1.3.1 Specific Objectives

The study was guided by the following specific objectives;

- i. To assess the impact of availability of financial services and operational costs of commercial banks in Kenya.
- ii. To analyze the impact of financial inclusion and operational costs of commercial banks in Kenya.
- iii. To determine, the impact of accessibility of financial services and operation costs of commercial banks in Kenya.

1.4 Hypothesis of the study

The study sought to test the following hypothesis ;

H₀₁: There is no significant relationship between availability of financial services and operational costs of commercial banks in Kenya.

H₀₂: There is no significant relationship between financial inclusion and operational costs of commercial banks in Kenya.

H₀₃: There is no significant relationship between accessibility to financial services and operation costs of commercial banks in Kenya.

1.5 Significance of the study

The study of the bank's financial performance has highlighted the key factors that should be considered before making a trading or investing decision. This research will assist commercial banks to comprehend the current conditions of the agency banking. The understanding of the relationship between adoption of agency banking and operational costs will be used in making decisions and creating new policies either for recovery or improvement. To researchers, this study opens an avenue for further research. The study contributed to new findings that helped in policy formulations by both the CBK and

Commercial banks in Kenya and even beyond. Investors found the results useful in their investment decisions.

To the researchers, the study will help to comprehend the concepts of effectiveness on financial operations and grow a deep insight on how to apply to their responsibility area and also to get extensive approaches to the idea of efficiency. It also made some statistical addition to the earlier studies or knowledge gaps.

1.6 Scope of the Study

The study focused on examining the relationship between the adoption of agency banking and operational costs of commercial banks in Kenya. It reviewed literature based only on the three objectives, the study collected data using secondary analysis. The study used cross sectional design and an event study methodology to check whether there was any significant change in the costs of operation for the period before and after 2010, which was the adoption year. To be able to collect the data semi-annual data for the four years before and after the adoption was considered. All the 11 banks were considered for the study indicating that a census was appropriate. The study used secondary data and covered a period of ten years (2010 – 2014).

1.7 Organization of the Study

The research consisted of; chapter one which presents the background of the study, statement of the problem, study objectives, significance of the study and scope of the study. Chapter two dealt with the literature review, that is, theoretical and empirical review. Chapter three presented the methodology of the study. Chapter four presents research findings and discussion. Chapter five presents summary, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of literature on the topic of the effect of adoption of agency banking on operational costs of commercial banks from previous studies. The chapter is organized to cover the theoretical review, the empirical review on the indicators of adoption of agency banking the operational costs, the literature and gaps and finally the conceptual framework.

2.2 Theoretical review

This study was underpinned by the following theories; the agency theory, bank led theory and diffusion of innovation theory.

2.2.1 Agency Theory

Previous studies that have considered agency theory have indicated that the theory emerged in the 1970s combining the economic and institutional theory by Stephen Ross and Barry Mitnick. The proponent of this theory was Jensen and Meckling in the year 1976. The theory helped to expound on the relationship between a principle and an agent with very specific duties and responsibilities. The theory explains that commercial banks that are the principles have a responsibility and duty towards their agents who are assigned by the bank to carry out certain services on its behalf.

The objective of the theory was to expound on the relationship between the agent and the principle. In this study the commercial banks were the main beneficiaries of this relationship as it has led to increase in agency outlets, which have ensured reduced costs on expansion and staffing (Siedek, 2008). The relationship between the agent and the principle which is contractual in nature can either increase or reduce the costs involved. In such environment banking agents rely mainly on the existing retail infrastructure and hence have a lower set up and running cost. According to Wendel and Williams (2001), agent businesses have offered better profitability to commercial banks by enhancing financial inclusion. The agency contract has contributed to lowering the transactions costs as agent banking requires less paper work, less staff and no physical branches (Cheng,

2006). The theory assumes that technology is available and that most of the unbanked population are willing to take the initiative of transacting through the agency. The theory allows the banks to critically assess the relationship between the agency and the commercial bank and the customers. The theory indicates that agency has the potential of solving the cost issue for the commercial banks however the theory basically highlights the relationship between the principle and the agent with little emphasis on other aspects of banking.

2.2.2 Bank-led Theory

This theory was founded by Cameron (1972) during transformation of money lenders to merchants' banks hence origin of the modern banking. This theory gave a more elaborate view of the agency theory by considering not only the bank and the agent but also taking into consideration an understanding of the customers who make this relationship effective. The theory was much used during the introduction of branchless financial institutions which are offering banking services through third parties called the agents. Bank (Lyman, Ivatury & Staschen, 2006). Through his theory the bank retains the autonomy of service provision and it deals directly with the issues of the customers but through an agent. All the customers who wish to own an account must register through the bank though they carry out most of the transactions at the agent. With this arrangement the theory indicates that the bank still has autonomy over the customer even though the customer might not visit the branch. The main limitation of this theory is the main bank still has autonomy and control of what the agent can offer to the customers. However, most of the control is still done at the main branch, meaning that the level of restrictions is very high.

2.2.3 Diffusion of Innovations Theory

The third theory is the diffusion of innovation theory that was put across by Rogers (2003). According to Rodgers the innovations that have taken place in the financial sector have brought enormous changes in the banking services which are offered to the customers. These innovations have also made the financial services more accessible and available to customers. Diffusion of innovations theory is expected to bring about five key benefits to both the banks and the customers; relative advantage, complexity, compatibility, triangulability, and observability. In this regard it is noted that an innovation has to be tested before adoption in order to minimize the un-certainty and increase the likelihood of

the adoption to be successful (Rogers, 2003). Since agency banking is an innovation that has brought changes to the banking sector, then understanding the innovation theory was relevant to this study. The banks have tried their best to popularize the adoption of agency and hence convinced the consumers of their services to adopt the innovation as a way of saving costs.

2.3 Empirical review of Literature

This section sought to review literature on what others have done in relation to the study topic.

2.3.1 Availability of financial services and Operational costs of commercial banks in Kenya.

According to Sanford (2013), individuals who use agent banks are most likely to be poor, less educated, employed in the informal sector, female and people residing in small towns or settlements that are not easily reachable. This may bring about a more comprehensive financial system. According to Beck et al. (2006), it does not just own an account that is important but the extent of usage and the level of activity on the account is what counts. For any innovation to be considered successful there is need to see the level of loan penetration, loan income ratio, demographic deposit penetration, deposit-income ratio, deposit-GDP ratio and cash deposit ratio increase (Beck et al., 2013).

According to Belita (2013), the impact of Agency Banking on financial performance of commercial banks in Kenya, indicates that there is a positive relationship between the volume of deposits, cash deposits and volume of withdrawals and financial performance of commercial banks in Kenya. The performance of the commercial banks was highly influenced by the agency banking. The study used descriptive design where 16 commercial banks participated in the study. The study concluded that there is a positive link between the increase in the number of banking agents and the financial performance of banks. Despite the positive results the study did not consider how agency banking influences the operating costs hence need for further investigation of the same. Monica (2015) sought to establish the outcome of Agency Banking on the financial performance of commercial

banks in Kenya. Using a sample of 17 commercial banks and a descriptive research design, the study established that there was a solid positive connection between return on assets of commercial banks and the volume of transactions just as the size of the bank. The study concluded that a rise in the number of agents of commercial banks causes an increased financial performance, implying that there is a positive correlation between the agent outlets and financial performance of banks.

Ndirangu (2011) sought to assess the effect of Agency Banking on the financial performance of commercial banks in Kenya. The study focused on the number of agents and deposits, withdrawals undertaken through the agents and loan repayment transactions as independent variables, while performance was measured using ROE. Using a census, the study established that there was a positive correlation between the number of agents, the level of transactions effected and financial performance of the commercial banks using the return on equity. The other aspects studied did not have a significant effect on banks financial performance. This implies that there were other factors that might be contributing to the performance of the banks that conduct agency banking.

Clara and Melinda (2010) conducted a study in Kenya to assess the effect of agency banking on performance of commercial banks in Kenya. In their study they focused on assessing the effect of the value of their financial service and service accessibility on the banks performance. The study established that the operations of most commercial banks changed with the adoption of agency banking due to the convenience of transacting. This demonstrates that agent banking has an impact on financial deepening since the number of agents has a direct effect on the number of customers (Cohen, Danielle and Julie, 2008). This study did not consider whether agency banking has improved the ease of access of banking services in the financial sector despite all these advantages hence the need for this study.

2.3.2 Financial inclusion and Operational costs of commercial banks in Kenya.

Muiyuro (2014) asserted that financial inclusion entitles a process that makes it easy for customers to access and utilize the available formal financial system for all their financial services. The aim of the study was to establish the outcomes of financial inclusion on

financial performance of commercial banks in Kenya. The Central Bank of Kenya (2013), it was noted that by 2011 only 13 commercial banks had been authorized by CBK to offer financial services through agency. More than 58.6million of transactions had been effected through the 19,649 agents with a value ofKsh. 310.5 billion. This was an increase from 11 banks that had contracted 18,082 active agents facilitating over 48.4 million transactions valued at Ksh. 250.1 billion in March 2013, banking survey (2013).

A study by Lyman, Pickens and Porteous (2008) indicated that in Kenya, agency banking has aided in raising banks' profits and extend reach of financial services, but a thing that agency banking has not succeeded to do is to decongest banking halls in Kenya. A spot check at various banks indicated that the financial institutions are still crammed with people seeking to deposit and withdraw cash. Mas and Hannah (2008), on the other hand indicated that it is interesting there are still many people crowded in banking halls while there are dozens of banking agents just next door to the commercial banks. Why the agency banking has not decreased queues in banking halls is a point of concern that requires further investigation. Mas (2008) therefore concluded that there is little change on how people seek banking services through the agency compared to the use of the agency.

A study by Morawczynski and Mark (2009) sought to clarify the causes of the long queues that have continually been at banking halls in Kenya before the introduction of agency banking models keep on persisting. It is therefore important to ascertain whether adoption agency banking has had any impact on the operational costs of the banks. Though agency banking model has been seen as a strategy for easing banks congestion but the long queues still seen at the banking hall have not yet been explained in research. Hence calling for further research.

2.3.3 Financial accessibility and operational costs of commercial banks in Kenya.

Access of banking services such as deposit, credit and mobile accounts are used to account for demand side parameter of access. Access to insurance, savings and credit by households represents the supply side of access dimension. To measure this dimension, bank deposits, loans and mobile accounts per 1000 adult people within the population was used to analyze the extent of penetration in terms of financial access (Beck et al., 2013). According to

Sarma and Pias (2011) and Beck et al.(2011) having an account is one of the primary indicators of financial inclusion and a key essential measure of bank accessibility. If each adult in an economy has a bank account, then the value of this measure would be equivalent to 1. In the absence of the data on banked population, the number of bank deposit accounts, loan accounts and mobile accounts as a proportion 1,000 adult population can be used to figure this extent (Sarma and Pias, 2011).

This study therefore, used the number of bank deposit, loan and mobile accounts held by individual banks as a part of 1,000 adult populations to compute the dimension. It is argued by the authors that the number of deposit bank accounts per adult can be expected to be positively correlated; that justifies using the number of deposit 40 accounts per 1000 adults as a proxy for the number of banked adults (Musau, Muathe and Mwangi, 2018).

Morgan and Pontines (2014) sought to establish the cause and effect relationship between bank stability and financial inclusion using empirical evidence from Asian Development Bank Institute. They employed the use of a dynamic panel equation where financial stability was the independent variable. Per capital GDP was used as the control variable. Bank stability was proxied using Z-score to measure insolvency risk and NPLs as a proportion of gross loans by banks. The study results implied that increasing the amount of loaning to small and medium businesses reduces NPLs and the exposure to default risk hence improving stability. However, the study involved only one bank in Asia hence creating a contextual gap. The current study included all the commercial banks in Kenya. In addition, Liquidity risk was included in the measurement of stability which was missing in the above reviewed study.

Han and Malecky (2013) analyzed the effect of financial inclusion on bank stability across countries, using World Bank data. The study findings indicated that increasing the number of customers with deposits has a positive implication on the stability and tends to reduce returns volatility, especially during financial crises. The maximum drop in bank deposits growth was used as the dependent variable between 2006 and 2010. Income per capita, inflation and population were used as 41 economic growth control variable during the period under study. The findings of the study implied that averagely, increased bank deposits and use of other bank services by the people leads to better stability and resilience

in periods of economic and financial downturns. The study involved a cross country analysis and focused only on access dimension of financial inclusion.

Adasme et al. (2006) established that NPLs of small businesses possess less systemic risks than large, infrequent and less predictable large loans. The study involved Chilean commercial banks. They noted that loaning to SMEs reduces the exposure to systemic risk as opposed to lending to large firms. Small loans were found to have capacity in reducing the overall riskiness of banking lending portfolio which implies an improvement in stability. The above study included a sample from SMEs and employed a descriptive research design which is a weak approach. To enrich the design, this study utilized both longitudinal and explanatory non experimental designs involving the banking sector in Kenya.

Sunguti (2013) in his study on the features that influence the growth of agency banking in Kenya within the banking industry indicated that agency banking which was commissioned in Kenya in May 2010 has kept on improving access to banking services and it has raised financial deepening countrywide. According to the study the financial industry has seen more Kenyans access financial services with more convenience at low costs, a significant influence of the selected variables on the growth of agency banking. This study used descriptive survey which is usually limited in reliability and validity of the data due to respondent's perceptions and opinions. The current study used cross sectional design and documented data from financial statements to make analysis. This was expected to give more valid results compared to the descriptive analysis.

The current study involved commercial banks in Kenya and included the availability and usage dimensions of financial inclusion which were not included by Han and Malecky (2013). Allen *et al* (2013) in his study noted that bank presence was found to increase access to credit. The study also established that branch networks increased in Kenya between 2006 and 2009. However, the study used Equity Bank only as a case study, making it a weak research design. The current study addressed that gap by employing a panel multiple regression analysis, involving the entire banking sector in Kenya. The study used only bank accounts which is the demand side of financial inclusion and ignored the supply side which were included in the current study through the availability dimension of

financial inclusion. The current study focused on commercial banks in Kenya in order to fill the contextual gap left by other researchers.

2.4 Research Gaps

Table 2. 1: Summary of Research Gaps

Author /Year	Topic	Findings	Research gap	How study will fill gap
Mutie et al (2014)	Investigating the factors facilitating access to banking services through agency banking in Kenya	Customers are able to save travel and waiting time due to the efficiency of agency banking	The study was a case of Equity Bank. Findings cannot be generalized to other commercial banks offering agency banking	Eleven banks were included in the study and hence the findings are more robust and generalizable
Chemutai (2017)	Influence of profitability of industrial banks in Kenya company banking	There become boom in wide variety of transactions through clients over the banking marketers leading to a growth in deposits and a boom on monetary overall performance	The study Used simple random sampling which does not guarantee proper representation of a sample	The study used censure sampling method or effective representation of cases
Ndirangu (2013)	Link between financial performance of commercial banks in Kenya and agency banking	No relationship between the two	The study used perceptions from management of commercial banks through a questionnaire survey	The current study applied secondary data that was sourced from CBK. The study further, focused on cost of transactions to the commercial banks

Kingang'i et al (2016)	Relationship between profitability and agency banking in Rwandese commercial banks	Financial service accessibility by customers through banking agencies had positive impact on financial performance	Target was 4 banks only and the study was conducted in Rwanda. The study used primary data which can be subjective	Target was 11 banks and the study was conducted in Kenya. Study used secondary verifiable data
Molonko and Jagongo (2014)	How economic overall performance of industrial banks changed into influenced via organization banking in Kenya	Through use of organization banking model, commercial banks were in a position to boom transactions along with withdrawals, deposits and fund transfers from the individuals who had been previously underneath banked	The findings were based on convenience sampling which is not suitable for hypothesis testing and generalization of findings	The study used censure sampling method for effective representation of case
Dzombo et al. (2017)	The effect of value of transaction in agency banking on the financial performance of commercial banks in Kenya	Value of transaction in agency banking has a significant impact on the financial performance of commercial banks	cluster sampling was used which is prone to higher sampling error	The study used censure sampling method for effective representation of cases
Kambua (2015)	Effect of value of transaction on financial performance of commercial banks in Kenya	The value of transactions in agency banking of the 43 commercial banks under study as represented by ROA values increased by a mean ratio of 1.98 over the 5 year period	The study used an exploratory research design which involves a smaller sample, hence the results cannot be accurately interpreted for a generalized population	The study used correlation research design that allows for casual relationships

2.5 Conceptual Framework

A conceptual framework is a graphical or diagrammatic representation of the relationship between variables in a study (Borg, Gall and Gall, 2005). It assists the researcher to see the proposed relationship between the variables easily and quickly. The conceptual framework gives the explanation about the relationship between independent and dependent variables. This study had three variables; Availability of financial services financial inclusion and Accessibility to financial services. The dependent variable was conceptualised as the operational costs. Figure 2.1 shows how the conceptual framework for this study. Operational cost is considered as a dependent variable (DV) whereas adoption of agency banking is taken as independent variable (I.V).

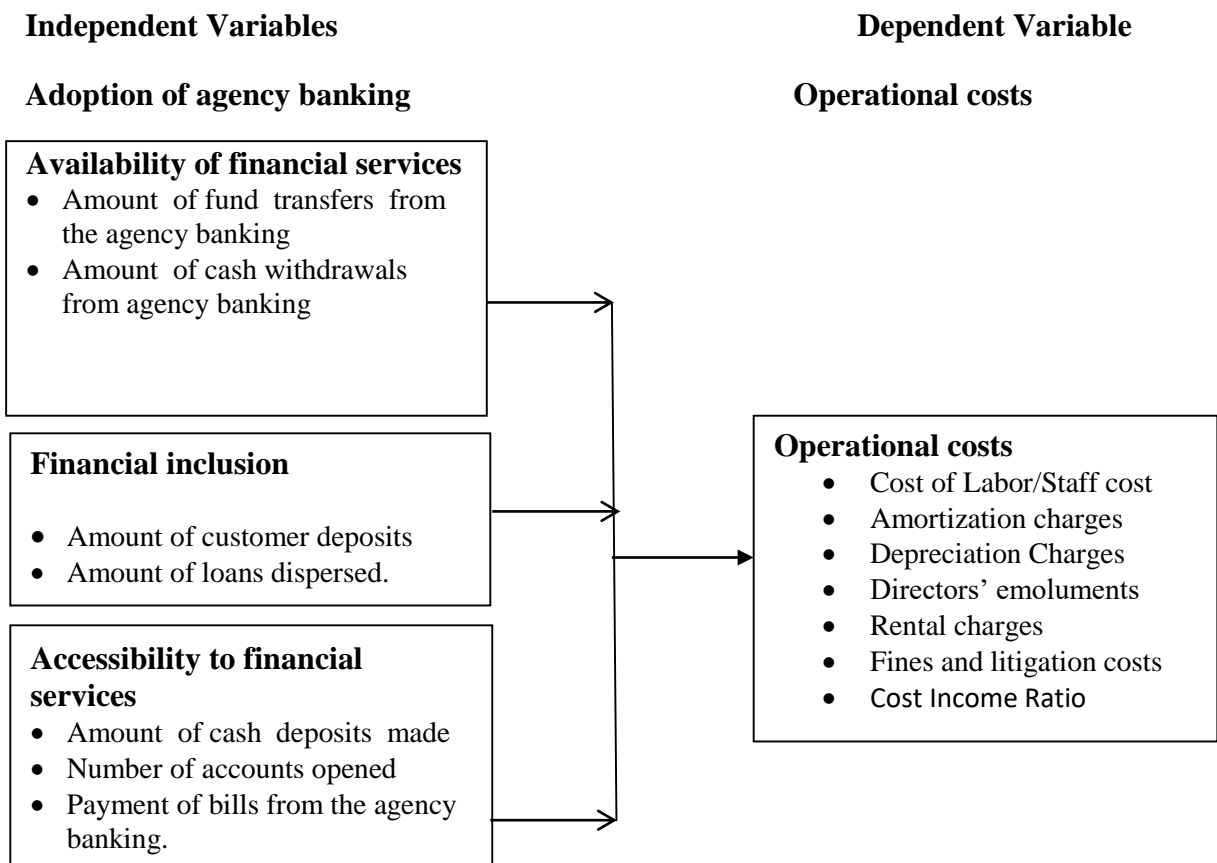


Figure 2.1: Conceptual Framework

Source: Author 2019

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter presents a brief description of the methodology used in the study. It contained; research design, target population, data collection procedures, sampling design and procedures, empirical model and data analysis procedure. It also covered definition and operationalization of variables and presentation of the findings.

3.2 Research Design

The study was conducted by using cross sectional design and descriptive to ascertain the connection between the adoption of agency banking and operational costs of commercial banks in Kenya. Since the study compared two periods, that is before and after the adoption the cross sectional design was adopted to test the correlation between the means and also to run the regression analysis.

3.3. Target population of the study

The study utilized quantitative secondary data. All the 11 commercial banks that have adopted agency banking, and actively operating countrywide were the target population of the study. According to the CBK (2017) report 14 banks had adopted agency banking by 2014 but three of them do not have active agencies in the market hence they were not considered for the study.

3.4 Empirical Model

Empirical model of multiple regression analysis was used in the study to establish the impact between the adoption of agency banking and operational costs of commercial banks in Kenya. The purpose of using multiple linear regression analysis was to show the extent to which operational cost of commercial banks in Kenya was influenced by the three independent variables. The model is as shown below $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$

Where; Y = Operational cost

X_1 = Availability of financial services

X_2 = Financial inclusion

X_3 = Accessibility to financial services

β_0 = Constant

$\beta_1, \beta_2, \beta_3$ and β_4 = Regression coefficients

ε = Error term

T=Time period (2010-2014)

3.5 Sampling Design and Procedure

The study adopted census method of all the 11 banks that had adopted agency banking by December 2014. The reason for choosing 2014 is because the data was collected five years before and five years after the adoption of agency banking. The bank that adopted in 2014 had its data for five years data available. The study used purposive sampling where only the 11 commercial banks that had adopted agency banking were considered.

3.6 Data Collection Instrument

This refers to instruments the researcher uses in collecting the data. In this case the instrument used was the documented review guide line. Summary of the instrument is attached in Appendix I. The guide lines contained eight (4) Column tables where each indicator was represented according to the objectives.

3.7 Data collection procedure

The data for the study was carried out using secondary data. Secondary data is data previously collected and is readily available for use in the research. Secondary data saves on time used in data collection, it's cheaper and provides more accurate information. The bank supervision reports from CBK were used to show the number of agents of the commercial banks in Kenya, the total number of transactions conducted by the agents, and the value of the transactions.

3.8 Data Analysis Procedure

Adoption of agency banking was considered as an affair which transpired at a particular point in time in the study. An event study could be outlined to include: defining event of interest, determining event window i.e. period over which the operating costs and the Cost to Income Ratio was examined for comparative purpose and event horizon. While the procedure included selecting the frequency of the sample, determining the method of

measurement of average returns and method of testing the hypothesis (Abubakaret *al*, 2014).

3.9 Event Window

This is the period between the happenings of an event that aims at affecting the current operations of a firm. For this study the event is the adoption of agency banking model. The date of adoption helps the researcher to define the event window which covers the period before and the period after the event happening. There were no strict theoretical rules for choice except that the pre-event and post-event periods should not coincide. The study considered 4 financial periods before and after the adoption.

3.10 Data Analysis and Presentation

For the purpose of this study, quantitative data analysis was employed. Quantitative analysis entails coding responses into categorical variables followed by application of a Statistical Package for Social Sciences (SPSS) techniques of analysis Mbwesa (2006). Descriptive statistics was used to include frequencies and percentages while inferential statistics was computed using Regression and Pearson correlation determined at 0.05 level of statistical significance ($\alpha = 0.05$). This applied that the researcher was 95% confident that the results obtained were as a result of the independent variable and not by chance. The analyzed results were presented in form of tables, charts and graphs. The model was derived from the analysis to explain the existing relationship between the variables.

Multiple regression analysis, the following model was used.

$$Y = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon \dots \dots \dots (i)$$

Where y = Operational cost

X_1 = Availability of financial services

X_2 = Financial inclusion

X_3 = Accessibility to financial services

ϵ = error term. The results were considered significant at 95% confidence level. Findings were presented in the form of tabulations (percentages, mean and standard deviation).

3.11 Operationalization and measurement of variables

This section presented the operationalization of the variables as shown in table 3.1

Table 3.1: Operationalization of variables

Hypothesis	Variables	Type of data	Method of analysis
H ₀₁ : There is no significant relationship between availability of financial services and operational costs of commercial banks in Kenya.	-Availability of financial services -operational costs	Nominal	-Frequency -Correlation -Regression
H ₀₂ : There is no significant relationship between financial inclusion and operational costs of commercial banks in Kenya.	-Financial inclusion -operational costs	Nominal	-Frequency -Correlation -Regression
H ₀₃ : There is no significant relationship between accessibility to financial services and operation costs of commercial banks in Kenya.	-Accessibility to financial services - Operation costs	Nominal	-Frequency -Correlation -Regression

3.12 Ethical Consideration

Ethical consideration in research relates to the various standards to followed and observed in a research exercise (Mugenda & Mugenda, 2013). In carrying of this research various ethical considerations were observed. In general, the research considered all ethical considerations and norms regarding researches in Kenya and Kenyatta University.

3.13 Diagnostic Tests

3.13.1 Heteroskedasticity.

The model was subjected to a number of diagnostic tests to evaluate its robustness. The diagnostic tests included the Breusch-Pagan test used to test for Heteroskedasticity in regression model. It tests whether the errors from regression are constant over the values of independent variables. The study also conducted diagnostic tests on normality, linearity, Multicollinearity and serial correlation. The normality test requires that when the model is

run, the residuals should be normally distributed. Violation of this assumption can make the derived estimates to be inefficient.

3.7.3.2 Multicollinearity

The Multicollinearity tests are applied to test whether there are any two independent variables that have a high linear association. When two variables have a high correlation, the significance of the resulting model coefficients could be inflated and hence provide inefficient estimates. Besides, linearity test checks whether the independent variables have a linear association with the dependent variable. For any regression to be undertaken there must be a linear association between the independent and dependent variables and normality of residuals to test for the efficiency of the regression.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This study sought to investigate the adoption of agency banking and operational cost among commercial banks in Kenya. In order to assess whether the adoption had any effect on the operational costs of the commercial banks secondary data from the audited financial statements for the period before and after the adoption were collected and analyzed for comparison. The study assumed that any observable change in the operating costs of the bank is initiated by the adoption of agency banking. The results were presented using frequency distribution tables and charts. The hypothesis of the study which were; *H₀₁*: There is no significant relationship between availability of financial services and operational costs of commercial banks in Kenya.; *H₀₂*: There is no significant relationship between financial inclusion and operational costs of commercial banks in Kenya and *H₀₃*: There is no significant relationship between accessibility to financial services and operation costs of commercial banks in Kenya, were tested for any statistical significance at a significance level of 0.05.

4.2 Descriptive Statistics

The reason why the Central bank of Kenya through its guidelines on agency banking in May 2010 was to assist commercial banks reduce their operation costs following a very stiff competition on the market. This could be achieved by commercial banks enhancing financial services availability and access among the population. The result revealed that by the end of 2011 a total of eight commercial banks had been cleared by the central bank to offer agency services through the 9,748 agency outlets in the country. By December 2012 a total of eleven commercial banks had adopted the model and more than 16,333 active agents had been contracted facilitating over 38 million transaction valued at not less than shillings 195.8 billion.

4.2.1 Descriptive Statistics of the Availability of Financial Services.

The study sought to establish the impact of availability of financial services on the operational cost of commercial banks in Kenya. It focused on assessing availability in terms of amount of funds transferred, amount of cash withdrawals and amount of accounts balances prior to and after adoption of agency banking. The aim was to assess whether there was any significant change in the operations costs after the adoption of the agency banking.

The outcomes of the study were analyzed and presented in table 4.1.

Table 4.1 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Withdrawals Before	10625.74	11	9734.987	2935.21
	Withdrawals After	54661.87	11	47620.617	14358.16
Pair 2	Funds Transfer Before	55.85	11	118.797	35.82
	Funds Transfer After	150.97	11	221.497	66.78

Source: Researcher (2020)

From the results presented it is clear that availability of services through the adoption of agency banking by the commercial banks show that there was a positive change in the withdrawals, funds transfer and bills payment by the customers. All the eleven banks that had adopted agency banking indicated a similar trend meaning that agency banking had made services available and hence improved the use of banking services. The results show that the mean amount of withdrawals after the adoption of agency increased from 10,625.74 million to 54,661.87 million. The amount of funds transfer also increased from 55.85 million to 150.97 million. These outcomes are in line with the results of a report by nation media group on agency banking (2017) which established that agency banking has so far delivered dozens of services to commercial banks at a much reduced operational cost. Most customers find it very convenient to pay their bills including school fees, KRA, NHIF utility bills, cash withdrawals among other services. It was also established that majority of the banks that have adopted agency banking are only performing less than 20% of their

transaction at the branch with the over 85% being processed through their agencies. The same can be confirmed from the CBK supervisory report (2017) that indicated that the volume and amount of withdrawals, funds transfers and bills payment through agency banking has increased by a large extent because the services are now available to the customers.

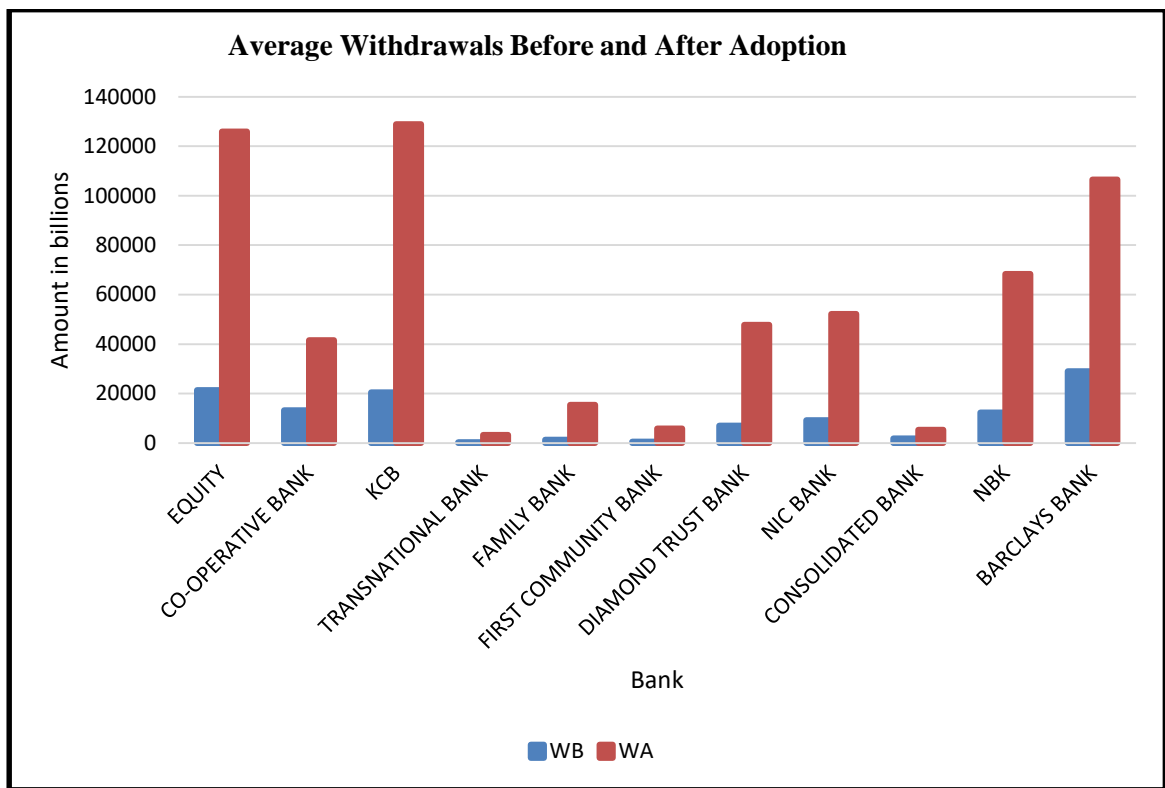


Figure 4.1: Trend of Average Withdrawals

Source: Researcher (2020)

As of the outcomes on figure 4.1 it is clear that equity bank, KCB, NIC, NBK and Barclays bank showed a higher difference in the amount of withdrawals by customers. These banks were among the first to adapt to agency banking which explains the availability of the service to the customers. This means that there was an increase in the amount of withdrawals from the banks by customers attributed largely to agency banking adoption.

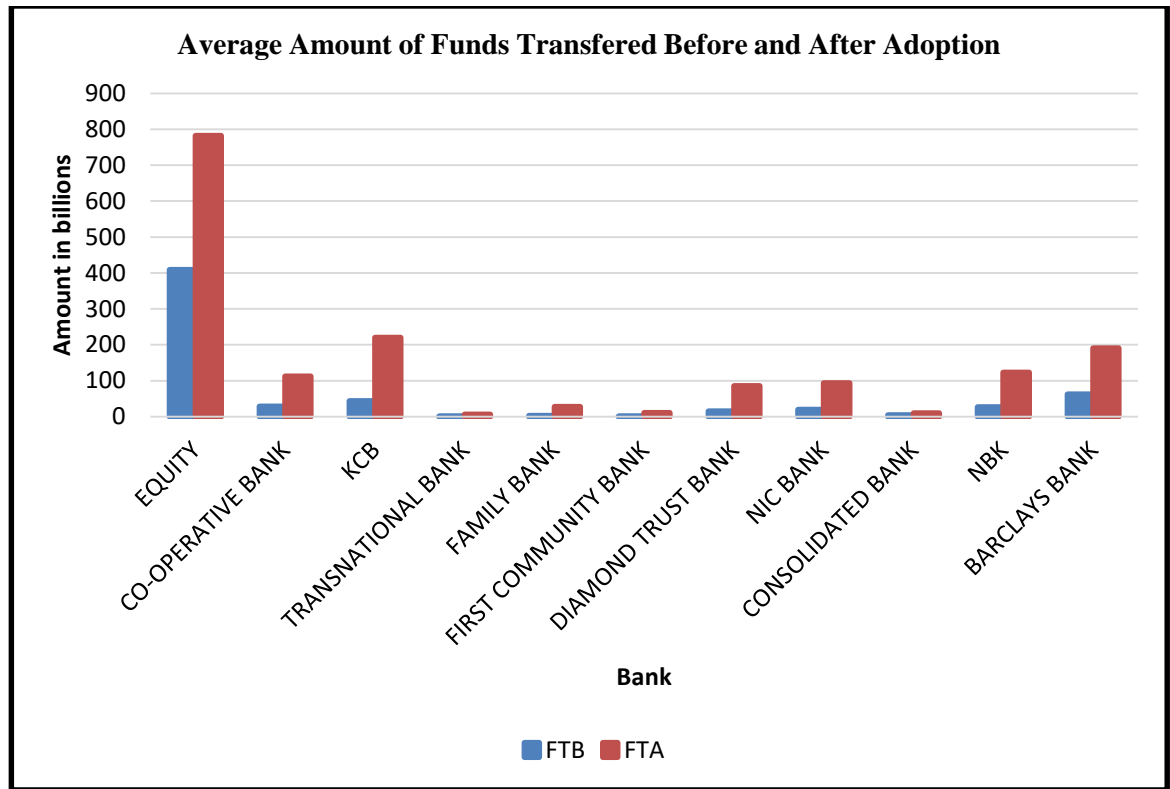


Figure 4.2: Average Amount of Funds Transfer

Source: Researcher (2020)

The results show that of all the eleven banks, equity bank had the highest difference in the amount transferred through agency banking from 409 billion to 782 billion. This was followed by KCB, with an increase from 43.9 billion to 220 billion, then Barclays bank from 65.5 billion to 190.7 billion. This again can be explained by the fact that these were among the very first banks to adopt agency banking and make it available to their clients. This is in line with the findings of the CBK Supervisory Report (2017) that indicated that adoption of agency banking by commercial banks has increased the amount of funds transferred from by customers for various purposes through the agency. A similar scenario was established by Gathure et al (2018) who indicated the performance of commercial banks in terms of funds transfer increased as a result of adoption of Agency banking. This could be as a result of services being more available to the customers through the agent.

4.2.2 Descriptive Statistics on Financial Inclusion

The second objective for the study sought to assess the effect of adoption of agency banking on customers financial inclusions in the use of financial services. Financial inclusion was conceptualised in terms of number of accounts opened, amount of loans accessed and payment of social benefit funds. The results are presented in table 4.2.

Table 4.2: Financial Inclusion of Financial Services

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Customer Deposits Before	89.2136	11	80.72005	24.33801
	Customer Deposits After	166.0705	11	153.93823	46.41412
Pair 2	Loan Dispersed Before	67.7250	11	62.89330	18.96304
	Loan Dispersed after	135.9955	11	128.26916	38.67461

Source: Researcher (2020)

The results show that in both items there was an increase in the amount of loans taken by the customers. This was a reflection of more customers having been included in the financial bracket and hence being able to use the banks to make deposits and also access loans through the adoption of agency banking by the selected commercial banks. This supports the finding of Komen (2014) who noted that more than 20 million Kenyans remain unbanked due to lack of inclusion in the system. With the government's effort to achieve the vision 2030 one of the strategies remain enhancing the banked Kenyan population to at least 70%. This is to be achieved through innovations such as agency banking. Since, this increase in customer deposits and loans dispersed by the banks is seen immediately after the adoption of agency banking then this study attributes the change to adoption of agency banking that results into improved financial inclusion.

The results are also presented in figure 4.3 and figure 4.4 showing the trend in different banks relating to the mean customer deposits and loans dispersed to customers before the adoption and after the adoption of agency banking.

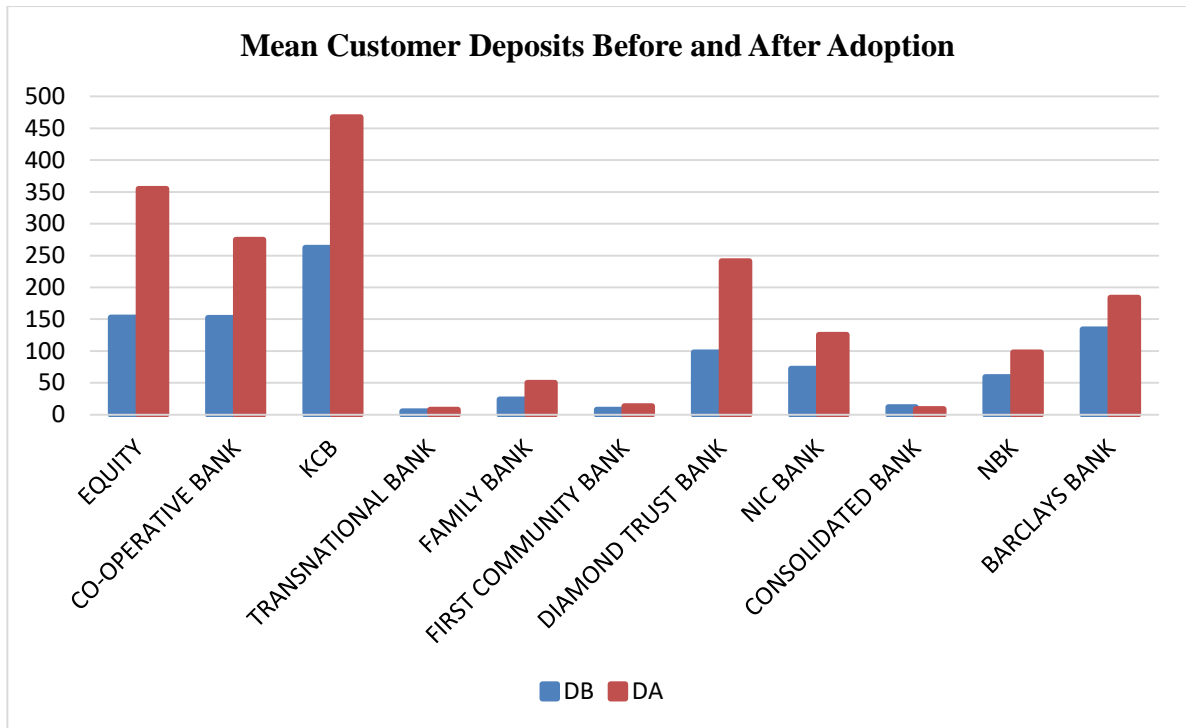


Figure 4.3: Mean Customer Deposits

Source: Researcher (2020)

Results indicate that four banks Equity, Co-operative bank , KCB and Diamond Trust Bank have a big mean difference indicating that there is better financial inclusion among these banks and also it might be because they are among the very first banks to adopt agency banking in kenya. Transnational bank, First Community bank and Consolidated bank had very small change in their customer deposits before and after adoption of agency. These means that these banks have a very small market outreach and their agency services are limited to major towns compared to the the other banks such as equity and KCB which are seen every where. This is in agreemnt with the findings of Lyman, Ivatury and Staschen,(2011) who noted that for the wider population with many unbanked customers having a banking hall might not necessarily improve customer transactions such as deposits hence requiring a more inclusive strategy such as adoption of agency banking .

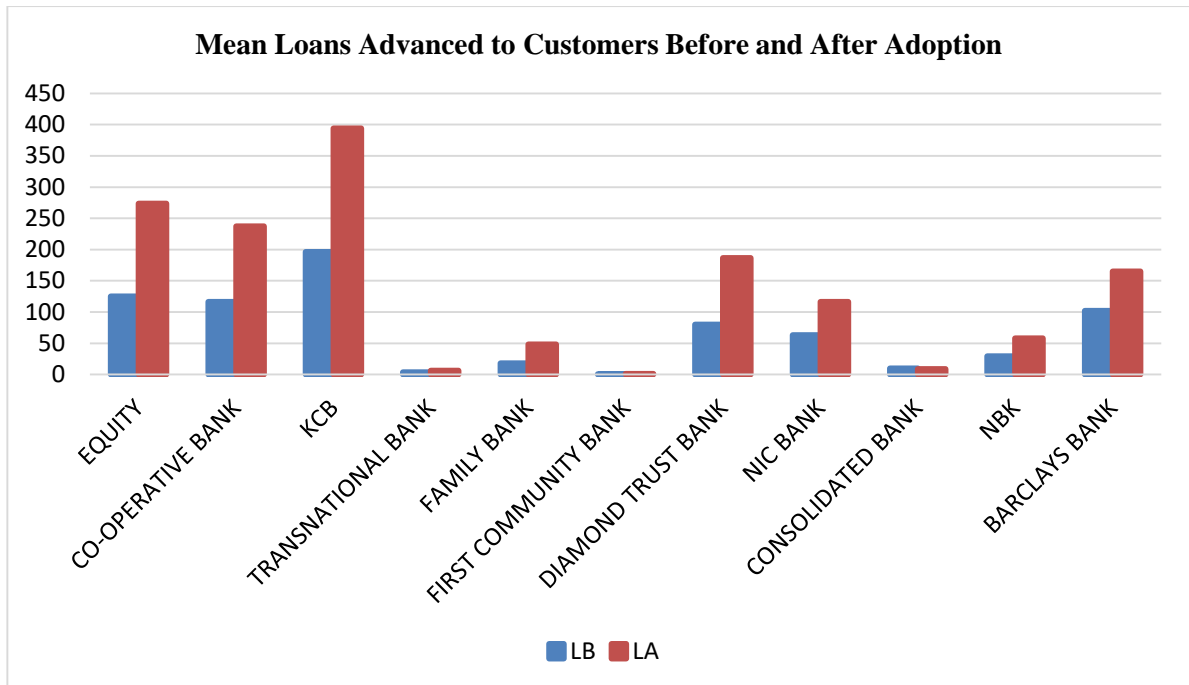


Figure 4.4: Mean Loan Advanced to Customers

Source: Researcher (2020)

The results in figure 4.4 shows that in the mainstream commercial banks that were among the first to adopt agency banking like Equity bank, co-operative bank , KCB, Diamond Trust Bank , NIC and Barclays bank showed an increase in the loans advanced following adoption of agency banking. The rest of the banks showed a small change in the mean loans advanced to customers. This implies that the availability of the agency services have an influence on the amount of loans advanced to the customers . This is due to the low cost of processing the loans as compared to the time when every thing was centralised at the branch level for the banks. This agreed with the finding of Chaia (2011) which indicated that agent banking has grown to be one of the most promising banking strategies for providing financial services to the many unbanked poor due to its ability to reduce banking costs as it makes the services more inclusive.

4.2.3 Descriptive Statistics of Accessibility to Financial Services

The third aim of this study sought to assess the impact of agency banking on the accessibility of financial services to customers. The study conceptualised accessibility of financial services in terms of amount of cash deposits from agency agencybanking ,

number of accounts opened and amount of bills paid through the agency banking. The results are presented in Table 4.3.

Table 4.3: Accessibility of Financial Services

		N	Mean	Std. Deviation	Std. Error Mean
Pair					
1	Deposit Before (DB)	11	42492.1	41025.07	12369.52
	Deposit After(DA)	11	98206.37	78974.33	23811.66
Pair					
2	Bills Payments Before(BPB)	11	238.04	311.4862	93.91662
	Bills Payments After(BPA)	11	1766.312	1406.4	424.0456
Pair					
3	Accounts Opening Before(AOB)	11	476401	636777.6	191995.7
	Accounts Opening After(AOA)	11	1346797	2043459	616126.2

Source: Researcher (2020)

The results show that there was an increase in the general transactions involving deposits, bills payment and accounts opening after the adoption of agency banking. The results revealed that there was an increase in the mean deposits from 42,492.1 billion to 98,206.37 billion, the mean bills payment increased from 238.04 billion to 1,766.312 billion while the mean accounts opened after adoption increased from 476,401 to 1,346,797 accounts. This point out that agency banking has had an affirmative effect on the availability of financial services to the customers. The results agrees with the report by CBK (2017) indicating that the adoption of agency banking improved banks performance as it led to an increase in deposits, bill payment and accounts opening. This can be illustrated in the next section showing the graphical presentation relating to the banks. The results indicates that the agency banking has significant effects on operational of banks in Kenya.

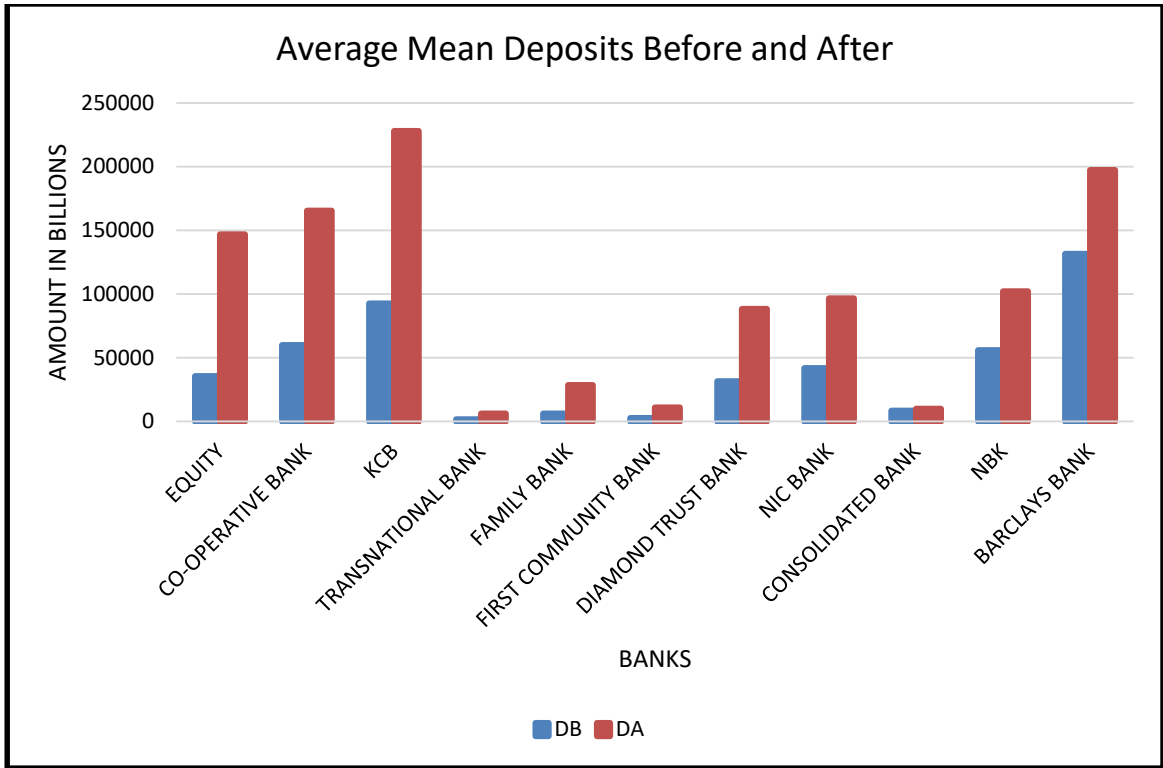


Figure 4.5: Average Mean Deposits

Source: Researcher (2020)

The results on the figure show that KCB showed a higher increase in mean value of deposits after and before adoption of agency banking. Equity and Cooperative bank followed in the increase in deposits. Transnational bank, First Community Bank and Consolidated Bank had insignificant difference in the deposits. This is attributed to the fact that accessibility of the services. The four banks that showed very significant differences in the mean before and after the adoption of agency banking are among the first banks to adopt the concept and have the highest number of agents making the accessibility of the customers to financial services.

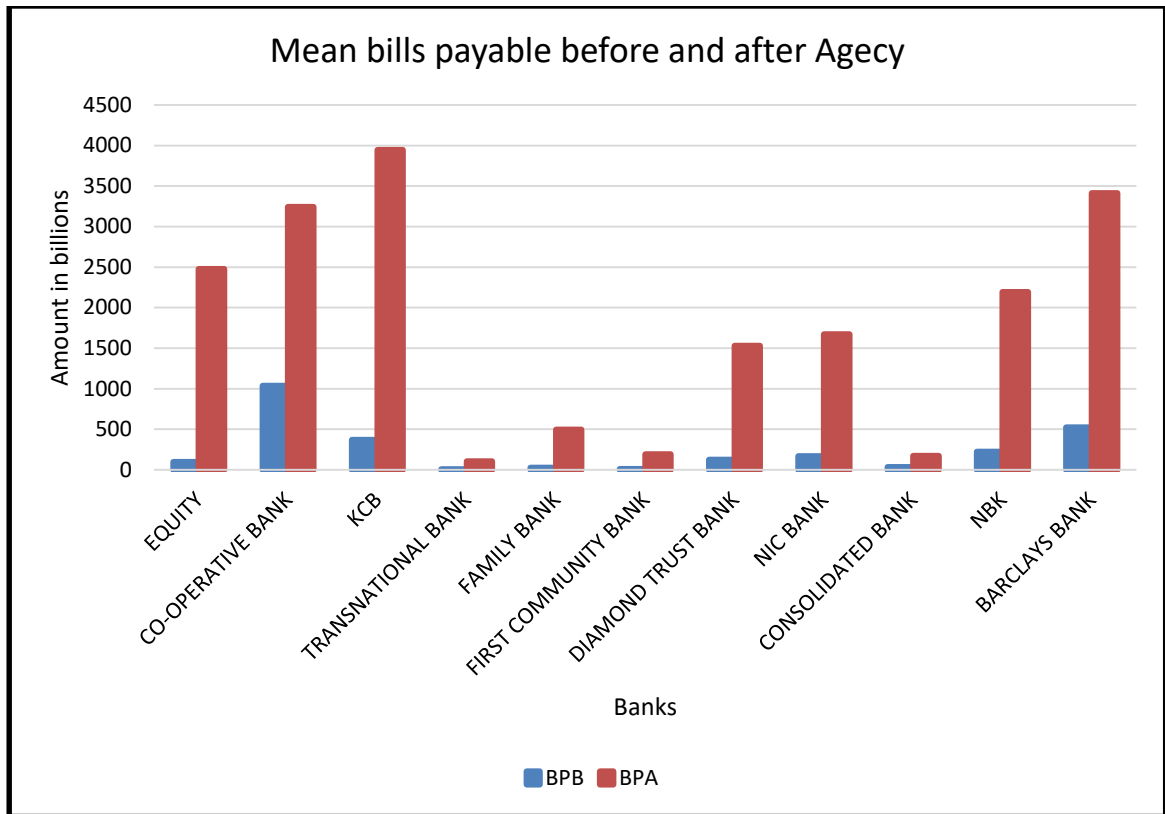
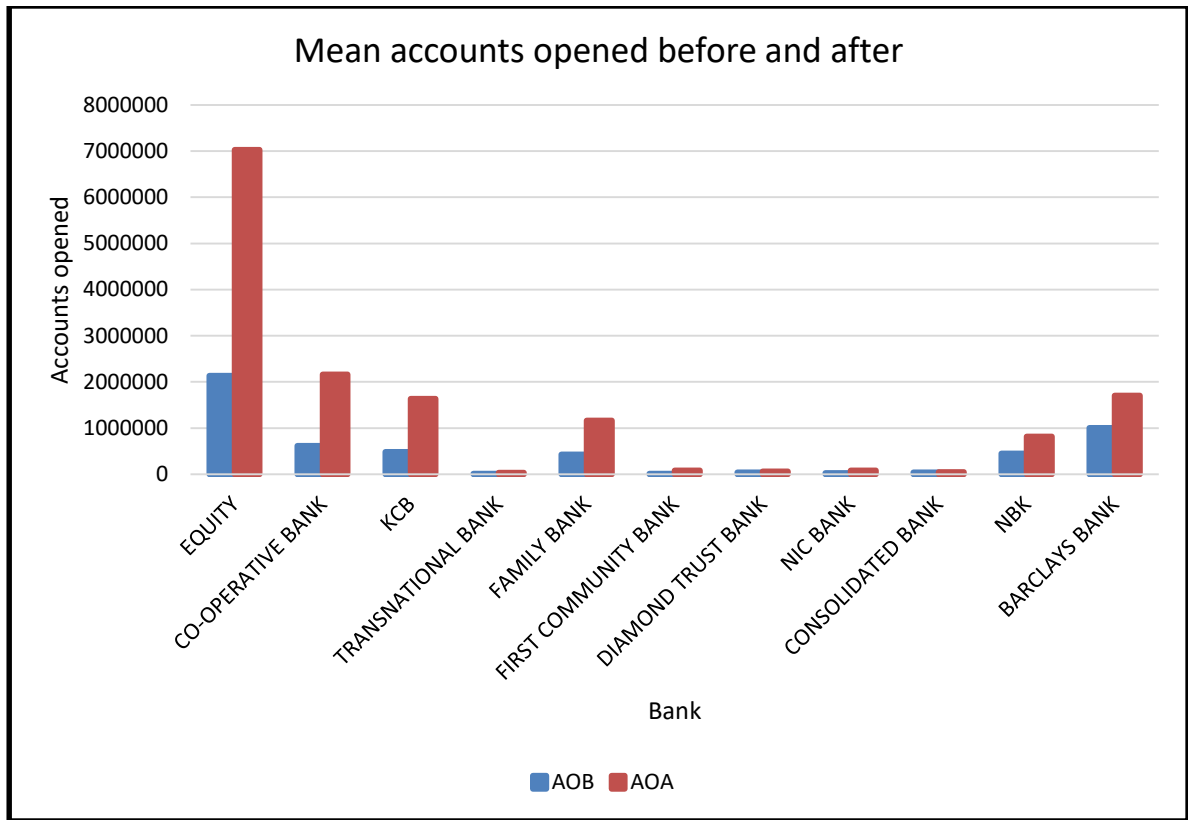


Figure 4.6: Mean Amount of Bills Payable

Source: Researcher (2020)

The study also revealed that among the 11 commercial banks, five banks; Equity, Co-operative, KCB, NBK and Barclays bank showed the highest mean difference in bills payable. A similar trend is observed with the five major commercial banks also having a larger mean difference in the mean of bills paid before and bills paid after the adoption of agency. This agreed with the findings of Gathuru et al (2018) established that most commercial banks that had adopted agency banking improved on their bill payment. Similarly, Mas & Radcliffe (2011) established that developing countries that have accepted agency banking expect to reach more unbanked population and ensure financial inclusion of the more than 33% of the citizens not utilizing banking services.



Source: Researcher (2020)

Figure 4.7: Mean Accounts Opened

The study established that only six commercial banks (Equity, Cooperative, KCB, family bank, NBK and Barclays bank) showed a significant increase in the number of accounts opened after the adoption of agency banking. Equity, cooperative and KCB banks had the highest increase in the number of accounts opened through the agent. This implies that those banks that adopted agency banking and made it accessible to their customers is likely to have brought about the improvement in the number of accounts opened .

4.2.4 Descriptive Statistics for Operating costs

The dependent variable of the study was the operating costs of the commercial banks. This was conceptualized in terms of the mean operating expenses and the cost income ratio for the study period. The mean costs before and after the adoption of agency banking and the operating cost between the adoptions of agency banking period. The aim of the study was to ascertain whether adoption of agency banking had an effect on the operating costs. The

essence was to establish whether the banks recorded reduced operating costs or not. The use of cost income ratio was appropriate in establishing the effect. Table 4.4 shows the results.

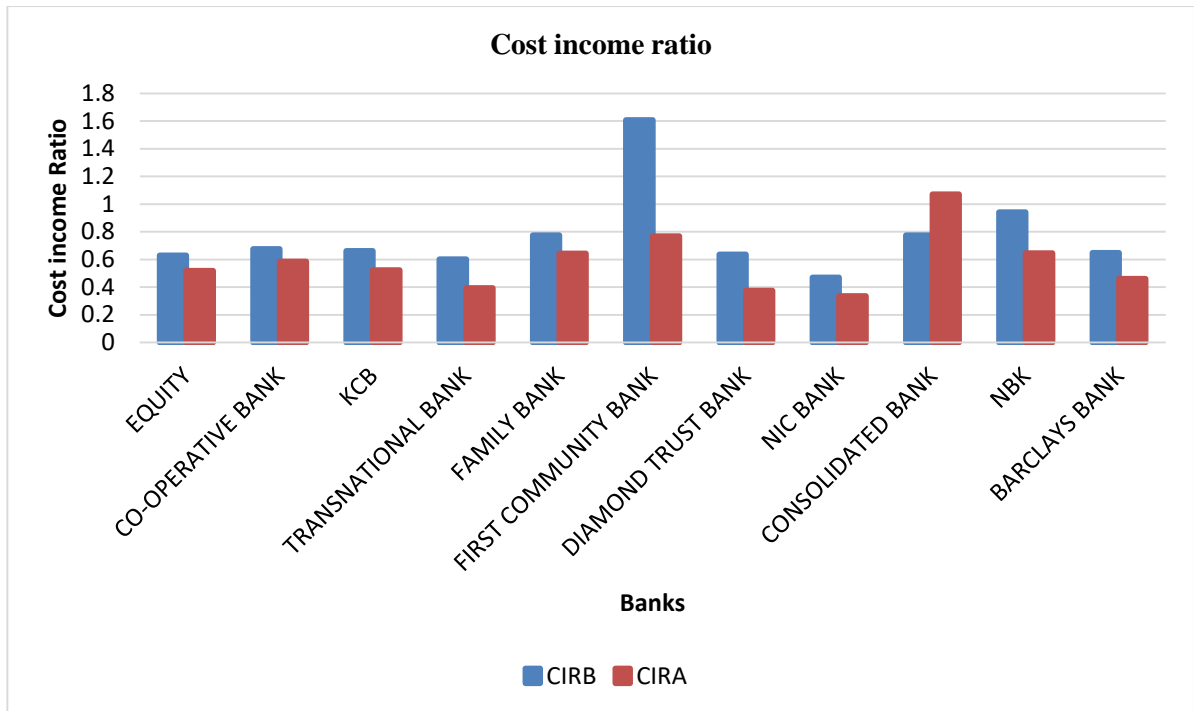
Table 4.4: Mean Operating Cost and Cost Income Ratio

	N	Mean	Std. Deviation	
	Statistic	Statistic	Std. Error	Statistic
Operating cost before (OCB)	11	7,006.3636	1,964.08628	6,514.13726
Operating cost after (OCA)	11	8,501.2727	2,894.79127	9,600.93648
Cost Income Ratio Before (CIRB)	11	0.856585	0.59268018	0.1787
Cost Income Ratio After(CIRA)	11	0.57471	0.21016022	0.063366

Source: Researcher (2020)

The study shows that the mean operating cost before and after adoption of agency banking increased by almost kshs 1,500 million, while the mean difference between cost income ratios between the adoptions of agency banking period showed a reduction from 0.857 to 0.575. This shows that there was a slight increase of 0.282 in the operating cost. From the statistics collected the CBK (2017) report and individual bank reports indicated that the banks incurred an increase in the staff costs while the other costs such as rental reduced. There was a reduction in the cost income ratio indicating that the banks become more efficient as a result of agency banking adoption.

Figure 4.8 presents the trend for each bank is presented before and after the adoption of agency banking.

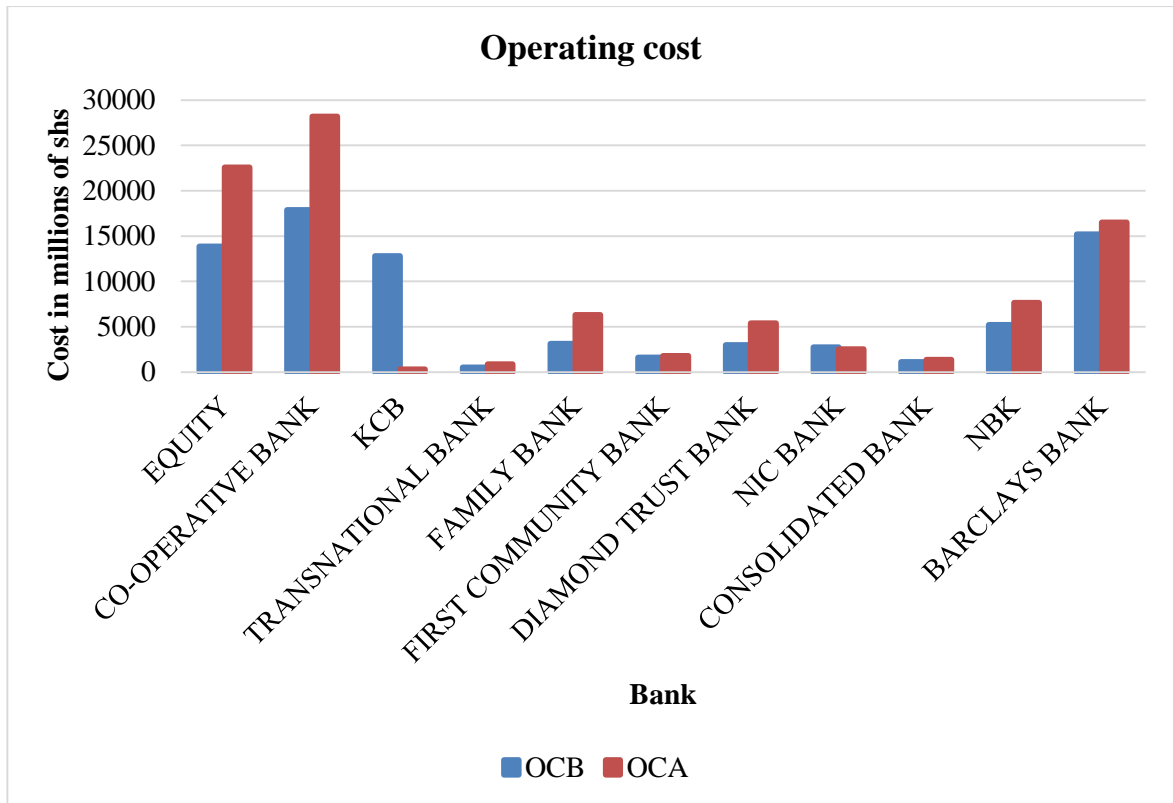


Source: Researcher (2020)

Figure 4.8: Cost Income Ratio (CIR)

The results shows that there was a reduction in the cost income ratio for all the banks with first community bank showing the highest difference while only consolidated bank showed an increase in the cost income ratio. This implies that the adoption of agency banking has improved the operations of the bank by reducing the operations costs hence improving the income.

The trend in the operating cost for the eleven banks was also analyzed and presented in figure 4.9.



Source: Researcher (2020)

Figure 4.9: Trend of Operating Cost

Results indicate that apart from KCB and Transnational Bank that showed a reduction in the mean cost after adoption the rest of the nine banks showed an increase in the operating cost. These results agree with the CBK (2017) bank’s supervisory report which established that banks that had adopted agency banking showed a reduction on the operating cost particularly relating to other expenditures like rent, amortization cost, and maintenance and repair costs among others. Mars and Radcliffe (2011) also noted in their study on effect of agency on cost of service delivery by commercial banks that, banks that had adopted agency banking had their overall cost of service delivery reduced. It is also vital to note that though mean operation costs for most of the banks seems to have gone up even after adoption but the increase in the volume of transaction done justifies the adoption as a cost effective move for most banks. This agrees with the argument of (Ofunya, 2014).

4.3. Paired t test for the samples

In order to compare whether there was any significant change in the bank's operations, before and after the adoption of agency banking by commercial banks, taking 2014 as the event year and the years 2010 to 2013 as the window before agency adoption and the period between 2015 to 2018 as the window after the adoption of agency banking the t test statistic was used. The means before adoption of agency banking were paired with the means after adoption and the significance established using the t test as shown in Table 4.54.

Table 4.5 Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Deposit Before & Deposit After	11	.898	.000
Pair 2	Withdrawals Before & Withdrawals After	11	.924	.000
Pair 3	Funds Transfer Before & Funds Transfer After	11	.983	.000
Pair 4	Bills Payments Before & Bills Payments After	11	.732	.010
Pair 5	Accounts Opening Before & Accounts Opening After	11	.970	.000
Pair 6	Customer Deposits Before & Customer Deposits Aft	11	.971	.000
Pair 7	Loan Disbursed Before & Loan Disbursed After	11	.991	.000
Pair 8	Operating costs before & Operating costs after	11	.807	.003

Source: Researcher (2020)

The results show that there is a very strong positive significant correlation between the activities of the bank after and before adoption of agency banking among commercial banks. Customer deposits had a correlation of ($r= 0.898$; p value 0.000) indicating very high positive significance. A similar case is observed for all the other pairs, that is customer deposits, loan disbursement and operating costs ($r= 0.971$; $p < 0.05$, $r= 0.991$; $p < 0.05$ and

$r=0.809$; $p < 0.05$) . This implies that adoption of agency banking has positively influenced the operation of the bank by increasing their service delivery in various activities and hence reducing the operating costs at the banks. This is attributed to the improved availability of financial services, financial inclusion and financial accessibility. A similar trend was noted in the study of Argamo (2015) who sought to establish whether the adoption of agency banking affected the banks service delivery. In his study he also noted a similar trend indicating that adoption of agency banking had improved service delivery for most banks a fact attributed to improved availability of services, accessibility and financial inclusion of most people who had remained unbanked for a long time. The findings are also supported by the findings of Ndirangu (2013) who indicated that through agency banking commercial banks are able to grow their deposits.

4.4 Paired Samples Test

The study sought to assess the statistical significance of the difference between the test variables before and after the adoption of agency banking among the commercial banks in Kenya. The results are presented on Table 4.6.

Table 4.6: Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower Upper			
Pair 1	Deposit Before - Deposit After	-55714.26	45853.17	13825.25	-86518.84 -24909.68	-4.030	10	.002
Pair 2	Withdrawals Before - Withdrawals After	-44036.12	38799.68	11698.54	-70102.102 -17970.14	-3.764	10	.004
Pair 3	Funds Transfer Before - Funds Transfer After	-95.13	107.01	32.26	-167.015 -23.24	-2.948	10	.015
Pair 4	Bills Payments Before - Bills Payments After	-1528.27	1197.39	361.03	-2332.69 -723.85	-4.233	10	.002
Pair 5	Accounts Opening Before - Accounts Opening After	-870396.29	1433976.33	432360.13	-1833754.69 92962.12	-2.013	10	.072
Pair 6	Customer Deposits Before - Customer Deposits Aft	-76.86	78.05	23.53	-129.29 -24.42	-3.266	10	.008
Pair 7	Loan Disbursement Before - Loan Disbursement after	-68.27	66.54	20.06	-112.96 -23.57	-3.403	10	.007
Pair 8	Operating cost before - Operating costs after	-1494.91	5803.43	1749.80	-5393.71 2403.89	-.854	10	.413

Source: Researcher (2020)

The results show that the paired sample t test for the variables was negative and significant for all the pairs with only three of the pairs showing non-significant values ($P > 0.05$). The negative value of t statistic indicates that the means before were lower than the means after the adoption. These changes were statistically significant since they are all less than the critical value of -2 for the five pairs of independent variables. This indicates that adoption of agency banking by commercial banks has had an effect on the availability, accessibility and financial inclusion of the banking services. This supports the findings by Musau, & Jagongo (2015) who noted that the agents are used in opening new accounts for customers, facilitate cash transactions for the customers including withdrawals, deposits and bills payments. This implies that there is higher level of accessibility to banking services, availability and hence increased financial inclusion among the population.

The results show that the change in the cost income ratio and the operating cost is not statistically significant but it indicates that there was a change between the two periods before and after adoption of agency banking. This could be attributed to the increase in the salaries that the bank is paying to its staff. A study by Villasenor, West, & Lewis, 2015 indicated that agency banking has increased financial inclusion by upto 70%. Banks that showed the highest change in the services were also available and accessible to most of the customers. Banks like First Community Banks were not very common and hence this explains why they have very small change. Banks like Equity, Corporative, NBK, KCB and Barclays were widely spread and hence their agency services were very available. Equity and KCB has dominance in the market and hence shows the highest change after the adoption of agency banking. A study by CGAP (2011) indicated that most of the banks that adopted agency banking have minimized their operational cost since the agencies are able to carry out most of the transactions that were initially carried out by the bank.

4.5 Paired Sample Statistics Between Mean Difference

The study sought to assess whether there was any significant difference between the mean of the variables of the study using panel data for the two periods before and after the adoption of agency banking. The results were summarized using the paired t test as shown in table 4.7.

Table 4.7: Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 Mean Difference Before Adoption & Mean Difference After Adoption	99	.978	.000

Source: Researcher (2020)

The results on table 4.7 show that there is a strong correlation between the mean difference of data collected from the various banks within the selected study period since the correlation $r = 0.978$ at a $p < 0.000$. The paired samples test in table 4.7 gives further explanation of this strong correlation.

Table 4.8: Paired Samples Test

	Mean	Paired Differences		95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)	
		Std. Deviation	Std. Error Mean	Lower	Upper				
Means difference before –									
Pair 1	means difference after adoption of agency	-108156.648	532899.622	53558.427	-214441.604	-1871.69	-2.019	98	.046

Source: Researcher (2020)

The results drawn from the panel data analysis indicates there is a noteworthy mean difference between the values after and before the adoption of the agency banking model for the selected banks during the period of study. The negative mean value shows that the mean values after the adoption were more than the mean values before the adoption. That is for instance deposits after were more than deposits before. The results indicates a significance effect since $t = -2.019$ and $p < 0.05$. This confirms the assumption of the study that after the adoption of agency banking it was expected that the banks transactions will increase due to availability of the services, improved financial inclusion and accessibility by the unbanked population. This means that adoption of agency banking has improved operations of the banks and reduced their operating costs. This agreed with the findings of Gitau (2014) who in his study to assess the effect of agency banking on the operational costs noted that, most banks that had adopted agency banking had shown that the operational performance had improved for most commercial banks. This improvement was seen to have been brought about by the adoption of these banks to agency banking. The results also supports the findings of Njagi (2014) who noted that availability and convenience of financial services by the customers has played a significant role in enhancing Deposits, funds transfers, withdrawals bills payable and accounts opening among commercial banks. The increase in the number of these transactions at the agent has influenced the volume of the transactions done out of the banking hall in terms of the cash flow which has reduced the transaction costs and hence the general operating costs have reduced.

A similar view was held by the report of the CBK(2017) where it was contented that since the adoption of agency banking , there has been increased mobilization of funds

through increased customer deposits. There has also been an increase in withdrawals by the customers among other transactions. Agent banking conveys banking services to the doorstep of those reluctant or otherwise incapable to move to the nearest bank Jayanty (2012). This may lead to a more comprehensive system of finance. Similarly, Komen (2014) established that agency banking model is a tool powerful for servicing the rural and the poor population because of its ability to reduce the costs involved in the banking transactions. It enhances access by the poor to financial services at their convenience. Agency banking adoption has therefore contributed to increased sales volumes and interaction with the customers. This also agreed with the finding of Cetorelli& Goldberg, (2012) who indicated that about 400 million people globally do not have a bank account but access financial services from other means services but they transact through agency banking. It was also established that branchless banking through agency banking has significantly reduced set-up and delivery costs agency.

4.6 Regression Model

The study sought to ascertain the combined effect of the three variables availability of financial series, financial inclusion and accessibility of financial services on the operational costs of commercial banks in Kenya. The results are presented on tables 4.9, 4.10 and 4.11.

Table 4.9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.676 ^a	.457	.224	5113.199	.457	1.961	3	7	.209

Source: Researcher (2020)

From the regression summary model table 4.9 the results indicate that there is a strong correlation between the three independent variables (availability of financial services, financial inclusion and accessibility of financial services) and the dependent variable operational costs for the eleven selected banks. However, the results show that the relationship is not statistically significant given that the $R = 0.676$ and the p value > 0.05 .

The results further show that 45.7% change in the operational costs of commercial banks is attributed to a unit change in the banks transactions because of accessibility, financial inclusion and accessibility (R squared = 0.457). Although the model is not statistically significant , because $p > 0.05$ but the results are a good indicator of understanding the effect of adoption of agency banking on the operational costs of commercial banks.

Further analysis of the results was done using the analysis of variance. The results are presented in Table 4.10.

Table 4.10: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	153784965.817	3	51261655.272	1.961	.209 ^b
	Residual	183013693.092	7	26144813.299		
	Total	336798658.909	10			

Source: Researcher (2020)

The results on table 4.10 show that adoption of agency banking has a very weak significant effect on the operational costs of commercial banks in Kenya given that the F value of 1.961 is lower than the critical value of 4.347. At the same time $p > 0.05$ indicating that the mode is a very weak predictor of the relationship between the variables.

The study further sought to establish the contribution of each variable to the model as indicated by the regression coefficients shown in Table 4.11.

Table 4.11: Regression Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-3444.268	2577.241		-1.336	.223
	Availability	-.146	.152	-.683	-.959	.369
	Financial inclusion	.011	.005	.879	2.357	.051
	Accessibility	-2.655	56.756	-.033	-.047	.964

Source: Researcher (2020)

The results in table 4.11 show that the contribution of the three independent variables availability, financial inclusion and accessibility as given by the beta coefficient value ($\beta_1=0.146$, $\beta_2= 0.011$ and $\beta_3=-2.655$). The negative shows that the variables have an inverse relationship meaning that as the mean difference of the variables increases the other reduces. The results also show that the effect of availability of financial services and accessibility is not statistically significant and it's therefore just by chance since the t statistic ($t= - 0.959$ and $t = -0.047$) is more than - 2 but less than +2. This falls in the rejection region indicating that though there is a relationship between the variables but it is not significant. Financial inclusion on the other hand shows that it has a significance effect with operational costs since the t value ($t = 2.357$) is slightly more than +2 which is the threshold. Similarly, p value is 0.051 which is almost the threshold of 0.05.

The results are modeled as shown below.

$$Y=\beta_1X_1+\beta_2X_2+\beta_3X_3+\epsilon\text{..... (i)}$$

$$Y=-.146X_1+ 0.011X_2+2.655X_3\text{..... (i)}$$

The results show that the model can be used to assess the effect of agency banking adoption on the operational costs of the bank however the level of significance is not statistically convincing as the situation can change either for the better or for the worse given other intervening variables. This supports the findings of Cetorelli & Goldberg, (2012) who indicated that close to 400 million people globally do not have a bank account but access financial services from other means services but they transact through agency banking. It was also established that branchless banking through agency banking has significantly reduced set-up and delivery costs agency. The findings also concur with those established by Chaia et al (2010) who reported that the adoption of agency banking by commercial banks has provided a basis for offering financial services in emerging markets because of its costs effectiveness to both the customer and the financial institution. This means that adoption of agency banking has significantly enhanced availability of financial services, accessibility and financial inclusion hence affected the operation costs of the commercial banks.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

The summary of the findings basing on the results presented in chapter four are presented this chapter. The study sought to evaluate the impact of agency banking in the operational costs of commercial banks in Kenya between the years 2010 to 2018. Using secondary data collected for four year period before the adoption and four year period after the adoption of agency banking. The mean difference was evaluated for the four years before and compared to the four years after the adoption of agency banking. The data on availability, accessibility and financial inclusion was evaluated and using the *t* test statistic the hypothesis was tested.

5.1 Summary of the Study Objective

The study involved analyzing the effect of adoption of agency banking on operational cost of the commercial banks. The objectives that the study sought to evaluate were effect of availability of financial services, accessibility to financial services and financial inclusion.

Availability of financial services was measured by the number of fund transfers from the agency; number of cash withdrawals from agency and number of accounts balances enquiries from agency banking. The study hypothesized that there is no significant mean difference between availability of financial services of commercial banks before and after the adoption of agency banking. The findings revealed that the number of fund transfer, number of cash withdrawals and number of accounts opened before adoption of agency bank were much lower for all the commercial banks compared to the number of transactions after the adoption of agency banking. The results further established that the mean difference for all the indicators of availability of financial services were statistically significant. This implies that operating costs of commercial banks have gone down due to adoption of agency banking which has influenced available of financial service to the customers. The customers are finding it easier and convenient to transfer funds, withdraw money from their accounts at any place within their reach. This has reduced the number of staff at the bank hall making service delivery cheaper for the bank. Most of the routine

services are now available at the agent hence easing the congestion at the bank and reducing the actual operational cost at for the commercial bank.

The second objective sought to establish the effect of financial inclusion of financial services on operating costs of commercial banks. In order to assess financial inclusion the study collected data on customer deposits and loans disbursed to the various customers. The results indicated that there was a remarkable increase in the amount of customer's deposits and the amount of loans that were dispersed between the study period before and after the adoption of agency banking. The study established that the mean difference between financial inclusion and operational costs was statistically significant. This shows that adoption of agency banking affects financial inclusion. The study established that there are improved financial services with adoption of agency banking. The reduction in operations costs is as a result of the increased number of transactions which makes it cheaper for the banks. The increase in the number of customer deposits shows that more customers are able to access the services through agency banking. Similarly, loan processing has become much cheaper and accessible hence it improves provision of financial services at cheaper operational costs. This implies that financial inclusion has improved provision of financial services hence reduced the operational costs of the banks.

In regard to the effect of accessibility of financial services and operational costs of commercial banks after adoption of agency banking. The study considered two indicators number of accounts opened before and after adoption of agency banking and payment of bills also before and after the adoption of agency banking. The results showed that there was a statistically significant change in the mean before and a mean after the adoption of agency banking in both cases. This indicates that accessibility to financial services improved with adoption of agency banking hence significantly influenced the operational costs at the commercial banks. The change was statistically significant since the t value was less than -2 and the p value was less than 0.05 as shown by the paired t test results.

5.2 Conclusion

Based on the results presented the study established that adoption of agency banking is growing and will continue to grow in the near future to enhance the operations of the

commercial banks. The study concludes that adoption of agency banking has had an effect on the availability of financial services to those customers and users who had been cut off from the banking services through the mainstream service provision channels. With increased availability of financial services customers are able to increase their level of transactions including; deposits, withdrawals and funds transfer which has had a significant effect on the operational costs of the banks.

It is also concluded that financial inclusion which was measured by collecting data related to customers deposits and loans disbursed to customers before and after adoption of agency banking by commercial banks. The study showed that there was a significant change in the amount of customer deposits and loans that the banks had disbursed to their customers this change were statistically significant given that the t statistic was less than -2 . This indicates that adoption of agency banking by commercial banks has improved operations of the banks through financial inclusion and this has led to reduction in operating costs of the banks.

In regard to accessibility of financial services the study concluded that adoption of agency banking has had an effect on the operational cost of commercial banks. With improved accessibility to financial services the study concluded that the change in the selected indicators before and after adoption of agency banking is an indication that agency banking has improved financial service delivery and hence the reduction in operation costs is attributed to the improvement.

Based on the overall findings, the study concludes that adoption of agency banking has operational relationship with the commercial banks where it had shown to reduced operational costs. The Paired t test results and the regression results have both led to the conclusion that adoption of agency banking model has reduced the operational costs of commercial banks in Kenya.

5.3 Recommendations

Based on the results presented, this study contributes to the theoretical knowledge in the sense that the study has used cross sectional design where different banks have been considered instead of the case study design that is common. The study has also added rich theoretical understanding of how a adoption of a new model brings an clear comparison of

results before and after the adoption. The use of the paired t test analysis is not very common in research where previous studies have been seen only to give the regression values. By testing the mean differences between the years was a good theoretical add for further researchers who need to fill gaps in the exiting study literature.

From the findings and conclusions presented in this study the, following policy recommendations are drawn; since the adoption of agency banking in the year 2010, the agents have been allowed to offer only limited services involving withdrawals , deposits payment of bills checking of account balances among other routine procedures. This has forced many customers to still go to the banking hall to get certain services which makes the procedure very expensive for the customers. The model will be more comprehensive to use when the banks and their regulators allow the agents to perform core activities including loan vetting and cheque processing. This will make it possible to enhance financial inclusion and make the entire process available and accessible to as many customers as possible regardless of their financial standing and their proximity to the urban areas where most of the bank's branches are.

5.4 Areas for Further Study

Areas that need further consideration are the use of panel data to clearly bring out the change and assess the longitudinal effects on the dependent variable. Consideration of the various challenges facing the agents and the banks in rolling out the mode fully needs to be given consideration in future research.

5.5 Limitations of the Study

The study was restricted to the level of accuracy of the secondary data. While data was certifiable because it was acquired from the Kenya central bank website, data had some shortcomings still corresponding to precision. The research was limited by the accessibility of data relating to the deposits, bill payment and withdrawals produced from agency banking as this data is not reported as a line item in the financial statements of commercial banks and was hence hard to acquire the data. Using secondary data on semi-annual basis assisted to reduce the effect of overlap of activities and also ensured validity of the results.

The findings were limited to the commercial banks which use agency banking services in Kenya thus this study used a sample of 14 banks. This ensured that there was precise data collected specifically to fill the gaps in this study. The integration of the agency banking and its influence was the concern to the study. However, the use of the event study assisted in ensuring that the effect of agency banking alone was measured. The findings were limited to the time period between 2010 and 2015 which were considered by the study. This time period choice was guided by the fact that the study aimed at observing data for five years period after the adoption.

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APPENDIX I
LIST OF COMMERCIAL BANKS THAT HAVE ADOPTED AGENCY
BANKING AS AT DECEMBER 2018

<u>Bank</u>	<u>Year adopted agency banking</u>
1.Equity Bank	2010
2.Co-operative Bank	2010
3.Kenya Commercial Bank	2010
4.Transnational Bank	2010
5.Family Bank	2010
6.First Community Bank	2011
7.Diamond Trust Bank	2011
8.NIC Bank	2012
9.Consolidated Bank	2013
10.National Bank of Kenya	2014
11.Barclays Bank of Kenya Limited	2014

Source (Central Bank of Kenya, 2018)

APPENDIX II

DATA COLLECTION WORKSHEET FOR MEASURES OF AGENCY BANKING

AVAILABILITY OF FINANCIAL SERVICES

Semiannual period	Number of cash withdrawals from agency banking	Number of funds transfer from agency banking	Number of accounts balances enquiries from agency banking
-8			
-7			
-6			
-5			
-4			
-3			
-2			
-1			
0			
1			
2			
3			
4			
5			
6			
7			
8			

Source: Researcher (2020)

FINANCIAL INCLUSION

Semiannual period	Number of the accounts opening application forms collected from agency banking	Number of agents from agency banking	Number of loan applications forms collected from agency banking
-4			
-3			
-2			
-1			
0			
1			
2			
3			
4			

Source: Researcher (2020)

ACCESSABILITY TO FINANCIAL SERVICES

Semiannual period	Number of cash deposits from agency banking.	Number of accounts opened from agency banking.	Number of bills payments from agency banking
-4			
-3			
-2			
-1			
0			
1			
2			
3			
4			

Source: Researcher (2020)

DATA COLLECTION WORKSHEET

MEASURES OF OPERATIONAL COST

Semiannual period	Costs of Labor/staff cost	Fines and litigation costs	Rental charges	Depreciation charge on property and equipment	Amortization Charges
-4					
-3					
-2					
-1					
0					
1					
2					
3					
4					

Source: Researcher (2020)

RESERCH AUTHORIZATION FROM KENYATTA UNIVERSITY



KENYATTA UNIVERSITY
GRADUATE SCHOOL

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Our Ref: D53/CTY/PT/37776/2017

DATE: 2nd June, 2020

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

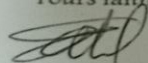
RE: RESEARCH AUTHORIZATION FOR BOB OTIGO REG. NO. D53/CTY/PT/37776/2017.

I write to introduce Bob Otigo who is a Postgraduate Student of this University. The student registered for M.BA degree programme in the Department of Accounting and Finance.

Bob intends to conduct research for a M.BA Project Proposal entitled, "Adoption of agency banking and operational cost of commercial banks in Kenya".

Any assistance given will be highly appreciated.

Yours faithfully,


/ PROF ELISHIBA KIMANI
AG: DEAN, GRADUATE SCHOOL

EM/ik

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RESEARCH LICENSE



This is to Certify that Mr.. Bob Ogolla Otigo of Kenyatta University, has been licensed to conduct research in Nairobi on the topic: ADOPTION OF AGENCY BANKING AND OPERATIONAL COST OF COMMERCIAL BANKS IN KENYA for the period ending : 30/July/2022.

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