

**RELATIONSHIP BETWEEN AGENCY BANKING AND THE FINANCIAL  
DEEPENING IN KENYA**

**BY**

**JACKSON MWANGI NJOROGE**

**D61/85897/2016**

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF  
BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS**

**UNIVERSITY OF NAIROBI**

**2021**

## DECLARATION

I hereby declare that this research project is my original work and has not been submitted to any other university for the award of a degree.

Signed 

Date. October 12, 2021

**JACKSON MWANGI NJOROGE**

**D61/85897/2016**

This research project has been submitted for examination with my approval as the University Supervisor.

Signed 

Date. October 12, 2021

**DR. HERICK ONDIGO**

Lecturer, Department of Finance and Accounting

School of Business

University of Nairobi

## **DEDICATION**

This project is dedicated to my family for constant encouragement and support during my study.

## **ACKNOWLEDGEMENT**

Am indebted to God for according me this opportunity to conclude this worthwhile initiative in my life. My appreciation goes to my family for their patience, sacrifices and standing with me during this journey.

Special thanks to my supervisor Dr. Ondigo for your support and guidance, May God bless you abundantly. My regards goes to my employer Ngummo Kenya Ltd for financial support and allowing me time to progress with my career.

Finally, hat tip to my colleagues, friends and all those who participated in making successful completion of this study.

## TABLE OF CONTENTS

<b>DECLARATION</b> .....	<b>ii</b>
<b>LIST OF TABLES</b> .....	<b>viii</b>
<b>LIST OF FIGURES</b> .....	<b>ix</b>
<b>LIST OF ABBREVIATIONS</b> .....	<b>x</b>
<b>ABSTRACT</b> .....	<b>xi</b>
<b>CHAPTER ONE</b> .....	<b>1</b>
<b>INTRODUCTION</b> .....	<b>1</b>
1.1 Background of Study .....	1
1.1.1 Agency Banking.....	2
1.1.2 Financial Deepening .....	3
1.1.3 Agency Banking and Financial Deepening.....	4
1.1.4 Kenya’s Financial Sector .....	5
1.2 Research Problem .....	6
1.3 Objectives of the Study.....	7
1.3.1 Specific Objectives .....	7
1.4 Value of the Study .....	8
<b>CHAPTER TWO</b> .....	<b>9</b>
<b>LITERATURE REVIEW</b> .....	<b>9</b>
2.1 Introduction.....	9
2.2 Theoretical Review .....	9
2.2.1 Agency Theory.....	9
2.2.2 Financial Intermediation Theory.....	11
2.2.3 Bank-Focused Theory.....	11
2.2.4 Bank Led Theory. ....	12
2.3 Determinants on the Financial Deepening .....	12
2.3.1 Agents Facilitating Agency Banking .....	13
2.3.2 Number of Agency Banking Transactions.....	14
2.3.3 Value of Agency Banking Transactions .....	14

2.4 Empirical Review.....	15
2.5 Conceptual Framework.....	17
2.6 Summary of Literature Review.....	18
<b>CHAPTER THREE .....</b>	<b>19</b>
<b>RESEARCH METHODOLOGY .....</b>	<b>19</b>
3.1 Introduction.....	19
3.2 Research Design.....	19
3.3 Population of the Study.....	19
3.4 Data Collection .....	19
3.5 Diagnostic tests .....	19
3.6 Data Analysis .....	20
3.6.1 Analytical Model .....	20
3.6.2 Test of significance .....	21
<b>CHAPTER FOUR.....</b>	<b>22</b>
<b>DATA ANALYSIS, RESULTS AND INTERPRETATION.....</b>	<b>22</b>
4.1 Introduction.....	22
4.2 Descriptive Statistics.....	22
4.3 Diagnostic Tests.....	23
4.3.1 Test for Linearity .....	23
4.3.2 Test for Normality.....	24
4.3.3 Homoscedasticity.....	24
4.3.4 Multicollinearity .....	25
4.4 Regression Analysis.....	26
4.5 Interpretation of the Findings.....	28
<b>CHAPTER FIVE .....</b>	<b>30</b>
<b>SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS .....</b>	<b>30</b>
5.1 Introduction.....	30
5.2 Summary.....	30
5.3 Conclusion .....	30

5.4 Recommendations for Policy and Practice .....	31
5.5 Limitations of the Study.....	32
5.6 Suggestions for Further Research .....	33
<b>REFERENCES.....</b>	<b>33</b>
<b>APPENDICES .....</b>	<b>38</b>
Appendix I: Data Collection Form .....	38

## LIST OF TABLES

Table 4.1: Descriptive Statistics of Study Variables (2011-2020) .....	22
Table 4.2: Correlation Matrix .....	23
Table 4.3: Normality Test Results .....	24
Table 4.4: Homoscedasticity Test Results .....	24
Table 4.5: Multicollinearity Test Results.....	25
Table 4.6: Multiple Linear Regression Output .....	26



## LIST OF FIGURES

Figure 2.1: Conceptual Model .....	17
------------------------------------	----

## **LIST OF ABBREVIATIONS**

<b>ANOVA:</b>	Analysis of Variance
<b>ATMs:</b>	Automatic teller machines
<b>CBK:</b>	Central Bank of Kenya
<b>CGAP:</b>	Consultative Group to Assist the Poor
<b>FSD:</b>	Financial Sector Deepening
<b>KCB:</b>	Kenya Commercial Bank
<b>KYC:</b>	Know your-customer
<b>MFI:</b>	Monetary Financial Institutions
<b>POS:</b>	Point-of-sale
<b>SPSS:</b>	Statistical Package for Social Sciences
<b>VIF:</b>	Variance of Inflation

## ABSTRACT

The goal of the study was to assess the influence of agency banking on the financial deepening of the Kenyan financial sector. The specific objectives included; determining the influence of the number of agents facilitating agency banking on the financial depth; determining the influence of the number of agency banking transactions on financial deepening and determining the influence of these transactions on financial deepening. A descriptive research design was employed to evaluate the objectives. The study targeted the entire financial sector, which comprises 43 commercial banks and 24 microfinance institutions. Data was gathered from the Central Bank of Kenya reports over the period 2011-2020 and analyzed using Statistical Package for Social Scientists. The period was considered because data on agency banking before 2011 was not readily available. Descriptive statistics and multiple linear regression were used. The results revealed that the number of agents, the number banking transactions conducted through agency banking and value of agency banking transactions had a significant and positive effect on financial deepening of the Kenyan financial sector. In particular, the regression estimations showed that a unit increase in the number of agents would increase financial deepening by a factor of 5.71; a unit increase in the number of agency banking transactions would enhance financial deepening by a factor of 3.13 and a unit increase in the value of agency banking transactions would improve financial depth by a factor of 0.493. In sum, the results revealed that agency banking exerts a positive and significant influence on the financial depth of Kenyan financial sector. In light of these findings, it was concluded that the presence of agency banking in Kenya is noticeable and is playing its role in enhancing access of financial services. This study suggests a number of recommendations that can be implemented to foster the expansion of agency banking such as ; conducive political regulatory framework, development of financial literacy programs and development of prerequisite infrastructure.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of Study

Agency banking is a segment of electronic banking where selected agents are allowed to provide selected financial services for the banks through contractual agreement. Agents earn revenue on commission with respect to the conducted transactions. Agency banking entail services such as cash deposits; cash withdrawals; balance enquiry; card-less deposits (via sim-banking); issuance of mini bank statements, payment of salaries; disbursements of loans; repayments of loans; forced pin change (CBK, 2014). Agency banking also play a critical role increasing accessibility of banking services to the customers such as loans and mortgages applications and credit cards since only a few transactions at the banks are needed (Oburu, 2018).

The study was anchored on the agency theory that explains risk sharing, the agency problem and the relationship between principals and agents as posited by Jensen and Meckling (1976). The study was also guided by the financial intermediary theory claims that financial intermediaries enhance the allocation of resources by reducing transaction costs caused by imperfect information between the lenders and borrowers (Akerlof, 1970). The bank-focused theory explains cost reduction of banking sector by using nonconventional service delivery channels to meet the needs of the clients. Other related theories discussed include bank led theory which is a branchless banking service through contracted retail agents where the banks develop financial services and products and later involve retail agents (Lyman, Pickens, & Porteous, 2016). Through its provision of services, it provides conventional branch-based services that customer's carryout instead of queuing at the bank. This aim at reducing time spent in the bank.

In countries like Peru, agent networks are concentrated in urban areas. This clearly shows how effective agency banking is perceived in Peru. The agency banking is made for ease of congestion in banks, and from branches to agents of banks. The Oxford Policy Management (2011), posits that many bank agents are located closer to the branch of the same bank. Ignacio and Ivatury (2016) posits that financial institutions adopt agency banking in order to reduce cost of service distribution, and minimizing the banking risks.

### **1.1.1 Agency Banking**

The model of agency banking provides friendly and convenient financial services to individuals with the use of an agent who possesses a valid agency agreement. The solutions offered by agency banking provides convenient access to banking services to customers and enables customers to make transactions at any location. The bank enjoys reaching its customers using agents without adding any costs or risks to the bank. The rolling out of the model by CBK in May 2010 permitted banks to introduce a third party for the provision of selected banking services offered by commercial banks on their behalf. Commercial banks did full implementation of agency banking in 2011.

The services offered through agency banking include; deposit and withdrawal of cash, salary payment, loan disbursement and repayment, fund transfers, pension payouts and mini bank statement issuance. According to CGAP (2016) agency banking enables banks to acquire new clients willing to open bank accounts, apply for debit and credit cards and request for cheque books. Agency banking is cost effective since customer's access banking services from different kiosks, especially in rural areas which were unbanked areas in the past.

Through agency banking financial deepening is delivered to under banked and unbanked living in remote areas without access to the brick and mortar branches. The banks accomplish this by increasing the total number of touch points while reducing the costs of transactions. Agency banking is at the core of the strategy of monetary inclusion that is being implemented in Kenya that is aimed to help increase the number of customers hence translating to high transactions which will aid the overall banks performance

The CBK report of 2014 clearly states that "The legislative reforms of 2010 and 2013, allowed both commercial banks and microfinance banks to contact approved third party retail outlets to offer banking services through their marketing agents and self-managed agencies. The Banking Act also allow for sub-contracting of agents and the use of Agent Network Managers." Over the year's agency banking for commercial banks has really gained penetration in the banking sector.

Agency banking has been introduced in many countries all over the world. Countries such as Mexico have more than twenty thousand banking agents while Kenya the number of agents have grown with a change of 13.9% from 2016 to 2017 by 53,833 and 61,290 respectively (CBK, 2017). Colombia and Brazil have more numbers than Mexico. The increase in the use of agents in Africa particularly in Kenya is attributed by the financial sector reforms like the mobile phone technology which is a great contributor to agency banking. This has made commercial banks to practice financial deepening to the under banked by lowering the cost of services (Jayanty, 2011). Although agency banking still remains a new model in Kenya it has not reached to all parts of the country.

For this study agency banking was measured using three indicators; number of agents; number of agency banking transactions; and value of agency banking transactions. The penetration of agency banking in Kenya is wide. Statistics from CBK 2017 shows the distribution of agents where 89% are with 3 banks namely; Equity Bank with 28,663, KCB with 14,466 and Co-op Bank with 11,207 agents. Moreover, people and in particular to those residing in rural areas have found agent banking to be convenient and easily accessible. This has increased the monthly transfer of money using agency banking. Bank customers in Kenya transacted Kshs 734 billion in 2017, up from 442 billion in 2016. This is an increase that clearly indicated that agency banking encourages more transfers using agent banking. Moreover, as more people continue to transact using agent banking, more customers in Kenya have opened accounts at these shops due to their accessibility. By understanding the level of penetration of agent banking, calculating the monthly amount transferred using agency banking and the number of bank accounts opened using agent banks, the study will provide a comprehensive understanding on the role played by agency banking in influencing financial deepening in Kenya.

### **1.1.2 Financial Deepening**

Financial deepening is referred to as the increase of financial assets in the financial sector. McKinnon (2013) defines financial deepening as the enhancement of the financial services tailored for the development of the society thus increasing the availability and accessibility of the financial services in the economy of the nation. Financial deepening is also described as the increase in supply of money to price index ratio which indicates that the

liquidity level is high hence more money is accessible within an economy, hence increased opportunities available in that economy thus high growth rate and sustainability of the economy. Hence the establishment of financial firms results to economic development and growth. Financial deepening in the financial institutions enhances the mobilization, pooling and channeling of the saving into a productive capital pool that enhances the economic growth (Ndege, 2012).

Initially, the financial sector was experiencing the financial repression which was imposing a major challenge in the economic growth of the country (McKinnon & Shaw, 2013). The financial firms' repression resulted in the slow growth of the nation's economy. The repression of the financial organizations led to the too little to be saved, and the little that it is saved, it would not be allocated to those that will lead to best returns hence leading to the slow growth rate of the economy (Otieno, 2013).

Shaw and McKinnon (2013) have defined this concept of financial deepening to be the rise in the range of the services in the finance sector, which is geared to every stage in the society. It again points to rise in rate of the supply of money to GDP or the PI (Price Index) which finally points out that the more the availability of liquid money in the country, the higher the chances exist in that financial economy will be sustainable and continued economic growth. Shaw and McKinnon suggest financial deepening as the financial sector relative to the economy and could be approximated by private credit to GDP.

### **1.1.3 Agency Banking and Financial Deepening**

According to the CBK governor (CBK, 2018) the traditional methods of banking, had limited reach of customers to branches of banks which are mainly located in urban areas. There are some population sections that have sidelined from the financial sector on the grounds that they are not situated in areas that are not densely populated. This seclusion of certain population has resulted in the introduction of agency banking by the CBK and the government of Kenya. With agency banking, banks are able to reach more people from traditional branch networks which experiences the limitation of growth due to certain factors such as costs including the expenses incurred to hire staff and other related costs in comparison to its cost benefit analysis of starting branches in such underpopulated areas is negative. Hence, the CBK (2017) projects that agency banking will provide a solution to

such challenges since banks are expected to rapidly expand riding of third parties manpower and infrastructure.

One of the technology strategies for a bank is an agent network. It is similar to MasterCard, Visa, and debit card merchants with the exception that the use of an agent network would not only be for the sale of goods but for taking and handing over cash in place of the commercial banks (Ignacio & Ivatury, 2016). Introducing agent banking was aimed at ensuring that institutions offer more cost effective banking services to all customers. Moreover, according to the CBK (2017) it is presumed that the initiative would facilitate access of financial services to individuals that are under banked or unbanked.

In 2009, a research by the Financial Sector Deepening (FSD) in Kenya revealed that financial inclusion had made an increase of 3.7 % within a three year period. This was as a result of low level of confidence for poor individuals to access formal banking services as they were viewed as for the rich people. Based on the findings by the research, agency banking was adopted and implemented to ensure all individuals including those in remote territories had access to banking services at their convenience.

A survey by World Bank on the financial firms in Kenya revealed that within seven years, many Kenyans were able to access financial services. In developing nations banking firms have started to invest in agency banking so as to ensure easy access of banking services to unbanked population in remote areas while by offering the services at low transaction costs. Ivatury and Lyman (2006) established that agency banking offers efficiency and convenience by reducing the geographical distance people have to travel to access financial services from bank branches, and the long queues in banking halls. The Cooperative Bank of Kenya has embraced agency banking by positioning banking agents in different branch areas to improve the confidence of people, create awareness, ensure client security, and save time on transactions made over the counter.

#### **1.1.4 Kenya's Financial Sector**

Kenya's financial landscape has made major strides. Recently, improved from 26.3% to 40.5% (FSD, 2017). This growth of more than 10% is attributed to the increased usage of mobile money in the nation and in particular M-Pesa (FSD, 2017). However, despite the



reduction in the gap of the excluded in developed urban territories the gap between the excluded and included people with respect to financial services is still large.

The Kenyan financial sector comprises 43 commercial banks and 24 microfinance institutions as of December 2020. Since 2005, after the formation of financial deepening in Kenya, the banking sector has undergone many changes and transformations. In three years the rate of bank deposit accounts grew by 152% to 3.8 million. Over the same time period the branch network grew by 60% and the ATMs increased from 323 to 1325 (FSD, 2017).

## **1.2 Research Problem**

According to Cracknell (2012) financial deepening is perceived as one of the factors that can push for economic growth. This emanates from the understanding that financial deepening improves access to financial services increasing a state's liquidity, facilitating economic activity, and lowering the levels of poverty in the country. A low level of financial deepening in a state is associated with poor financial services accessibility which is ultimately associated with inequality in terms of income and slow growth of the economy. In 2009, a financial access survey in Kenya among the adult population revealed that approximately 41% were able to easily access financial services and products while 59% of the population did not access the same formal and informal financial services and products (FSD, 2017). In another survey conducted in 2013, it was revealed that the financial inclusion landscape in Kenya had grown with approximately 66.7% of the adult individuals having can easily access financial services and products in 2013 (FSD, 2017). Could the growth in financial access for the period 2009-2013 have been as a result of the role of agency banking in deepening financial market? Could the growth be as a result of the financial services and products offered by agent banks?

Golding, Koenig, Palmer, and Moll (2008) observed that the adoption of technology is developing and developed countries differ. In consideration to the high dependency on the usage of new innovations and information systems in undertaking different transactions, the impact of technology is thus significant (Zarea & Salamzadeh, 2012). Agency banking has become popular among the retail banks in Kenya due to decongesting the banks in a bid to save on time spent which has been a concern among the banks as well as customers.

However, most people still prefer conducting their banking services in the banking halls thus frustrating the agent banking models' intention. These include business owners, a group of people who ought to maximize on the options accessible rather than using traditional brick and mortar system.

Research have been undertaken to assess the role of different financial deepening variables in Kenya. Njoroge (2016) investigated the adoption of technology and banking agency in Rural Kenya and noted that the customers who accessed the agency banking services were a small percentage despite existence of agency banking services in the sector. Mwangi (2012) examined the role of agency banking as a diversifiable bank strategy. Descriptive design was used and the results drew the conclusion that agency banking is useful in the financial performance where banks use it to expand their services to rural areas hence stimulate their product and services. Cherotich (2013) did a research on the function of microfinance institutions in deepening the financial sector in Kenya and revealed that microfinance institutions have a significant contribution to financial deepening in Kenya. Ng'ang'a (2013) analyzed how poverty levels in Kenya affect financial deepening and revealed a positive link between poverty and financial deepening and particularly and financial deepening proxies were increased, a consequent increase of private per capita consumption was recorded. Mbiti and Weil (2011) focusing on M-banking analyzed the impact of M-Pesa in Kenya and revealed that M-Pesa was an alternative for the people who lacked easy access to formal banking services. None of the reviewed research analyzed the effect agent banking services have on financial deepening in Kenya.

Therefore, this study bridged the gap by determining the relationship between agency banking and financial deepening in Kenya. The study answered the question; what is the influence of agency banking on financial deepening in Kenya?

### **1.3 Objectives of the Study**

The main objective of the study was to determine the influence of agency banking on financial deepening in Kenya.

#### **1.3.1 Specific Objectives**

The study was guided by the following specific objectives:

- i. To determine the influence of the number of agents facilitating agency banking on financial deepening in Kenya
- ii. To assess the influence of the number of agency banking transactions on financial deepening in Kenya
- iii. To determine the influence of the value of agency banking transactions on financial deepening in Kenya

#### **1.4 Value of the Study**

The results of this research are beneficial to different parties including the management of agent companies, users of agent banking services and products, the government, the public in general and academicians and scholars. This study offers guidance to the government in the formulation of microeconomic policies which can improve financial deepening and facilitate agency banking to reach more people across the country.

The management of agent banking companies are also set to benefit from this study since it highlights the contribution of agency banking in deepening the financial sector in Kenya and makes recommendations for the improvement of financial services and products. The management is set to reap the benefits of increased profits if they use this study to guide their reach to more people. To the users of agent banking services and the public the adoption of the study findings by the management of agent banking companies and the government is likely to result in stream lined processes of agent banking and better agent banking services which ultimately benefit the users and the public.

To the academicians and scholars, the study provides empirical evidence on the continuing debate on how financial deepening is influenced by agency banking. The study bridges the gap existing in literature on the role played by agent banking services and products on financial deepening and provides a foundation for further research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter covered a review of existing literature on agency banking and financial deepening. Also, the findings of other researchers are included.

#### **2.2 Theoretical Review**

The anchoring theories of this study are; agency theory, financial intermediation theory, bank focused theory and bank led theory to shed more light on the influence of agency banking as explained below.

##### **2.2.1 Agency Theory**

The 1970s saw the emergence of the agency theory by Stephen Ross and Barry Mitnick from the disciples of economic and institutional theory. According to Jensen and Meckling (1976) the theory explains risk sharing, the agency problem and the relationship between principals and agents as posited by Armstrong (1991) posits that in real life, complex issues exist in agency relationships. However, the theory faces a limitation on its support for simplistic contractual agreements between the principal and the agent. Issues associated with historical, political, cultural and social aspects are not addressed by the theory despite being critical in the making of contractual agreements.

Agency banking has contributed significantly to reduction of expansion and staffing costs of the commercial banks. Automated teller machines (ATMs), branches and banking agents all work within operation strategies of banks in making decisions hence it is important for bank to poses clear strategic rationale while setting up bank agent (Siedek, 2008). Commercial banks are able to ease congestion in branches by diverting some of the customers to agents by adopting agency banking. In developing countries, agency banking is utilized to increase customer base by reaching to more clients especially in rural areas. Establishing branches in rural areas is uneconomical since the values of transactions are below the costs related to setting up a fully operational branch.

Banking agents have low establishment costs since they can operate on existing retail stall making it possible for low-income earners to access financial services. Siedek (2008) posits

that low income people are more comfortable in accessing financial services in banking agents compared to bank branch. Agent banking also play a critical role increasing accessibility of banking services to the customers such as loans and mortgages applications and credit cards since only a few transactions at the banks are needed (Makini, Odunga, Ongonga, Micheal, Onyango & Museve, 2017). Agency banking business is more profitable than branch networks since agents require less paper work and less staff compared to branches (Kentur, 2016)

However, security and confidentiality challenges have been facing agent banking in maintaining strong customer relationship. Banks have to ensure their customer's information is maintained with high confidentiality by ensuring the staff signs secrecy forms regularly. This is a challenge to the bank since the staffs at agent banks are not part of the bank staffs hence do not sign the secrecy forms. Security is another key challenge. Majority of the agencies in urban regions are located in high populated areas posing high risks to customers while doing their transactions. The bank has to monitor the security measures put in place by the agencies to maintain customer confidentiality. Recently, the quality of service rendered in agencies has become a huge challenge. The operating hours, customer relationship and delayed transactions have characterized agencies. According to Banker (2011) agents need to be trained properly on customer service as well as detecting fraudsters who are majorly targeting agencies. For the banks to fully reap the benefits of agency banking, they have a task force of addressing all these challenges.

Agency banking performance indicators include; deposit mobilization increase, competitive abilities and product attributes. Technology has taken the Centre stage in establishing strong interaction between the customers and local retail banks. The technological advancement in banking industry has led to virtual banks hence changing the performance indicators making it difficult for the bank management to adopt successful agency banking strategy (CBK, 2017). The management have been left with few areas to compete on which include; brand image, convenience, accessibility and product innovation.

### **2.2.2 Financial Intermediation Theory**

Akerlof (1970) developed the theory due to asymmetrical information challenges witnessed in 1970's. Financial intermediaries play a crucial role of enhancing the efficiency of the allocation of resources by reducing transaction costs caused by imperfect information between the lenders and borrowers. Information asymmetry can either be "ex-ante" or "ex-post". Riley & Hirschleifer (1979) defines ex-ante information asymmetry as a situation where lenders cannot detect high credit risk borrowers before granting them loans. Imperfect information entails adverse selection, credit rationing, moral hazards, and monitoring the operations and functions of a bank. Modigliani and Miller theorem argues that clients make their own portfolio decisions and hence no need for intermediaries. Banks don't need the intermediaries since they allocate resources efficiently. However, the need for intermediaries has grown due to pricing models and trading strategies leading to economic significance in financial intermediation

### **2.2.3 Bank-Focused Theory**

Lyman and Ivatury (2006) were the proponents of this theory and they argue banks strive to make use of non-traditional delivery channels of low cost to offer a variance of banking services to their customers. For instance, the use of mobile banking, agency banking and ATMs provide are cost-effective channels used by banks to reach a wide range of its customers. The benefits of using the bank-focused model include brand visibility of financial institutions as the banks are able to reach many people in different areas. Despite, this advantage the bank-focused model also raises the issue of accessibility and reliability of the financial services, security of transactions and identity and quality of experience by staff offering the services. To address these, issues, banks ensure that easy to use interfaces are accessible to customers and by improving security through multi-factor authentication systems (Kapur, 2011). The use of agency banking, allows the banks in Kenya to reach many customers at lower costs, thus improving the financial deepening of the country. Hence, the theory is relevant to this study since it argues that the use of agency banking is a cheaper channel for banks to reach more customers in Kenya, which in turn influences financial deepening in the country.

#### **2.2.4 Bank Led Theory.**

Cameron in 1972 developed this theory during the time of transformation of moneylenders into merchant's banks during the origin of modern banking. Bank-led theory consists a chain of three main players; customer, bank and retail agent. The chain of events happens when the banks develops financial services which are delivered to the customer through retail agents. The bank responsibility is to open and hold the account, retail agent verifies customers' personal details, carrying out in-person transactions, collecting loans and small deposits, and processing applications (Accenture, 2010). The bank establishes good communication system between the customer and retail agents by providing electronic technology to the retail agent. Bank led model is important in maintaining financial institutions and customer interaction by providing financial and non-financial services through retail agents. Security and poor agent staff training are main challenges facing the retail agent as well as conventional branch based banking

#### **2.3 Determinants on the Financial Deepening**

A pillar of services of inclusion recognized at a global level is the ratio of individuals who possess an active bank account. According to Boro (2017) the proportionate of the total deposit accounts to the total families is a key indicator of diffusion of banking in comparison to total account number as percentage of the number of families. Essentially, better financial inclusion does not automatically imply good wellbeing. Donovan (2012) posits that the critical postulation is on the grounds that being privy to formal services offered by the financial sector has a lower effect with respect to demanding customers who pay extra for informal services.

Access to finances is commonly categorized into two: the first category is based from the side of the lenders including service providers and financial institutions. The second category is based from organizations, customers or families. The commonly used pointers of analyzing financial inclusion include: number of bank accounts, bank branches, ATMs, bank credits/loans and bank deposits. Notably, these pointers only offer limited data on the financial inclusiveness in an economy, therefore fails to offer sufficient facts to complete inclusion of financial services and product. According to Etim (2014) formally enclosed families are those perceived to make use of services offered by financial institutions.

Researchers have attempted to show the link between financial services offered in rural areas with respect to financial inclusion. A study by Boro (2017) observes that a logistical variable/element in that financial services needs are complex in regions where it is perceived as viable by those who offer the same services. Mobile banking has been established by Gakure, Anene, Arimi, Mutulu and Kiara (2013) as easily available in comparison to other mechanisms of financial innovations.

Chithra and Selvan (2013) found that in India, population, penetration of credit and literacy influence financial inclusion. Environmental structure is at the core in establishing the behavior of the multitude with respect to banking in the nation. In Peru, research by Camara, Pena and Tuesta (2014) revealed that the level of income and education are critical factors in determining financial inclusion level. The population density in Africa, the density of population is important for financial inclusion than any other factor. According to Oburu (2018) mobile banking in Africa has increased financial access.

### **2.3.1 Agents Facilitating Agency Banking**

The high cost of traditional banking method is a challenge that hinders banks from providing financial services to remote locations. Commercial banks will have to incur high costs in order to conduct a small transaction to the poor and those residing in remote areas. However, the lack of a physical bank branches in remote areas hinders the motivation of the customers to access the financial banking services. In nations such as Brazil, the use of agents is thriving in order to reach the people living in remote areas. Boro (2017) found that the use of agent banks, telecommunications companies and other financial services makes it possible to offer viable services to all of its customers without increasing on to a firm's risks and costs.

Using bank agents has a positive potential of increasing the accessibility of financial services and products to the poor and the populations that are underserved (Bold, 2011). Following the agency agreement, the bank agents are able to engage with their customers and take part in different activities within the community. There are different types of bank agents. Some of the agents who are commonly called cash merchants only provide services of cash in/cash out. Other agents enroll potential customers and offer a wide range of financial services.



Flaming (2011) categorized the services offered by bank agents into four; transmitting, processing information, handling cash, and electronic fund transfer. The transmission of information consists of offering customers with information about their accounts (i.e. bank statements and inquiries) and applications on accounts and loans, including the transmission of information on KYC. Processing of information includes account applications processing and loan applications processing, credit analysis, and analyzing individual information of loan applicants, undertaking the procedures for KYC when opening accounts and making transactions, keeping records and selling micro insurance. Handling of cash involves deposits and withdrawal of cash. This is often money of small values that is moved to and from the account of the customer. Lastly electronic funds transfer entail making payments, effecting payments and disbursing benefits by the government. With respect to the regulations in different countries the bank agent may or may not be allowed to engage in all of the four financial activities.

### **2.3.2 Number of Agency Banking Transactions**

In Africa, Latin America, Middle East and Asia, Mbugua (2015) observed that despite the importance of opening a bank account approximately 2.5 billion people in the three regions have not registered a bank account. This gap can be filled by agency banking where people can open bank accounts using agent banks near their place of residents. The number of bank accounts opened via agent banks is an indicator of the level of financial deepening in any country. In an attempt to increase the financial deepening in Mexico, a new regulation was passed that allows agent bankers to register customer bank accounts (Celina, 2012). In Kenya, accounts registered via bank agents is still below 25% in comparison to the accounts opened via the parent banks (Mbugua, 2015). Moreover, most customers using agent banks in Kenya were more interested in making transactions rather than opening bank accounts. However, despite this negative result, it is critical to identify how opening of bank accounts via agent banks contributes to financial deepening.

### **2.3.3 Value of Agency Banking Transactions**

A key determinant of financial deepening is the monthly transfers made using agent banks. Due to the growth in penetration of agency banking, many people and in particular those residing in rural areas have access to agent banks where they can make transfers and

payments. For instance, in Peru and India, an increase in the amount of finances transferred using agent banks has been recorded. Margaret and Ruth (2019) reported that in Peru, agent bankers transact approximately 3-8 million monthly. In Kenya, it is estimated that each agent banker approximately makes customer cash transfers worth more than Ksh 150,000 monthly (Margaret & Ruth, 2019). This is an indication that with more penetration of agency bankers more customers use the service, thus increasing the monthly amount of money transferred using agent banks.

## **2.4 Empirical Review**

Liberalization in financial services has resulted to increased competition in the banking sector especially in the developing countries triggering more researches on agency banking adoption. Technology has been the key player in expanding banking industry through development of ATMs and mobile banking. Rodrigez (2014) assessed how agent banking adoption by banks in Mexico has influenced the financial institutions where Stratified sampling was used in the study of five regions in Mexico. The results showed that agency banking improved access networks and transactions efficiency beefed up making transactions easier and faster in Mexico. Despite the evident agency banking benefits, respondents claimed agents were insecure for making high value transactions and hence they preferred branches to agents. Omar (2014) investigated the contribution of agency banking to financial sector in India. Random sampling was used and 400 respondents from 40 registered commercial banks were chosen to participate in data collection. The results established that agency banking enhanced operational efficiency and effectiveness of commercial banks

The role of consumer education on agency banking in the urban settings was conducted by Makini *et al.*, (2013). The research was situated in Nyanza region specifically in Siaya County, the questionnaire was used. The results revealed that agency banking education plays an important role where telecom companies have not implemented technology to its fullest. This however needs to be championed by the banks that have implemented agency banking improving their values and transactions. The study only used descriptive analysis in a limited setting to generalize the findings. However, this research will incorporate the 17 banks that have embraced agency banking in Kenya.

In an investigation on expansion of bank outreach, Kenturet, Nair, Parsons, and Urdapilleta, (2013) conducted a research in Peru on bank outreach through retail partnership. In Peru, agency banking has been incorporated with other business operations such as pharmacies and grocery stores so as to improve the banking services outreach. The results showed that 20% of the population can easily access financial services via agents. The agents account for 48 million annual transactions while ATMs transactions are three times more generate twice the total value from agents. In 2012, approximately 35% of the transactions were done in agents, 20% in ATMs while 45% were done in traditional bank branches (CGAP, 2013)

Njoroge (2016) investigated the adoption of technology and the banking agency in Rural Kenya. 20 commercial banks were randomly selected and descriptive analysis was employed. The results showed a small percentage despite existence of agency banking services in the sector. This was contributed by insecurity, lack of confidentiality and inexperienced agents' staff with poor customer service. From the analysis of Wafula and Wanjala (2017) concluded that enhancement of customer service, reduction of cost and banks presence in remote areas were influenced by the implementation agency banking in rural areas in Kenya.

In Kenya, Oburu (2018) evaluated how financial performance is impacted by the use of agent banking in commercial banks. The study audited financial statements and reports to gather secondary data from 2012-2017. The findings indicated that improving agency banking enhances commercial banks performance. The independent variables from the study contributed 33% to enhancing financial performance. The findings indicated a positive correlation between agency banking and performance

Mwaura (2018) assessed how agency banking impacts SACCOs' efficiency in Kiambu County. The research assessed agency banking services and products offered by Saccos, staff, location, the operational hours and liquidity of agent banks which contributed to operational efficiency (indicated by gained profits, retention of customers, and cost recovery rate) of SACCOs' in Kiambu. The research indicated that agency banking factors such as the services, products, location, staff, liquidity ratio, operational hours and

characteristics of agent banks significant impact on operational efficiencies of Saccos based in Kiambu County.

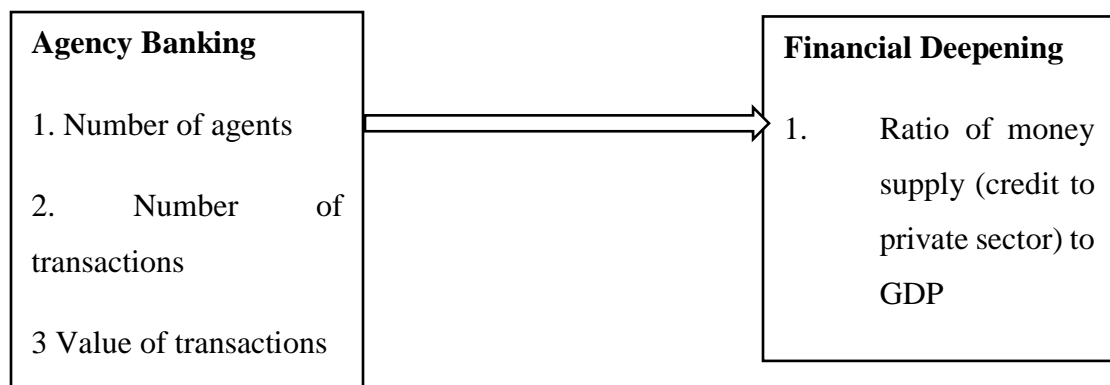
Muthaura (2018) examined the contribution of agency banking to SMEs growth in Kenya. Data findings established that, accessibility to credit is the factor that contributes highly to the growth of the SMEs, secured transactional platform was seen to be the key aspect which has made agency banking to become popular, while lacking adequate features being still the biggest concern and challenge both agents and users of this platform has in regard to agency banking in Igembe North. The following recommendations were proposed; enhancing latest security technologies to combat acts of hacking and increasing effectiveness, embracing adequate training to agents to increase customer relationship and service delivery and lastly liquidity issues must be made part of the minimum threshold requirements.

## 2.5 Conceptual Framework

A conceptual framework is described as the mental plan that guides research (Mugenda & Mugenda, 2013). The dependent variable was financial deepening proxied by the ratio of money supply to GDP. Agency banking represented the study's independent variable and was assessed using three indicators namely; number of agents, number of transactions and value of transactions. The framework is illustrated in the figure 2.1.

### Independent Variable

### Dependent Variable



**Figure 2.1: Conceptual Model**

**Source: (Author, 2021)**

## **2.6 Summary of Literature Review**

The literature reviewed is anchored onto the Agency theory, financial intermediation theory, Bank-Led theory, and Bank-Focused theory. Several empirical studies have also been discussed in the literature review Kentur, Nair, Parsons, and Urdapilleta (2013) investigated the expansion of bank outreach through retail partnership in Peru. Rodrigez (2014) assessed the influence of agency banking adoption in Mexico and Omar (2014) undertook a research to establish factors leading to agency banking adoption in India. Locally, Kinyanjui (2013) looked at the role commercial banks adoption of agency banking in Kenya and concluded that security and infrastructure cost related to agency banking are critical in improving their financial performance. Njoroge (2016) investigated adoption of technology and the banking agency in Rural Kenya and noted that the customers who accessed the agency banking services were a small percentage despite existence services through agency banking in the sector. From the analysis of Wafula & Wanjala (2017) concluded that improving customer services, reduction of cost and physical presence of banks in remote areas were influenced by agency banking implementation in rural areas in the country.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This section looks at the methodology to be followed in conducting the research. It covers the design of the research, collection of the data and analysis techniques that were used in the study

#### **3.2 Research Design**

A descriptive design was employed for the research. The design was fit since it showed the link between the studies (Saunders, Lewis, & Thornhill, 2007). A descriptive design is able to give an answer to the where, how, and what of a phenomenon (Creswell, 2008). The design was considered fit for the research since it describes the relationships between agent banking and financial deepening in Kenya. The research collected only quantitative data using secondary data gathered from annual reports published by Central Bank of Kenya.

#### **3.3 Population of the Study**

The focus of the study was on the Kenyan financial sector, which comprises 43 commercial banks and 24 microfinance institutions as of December 2020. Data for the ten-year period (2011 to 2020) was used. The study did not undertake any sampling since the study population was small (Mugenda & Mugenda, 2013)

#### **3.4 Data Collection**

The study collected quantitative data. The source of the data was in the form of secondary data obtained from banking supervision and financial sector stability reports published on the CBK website. The archival data collected covered period of ten years from 2011-2020. This period was considered for this study because data on agency banking for the period before 2011 was not available on the website.

#### **3.5 Diagnostic tests**

Diagnostic tests were conducted to determine the reliability of the findings. The study conducted a multicollinearity test to ensure that the collected data is not biased and that a single variable data has no relation with another variable data. It occurs during the existence of exact or nearly exact link between more than one independent variables. The study used

the Shapiro and Wilk (1965) test to assess for the existence of normality. This test was chosen due to its good characteristics. Value ‘W’ lied between 0 and 1 where a value of one signified normality while values closer to zero indicated rejection of normality. The presence of homoscedasticity indicates that the error terms have a constant variance for each observation (Berenson, Levine & Krehbiel, 2009). The Breush-Pagan/Cook- Wesberg was used to check for homoscedasticity. At 95%Confidence level, where the null hypothesis has a constant variance, and values of  $p>0.05$  cause the null hypothesis not to be rejected. Multicollinearity was tested using the Variance Inflation Factor (VIF). A VIF of less than 5 indicates insignificant multi-collinearity while a VIF greater than 10 indicates multi-collinearity (Cohen, West & Aiken, 2013). Correlation analysis was used to assess the linear associations between the variables. Significant correlation coefficients greater than 0 are indicative of positive linear relationships.

### **3.6 Data Analysis**

Data was gathered for a 10- year period from 2011-2020. The data gathered was first cleaned and edited to correct any errors. The data was later coded in preparation for analysis. SPSS vs. 22.0 was used to analyze the gathered data.

#### **3.6.1 Analytical Model**

A regression analysis was conducted as follows.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where,

Y = Financial deepening (Credit to the private sector )

X<sub>1</sub> = Number of agents (Number of agents that facilitate agency banking in a given year)

X<sub>2</sub> = Number of agency banking transactions (Total number agency banking transactions in a given year)

X<sub>3</sub>= Value of agency banking transactions (Value of agency banking transactions in Ksh. in a given year).

E = error term

### **3.6.2 Test of significance**

The study employed the use of the Analysis of Variance (ANOVA) and F- test to evaluate the regression model significance level at 95% confidence level. To evaluate the link existing between agent banking and financial deepening in Kenya correlation analysis was undertaken. Coefficient of determinant ( $R^2$ ) was utilized to establish how much variations in financial deepening can be explained by agency banking.



## CHAPTER FOUR

### DATA ANALYSIS, RESULTS AND INTERPRETATION

#### 4.1 Introduction

The goal of this chapter is to present the empirical results yielded from the analysis of the data collected for this study. The outline of this chapter is as follows. The first section presents summary statistics linked to the study's variables of interest. In the second section, results on the diagnostic tests performed to detect any possible violations of the multiple regression analysis are presented. Next results, derived from fitting the regression model are presented. The chapter ends with a brief discussion of how the findings yielded in the study relate to the existing empirical evidence established by previous studies.

#### 4.2 Descriptive Statistics

This section presents the descriptive statistics of the study variables over the study period. Table 4.1 displays the results.

**Table 4.1: Descriptive Statistics of Study Variables (2011-2020)**

	N	Mean	Std. Deviation	Minimum	Maximum
Financial depth (Credit to private sector)	10	34.12	3.65	29.54	40.20
No. of agents	10	44035.90	22254.29	9478	72617
No. of transactions	10	90138226.7	54753226.7	8761703	162969153
Value of transactions (in millions)	10	544127.16	445415.49	544127.16	445415.49

**Source: CBK Annual Reports**

As exhibited in Table 4.1, the financial depth show that on average, the credit supplied to the private sector represented 34.12% of the GDP. Additionally, the results show that the number of agents ranged from 9,478 to 72,617 over the study period and averaged at 44,035.9 ( $SD=22,254.29$ ). It is also observable that on average the number of transactions through agency banking stood at 90,138,226.7 ( $SD= 54753226.7$ ). In addition, the results

show that the value of banking transactions undertaken through agents averaged at Kshs 544127.16 million over the study period.

### 4.3 Diagnostic Tests

As previously mentioned, a regression model was used to evaluate the objectives of this study. However, before undertaking the regression analysis, diagnostic tests were undertaken to ensure that the gathered data did not, in any way, violate the assumptions underlying the regression model. In running these tests, the natural logarithms of number of agents, number of transactions and value of transactions were used. In particular, the tests sought to test the following conditions; normality, linearity, heteroscedasticity and stationarity.

#### 4.3.1 Test for Linearity

A key requirement for the application of regression is that there exists a linear relationship between the predictor variables and the outcome variable. A Pearson correlation analysis was carried out to investigate this assumption. Additionally, the correlational analysis provided pertinent insights in reference to both the direction and strength of relationship among the variables of interest in this study. The results of the correlation are presented in Table 4.2.

**Table 4.2: Correlation Matrix**

	Financial depth	Ln (No. of agents)	Ln (No. of transactions)	Ln (Value of transactions)
Financial depth	1			
Ln (No. of agents)	0.415*	1		
Ln (No. of transactions)	0.368*	0.301	1	
Ln (Value of transactions)	0.409*	0.214	0.302	1

\* $p < 0.05$

**Source: Researcher (2021)**

Table 4.2 indicates a significant linear relationship between the study’s outcome variable and predictor variables. In particular the results reveal that there was a moderately strong and positive relationship between financial depth and number of agents ( $r=0.42$ ,  $p<0.05$ ), number of transactions ( $r=0.37$ ,  $p<0.05$ ) and value of transactions ( $r= 0.41$ ,  $p<0.05$ ). Generally, these results show that the assumption of linearity was not violated.

#### 4.3.2 Test for Normality

Normality is an assumption surrounding the application of regression analysis where it is assumed that the dependent variable follows a normal distribution. For this study, the dependent variable was financial depth by credit to the private sector. The normality of this measure was tested using the Shapiro-Wilk tests. The results of this test are displayed in Table 4.3.

**Table 4.3: Normality Test Results**

	Shapiro-Wilk		
	Statistic (W)	V	Sig.
Financial depth	0.85	7.703	0.221

**Source: Researcher (2021)**

As shown in Table 4.3, for the Shapiro-Wilk statistics, the associated significance level was greater than 0.05 for financial depth as evidenced by  $p=0.221$ . Additionally, the Wilk statistic, 0.85 lied between 0 and 1. In light of these results, normality of the financial depth was assumed.

#### 4.3.3 Homoscedasticity

This is the assumption that the variance in the relationship between the outcome variable and predictor variables is constant. The Breusch-Pagan test was used to test this assumption. The results of the test are displayed in Table 4.4.

**Table 4.4: Homoscedasticity Test Results**

<b>Breusch-Pagan test</b>	
---------------------------	--

Observed value	0.64
Critical value	0.25
Df	4
p-value	0.431
Alpha	0.05

**Source: Researcher (2021)**

Table 4.4 shows that the computed *p*-value was greater than the alpha =0.05. This indicates that the residuals between the dependent and independent variables were constant. As such, homoscedasticity was assumed.

#### **4.3.4 Multicollinearity**

Multicollinearity refers to a scenario when two variables are closely related and as a result they have an almost perfect relationship with one another. In addition, it renders the variance inefficient and thereby leads to errors in conclusions. The results are shown in Table 4.5.

**Table 4.5: Multicollinearity Test Results**

<b>Variable</b>	<b>Tolerance</b>	<b>VIF</b>
No.of agents	0.98	1.02
No. of transactions	0.86	1.13
Value of transactions	0.84	1.19

Table 4.5 shows that the predictor variables VIF values were less than 10 indicating the lack of multicollinearity among the variables. Additionally, the tolerance values of the predictor variables were greater than 0.01 indicating that multicollinearity was not an issue.

#### 4.4 Regression Analysis

This study's objectives were tested using multiple linear regression analysis. The model regressed financial depth on the number of agents, transactions and the value of these transactions. The results generated are displayed in Table 4.6.

**Table 4.6: Multiple Linear Regression Output**

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	0.653 <sup>a</sup>	0.426	0.394	3.978	
a. Predictors: (Constant ), No. of agents, No. of transactions, Value of transactions					
ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	25.52	3	8.51	0.54	0.000
Residual	394.53	6	15.76		
Total	120.05	9			
Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	Beta	Std. Error	Beta		
1 (Constant )	17.39	48.02		0.36	0.000
Ln (No. of agents)	5.71	10.48	1.06	0.54	0.000
Ln (No. of transactions)	3.13	7.07	0.79	0.44	0.000
Ln (Value of transactions)	0.493	2.12	0.15	0.23	0.000

Source: Researcher (2021)

The value of  $R^2$  as showed in Table 4.12 measures how variability in the outcome variable can be accounted for by combined effect of number of agents, number of transactions undertaken through agency banking and the value of these transactions. The results show that  $R^2=0.426$  which means that the changes in these agency banking accounted for 42.6% of variation in the financial deepening of the financial sector. The remaining 57.4% was indicated by other factors not considered in the study. These factors could be government policies such as interest capping regulations and the COVID pandemic shock.

The ANOVA results ( $F= (3, 9)=0.54, p < 0.05$ ) show that the regression model was significant in explaining the impact of agency banking on financial deepening. With reference to the results, the following prediction equation is yielded.

$$\text{Financial deepening} = 17.39 + 5.71 * \text{No. of agents} + 3.13 * \text{No. of transactions} + 0.493 * \text{Value of transactions}$$

The expected increase in financial deepening differs in each variable on the grounds of the regression coefficient. For instance, a unit increase in the number of agents would improve financial depth by 5.71 units. This effect was statistically significant,  $t (9)= 0.36, p < 0.05$ . Therefore, in regards to the first objective, the results indicate that the number of banking agents significantly and positively impact financial deepening of the Kenyan financial sector

A unit increase in the number of transactions undertaken through agency banking would increase financial deepening by a factor of 3.13. This effect was statistically significant,  $t (9)= 0.44 p < 0.05$ . As such, with respect to the second objective, the results indicate that the number of agency banking transactions exerts a positive and significant effect on financial deepening of the Kenyan financial sector. Additionally, a unit increment in the value of these transactions would improve financial deepening by 0.493 units. This effect was found to be significant,  $t (9)= 0.23 p < 0.05$ , thus as pertains to the third objective, the results show that the value of transactions have a positive and significant effect on financial depth.

#### 4.5 Interpretation of the Findings

Agency banking is a recent financial innovation that has gained ground in Kenya over the past decade. In view of this recency, little is understood about its connection to financial deepening of the Kenyan financial sector. Yet without an accurate and realistic picture of the financial sector's potential and limitations that may hamper the achievement of improved financial access among consumers, the country cannot effectively transition to a low-interest on credit economy. Against this backdrop, the focus of the thesis was to examine the impact of agency banking on financial deepening of the Kenyan financial sector.

The model used to assess the link between agency banking and financial deepening had coefficient of multiple correlation (R) of 0.653, indicating a fairly positive and strong association between the predicted and observed valued of financial deepening The  $R^2$  was 0.426 implying that the number of agents, agency transactions and transactions values accounted for 42.6% of the variability in financial deepening. The model was further found to be statistically significant ( $F(3,9)=0.54, p<0.05$ ). With reference to the impact on number of agents conducting agency banking on financial deepening, the results showed that a unit increase in the number of agents would enhance financial deepening by a factor of 5.71 The results also revealed that these changes in the effect of number of agents on financial depth were statistically significant ( $t(9)=0.36, p<0.05$ ). In regards to the impact of number of transactions conducted via banking agencies on financial depth, the results demonstrated that a unit increment in these transactions would enhance financial depth by a factor of 3.13. The effect was also found to be statistically significant ( $t(9)=0.36, p<0.05$ ). The regression results further revealed the estimated relations between the value of agency banking transactions and financial deepening. Specifically, it was reported that an increment in the value of the agency banking transactions leads to an increment in financial deepening by a factor 0.493. This positive effect linked to the value of agency banking transaction was also found to be statistically significant ( $t(9)=0.36, p<0.05$ ).

In summary, the results indicate that agency banking positively and significantly impact financial deepening. This in line with the agency theory and bank-led theory, which argue that separation of power between ownership and management, is an effective way of risk

sharing and maximizing gains. The finding, however, does not support the financial intermediation theory, which argues that banks do not need intermediaries to ensure effective delivery of services. Further, this study agrees with a series of studies in the past that have established the positive impact of agency banking on financial deepening (Kenturet et al., 2013; Makini et al., 2013; Muthaura, 2018; Njoroge, 2016; Oburu, 2018; Omar, 2014). No study was found to be in contrast with the findings obtained.



## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

The section starts by highlighting the summary of the study the conclusion are drawn followed by the study recommendations. The limitation and suggestions for further studies are also highlighted in the section.

#### **5.2 Summary**

The central objective of this study was to investigate the effect of agency banking on the financial deepening of the Kenyan financial sector. In light of this study's overarching objective, a series of specific objectives were formulated. The first objective examined the effect of number of agents conducting agency banking on financial depth. The second objective sought to explore the impact of the number of agency banking transactions on financial depth. As for the third objective, the intent was to evaluate the impact of the value of agency banking transactions on financial depth.

The research objectives and the contributions to knowledge that the present study sought to pursue lied squarely within the domain of quantitative research. To this end, the methodology of the study entailed the use of multiple linear regression model. Quantitative data for the variables of interest were gathered for the period 2011 to 2020.

The results generated from the results pointed to a number of key issues. Firstly, the results indicated that the number of agents facilitating agency banking has a positive and significant effect on the financial depth of Kenyan financial sector. Secondly, it was established that an increment in the number of agency banking transactions enhanced financial deepening. The results further showed that the value of these transactions exerts a positive and significant effect on financial deepening. In sum, these results demonstrated that agency banking significantly and positively impact financial depth of the Kenyan financial sector.

#### **5.3 Conclusion**

In developing countries such as Kenya, ensuring that all individuals have access to financial services is still a critical policy objective. Financial services access contributes to

the eradication of inequalities and poverty and to facilitating sustainable development by ensuring food security and easy access to health services. Additionally, it facilitates faster, speedier and cost effective remittance flows allowing for additional choices in leveraging such funds as productive investment sources. With reference to the findings, it is concluded that the presence and role of agency banking in Kenya is noticeable and is playing its role in enhancing access of financial services.

It can also be concluded that growth in agency banking has the potential to radically enhance financial access for underserved populations not only in Kenya but also in other African countries. This can improve the transfer of income money from diaspora, increase domestic savings and lower the cost of conducting business by SMEs and the private sector as a whole. All of these potential benefits could help Africa achieve greater development and significantly reduce poverty.

The findings also indicate that for agency banking to remain a key access point for cash and other financial services, it is not only important for them to extend coverage over time but also form an evolving ecosystem with their respective traditional banks. Such an ecosystem can help support agent network expansion. The tendency of agents to cluster around their respective traditional banks may underpin the agents' ability to extend the access footprint to rural areas.

#### **5.4 Recommendations for Policy and Practice**

The role of agency banking in bolstering financial deepening in Kenya can be supported in many ways. For example, one of the ways is by providing a conducive legal environment through regulations. This can allow agents to adopt innovative techniques to reach the pyramid bottom. The government ought to design and implement policies enforcing set regulations by the CBK with reference to strategies on financial services accessibility. This can involve implementing a ceiling for cash payments that are acceptable.

Developing financial literacy programmes can also be undertaken. Many individuals in Africa and Kenya do not use financial services such as agency banking due to the high level of financial illiteracy. Therefore, it is imperative to offer programs on financial literacy to foster the use of financial services including agency banking.

Economic models and particular client groups or value chains should influence banks' agent deployment strategy. In addition, banks should guide the execution of these models by assessing country market landscapes, the need for development, and the sort of expansion that is optimal and efficient given the limitations. In the same vein, the government should recognize that setting goals for the expansion of a predefined number of agents runs the danger of creating bank incentives that are wrong.

If agency banking is to be used as a tool for financial inclusion, the government should encourage its growth while also developing the necessary infrastructure to help agents' business cases in more remote and difficult areas. Adequate roads, power, Internet access, and bulk cash logistics are examples of such infrastructure. Long-term, laws and regulations will be needed to ensure that the digital financial services ecosystem and digitized value chains continue to exist. B2B and government-to-person (G2P) value chain components, as well as their usage of interoperable digital payment, should be prioritized.

Sustainable rural agent development must be coordinated with ongoing investments in DFS infrastructure, such as Internet connection and liquidity management, according to the banks. Partnerships between industry participants and alternative cash point providers, such as merchants or gas stations, should be promoted in order to contribute to ecosystem growth. To build digital payment use cases, banks should form relationships with retail suppliers. In much the same phrase, the governments may commit to frequent and continuing restructuring of the internet capital markets ecosystem that prioritizes widespread banking facilities while also recognizing the value of long-term provider business models.

### **5.5 Limitations of the Study**

One of the limitation encountered is in relation to the generalizability of the study's findings. The study concentrated on the Kenyan financial sector. Accordingly, the findings may not provide much meaningful insights to the financial sector of any other country.

The data collected used to test the study's model covered a ten-year period. The 10-year period was as a result of the CBK website limitation particularly, data on agency banking was not readily available on the website before 2011. In addition, more testing would have

been required covering a longer period to assess whether the study findings can be generalized over a longer time frame.

The study evaluated the direct effects of agency banking on financial deepening. It is possible that mechanisms other than agency banking ones used in the study such as industry-specific variables may at least in part explain the results. As such, the causal mechanism between the two variables could not be delineated.

### **5.6 Suggestions for Further Research**

Further research can be extended with reference to this thesis in three ways. First, a more broadened range of studies covering larger geographic contexts would offer future researchers with adequate insights to facilitate comprehension of the implications of agency banking on financial deepening across different countries. Secondly, future researchers should test the generalizability of the study's results to longer time spans. Thirdly, future studies can develop a casual model of financial deepening. The casual model can be used to provide a better understanding to the interrelationships discussed and provide information on their salience. Additionally, future researchers may consider exploring for potential moderating and mediating variables as well as the use of more robust methodologies such as longitudinal research designs. In the same light, future researchers should consider using both primary and secondary data in their studies.

## **REFERENCES**

- Accenture, (2010). *A strategic approach to cost reduction in banking. Achieving high performance in uncertain times*. Retrieved from [www.accenture.com](http://www.accenture.com).
- Akerlof, G. A. (1970). The market for lemons. Quality uncertainty and the market mechanism. *Quarterly Journal of Economics*, 488-500.

- Amstrong, P. (1991). *Contradictions and Social Dynamics in the Capitalist Agency Relationships*. Accounting, Organization and Society.
- Banker, (2011). *Banker in channels for banking in Kenya*. Nairobi, Kenya. Retrieved from <http://bankingkenya.com/233/agency-banking-kenya>.
- Beck, T., Demirguc-Kunt, A., & Martinez Peria, M. S. (2014) reaching out: Access to and use of banking services across countries. *Journal of Financial Economics* 85: 234-266.
- Bertay, A. C., Demirgüç-Kunt, A., & Huizinga, H. (2013). Do we need big banks? Evidence on performance, strategy and market discipline. *Journal of Financial Intermediation*, 22(4), 532-558.
- Bold, C. (2017). “*Branchless Banking in Pakistan: A Laboratory for Innovation.*” Brief. Washington, D.C.: CGAP, October
- Boro, M. (2017). *Effect of mobile banking on financial inclusion in Kenya*. Master’s Thesis, University of Nairobi.
- Camara, N., Pena, X., & Tuesta, D. (2014). *Factors that matter for financial inclusion: evidence from Peru* (No. 1409), 512-544.
- Celina, L. (2012), “*Agent Banking in Latin America,*” by the *National Banking and Securities Commission (CNBV) of Mexico*, published by the Alliance for Financial Inclusion
- Central Bank of Kenya (2017). Agent Banking Knowledge Exchange. Nairobi, Kenya. retrieved from <http://www.afilobal.org/sites/>
- CGAP, (2013). Measuring Financial Inclusion around the World. *Financial Access 2009* Washington, D.C.
- Cherotich, M., (2013). Role of Microfinance Institutions in Financial Deepening in Kenya. MBA Project. University of Nairobi.
- Chinthra, N., & Selvan, M. (2013). *Determinants of Financial Inclusion: An Empirical Study on the Inter-State Variations in India*. Available at SSRN: <http://ssrn.com/abstract=2296296> or <http://dx.doi.org.10.2139/ssrn.2296096>.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). Applied multiple regression/correlation analysis for the behavioral sciences (3rd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Cracknell, D., (2012). Policy Innovations to Improve Access to Financial Services in Developing Countries: Learning from Case Studies in Kenya. Centre for Global Development.
- Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Upper Saddle River, NJ: Pearson Education, Inc.
- Donovan, K. (2012). Mobile Money for Financial Inclusion. In T. Kelly (Ed.), *Information and communication for development*, Washington, DC: World Bank: 61-784.

- Etim, A. (2014). Mobile banking and mobile money adoption for financial inclusion, *Research in Business and Economics Journal Vol 9 PP 1-13*.
- Financial Sector Deepening (2017). FinAccess National Survey. Central Bank of Kenya.
- Flaming M. (2015). "Agent Management Toolkit: Building a Viable Network of Branchless Banking Agents." Technical Guide. Washington, D.C.: CGAP, February
- Flaming, M., Claudia M., & Mark P. (2011). "Agent Management Toolkit: Building a Viable Network of Branchless Banking Agents." Technical Guide. Washington, D.C.: CGAP, February
- Gakure, R., Anene, E., Arimi, I., Mutulu, J., & Kiara, P. (2013). Factors contributing to low M-Kesho adoption among subscribers. *International Journal of Social Sciences and Entrepreneurship*, 1(6), 84-97.
- Golding, E., Koenig-Lewis, N., Palmer, A., Moll, A. (2018). Predicting young consumers' take up of mobile banking services, *International Journal of Bank Marketing*, Vol.28 No. (5), 410- 432.
- Ignacio, M., & Ivatury, G. (2016). The Early Experience with Branchless Banking. CGAP Focus Note No 46. *Washington D.C. Journal of Bank Marketing*, Vol. 21, No. 1:16-28.
- Jayanty, S. (2011). Agency Banking: New Frontiers in Financial Inclusion. *Infosys Finacle Working Paper*.
- Jensen, M., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3, 305-360
- Kandie, C. (2013) Impact of Agency banking on financial inclusion in Kenya. MBA Thesis, *University of Nairobi*
- Kapoor, S. (2011). *Succeeding in UK with the Bank-Focused Model of Mobile Banking*. Finacle Whiteboard.
- Kentur, A., Nair, A., & Urdapilleta, E. (2013). *Expanding Bank Outreach Through Retail Partnerships: Correspondent Banking in Peru*.
- Kinyanjui, D. (2013). *Role of agency banking adoption by commercial banks in Kenya*. Unpublished MBAThesis of the University of Nairobi.
- Levine R. (2014). Financial development and economic growth: views and agenda *Journal of economic Literature*
- Lozano, D.M., & Mandrile, M. (2010). A New Agent Model for Branchless Banking in Colombia. International Development Law Organization.
- Lyman, T., & Ivatury, G. (2006). "Use of Agents in Branchless Banking for the Poor: Rewards, Risks and Regulation." *Focus Note 38*. Washington, D.C.: CGAP. [http://www.cgap.org/portal/binary/com.epicentric.contentmanagement.servlet.ContentDeliveryServlet/Documents/FocusNote\\_38.pdf](http://www.cgap.org/portal/binary/com.epicentric.contentmanagement.servlet.ContentDeliveryServlet/Documents/FocusNote_38.pdf)

- Lyman, T., Pickens M., & Porteous, D. (2016). Regulating Transformational Agency Banking: Mobile phones and other Technology to Increase Access to Finance. Focus Note No. 43 Washington, D.C.: CGAP
- Makini L., Odunga P., Ongonga J., Micheal N., Onyango M., & Museve E. (2013). The Role of Consumer Education on the uptake and usage of Branchless Banking in Peri-Urban areas in Kenya: A Case Study of Bondo Township, Siaya County. *International Journal of Advanced Research*, 1(10), 937-943.
- Margaret, K. G., & Ruth, N. K. (2019). The effect of banking services on the business performance of bank agents in Kenya. *Cogent Business & Management*, 6(1), 1684420.
- Mbiti, I., & Weil, D., (2011). Mobile Banking: The Effect of MPesa in Kenya. NBER Working Paper
- Mbugua, S. (2015). Role of Agent Banking Services in Promotion of Financial Inclusion in Nyeri Town Kenya. *Research Journal of finance and accounting*, 6(3), 2222-2847.
- McKinnon, R. (2013). Money and capital in economic development. Washington, DC: Brookings Institution
- McKinnon, R., & Shaw, E. (2013). Financial deepening in economic development. New York: *Oxford University Press*.
- Mugenda, O.M. & Mugenda, A.G. (2013) Research Methods, Quantitative and Qualitative Approaches. ACT, Nairobi.
- Muthaura, K. (2018). Contribution of agency banking to the growth of SMEs in Kenya: A Case Study of Igembe North Sub County - Meru County (Doctoral dissertation, University of Nairobi).
- Mwangi L. (2012). Agent Banking as a diversification Strategy by Commercial Banks in Kenya. University of Nairobi, Kenya
- Mwaura, M. (2018). *Impact of agency banking on the operational efficiency of savings and credit co-operative societies in Kiambu County, Kenya* (Doctoral dissertation, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI).
- Ndege, F. (2012). *The impact of financial sector deepening on economic growth in Kenya*. University of Nairobi.
- Ng'ang'a, L., (2013). Relationship between Financial Deepening and Poverty Level in Kenya. University of Nairobi MBA Research Project
- Njoroge, F. (2016). *Technology adoption and the banking agency in Rural Kenya*. Unpublished MBAThesis of the University of Nairobi.
- Njoroge, F. (2016). Technology adoption and the banking agency in Rural Kenya. *Unpublished MBA Thesis of the University of Nairobi*.
- Oburu, K., (2018). *Effect of agency banking on the financial performance of commercial banks in Kenya*. Master's Thesis. University of Nairobi.

- Odhiambo, N. M. (2015). Interest Rate Reforms, Financial Deepening and Economic Growth in Kenya: An Empirical Investigation. *The Journal of Developing Areas*, 43(1), 295-313
- Omar, V. (2014). Factors leading to adoption of agency banking in India. The Empirical Evidence. *Journal of Finance* 12, 114 – 147.
- Otieno, A. S. (2013). Financial deepening and profitability of commercial banks in Kenya. *Unpublished MBA Project*.
- Riley, J., & Hirschleifer, J. (1979). The analytics of uncertainty and information: an Expository survey. *Journal of Economics Literature* 17, 1375-1421.
- Rodriguez-Coss, R. (2014), Banking Agents in Mexico: Promoting access to finance. Asian Development Bank.
- Saunders, M., Lewis, P. & Thornhill, A. (2007) *Research Methods for Business Students*. 4th Edition, Financial Times Prentice Hall, Edinburgh Gate, Harlow.
- Siedek, H. (2008). *Extending Financial Services with Banking Agents*, Brief. Washington, D.C. CGAP.
- Stiglitz, J., & Greenwald, B. (2017). *Towards a new paradigm in monetary economics*. Cambridge University Press.
- Wafula, P. & Wanjala, K. (2017). *Factors influencing adoption of agency banking in rural areas in Kenya*. Unpublished MBAThesis of the University of Nairobi.
- Watiri, T.A (2013) The impact of agency banking on financial performance of Kenyan commercial banks, MBA project, University of Nairobi
- Zarea, D. & Salamzadeh, U. (2012). Economic analysis of information system investment in Japanese Banks.



## APPENDICES

### Appendix I: Data Collection Form

<b>Year</b>	<b>Credit to private sector/GDP</b>	<b>No. of agents</b>	<b>No. of transactions</b>	<b>Value of transactions</b>
<b>2011</b>				
<b>2012</b>				
<b>2013</b>				
<b>2014</b>				
<b>2015</b>				
<b>2016</b>				
<b>2017</b>				
<b>2018</b>				
<b>2019</b>				
<b>2020</b>				