2016

Assessment of factors determining the performance of bank-led agent bank businesses in Kenya: case of Kiambu County

Kiburi, M. M.
Strathmore Business School
Strathmore University

Follow this and additional works at: https://su-plus.strathmore.edu/handle/11071/2474

Recommended Citation


This Thesis - Open Access is brought to you for free and open access by DSpace @ Strathmore University. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of DSpace @ Strathmore University. For more information, please contact librarian@strathmore.edu
Assessment of Factors Determining the Performance of Bank-Led Agent Bank Businesses in Kenya: Case of Kiambu-County

KIBURI MICHAEL MUNGAI

Submitted in Partial Fulfilment of the Requirements for the Degree of Master of Business Administration at Strathmore University

Strathmore Business School
Strathmore University
Nairobi, Kenya

June 2016

This thesis is available for Library use on the understanding that it is copyright material and that no quotation from the thesis may be published without proper acknowledgement.
Declaration

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Kiburi Michael Mungai [Name of Candidate]

............................................... [Signature]

............................................... [Date]

Approval

The thesis of Kiburi Michael Mungai was reviewed and approved by the following:

Name of Supervisor: Prof. Robert Mudida

Signature: ......................................

Date: ......................................

Faculty Affiliation: Strathmore Business School
Institution: Strathmore University

Head of School
School Name: Strathmore Business School

Dean, School of Graduate Studies
Abstract

Although agent banking has been common in Kenya in the recent past, its success factors have not been studied in depth as the industry is still young. As such, this study aims to investigate the factors determining the performance of Bank-Led Agent Bank Business in Kenya. The specific objectives include determining the extent to which financial factors, operational factors and management factors affect the performance of bank-led agent banking businesses in Kenya. This was an exploratory study in design and targeted all the bank agents operating within the rural areas and major towns of Kiambu County of Kenya. A stratified sampling method and structured questionnaire were used to select the sample and collect data respectively. Both descriptive and inferential statistics were used to analyse the data.

The findings show that the performance of agent banking business measured by profits was good; investors in the business did not think of quitting because of the promising nature of the business. Insecurity (robbery/theft were the main reasons for quitting). Amongst the recurrent expenses affecting profits of agent banking businesses include electricity bill and a monthly rent bills. Onetime costs include the cost of acquiring a transaction device and contingency costs. Availability of capital is an extremely important financial factor that affects the performance of agent banking business (p<0.05). There is a positive statistically significant relationship between the number of employees and profits made by an agent banking business (p<0.05). There is a positive slightly statistically significant relationship between the capability to manage business finances and the profits of agent banking businesses (p<0.05).The management of core business had an insignificant relationship to the performance of agent banking business (p>0.05).

The study concludes that agent banking considerably increases the number of customers frequenting a store. The performance of agent banking in Kenya is significantly determined by mobile network coverage and security of agent banking environment. The ability of an agent manager/owner to borrow funds is an extremely important determinant of the agent’s performance while management of core business, capability to manage business finances, and business management capability were important factors to the performance of agent banking. Availability
of adequate capital and having adequate number of employees significantly enhances the profits agent banking businesses make. The capability to manage business finances slightly affects the profits of agent banking while the manner of management of core businesses of agent banking in Kenya does not influence profits. The study proposes similar studies in different geographical areas be conducted to eliminate generalisation biases arising from region-specific variables.
Table of Contents

Abstract ....................................................................................................... iii
Table of Contents ......................................................................................... v
List of Tables ............................................................................................. viii
List of figures .............................................................................................. ix
Acknowledgements ...................................................................................... x
Definition of Terms ...................................................................................... xi

CHAPTER ONE: INTRODUCTION .............................................................. 1
  1.1 Background ...................................................................................... 1
  1.2 Statement of the Research Problem ................................................. 3
  1.3 Objectives of the Study ................................................................... 4
    1.3.1 Overall Objective ...................................................................... 4
    1.3.2 Specific objectives of the Study .................................................. 4
  1.4 Research Questions ......................................................................... 5
  1.5 Justification ...................................................................................... 5
  1.6 Scope and Limitation of the Study ................................................... 6
    1.6.1 Limited Information ................................................................... 6
    1.6.2 Time Limitation ........................................................................ 6
  1.7 Definition of Terms ......................................................................... 6

CHAPTER TWO: LITERATURE REVIEW .................................................. 7
  2.1 Introduction ...................................................................................... 7
    2.1.1 Concept of Agent Banking ....................................................... 7
    2.1.2 Role of Agent Banks as a tool for financial sector deepening ....... 9
  2.2 Theoretical Literature on Banking Models ...................................... 12
    2.2.1 Agency Theory .......................................................................... 14
    2.2.2 Hidden Information/Action Model ............................................ 15
    2.2.3 Relevance of Theories .............................................................. 16
  2.3 Empirical Literature on Performance of Agent Bank Businesses .. 17
  2.4 Conceptual Framework ................................................................. 22
  2.5 Gaps in the Literature Review ........................................................ 25

CHAPTER THREE: RESEARCH METHODOLOGY ................................. 26
3.1 Introduction .................................................................................... 26
3.2 Research Design ............................................................................. 26
3.3 Target Population and Sampling .................................................... 26
3.4 Data Collection ............................................................................... 27
3.5 Reliability and Validity .................................................................. 27
3.6 Data Analysis ................................................................................. 28
  3.6.1 Descriptive Statistics ................................................................. 28
  3.6.2 Inferential Statistics ................................................................. 28
3.7 Ethical Issues .................................................................................. 29

CHAPTER FOUR: PRESENTATION OF RESEARCH FINDINGS ....... 30
4.1 Introduction .................................................................................... 30
  4.1.1 Response Rate ............................................................................ 30
  4.1.2 Reliability Statistics ................................................................. 31
4.2 Background Information ................................................................ 32
  4.2.1 Common Banks among the Agent Banking Business ................. 32
  4.2.2 Type of Business Ownership ...................................................... 33
  4.2.3 Main Type of Business ............................................................... 34
  4.2.4 Gender and Age of Respondents ............................................... 35
4.3 Performance Factors in Agent-Led Banking ................................. 36
  4.3.1 Experience as an Agent ............................................................. 36
  4.3.2 Rating of Performance Based on Profits ................................... 37
  4.3.3 Challenges Affecting Profits ..................................................... 37
  4.3.4 Possibility of Quitting being an Agent ...................................... 39
4.4 Financial Factors Affecting Performance of Bank-Led Agent banking 41
  4.4.1 Average Amount of Cash Transacted Daily ............................... 41
  4.4.2 Balance Inquiry and Account Opening at Agent Banking .......... 42
  4.4.3 Expenses Affecting Agent Banking Business ............................ 44
  4.4.4 Other Financial Factors Affecting Agent Banking Business ....... 50
4.5 Operational factors affecting the performance of agent banking... 51
  4.5.1 Period of Operating Agent Business .......................................... 51
  4.5.2 Number of Employees ............................................................. 52
  4.5.3 Change in Number of Employees .............................................. 53
  4.5.4 Effect of Agent Banking on Customers Visiting the Store .......... 54
4.6 Management Factors Affecting the Performance of Agent Banking in Kenya

4.6.1 Experience in Agent Banking ............................................................. 57
4.6.2 Education Qualification ................................................................. 57
4.6.3 Motivation for Venturing into Agent Banking ............................... 58
4.6.4 Managerial Capabilities ................................................................. 59

4.7 Inferential Results ............................................................................. 60
4.7.1 Correlation Analysis ............................................................... 60
4.7.2 Regression Model ............................................................... 63

4.8 Chapter Summary ............................................................................. 66

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS ............ 67

5.1 Introduction .................................................................................... 67
5.2 Summary of Findings ..................................................................... 67
5.2.1 Performance of agent Banking Businesses ................................. 67
5.2.2 Financial Factors ......................................................................... 67
5.2.3 Operational Factors ...................................................................... 68
5.2.4 Management Factors ................................................................... 68

Conclusions ................................................................................................ 69
Recommendations ..................................................................................... 70
Areas for Further Study ........................................................................ 71

REFERENCES ......................................................................................... 72

APPENDICES ......................................................................................... 77

Appendix I: Correlation matrix ............................................................. 77
Appendix II: Regression Outputs As Copied From Stata ....................... 80
Appendix III: Covering Letter to the Questionnaire ............................. 81
Appendix IV: Questionnaire ................................................................. 82
List of Tables

Table 1.1: Kenya Financial Inclusion Data from 2006 to 2016 ....................... 1
Table 1.2: Agent Banking Model Outreach Indicator ...................................... 2
Table 4.1: Reliability Statistics ...................................................................... 31
Table 4.2: Performance of Agent Businesses Based on Profits Made ........... 37
Table 4.3: Average Amount of Cash Transacted Daily ................................. 41
Table 4.4: Daily Transactions of Withdrawal and Deposit ......................... 42
Table 4.5: Other Financial Factors Affecting Performance ....................... 50
Table 4.6 Correlation Results between Variables ........................................ 61
Table 4.7: Coefficient Results for Logit Regression .................................. 64
Table 4.8: Ordinal Regression Output for Availability of Capital and      Performance of proits ................................................................. 65
List of figures

Figure 2.1: Conceptual Framework ................................................................. 22
Figure 4.1: Location of Urban Based Agents .................................................. 31
Figure 4.2: Location of Rural Based agents .................................................... 31
Figure 4.3: Representation of Banks ............................................................... 32
Figure 4.4: Common Banks among Agents .................................................... 33
Figure 4.5: Types of Business ...................................................................... 33
Figure 4.6: Types of Partnerships ................................................................. 34
Figure 4.7: Main type of business agent business owners engage .................. 34
Figure 4.8: Age and Gender of Respondents ............................................... 35
Figure 4.9: Period as an agent ..................................................................... 36
Figure 4.10: Main Challenges faced by agents .............................................. 38
Figure 4.11: Agents Likely to Quit ............................................................... 39
Figure 4.12: Reasons Not to Quit ................................................................. 39
Figure 4.13: Reasons to quit ...................................................................... 40
Figure 4.14: Number of New Accounts Opened at Agent Banking Daily..... 42
Figure 4.15: Average Daily Transactions ..................................................... 43
Figure 4.16: Cost of Transaction device ....................................................... 44
Figure 4.17: Cost of Security ...................................................................... 45
Figure 4.18: Cost of Connectivity ................................................................. 46
Figure 4.19: Contingency Costs ................................................................. 47
Figure 4.20: Transport Costs ...................................................................... 47
Figure 4.21: Electricity Costs ....................................................................... 48
Figure 4.22: Staff Costs .............................................................................. 49
Figure 4.23: Rent Cost ............................................................................... 50
Figure 4.24: Period in agent bank business ................................................ 52
Figure 4.25 Number of employees in agent banking shop ......................... 53
Figure 4.26: Change in number employees ................................................. 54
Figure 4.27: Effect of agent banking on customer visits ............................... 54
Figure 4.28: Operational Factors affecting agent banking .......................... 55
Figure 4.29: Length of time as agent ......................................................... 57
Figure 4.30: Education Level ..................................................................... 57
Figure 4.31: Reason for Venturing into Agent Banking Business ............... 58
Figure 4.32: Managerial Capabilities ............................................................ 59
Acknowledgements

I would like to express my gratitude to everyone who supported me throughout the course of my MBA. I am thankful for their aspiring guidance, constructive criticism and friendly advice during the course of my study. I am sincerely grateful to them for sharing their truthful and illuminating views on a number of issues related to the project.

I would especially like to express my sincere gratitude to my supervisor Prof. Robert Mudida for his continuous support, patience, motivation and immense knowledge.

Last but not the least, I would like to thank my family, my parents Paul and Magdalene for their unending support and my wife Sarah for her encouragement and affection.
Definition of Terms

Bank Agents: These include bank-led agents operating on behalf of the 17 banks approved by CBK to undertake agent banking.

Profits: Total amount of commission paid on the transactions performed by an agent less the costs incurred during a set period of time.

Security of agent banking: involves the security of customer’s financial information as well as the security of customers finances/money and body while at the agent banking shop.
CHAPTER ONE: INTRODUCTION

1.1 Background

In countries across the globe, banks are increasingly using agents to provide financial services to customers (Kate, Dias, & Tarazi, 2011) (Lauer, Kate, Dias, & Tarazi, 2011). In Brazil, for example, banks use approximately 160,000 agents, many with multiple outlets to provide financial services to all 5,564 Brazilian municipalities (Lauer et al., 2011). In 2010, bank agents in Brazil handled 3.1 billion transactions (6 percent of all bank transactions), 2.85 billion of which involved the movement of funds. In Pakistan, there are approximately 17,500 bank agents (State Bank of Pakistan 2011). In the quarter ended September 2011, these agents handled 15.88 million transactions totalling Rs 58,710 million (US$674 million) with an average transaction amount of Rs 2,700 (US$ 42.53).

In Kenya, the leading mobile operator Safaricom launched the M-PESA money transfer service in 2007. M-PESA has experienced viral growth, gaining over 15 million subscribers and more than 20,000 agents (Central Bank of Kenya Statistics, 2013). The introduction of mobile financial services has helped to more than double the use of non-bank financial institutions, from 7.5 percent of the bankable population in 2006 to 32 percent in 2013 (FSD Kenya, 2013).

| Table 0.1: Kenya Financial Inclusion Data from 2006 to 2016 |
|-----------------|---|---|---|---|
| Formal prudential | 15.0  | 21.0 | 32.4 | 42.3 |
| Formal non-prudential | 4.0  | 15.4 | 33.7 | 32.6 |
| Formal registered  | 7.7   | 4.1  | 0.8  | 0.4  |
| Informal          | 32.1  | 26.8 | 7.8  | 7.2  |
| Excluded          | 41.3  | 32.7 | 25.3 | 17.4 |
|                  | 100   | 100  | 100  | 100  |


CBK has also granted approval to seventeen commercial banks to engage agents. These are Equity Bank; Co-operative Bank (Co-op Kwa Jirani); KCB Bank; Post Bank; Family Bank (Pesa Pap); Chase Bank (Chase Popote); Consolidated Bank (ConsoMaskani); Diamond Trust Bank; Citibank and NIC Bank. These banks had
appointed a total of 39,871 specific agents, including telecom-related agents and individual specific agents, spread across the country (Central Bank of Kenya, 2015). These agents had facilitated 192.4 million transactions valued at Ksh. 1.0 trillion.

Table 0.2: Agent Banking Model Outreach Indicator

<table>
<thead>
<tr>
<th>Agent banking model: Outreach Indicator</th>
<th>Values as at September 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total banks granted agency network approvals</td>
<td>17</td>
</tr>
<tr>
<td>Total number of specific agents appointed</td>
<td>39,871</td>
</tr>
<tr>
<td>Number of transactions by agents since May 2010</td>
<td>193.4 million</td>
</tr>
<tr>
<td>Value of transactions by agents since May 2010</td>
<td>Ksh. 1.0 trillion</td>
</tr>
</tbody>
</table>

Source CBK, 2015

The central policy objectives of the long-term strategy for the financial sector include improved access and deepening of financial services and products for a much larger proportion of Kenya’s populace (Government of the Republic of Kenya, 2007). One of the goals of the financial sector is to raise savings and investment rates from 14 percent to 25–30 percent of GDP by 2030, and to increase bank deposits from 44 percent to 80 percent of GDP by 2012 (Government of the Republic of Kenya, 2008).

The use of bank agents has the potential to significantly increase financial access by poor and underserved populations to a range of formal financial services, including savings, payments and transfers, and insurance (Bold, 2011a). In particular, agents who may be individuals, small retail shops, post offices, or large retailers—can offer customers a convenient and affordable opportunity to cash-in and cash-out of an electronic payments system (Lauer et al., 2011).

Using data from surveys with more than 16,000 users, McKay and Pickens (2010) reviewed the experience of 18 branchless banking deployments that were mostly but not exclusively mobile based, focusing on the number of customers served, service pricing, and customer needs. They found that each service averaged 1.37 million active, previously unbanked users and that the majority had more active customers than the largest microfinance institution.
They found that branchless banking was also cheaper than traditional banking channels: on average, low-volume transaction prices are 38 percent lower than those of comparable providers. McKay and Pickens (2010) concluded that branchless banking has great potential to reach vast numbers of low income, unbanked people at affordable prices with a wide range of products to meet their complex financial needs. Yet early experience suggests that although the potential is indeed strong, it is by no means guaranteed that branchless banking will deeply penetrate low-income, unbanked segments with appropriately designed products.

Indeed, in most countries, the challenge is still getting branchless banking started at all. In 2009, an estimated one billion people in developing countries had mobile phones but did not have access to formal financial services; this number is projected to rise to as many as 1.7 billion by the end of 2012 (GSMA, 2009). By that time, delivering mobile money services to unbanked customers could generate as much as US$5 billion in direct revenues in transaction fees per year for mobile operators, and an additional US$2.5 billion in indirect revenues.

1.2 Statement of the Research Problem

In Kenya, agent banking is governed by the Prudential Guideline on Agent Banking issued by the Central Bank of Kenya (CBK) and which became operational on 1st May 2010. In February 2011, the Central Bank of Kenya released regulations allowing banks to offer services through third party agents approved by the CBK. The use of the agent banking model by banks has continued to improve access to banking services since its launch in 2010. Currently 17 commercial banks have been authorised to offer banking services through third parties (agents).

Since inception agent banking has played a critical role in acquiring new customers, enabling them to transact, and keeping them satisfied. This has great potential to extend the distribution of financial services to poor people who are not reached by traditional bank branch networks; it lowers the cost of delivery, including costs both to banks of building and maintaining a delivery channel and to customers of accessing services (Ivatury& Mas, 2008).
Despite its tremendous growth the unresolved issues including regulation, liquidity and security have significantly affect the pace of development and the degree of customer acceptance of branchless banking offerings (Ivatury & Mas, 2008). The question lingers, whether agents can walk the tightrope between reliability and customer convenience. In his research Ivatury (2008) pointed out that security concerns over agency banking are also bigger than for traditional Automated Teller Machines (ATM), which are more directly specified and controlled by the provider (Ivatury et al., 2008). Because the service is intangible, it is likely that customers will react negatively to (real or perceived) security risks of agent banking more quickly than to the risk of loss or theft of physical cash. Customers will not be very tolerant of security lapses, and therefore the security track record must be impeccable.

Agents are also quite literally the face of the service. Customers turn to agents to show them how to use the service, provide an opinion about whether the service is worth trying, and troubleshoot problems when they arise. Agents can help bridge the gap between a high-tech service and low-literacy clients. In Kenya, over 24,000 business outlets are currently enrolled in providing financial services as bank agents, extending the reach of financial services. However, owing to the short period within which the agent banking model has existed, the effects of this business activity to agents who are engaged in it is largely unstudied. This study will investigate the agent banking model in Kenya from an agent perspective and to understand the determinants of success in running such a business.

1.3 Objectives of the Study

1.3.1 Overall Objective

The overall objective of this study was to investigate the factors determining the performance of Bank-Led Agent Bank Business in Kenya.

1.3.2 Specific objectives of the Study

The study was guided by the following objectives;

i. To determine the extent to which financial factors affect the performance of bank-led agent banking businesses in Kenya
ii. To examine the operational factors affecting the performance of bank-led agent banking businesses in Kenya.

iii. To investigate the management factors affecting the performance of bank-led agent banking businesses in Kenya.

1.4 Research Questions

In order to address the above objectives, the following research questions were queried:

i. To what extent do financial factors affect the performance of bank-led agent banking businesses in Kenya?

ii. What operational factors affect the performance of bank-led agent banking businesses in Kenya?

iii. What management factors affect the performance of bank-led agent banking businesses in Kenya?

1.5 Justification

While there is widespread belief that agents are an attractive delivery channel for increasing reach and driving down costs of delivering financial services, most branchless banking providers are still working to present a viable business case to the agents. Flamings, McKay and Pickens (2011) showed that agents do not make much for their services, and many do not understand the business fully. Secondly, agent banking has been in existence in Kenya for less than five years, having been introduced in May 2010, with only a few banks operational. Outsourcing of financial services to banking agents is also a new field, which has not been exploited fully. This therefore justifies the relevance of this study in providing guidance in agent banking.

Academically, the study contributes to the body of knowledge related to the provision of financial services and the debate on the determinants of success in running an agent. Secondly, the study will aid and add to data relevant in developing appropriate business models for agent banking. Thirdly, the study will help in designing specific strategies and programmes to improve financial outreach through agent banking.
The study will inform Kenyan banks on developing a viable business proposition to motivate agents who wish to offer financial services. Additionally, study will also inform agents on the constraints they may face in venturing into agent banking, so that there is no mismatch between expectation and actual business. With regards to policy, banks will also be able to lobby for appropriate policy formulation and strategies that will fully exploit agent banking opportunities that are feasible in Kenya.

1.6 Scope and Limitation of the Study

1.6.1 Limited Information

Agent banking in Kenya was launched in May 2010 and is a fairly new model in the banking sector with little literature available. This is especially the case for the bank-led agent banking model offered by commercial banks. Only 1 in 5 commercial banks have implemented agent banking and empirical studies in these areas are limited and have been mainly conducted in foreign countries such as India, Bangladesh, Brazil and Latin America.

1.6.2 Time Limitation

There are many agent banks in Kenya, with many branches all over the country. It was not possible for the researcher to cover the whole country hence the reason for sampling the agents in Kiambu County only.

1.7 Definition of Terms

Agent banking: An arrangement by which licensed financial institutions engage third parties to offer certain banking services on their behalf (Tarazi & Breloff, 2010).

Branchless banking: New distribution channels that allow financial institutions and other commercial actors to offer financial services outside traditional bank premises

M-banking can be defined as a channel whereby the customer interacts with a bank via a mobile device, such as a mobile phone
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section focuses on the following key themes. First we define and discuss agent banking. Secondly, we look at the role of agent banks as a tool for financial sector deepening. Thirdly, we look at theoretical literature in banking models as well as underpinning principle agent relationship. Theoretical literature helps in understanding how the theories relate to the study and in addition provide a good basis for analyzing the study. Understanding the different agency models that are applied in the Kenyan context is important in understanding the basis of the study. Finally, the section identifies gaps in the reviewed literature, so as to provide the basis for the study.

2.1.1 Concept of Agent Banking

Agent-banking is an arrangement by which licensed institutions engage third parties to offer certain banking services on their behalf (Tarazi & Breloff, 2010). “Branchless banking” is a term coined by the Consultative Group to Assist the Poor to refer to “new distribution channels that allow financial institutions and other commercial actors to offer financial services outside traditional bank premises” (Lyman, Timothy, Ivatury & Staschen, 2006). Branchless banking allows customers to conduct basic financial transactions such as deposits and withdrawals at everyday retail stores, using technology readily available to both customers and store clerks in the form of cards or mobile phones to properly secure and authorize the transactions.

Alexandre, Claire, Mas, and Radcliffe (2011) prefer the term “banking beyond branches” in recognition of the fact that bank branches still play a fundamental role in supporting the liquidity of the cash-in/cash-out network in branchless banking schemes: “In the new cash ecosystem, retail outlets handle the last mile, but banks still do the long haul. Bank branches will thus retain a role as cash distribution nerve centres in support of non-bank retail outlets located in their catchment area.”

The CBK defines an agent as ‘an entity that has been contracted by an institution and approved by the Central Bank to provide the services of the institution
on behalf of the institution’ (Guideline on Agent Banking - CBK/PG/15, 2010). This definition is used in this paper. The types of entities which can act as agents are: Limited liability partnerships; Sole proprietorships; Partnerships; Societies; Cooperative societies; State corporations; Trusts; Public entities; and any other entity which the CBK may prescribe.

Faith-based organisations, not-for-profit organisations, non-governmental organisations (NGOs), educational institutions, and forex bureaus cannot be agents. Individuals are not expressly permitted to be agents but are often approved as informal sole proprietorships. An agent must have had well-established business activity for at least 18 months and not been 'classified as a deficient, doubtful, or non-performing borrower by an institution in the last 18 months'. The principal institution must assess the moral, business, and professional suitability of agent (Guideline on Agent Banking - CBK/PG/15, 2010).

While the key innovation of agent banking is the use of everyday stores to capture customers’ cash transactions, the key enabling factor is the existence of ubiquitous communications networks that permit financial service providers to transact securely through these third-party outlets (Ivatury, 2006; Lyman et al., 2006). Moreover, the spread of mobile phone use represents a large installed base of virtual cards and point-of-sale terminals that agents banking providers can leverage. Mobile banking is thus a subset of agent banking that has the advantage of using people’s own mobile phones, instead of having to distribute new cards to customers and point-of-sale terminals to stores (Porteous, 2006).

Porteous (2006) distinguishes between mobile phone agent banking and branchless banking based on the target customer segment: “Additive models are those in which the mobile phone is merely another channel to an existing bank account; while transformational models are those in which the financial product linked to the use of the phone is targeted at the unbanked, who are largely low income people.” For a model to be transformative, it must provide a simplified set of products that can be effectively marketed to previously unbanked customers, and engage a network of retail outlets as cash in/cash-out points that are an alternative to branches and ATMs.
Lyman, Timothy, Pickens and Porteous (2008) further distinguish between bank based and non-bank-based models, depending on the nature of the organization promoting the scheme. Non-bank-based models represent the entry of players with strong competencies in technology and/or retailing as epitomized by mobile phone operators into the distribution of financial services

2.1.2 Role of Agent Banks as a tool for financial sector deepening

Agent banking systems are up to three times cheaper to operate than branches for two reasons. First, agent banking minimizes fixed costs by leveraging existing retail outlets and reducing the need for financial agent banks to invest in their own infrastructure. Although agent banking incurs higher variable costs from commissions to agents and communications, fixed costs per transaction for branches are significantly higher. (Gardner, 2000)

This argument is further supported by Kitaka (2001) who argues that setting up an agent costs 2 to 4 percent of the cost of a branch cashier. So even when functioning at maximum capacity, a branch cashier incurs more than 78 cents in fixed costs per transaction, compared to just 11 cents for a POS-enabled agent and 4 cents or less for a bank-enabled agent or bank wallet. Second, acquisition costs are lower for bank-enabled agents and bank wallets. By using banking agents instead of payment cards, bank wallets and bank accounts linked to a bank wallet are able to acquire entrepreneurs at less than 70 percent of the cost of a branch or POS-enabled agent. He further argues that in some countries, bank wallets may benefit from lower-cost Know Your Customer (KYC) requirements, such as the elimination of requirements to provide photographs and photocopies of documents.

In many developing countries, banks have expanded their network through trusted local “agents” or “correspondents” to offer their services. The sector has witnessed a rapid growth in the last ten years. For instance, whereas previously many banks focused on traditional banking, agents in a number of countries are now authorized to offer many of the traditional products offered by banks. Banks have, therefore, moved up the ladder of the product range to offer more sophisticated banking products such as bank supported insurance and asset financing products.
Agent banking also represents a significant opportunity to reduce transaction costs such as travel for clients by bringing financial services to hard-to-reach and geographically dispersed areas. This is especially true in Kenya where some areas are sparsely populated leaving long distances between the customer and the bank. Moreover, in these areas overall literacy levels are fairly low. Also, banks and other financial institutions often do not have sufficient incentive or capacity to establish formal branches in these areas. Obviously, the set-up of agent banks is less costly and more flexible than for traditional bank branches since it reduces the need to invest in staff and physical infrastructure. These views are supported by Kitaka (2001) and Kasekende (2008) among other researchers.

In countries where agency models have been successfully implemented, regulators and supervisors have tried to address the potential risks of using a large number of agents to deliver financial services by adopting risk-based approaches to supervision where agents are supervised indirectly and banks must assume full responsibility for their agents. This has been done with varying success rates. Kasekende (2008) argues that regulation enabling agent banking allows for sufficient business incentives for both agents and financial institutions to increase outreach by delivering financial services through a network of agents. Many of these initiatives not only enhance the value of the model but they reduce the overall cost of banking for the low-end bank client.

As a tool for financial sector deepening, agent banks in Kenya have been spearheaded by the Central Bank of Kenya (CBK). The Central Bank has played a pivotal role in enhancing penetration of the agent banking model. In 2009 for instance, CBK commenced measures to open up banking channels to non-bank agents. An amendment to the Banking Act allowed banks to start using agents to deliver financial services. It was then argued that using small shops, petrol stations, pharmacies and other retail outlets as agents could have a dramatic impact on improving access to financial services, especially in rural areas. This resulted into mushrooming of many agent banks in the country (Baron 2002). This decision has been widely praised as having resulted in the deepening of the financial sector and raising overall levels of financial literacy in the country.
According to Berger (1998), agent banks offer similar services as does a real bank. This ranges from cash deposits and withdrawals, disbursement and repayment of loans, payment of salaries, pension, transfer of funds, and issuance of mini-bank statements, among others. Berger further argues that, the agent also facilitates new account opening, credit and debit card application, cheque book request, hence eliminating the need for the commercial bank to have branches all over. This is being replicated across the country, especially in rural areas.

The Kenyan situation remains an important case study in this regard. In Kenya, the Central Bank has already licensed four banks to carry out agent banking business and approved 8,809 agents. Many others are expected to be licensed in due course. This is expected to deeply boost penetration of low cost banking services in the country.

Perhaps the greatest benefit of agent banking in Kenya has been taking banking services to areas that would have remained unbanked for a long time. These are areas that most banks always shunned because of economic factors. Taking the bank to the community has not only widened and deepened the financial market but it has also enhanced customer loyalty to respective banks. This has continued to create committed entrepreneur-clients.

According to Christopher (2002) the process of loyalty building can be seen in the form of a ladder in which the customer has to be converted into a client then into a supporter, an advocate and ultimately to a partner. Finding loyal entrepreneurs requires targeting those segments to which the bank can deliver superior value. The economic benefits of customer loyalty often explain why one bank is more profitable than its competitors. Therefore, building a highly loyal customer base cannot be done as an add-on; it must be integral to a bank’s basic business strategy. The agent banking model has played this role in a great way.

According to Cohen (2002) the ongoing global expansion of a high-tech telecommunications infrastructure, coupled with the increased availability of advanced information technology services, is having an impact on almost every emerging industry. Barnes and Corbitt (2003); Scornavacca and Barnes (2004) suggest that recent innovations in telecommunications have enabled the launch of
new access methods for banking services, one of these is mobile banking; whereby a customer interacts with a bank via a mobile device such as a mobile phone or personal digital assistant. The agent banking model is expected to continue playing a catalytic role in expanding the reach of banks within a rapidly changing technological environment.

2.2 Theoretical Literature on Banking Models

From the regulatory perspective, Lyman *et al.* (2006) make two distinctions of m-banking: 1. Bank led and 2. Non-bank led actors. In the bank-based model, customers have a direct contractual relationship with a prudentially licensed and supervised bank or a financial institution. In the non-bank model customers have no direct contractual relationship with a fully prudentially licensed and supervised financial institution. This virtual account is stored on the server of a non-bank. Whatever be the models, there is presence of all the players even in non-bank led model where banks hold excess cash deposit to effect the mobile transactions (Russel, 2009).

In bank led theory, a bank develops financial products and services, but distributes them through retail agents who handle all or most customer interaction (Lyman, Ivatury, & Staschen, 2006). Retail agents have face-to-face interaction with customers and perform cash-in/cash-out functions, much as a branch-based teller would take deposits and process withdrawals.

Bank-led model offers a distinct alternative to conventional branch-based banking in that customer conducts financial transactions at a whole range of retail agents instead of at bank branches or through bank employees (Lyman *et al.*, 2006). This model promises the potential to substantially increase the financial services outreach by using a different delivery channel (retailers/ mobile phones), a different trade partner (Chain Store) having experience and target market distinct from traditional banks, and may be significantly cheaper than the bank based alternatives. In this model customer account relationship rests with the bank (Tomášková, 2011).

Agents Related Risks arise from substantial outsourcing of customer contact to retail agents. From a typical banking regulator’s perspective, entrusting retail
customer contact to the types of retail agents used in both the bank-led and nonbank-led models would seem riskier than these same functions in the hands of bank tellers in a conventional bank branch. These retail agents may operate in hard-to-reach or dangerous areas and they lack physical security systems and specially trained personnel.

The lack of expert training may seem a particular problem if retail agents’ functions range beyond the cash-in/cash-out transactions of typical bank tellers to include a role in credit decisions. Banking regulation typically recognizes multiple categories of risk that bank regulators and supervisors seek to mitigate. Five of these risk categories that include credit risk, operational risk, legal risk, liquidity risk, and reputation risk, take on special importance when customers use retail agents rather than bank branches to access banking services. The use of retail agents also potentially raises special concerns regarding consumer protection and compliance with rules for combating money laundering and financing of terrorism (Kumar, Nair, Parsons & Urdapilleta, 2006).

In the non-bank led theory, customers do not deal with a bank, nor do they maintain a bank account. Instead, customers deal with a non-bank firm either a mobile network operator or prepaid card issuer and retail agents serve as the point of customer contact. Customers exchange their cash for e-money stored in a virtual e-money account on the nonbank’s server, which is not linked to a bank account in the individual’s name (Kumar et al., 2006). Tarazi and Breloff (2010) argue that this model is riskier as nonbanks are rarely subject to the kind of prudential regulation that apply to banks, so when nonbanks issue e-money, regulators are understandably concerned about ensuring adequate protection for customer funds and may also lead to may lead to significant money laundering.

Kimenyi and Ndung’u (2009) provide a unique perspective on the topic noting that regulators have a duty to balance access to services with stability of the system, and for this reason Kenya is using the emerging lessons from the growth of M-PESA to pursue an active and public-private dialogue and facilitate an enabling environment for broader access to services. However, there should be clear, well-defined limits on nature, type and volume of transactions that such entities can undertake. Klein and Mayer (2011) propose a specific framework for the design of
the regulation of mobile financial services, arguing that mobile banking illustrates the way in which payment systems can be disaggregated into component services, namely exchange, storage, transfer and investment, and regulation should mirror this and be structured by services rather than along traditional institutional lines, like a bank.

2.2.1 Agency Theory

Agency theory, in its modern form, largely originates from the work of Mitnick (1973) and Ross (1973), and embraces the areas of political science and economics. Following Mitnick’s (1973) and Ross’s (1973) lead, agency theory was subsequently adapted and used in a variety of other disciplines such as sociology, management and in work involving the theory of the firm.

In agency relationships, one party (the principal) delegates work to another party (the agent) (Jensen & Meckling, 1976; Ross, 1973; Eisenhardt, 1989). When the agent is acting for the principal it resembles behaviours such as performing for the benefit of the principal or acting as the principal's representative or employee (Mitnick, 1973). As Eisenhardt (1989) points out, while the profit maximisation approach and self-interest persists, the focus of agency theory centres on determining the most efficient contract governing the principal-agent relationship. The notion of the contract is used here as a metaphor to describe the agency relationships (Jensen & Meckling, 1976) and it is designed based on the outcome (e.g. commissions) or behaviour (e.g. salaries) of the agent (Eisenhardt, 1989).

In agency relationships, typically, the principal will seek to minimise the agency costs, such as, specifying, rewarding and monitoring, and policing the agent's behaviour, while the agent works towards maximising rewards and reducing principal control (Fleisher, 1991). Efficient management of agency problems such as information acquisition (or communication), preference mismatch (or conflict of interest), effort (or moral hazard) and capability (or adverse selection), mainly associated with the agent Fleisher (1991), is also imperative to any principal-agent relationship.

Developments in agency theory are largely based on two important streams of inquiry, namely, principal-agent research and positivist agency theory. The classical
approach to understanding agency theory has historically followed the principal-agent relationships route, which assumes that the principal and agent will attempt to maximise their positions through individual interpretation of the contract.

Positivist agency theory (PAT) has largely evolved in order to overcome many of the shortcomings found in principal-agent research, in particular, the issue of complexity surrounding real world relationship dilemmas (Eisenhardt, 1989). PAT seeks to synthesise political science, expert agency, the law of agency and sociology into a single framework, which in turn attempts to explain how relationships in business and government develop, and offers suggestions as to how they might be managed more effectively (Shapiro, 2005).

2.2.2 Hidden Information/Action Model

Two important challenges in agency relationships are misrepresentation of ability (adverse selection) and lack of effort (moral hazard), both of which are attributed to the agent. Focusing on these, hidden information and hidden action models, respectively, have been specifically developed to assist in designing an appropriate contract (Arrow, 1985; Bergen, et al., 1992). These models work on the assumption that principals are aware of the nature of the task and the capabilities required (by the agent) to successfully accomplish that task (Bergen, Dutta, & Walker, 1992). Hidden information models focus on the problem of agent selection, specifically, the potential for falsification of skills and abilities of the agent (either at the time of hiring or during the activity). According to Holmstrom & Milgrom (1987), the main benefit of hidden information models is that they can assist in designing a contract which can be used to motivate the agent to take appropriate observable action, for example, a requirement for periodic reports on the condition of a rented asset to inform the owner about any faults. Furthermore, hidden information models focus on making agent capabilities explicit through the use of various management processes, such as, screening (e.g. personal interview), signalling (e.g. agents' signal on their capabilities) or providing opportunities for self-selection (e.g. training programmes for new recruits) (Bergen, Dutta, & Walker, 1992).

In situations where an agent's action is difficult to observe (largely due to the complex nature of the task), the principal is exposed to a heightened risk of
opportunism by its agent. In essence, there is an opportunity for the agent to both evade control and misrepresent its capabilities (Bergen, et al., 1992). Hidden action models deal with the design of the contract, which can be used to mitigate the moral hazard problem and motivate the agent to take appropriate action (Holmstrom & Milgrom, 1987). According to Bergen et al., (1992), principals are assumed to be risk-neutral whereas agents are typically risk-averse, which they believe is a mistake because of the fundamental differences in risk calculation strategies. The rationale underpinning this approach is that because principals have more power to diversify their investments, agents are highly dependent on the principal and are less likely to engage in inappropriate behaviour (Eisenhardt, 1989; Bergen et al., 1992). This assumes that capabilities and contractual power exist in a uniform manner across relationships, and that agent choice is limited.

Evidence suggests, however, that agents are often prepared to accept greater risks, precisely because power and choice options do not exist as constants, and are often prone to dramatic change as industrial sectors and economies evolve (Basov & Bardsley, 2005). These arguments serve to raise questions about the extent to which the principal-agent relationship might be conditioned by factors other than contractual obligations and limited capability risk assessments (Eisenhardt, 1989). This becomes increasingly important when applied to supply chain operations, where factors relating to knowledge, commitment and trust often outweigh contractual relationships (O’Loughlin & Clements, 2007).

2.2.3 Relevance of Theories

Agency theory explains the importance of the relationship between the banks and the bank agents. Banks are responsible for the actions of their agents and thus must be able to come up with supervision and monitoring procedures to ensure that they do not suffer losses, material or reputational due to the actions of their agents. In concurrence with the theories, some unscrupulous agents deviate from compliance to laid bank procedures for their own interest. Examples are where agents split a single deposit transaction into several transactions in order to increase their commissions. Since customers do not pay for deposits, banks are disfranchised whenever a deposit transaction is multiplied over by an agent as they have to pay
from their profits for each of these deposit transactions. In such instances banks are forced to increase their surveillance which calls for more and more supervision resulting in a vicious cycle of cost of agent’s administration.

A major criticism of the theory is that, simple agency model assumes that no agents are trustworthy and if an agent can make himself better off at the expense of a principal then he will. This ignores the likelihood that some agents will in fact be trustworthy and will work in their principals' interests whether or not their performance is monitored and output measured.

2.3 Empirical Literature on Performance of Agent Bank Businesses

This section looks at some of the empirical literature performance of agent bank businesses with a view of analysing how these findings contribute to the study

Financial services businesses throughout the world are increasingly using third parties to carry out activities that the businesses themselves would normally have undertaken. Industry research and surveys by regulators show financial firms outsourcing significant parts of their regulated and unregulated activities. In Brazil, customers open bank accounts, make deposits, and pay bills at lottery houses and small retail outlets. In the Philippines, urban migrants send money to their families in rural areas using mobile phones

In the developing world, challenges to branchless banking are more logistical, empowering clients to take up service, achieving symbiosis between bank branches and branchless services and answering operational questions - including support in the field - all stand in the way of branchless banking (CGAP, 2013)

In Kenya, Kitaka (2001) argues that the model has suffered some teething problems which have sent some banks back to the drawing board. For instance, banks are facing problems converting agent outlets into outsourced banks. The banking agent selection criteria have also shown some weaknesses, and many banks are now reorganizing their agents in order to meet rising demand. Keen to take advantage of the cost saving and accessibility brought about by the agent banking model, a number of Kenyan financial institutions have embarked on an aggressive
entry into the segment. But many are finding that agents lack capacity to handle large transactions of cash and under-spend on account of security fears.

So far, 17 commercial banks in Kenya have entered the agent bank segment. The challenge for many however, has been to identify agencies that are able to provide adequate cash to entrepreneurs. Recent data from the Central Bank of Kenya (CBK) reveals that the regulator has licensed over 39,871 establishments to act as agent banks, with Equity claiming to have outsourced some of its operations to over 10,000 active outlets.

Central Bank of Kenya data shows that in the first year of agent banking in 2010, 8,809 agent outlets were opened. Most of these were operated by Equity and Co-operative banks and Kenya Commercial Bank, showing a healthy appetite for the format. However, identifying the agents who are capable of handling cash transactions efficiently has been a challenge for the institutions, with entrepreneurs reporting that cash is often scarce even as rising fears of security abound.

From a typical banking regulator’s perspective, entrusting retail customer contact to the types of retail agents used in both the bank-led and nonbank-led models would seem riskier than these same functions in the hands of bank tellers in a conventional bank branch. These retail agents may operate in hard-to-reach or dangerous areas and they lack physical security systems and specially trained personnel (Lyman et al., 2006).

Flaming et al. (2011) identify the following factors that drive agent costs and risks. These include; Role-related Factors, which are associated with signing up clients, conducting cash-in/cash-out transactions, and doing other typical functions for example upfront capital, liquidity management, and staff and space. Exogenous Factors that are beyond the agent’s immediate control, including security risk, system reliability, and effect on other business. Time-specific factors that come into play at different times in the life cycle of a branchless banking service which include adequate revenue at start-up, major costs with growth, and fragmented demand across too many agents. Ndungu (2014) independently concurs with this and found that high quality of agents (float adequacy, age of an agent in agent business and the core business of the agent), increase the adoption of agent banking while poor quality
agents inhibit adoption. Eijkman (2010) adds a customer service element and shows that lack of customer awareness as critical in the development of agent bank business. Eijkman (2010) also finds infrastructure development and coverage as well as liquidity management are challenges to development of the agent banks model.

Security is one of the most important concerns in agent banking. Crime follows money and as branchless banking service grows, agents attract increasing interest from criminals. In Brazil, 93 percent of agents interviewed by CGAP report that being an agent increases the risk of being robbed, and 25 percent say they have been robbed at least once during the past three years. In Kenya, aggregator for M-PESA reports that 10 percent of agents were robbed in 2009 (Flaming, McKay, & Pickens, 2011).

Most studies will agree that security is an important consideration. A study by MicroSave on agent networks conducted in Uttar Pradesh and Gujarat in India reveals that the security of transactions is one of the most important criteria in choosing the e/m-banking service. Trust is a function of both the integrity of the agent who serves the customer, as well as the robustness of the system (George, Singh, Pareek, & Narain, 2011). In related studies undertaken in Brazil, Kumar et al. (2006) agree with this but crucially add that security issues are mainly brought about by regulatory arbitrage. This he describes as lower security requirements and absence of a unionized bank labour force.

This is indicative of the problems identified in a CGAP survey which indicates that people are still very concerned about security and the costs involved in remitting money (Lyman et al, 2006). Comninios et al. (2008) in an African study agree and suggest that the unbanked will only transact electronically (online/mobile banking) if there is convenience and security. In another study in India, Sharma and Singh (2009) found that Indian mobile banking users are especially concerned with security issues like financial frauds, account misuse and user friendliness issue.

System interruptions also impact operational efficiency of agents. Atandi (2013) in a study conducted to reveal the challenges which are hindering the rural people of Kenya from benefiting from agent banking identified a lack of mobile network services a major issue. Morawczynski (2008) also identified telecom service
quality, network congestion and delay in SMS delivery while using any mobile banking service as a drawback in agent banking.

Agent profitability is highly sensitive to service disruptions. This is particularly true for agents with capital, staff, and space costs dedicated to the agent business, as the agent incurs these costs whether or not revenue is being earned. Losing a few days of business may be enough to make the month unprofitable for an agent (Flaming, McKay, & Pickens, 2011). In their study, Flaming et al. (2011) showed how a Brazilian agent’s profits declined 82% by losing the ability to transact for only 2 days in a month.

Acting as an agent can be a very capital-intensive business. CGAP (2011) research found MPESA agents needed to acquire an average of US$1,600 in capital to start operating as an agent. As a point of comparison, US$1,600 is 2.0 times greater than Kenya’s GDP per capita income (US$783) (World Bank, 2013) and 3.2 times greater than the annual income of a manual labourer in Nairobi who makes US$2.50 per day. It is also 12 times greater than the amount that the same merchants had invested in airtime scratch-off cards (US$129). The large amount of start-up capital required by M-PESA may be acceptable to Kenyan agents now that they see the large customer base for the service, however, this would not have been the case at the time M-PESA was launched.

Atandi (2013) also identified capital unavailability to affect rural financial access. Out of 40 respondents surveyed, 28, representing 70% of agents found it difficult to raise start-up capital and hence opted to borrow from friends and family to raise start-up capital. Agents typically have limited resources to endure a prolonged period of unprofitable activity. The agent in an agent-based financial service channel is likely to launch the initiative with sufficient capital to fund losses until the cash flow turns positive, a process that could take several years (Flaming, McKay, & Pickens, 2011).

The business of branchless banking relies on liquidity management, having cash where and when customers ask for it. Liquidity management has two components: (1) accumulating adequate e-float and cash, and, (2) rebalancing the two, which typically requires agents or their designees to physically transport cash.
(Flaming, McKay, & Pickens, 2011). The less money agents have available to settle branchless banking transactions, the more frequently they will need to rotate those monies, yielding more rebalancing trips. Agents that seek to minimize the number of trips they make by carrying large cash and e-float balances incur a higher cost of capital.

Atandi (2013) agrees that float management is a major issue for agent banks. Flaming et al. (2011) also show that most M-PESA agents rebalance daily, and that liquidity management is the greatest expense for many agents, particularly small stores in rural areas. These are likely to see mostly cash-out transactions, have capital limitations, and operate far from rebalancing points. Liquidity costs can make the agent business unattractive or even unprofitable. This is confirmed by another study of 20 M-PESA agents in which 70 percent of agents had to rebalance every day (Eijkman, Kendall, & Mas, 2010).

One of the major main factors in determining the performance of an enterprise is management capabilities. The typical owner or managers of small businesses develop their own approach to management, through a process of trial and error. As a result, their management style is likely to be more intuitive than analytical, more concerned with day-to-day operations than long-term issues, and more opportunistic than strategic in its concept (Hill, 1987). Majority of those who run SMEs are ordinary lot whose educational background is lacking. Hence they may not well be equipped to carry out managerial routines for their enterprises (King & McGrath, 2002). Management skills relate to the owner/manager and the enterprise. Bowen & Makarius (2009) in a survey of small business challenges in Kenya showed that entrepreneurs often have good ideas and are competent but they do not have a clue on how to run a business and have no underlying appreciation of business fundamentals.

Experience takes many guises and breadth of experience is shown to be an important factor driving the performance of firms with the number of previous jobs positively related to new firm performance (Marvel & Lumpkin, 2007). The likelihood of failure was also found to be associated with the owner/manager’s work experience prior to business launch and education. Personal characteristics of the owner/manager were interpreted by Larson and Clute (1979) as lack of experience.
among small business managers who happen to be the owners leading to poor performance and consequently to business failure.

2.4 Conceptual Framework

According to Mugenda and Mugenda (2003), a conceptual framework helps the reader to quickly see the proposed relationships between the variables in the study and show the same graphically. The conceptual framework attempts to examine and explain factors that determine the performance of agent banks. It is conceptualised that this is influenced directly by finance factors, operational factors and management factors. These factors are summarised in figure 2.1.

Figure 2.4: Conceptual Framework

Acting as an agent can be a very capital-intensive business. Agents require a lot of capital because they need to have enough cash on hand and electronic float for customers to withdraw and deposit on demand. Other costs also require upfront investment, though in much smaller amounts. Working capital requirements can also affect the quality of service for customers and on-going costs for agents. While principles prefer agents to hold amounts that enable them to successfully service even very large deposits and withdrawals, agents make a different calculation, choosing to hold a smaller amount and turn away the infrequent large transaction, or ask the customer to break it into several smaller transactions across several days.
The business of agent banking also relies on liquidity management—having cash where and when customers ask for it. The less money agents have available to settle agent banking transactions, the more frequently they will need to rotate those monies, yielding more rebalancing trips. Agents that seek to minimize the number of trips they make by carrying large cash and e-float balances incur a higher cost of capital.

As an agent banking service grows, agents attract increasing interest from criminals. The amount of upfront capital an agent requires to begin operating can be increased by the cost of security improvements. But the expense from actually being robbed is much more substantial. Agents can be liable for some or all of funds lost via theft. In programs like M-PESA, where agents operate with their own cash in the till, agents bear the entire cost of a robbery.

Agent profitability is highly sensitive to service disruptions. This is particularly true for agents with capital, staff, and space costs dedicated to the agent business, as the agent incurs these costs whether or not revenue is being earned. Losing a few days of business may be enough to make the month unprofitable for an agent. Agents in Brazil, India, and Kenya mention unreliable mobile networks as also causing work stoppages, either because the mobile money system goes down, or the overall mobile network is unable to carry calls, text messages, and USD sessions.

In most agent banking operations, most agents have an existing business that continues to be important to the agent’s total income. How the agent banking business affects it is important. Most agents report a positive effect on sales.

Many small enterprise owners or managers lack managerial training and experience. The typical owners or managers of small businesses develop their own approach to management, through a process of trial and error. As a result, their management style is likely to be more intuitive than analytical, more concerned with day-to-day operations than long-term issues, and more opportunistic than strategic in its concept (Hill, 1987).

A consequence of poor managerial ability is that SMEs owners are ill prepared to face changes in the business environment and to plan appropriate changes in technology. Majority of those who run SMEs are ordinary lot whose
educational background is lacking. Hence they may not well be equipped to carry out managerial routines for their enterprises (King & McGrath, 2002). Harper (1984) observes that the poor growth of many enterprises of all sizes, suggest that the scarcity of competent managers is a more serious constraint on economic development.

Based on the above and knowledge drawn from literature and empirical evidence, the conceptual framework displayed in figure 1 depicts the most important variables expected to determine the performance of bank-led agent bank businesses in the study area. It is upon this operationalization of the variables in the conceptual framework that the study hypothesizes that:

**Null hypothesis**

i. \( H_0: \) There is no statistically significant relationship between financial factors and the performance of bank-led agent bank businesses.

ii. \( H_0: \) There is no statistically significant relationship between management factors and the performance of bank-led agent bank businesses.

iii. \( H_0: \) There is no statistically significant relationship between the operational factors and the performance of bank-led agent bank businesses.

**Alternate hypothesis**

i. There is a statistically significant relationship between the financial factors and the performance of bank-led agent bank businesses.

ii. There is a statistically significant relationship between the management factors and the performance of bank-led agent bank businesses.

iii. There is a statistically significant relationship between the operational factors and the performance of bank-led agent bank businesses.
2.5 Gaps in the Literature Review

Most literature on agent banking in Kenya has focused on non-bank led agent banking and primarily focussed on implementation of MPESA. Additionally, agent banking literature has mainly focussed on the customer perspective and factors that shape adoption of the same. The influence of the agent business operator on shaping the adoption and success of the overall business model has not been given adequate consideration.

Agent banking has reduced cost and enhanced efficiency in the financial sector with a possibility and availing financial services at much lower cost to consumers (Bean, 2009). It has also increased the ease of banks’ expansion hence outreach to far flung market pockets of bankable populations (Bold, 2011a). The customer, commercial bank and agent perspective need to be considered in order to develop an affective business model. Presently, there has not been a bank-focused empirical study that has been undertaken to establish the determinants of success in running an agent bank businesses in Kenya.
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers research methodology that was used in this study. A design was used to give structure of the research, to clearly show how the major parts of research data were compiled and all the methods used in collection of data like interviews, sampling and questionnaires. The chapter also gives the scope of the research procedures that were applied, the target population, sampling technique and the overall frame work of the research. The method of analysing data was included to determine the degree to which an effective solution could be arrived at. In addition, reliability and validity were also addressed. The chapter further highlighted the ethical considerations that were adhered to in course of the study.

3.2 Research Design

This is an exploratory study that assessed the factors determining the performance of bank-led agent banks businesses. Most studies on agent banking in Kenya have concentrated on the mobile money-led platform. Not much had been done on the performance of bank-led agent banking hence, an exploration allowed the collection of information to fill this gap. This type of study is most suitable especially in investigating relationships of variables that have not been investigated before. Thus, this study provides an opportunity to clarify relationships between variables (Mugenda & Mugenda, 2003).

3.3 Target Population and Sampling

The Target population of the study consisted of all the bank agents operating within the rural areas and major towns of Kiambu County of Kenya. The sampling frame consisted of a list of approved commercial bank agents who were engaged in agent banking in Kiambu County. The number of agents operating in the area of study was obtained from FINclusion Lab Microfinance Information Exchange. The total number of agents in Kiambu County as at 31st December 2014 was 752 (Microfinance Information Exchange, 2014).
Stratified random sampling was used to select agents across the whole county. The owners or managers of agent-led banking businesses were the participants to the study. Stratification was done based on the sub-counties in the county. Stratified sampling method was appropriate because it ensured that each stratum had an equal chance of being appropriately represented in the final sample thus no biases. Stratified random sampling was the most suitable technique in that it presented greater reliability and validity.

The population was listed according to the defined strata which included Gatundu South, Gatundu North, Juja, Thika Town, Ruiru, Githunguri, Kiambu, Kiambaa, Kabete, Kikuyu, Limuru and Lari sub counties. Using random sampling the research determined the required sample size and the appropriate representation in each stratum; this was direct proportional to the percentages of the defined strata of the study population.

3.4 Data Collection

A structured questionnaire with both open and closed-ended questions was used to collect primary data. Using a questionnaire (and particularly closed-ended questions) reduces the possibility of collecting biased data as the respondent is limited towards making certain choices. Open ended questions, on the other hand, gave the researcher the chance of collecting in-depth explanations concerning the relationships of variables under study. Since explorations seek to gain insights into previously less studied concepts, using open-ended question allows the achievement of these in-depth investigations.

3.5 Reliability and Validity

Validity is the accuracy and meaningfulness of data according to the objectives of a given research (Mugenda & Mugenda, 2003). Validity features two major forms: external and internal validity. To ensure validity, the researcher used a closed ended questionnaire where respondents were to choose from a list of choices. Reliability of the research instruments refers to the degree to which the instrument gives or yields consistent results when repeatedly administered (Mugenda & Mugenda, 2003). To establish the instruments reliability, internal consistency
approach will be used. The instrument will be pre-tested and the Cronbach’s alpha of the responses investigated. Cronbach’s Alpha ranges between 0 and 1 where the closer the value of Alpha to 1, the more reliable the results would be and the more it nears 0, the more unreliable the instrument or tool. The recommended value of 0.7 will be used as a cut-off of reliability.

3.6 Data Analysis

The collected data was coded, cleaned and subjected to series of statistical techniques to answer the empirical research questions and the hypotheses governing this study. In this regard, the statistical analyses performed in this study were categorised into two major categories namely: descriptive statistics and inferential statistics. Details on how each of the procedures was accomplished are presented in the subsequent sections.

3.6.1 Descriptive Statistics

Descriptive statistics were the first statistical operation performed during the data analysis following the process of data cleaning. The objective was to describe the characteristics of the sample under investigation that would be subsequently inferred to the entire population of interest. In light of this, the main statistical operations that will be performed include frequencies, mean and standard deviation. Presentation of data and findings was done using graphs and tables.

3.6.2 Inferential Statistics

In order to reach the conclusions that extend beyond the immediate sample, inferential statistics were used in the data analysis. Inferential statistics were used to make inferences on the population from the findings on the sample. First the researcher applied the Pearson’s two-tailed correlation analysis to establish whether there was causation between the dependent and independent variables and whether the independent variables correlated. The results of the correlation test formed the basis upon which regression modelling was done to establish the nature of relationship between the study variables. Regression is used when the researcher wants to establish how the independent variables affect the dependent variable. Since this study aimed to establish the kind of relationship between the independent and
dependent variables, regression was befitting. Based on the kind of data being collected and the nature of the dependent variable where the scale used was ranked from poor, fair, good, very good and excellent, ordinal (ordered) regression was favoured over the other types of regression. The scale of independent variables was coded such that poor=1; fair=2; good=3; very good=4; and excellent=5. The researcher chose to use ordered logistic (logit) regression model.

3.7 Ethical Issues

Ethical issues were considered when conducting the survey. These issues dealt with anonymity, confidentiality, purpose of the survey and its respondents and voluntary participation. The researcher made sure that participation was voluntary, where consent was requested from each respondent of the survey. The research also ensured that respondents do not encounter any harm, and the questionnaires and interviews did not include any sensitive questions that may cause distress.

The research also considered identity of the respondents. Anonymity was ensured by making sure that respondents could not be identified by their responses/names. The researcher also ensured that survey results that may identify the subject are not disclosed. The interviewers notified the participants of confidentiality with regards to responses and results and the cover letter to questionnaire. The purpose of the survey and its sponsors were communicated to all respondents, and it was also explained that the results of the study would be used in a dissertation.
4.1 Introduction

This chapter presents the research findings. The presentation of the results in this chapter is organised into two major categories-descriptive and inferential statistics. The descriptive statistics are presented according to the objectives of study, and precede the inferential statistics. Results on background information are also presented.

4.1.1 Response Rate

Out of the 100 questionnaires deployed to collect data 90 of them were well addressed for analysis. Out of the analysed questionnaires, 87.9% of the sample results came from urban agents while 12.1% came from the rural agents. The sample was weighted such that urban agents were given more weight compared to the rural agents based on the possible high performance urban agents were likely to record compared to the rural agents. A summary of these results is shown in figure 4.1 and 4.2.

![Location of Urban Agents](image)
These results show that majority of the interviewed persons owned or worked in agent banking shops located in urban areas compared to those located in rural areas. As such, the findings are highly generalizable to urban areas than to rural areas. Due to Kiambu’s proximity to Nairobi, most of its towns are urban hence the findings can be generalised to most of the agent banking shops in the county’s towns.

4.1.2 Reliability Statistics

The study investigated the reliability statistics of the instrument and the findings in table 4.1 were collected.

Table 4.1: Reliability Statistics

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.737</td>
<td>0.731</td>
<td>31</td>
</tr>
</tbody>
</table>

The instrument used for data collection was reliable as it had a Cronbach’s alpha of 0.737, which, according to Mugenda and Mugenda (2003) shows that the instrument was very good for deployment to collect reliable data.
4.2 Background Information

4.2.1 Common Banks among the Agent Banking Business

The study investigated the banks that were common among the agent-led banking business. The results were as shown in figure 4.3.

![Representation of Banks](image)

**Figure 4.2: Representation of Banks**

Majority (53.41%) of the agents only conduct agent-banking business on behalf of one bank while 46.59% conduct business for multiple banks. This results shows that there is one significantly dominant bank over the others in the Kiambu County market. The loyalty to one bank could be attributed to the bank’s attractive terms to agent banking. The study then investigated the name of the most common bank and the results are shown in figure 4.4.
Figure 4.2: Common Banks among Agents

Equity bank was the most common bank among agent-led banking in Kiambu with 88.9% dominance, followed by KCB with 34.4% and Cooperative bank with 32.2%. Perhaps, Equity’s dominance could be attributed to its marketing strategy of targeting all kinds (low and high income) of depositors. The bank could also be having attractive terms to agent-banking businesses that make many agents prefer it. Majority (97.8%) of the agents also offered MPESA services alongside banking services.

4.2.2 Type of Business Ownership

The types of business ownership of agent businesses was shown in figure 4.5.

![Types of Business Ownership](image)

Figure 4.2 Types of Business

Majority, 63%, of the bank-agent business are sole proprietorships while 27% are partnerships and 10% are private limited companies. Perhaps the dominance of single ownership nature of agent-led banking businesses could be attributed to the low capital that one ought to invest to begin and the minimal regulatory policies governing the business.
Figure 4.6: Types of Partnerships

As shown in figure 4.6, the majority (95%) of the partnerships comprise of less than five partners. The simplicity of agent business and the ease of starting make it less necessary for many partners hence the findings.

4.2.3 Main Type of Business

The study investigated the main type of business owners of agent business engaged in. The results collected were as shown in figure 4.7.

<table>
<thead>
<tr>
<th>Business Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals/Groceries</td>
<td>2.27%</td>
</tr>
<tr>
<td>Restaurant/Bar/Wines and spirits</td>
<td>2.27%</td>
</tr>
<tr>
<td>Veterinary/Agrovet</td>
<td>2.27%</td>
</tr>
<tr>
<td>Hardware/Motor vehicle parts</td>
<td>2.27%</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>2.27%</td>
</tr>
<tr>
<td>Mpesa</td>
<td>5.68%</td>
</tr>
<tr>
<td>Barber/Salon shop &amp; Mpesa</td>
<td>7.95%</td>
</tr>
<tr>
<td>Boutique/clothing's/Jewellery/Beddings shop</td>
<td>9.09%</td>
</tr>
<tr>
<td>Stationery/Bookstore/Computer services...</td>
<td>17.05%</td>
</tr>
<tr>
<td>General shop</td>
<td>21.59%</td>
</tr>
<tr>
<td>Electronics</td>
<td>27.27%</td>
</tr>
</tbody>
</table>

Figure 4.7: Main type of business agent business owners engage

Majority (27.27%) of the sampled agent businesses were primarily electronic sellers while 21.59% were operators of a general shop. Evidently, most of the
agencies’ primary business was not agent banking but rather the sale of non-financial goods/services. This shows that the engagement in agent-led banking business was only to supplement the current business (a diversification strategy) rather than a market entry strategy. This finding also shows that agent banking business can be done alongside other forms of business.

4.2.4 Gender and Age of Respondents

The ages and gender of respondents were also recorded and presented as shown in figure 4.8

![Figure 4.8: Age and Gender of Respondents](image)

As shown in figure 4.3-f, majority (55.17%) of the owners/staff/managers of agent businesses were females while 44.83% were males. This shows that most females than males participated in agent-banking business. Perhaps, the males did not consider agent business to belong to their class hence the low participation. Women are also perceived to be highly presentable and in possession of better public relations qualities than men which makes them most preferred in business that require high customer interactions as is the case with agent-banking businesses.

Majority (42.53%) of the owners/staff/managers of agent businesses were aged between 30 and 39 years old and 29.89% were aged between 40-49 years. Majority of both males and females participated in agent banking businesses at these two ages. These are the years when majority have completed basic education and are
building their lives before old-age catches up hence they are years when one is hardworking towards defining the status of their living conditions.

4.3 Performance Factors in Agent-Led Banking

4.3.1 Experience as an Agent

The length of time owners/staff of agent businesses have worked as agents was investigated and the results shown in figure 4.9 achieved.

![Figure 4.9: Period as an agent](image)

The results show that majority (82%) of the staff interviewed had only worked with agent banking business for between 1 and 5 years. This indicates that those engaging in agent banking business in Kiambu had acquired experience that enhanced their quality/ability hence increasing adoption and performance of agent banking. However, the experience was not huge as it did not exceed 5 years indicating that agent managers/owners ought to enhance their experience in agent banking so as to acquire diverse skills to deal with potential challenges. Nevertheless, since the 1-5 years could still have exposed the managers/owners to skills that built their capability in managing agent banking business, it is clear that the quality of agent banking business owners/managers grew/increased out of the experience. This is in line with Ndungu’s (2014) finding that high quality agents increase the adoption of agent banking.
4.3.2 Rating of Performance Based on Profits

The rating of the performance of agent banking business based on the profits they make was as shown in table 4.2. (Scale used was such that: 1=poor, 2=fair, 3=good; 4=Very good; 5=excellent.

Table 4.2: Performance of Agent Businesses Based on Profits Made

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance of agent business</td>
<td>3.13</td>
<td>0.95</td>
<td>87</td>
</tr>
</tbody>
</table>

The mean of 3.13 shows that on average majority of the respondents agreed that the performance of agent banking businesses measured by profits was good. The std. Dev. (0.95) shows that the data was not significantly spread from each other. This result shows that the adoption of agent banking had not cost investors but rather benefitted them. Prior to agent banking business, many Kenyans could not access banking services due to the challenge of convenience/access. As such, many remained financially excluded-presenting a gap that could be filled by agent banking. However, the onset of agent banking saw this untapped market being reached hence the profits. The fact that the performance is good when measured by profits indicates that agent banking is a promising business just as was asserted by McKay and Pickens (2010) who asserted that branchless banking has great potential.

4.3.3 Challenges Affecting Profits

Respondents were also asked the greatest challenge they encountered that affected their business profits. The results collected were as shown in figure 4.10.
Inability to balance float due to excessive withdrawals than deposits was the major (23.81%) problem agent staff thought affects their profits. When withdrawals are many compared to deposits, the float gets depleted making the business less liquid. This means that after float is depleted, customers seeking withdrawal services cannot get them unless/until the agent manager/owner replenishes it. However, replenishing float requires one to visit a physical bank branch to convert the electronic money in their gadgets into hard cash. Often this costs the business in terms of time and lost revenue hence exerting negative effect on profits. Thus, the finding concurs with that presented by Flaming et al. (2011) who observed that conducting cash-out (withdrawals) transactions drove agent costs/risks hence affecting profits.

Conning/robbery and theft from both employees and fraudsters was the other problem agents felt affected their profits significantly with 22.62% agents supporting it. Agents claimed this conning/theft could range from an employee leaving with float money, a customer depositing illegal/fake money or even a customer cheating to withdraw/get money from the agent and are all security issues. All these factors of fraud not only affect the trust customers have in agent banking, but also impact profits negatively due to the minimal number of transactions likely to be conducted for fear of being robbed. This finding confirms that security concerns associated with
agent banking business are real even among the local agent banking businesses just as was submitted by Lyman et al. (2006); George et al. (2011).

4.3.4 Possibility of Quitting being an Agent

As to whether agents had ever thought of quitting their business, the results in figure 4.11 were collected.

![Figure 4.11: Agents Likely to Quit](image)

Majority (85.56 %) of the agents had never thought of quitting their businesses while only 14.44% had done so. The reasons for quitting or not quitting were as shown in figure 4.12 and 4.13

![Figure 4.12: Reasons Not to Quit](image)

As supported by 59%, the agent banking business is performing well/promising hence there is no need to quit it. This finding confirms McKay and Pickens’ (2010) finding that branchless banking has great potential. The promising nature of the business could be attributed to the fact that the businesses are yet to
reach maturity age in Kiambu County as agent banking has gained fame in less than 10 years back. As such, the finding shows that majority of the investors into agent banking will continue doing the business owing to the potential it has. However, since this group of investors is driven by the profits/benefits realisable from agent banking business, they are likely to leave only when the industry matures to the extent that their businesses will seize to be promising. However, 36% of agent banking operators do the business because it is their main source of livelihood and that they have no other option. This group can easily exit agent banking business if they find replacements or better options as they are only held back by convenience. However, 4.6% of the agents are passionate about agent banking that quitting is not part of their thoughts. This group are likely to be loyal to agent banking business as they are driven by passion, which cannot be satisfied by any other thing.

Among the 14% who would quit agent banking business, their reasons were as shown in table 4.13

<table>
<thead>
<tr>
<th>Reasons for wanting to quit</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of customers</td>
<td>7.69</td>
</tr>
<tr>
<td>Other investments</td>
<td>7.69</td>
</tr>
<tr>
<td>Low profits</td>
<td>15.38</td>
</tr>
<tr>
<td>Other opportunity</td>
<td>23.08</td>
</tr>
<tr>
<td>Insecurity</td>
<td>46.15</td>
</tr>
</tbody>
</table>

**Figure 4.3 Reasons to quit**

Majority (46%) of those who would quit argued that insecurity was the major reason why they would quit agent banking business similar to the findings of Lyman et al. (2006). It should be noted that insecurity denies agents and customers the right to enjoy the fruits of agent banking services hence forcing them to seek alternative and safer ways to do banking services. This insecurity could then affect agent banking business in two ways: first is by threatening the working capital of the agent
-for instance when the float is stolen; and second, by driving away customers from whose transactions the agents could have earned commission. Additionally, 23% of agents would quit in favour of other more promising opportunities while 15% would quit because of low profits in agent banking.

4.4 Financial Factors Affecting Performance of Bank-Led Agent banking

The first objective investigated the financial factors affecting bank-led agent banking business. Findings were as presented in the subheadings that follow.

4.4.1 Average Amount of Cash Transacted Daily

The average amount of cash transacted by agent banking in Kiambu County was investigated and the results presented as shown in Table 4.3 (Note that the scale used was such that: 1=less than 100,000; 2=100,000-200,000; 3=200,001-300,000; 4=300,001-500,000 and 5=over 500,000.).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average amount of cash transacted in a day</td>
<td>1.61</td>
<td>0.601</td>
<td>83</td>
</tr>
</tbody>
</table>

The mean (1.61) rounded off to a whole number, 2, shows that majority of the agent banking businesses in Kiambu transacted between Ksh 100,000 and 200,000 every day. The standard deviation shows the results could be relied upon to represent the views of majority of the agents. When agencies are looked at as banks, one can assume that transaction between 100,000-200,000 is little money, however considering the scale of majority of these agent businesses, transacting this amount of money daily means that on average they perform significantly well. As will be seen elsewhere in this study, majority of the agents had one employee but did an average of 70 transactions in deposits and withdrawals in a day.

The average number of transaction done by the agents in a day is shown in Table 4.4 (Note: the actual values for withdrawals and deposits were coded such that: 1=less than 10 transactions; 2=10-20 transactions, 3=21-30 transactions, 4=31-40 transactions, 5=41-50, 6=51-60 ... and 11=over 100 transactions).
Table 4.4: Daily Transactions of Withdrawal and Deposit

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdrawals</td>
<td>4.17</td>
<td>2.79</td>
<td>88</td>
</tr>
<tr>
<td>Deposits</td>
<td>2.5</td>
<td>1.37</td>
<td>86</td>
</tr>
</tbody>
</table>

The findings therefore show that on average, agent banking outlets in Kiambu recorded between 31-40 transactions daily worth withdrawals and between 21-30 transactions daily worth deposits from whom a total of between 100,000 and 200,000 was transacted. This result shows that the agents receive more withdrawal requests than deposits and on average, a total of 52 transactions on the lowest side and 70 transactions on the highest side are done by each agent. As such, when an agent absconds a single day of work, they risk losing commission payable on transacting between 52-70 transactions and/or transacting worth between Ksh. 100,000-200,000 hence loss of profits. This resembles the case presented by Flaming et al. (2011) where an agent banking business not operating for 2 days ends up making significant losses for the month.

4.4.2 Balance Inquiry and Account Opening at Agent Banking

The performance of the account opening service and balance inquiry services at agents were investigated and the results collected and presented in figure 4.14

![Figure 4.14: Number of New Accounts Opened at Agent Banking Daily](image-url)
Figure 4.15: Average Daily Transactions

On average, majority 59% of agent banking businesses in Kiambu County record no account opening activities in a day and only 41% of the agents were able to make less than 10 account opening transactions. Additionally, the result shows that majority (78%) of bank agents in Kiambu County recorded between 10 and 20 transactions of balance inquiry daily. This is a low number given the size and location of the county. Perhaps this result could be attributed to the fact that most customers prefer opening bank accounts/checking their bank balances using alternative channels—for example using mobile phones and branch banking where they do not have to involve a bank agent. Perhaps, this behaviour could be attributed to the security concern that has been established as a major challenge to the success of agent banking. This means that agent banking operators and managers should market as well as enhance security of agent banking services/environment to enhance the performance of all transactions just as was envisioned by Lyman et al. (2006). However, the fact that agent banking is yet to achieve high account opening activity shows the potential the business still has to grow into hence confirming the potential McKay and Pickens (2010) associated with agent banking.
4.4.3 Expenses Affecting Agent Banking Business

4.4.3.1 Cost of acquiring transaction device

Expenses are also part of the financial factors that affect the performance of a business as they directly impact profits. The study investigated the expenses agent banking business incurred in a month and the results presented as shown in figure 4.16.

Figure 4.16: Cost of Transaction device

Majority of the agents (76 %) incurred a cost of between Ksh. 10,000 and Ksh. 20,000 on acquiring a transaction device, 12% of the agents incurred a cost of between Kenya Shillings 20,001 and 30,000 while 11% incurred less than Ksh. 10,000 and only 1% got the device at no cost. This cost was a one time in that it was only charged at the beginning of the agent banking business when the agent acquired the device. The differences in the cost of acquisition could be due to the price variation offered by the different banks and vendors selling the devices. Otherwise, the cost could only be re-incurred if need to replace or acquire another device occurred.
4.4.3.2 Cost of Security

As indicated in the figure 4.17 above, majority (54%) of agent banking businesses did not incur the cost of security. These category of agents had no CCTVs installed and did not incur the cost of paying for a watchman because they operated from a perceived secure area. Thirty three percent incurred a cost of less than 10,000 on security. It was established that most of the agents lying in this category paid a watchman and/or had only installed minor security gadgets like a grill-door and CCTV. The remaining 13% who incurred a cost of between Kenya shillings 10,000 and 20,000 had implemented elaborate security systems including having a watchman from a big security company, having CCTV, having day and night watchman, and installing a burglar proof door. The result from majority indicates that agent banking businesses did not invest in securing their premise. Perhaps this could be attributed to the fact that they aimed to reduce costs as much as possible and enhance profits. This could be the reason why robbery and theft were big problems for agent banking businesses in the county.

4.4.3.3 Cost of Connectivity

Concerning the cost of connectivity, the results in the figure 4.18 were collected.
Majority of the agents (65%) did not incur the cost of connectivity. Most of the agents argued that once they acquired the transaction gadgets, their banks did not charge them for connections. 31% argued that they incurred a cost of less than Ksh. 10,000. Most of this cost was incurred on acquiring mobile phones that would be used for mobile money transfers and/or communicating with banks in case of any customer care issues. The fact that there were no connectivity charges among majority could be attributed to the fact that the PDQ machines used by agent banking personnel only require wireless network connection hence once the gadget is set, it automatically receives the connection with less effort.

4.4.3.4 Contingency Cost

As to whether the agent banking businesses had contingency fund to cover for future unforeseeable uncertainties, the results collected were as shown in figure 4.19.
Figure 4.19: Contingency Costs

Fifty percent of the agents in Kiambu County incurred a contingency cost of less than Ksh. 10,000 while 45% did not have any funds set aside for contingency purposes. The results from majority could be attached to the nature of business in agent banking where float depletion cases are common and having some cash set aside to help in such cases can enhance one’s performance and competitiveness against others.

4.4.3.5 Transport Expenses

On transport expenses, the results collected are in figure 4.20

Figure 4.20: Transport Costs

Majority of agents (50%) did not incur transport costs. Most of these agents were owners of the businesses who live near their agent banking shops hence did not have a reason to incur transport costs. Among those who incurred transport costs, 48% incurred less than Ksh. 5,000 every month while 2% incurred between Ksh. 10,001 and 20,000. This result show that even for those who incurred the cost, the
amount paid for transport was relatively low meaning that owners/managers of agent businesses aimed to work within the lowest costs possible so as to preserve profits.

4.4.3.6 Cost of Electricity

Since the gadgets in agent banking business use electricity, the study investigated the average monthly cost incurred on electricity.

![Electricity Costs](image)

**Figure 4.21: Electricity Costs**

As shown in figure 4.21 above, majority (62%) of the agents incurred a monthly electricity bill of less than Ksh. 1000 while only 38% incurred a cost of more than Ksh. 1000 but less than 5,000. This also shows that the agents used low power which did not cost them much hence cutting on the total expenses at the benefit of the net profits.

4.4.3.7 Staff cost

The cost of staffing the agent banking shop was also investigated and the results in figure 4.22 collected.
Figure 4.22: Staff Costs

Majority (60%) of the agents did not pay their staff hence incurred no staff costs. This is because majority were the owners/family members of owners who’s working in the agencies did not necessarily require a monthly salary, as they would benefit from the profits made. This was also another cost cutting measure owners of agent businesses used to reduce pressure on the profits they were likely to get. To the remaining agents, 26% incurred staff cost of between Ksh. 5,000-10,000; and 13% paid Ksh. 10,001-20,000 to staff. This finding disagrees with the one submitted by Flaming et al. (2011) that the profitability of agent banking is affected by staff cost.

4.4.3.8 Rent cost

The average cost of rent agent banking businesses incurred in a month is presented in the figure 4.23.
Majority (42%) of the agents incurred a rent bill of Ksh. 10,001-20,000 every month; 38% incurred a bill of 5,000-10,000 while 8% did not pay rent. This findings show that majority of the agencies incurred the cost of rent which likely had an effect on the profits. The results tally those submitted by Flaming et al. (2011) that rent/space cost was one of the expenses affecting profitability of agent banking business.

4.4.4 Other Financial Factors Affecting Agent Banking Business

The study investigated further the other financial factors affecting the performance of agent banking business in Kiambu and the means presented in the Table 4.5. (The scale used was such that 1=extremely unimportant; 2=not important; 3=important; 4=extremely important).

Table 4.5: Other Financial Factors Affecting Performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of capital</td>
<td>3.51</td>
<td>0.7007</td>
<td>85</td>
</tr>
<tr>
<td>Commission (price) paid on transactions</td>
<td>3.27</td>
<td>0.5881</td>
<td>84</td>
</tr>
</tbody>
</table>
The mean of 3.51 shows that unavailability of capital was extremely important financial factor that affected the performance of agent banking business in Kiambu County. This result could be relied upon as a representation of majority of the observations made owing to the small standard deviation (0.7). As established in this study, agent businesses require money to settle their fixed and variable expenses for them to perform. As such, capital investments must be incurred-without which it would be difficult to start one such business. Perhaps this is why the unavailability of capital is an extremely important point of concern. Ndungu (2014); Flaming et al. (2011) in their studies emphasized the importance of capital adequacy to success in agent banking.

The commission banks paid on each transaction was also important factor affecting performance of the agent baking business (Mean=3.27; std. Dev. =0.5881). It should be noted that business men get motivated by the benefit their business is likely to offer them. As such, they will have a reason to continue investing in a business that offers them great returns than one that doesn’t hence the findings.

4.5 Operational factors affecting the performance of agent banking

The second objective investigated the operational factors affecting performance of agent banking business. The following subitiles contain the findings.

4.5.1 Period of Operating Agent Business

The study investigated the period of time the agent business ran. The results are as shown in figure 4.24. The scale used is shown in the last column to the right.
The mean of 2.389 shows that majority of agent businesses had operated for between 1 and 5 years. Based on the standard deviation of 0.5746, it is noted that the difference between those with contrary operation periods from the mean and the mean was not significant. As such, the mean could be relied upon as a representation of majority of the agents. The results also show that the agents operated their businesses for an average of 6.56 days (mean=6.562; std. Dev= 0.6734). The mean of 2.956 when rounded off to a whole number shows that most of the agents worked for more than 8 hours every day. The small standard deviation (0.2558) shows that majority tended to open their businesses for over 8 hours. This finding shows that agent banking owners do not wish to let time pass without them doing business so as to avoid profit losses. These findings confirm those by Flaming et al. (2011) that losing a few days may lead to losing a month’s profits.

4.5.2 Number of Employees

The study also investigated the number of employees the agent banking businesses were working with. The results were as shown in figure 4.25.
Majority (50%) of the agent banking businesses have less than five employees excluding the owner while 48.84% of the businesses are only run by the owners. Those that have over ten employees are 1.16%. The findings by majority show that owners of agent businesses really wanted to reduce the cost of staffing by working with the minimal possible number of staff. This was perhaps to reduce staff costs and enhance profits as submitted by Flaming et al. (2011). Given that the agent businesses were not the main businesses as was established elsewhere in this study, it is clear that staff employed in agent banking shops performed much more duties than just ensuring banking services are offered. For instance, the staff in a general shop offering agent banking business will perform the tasks of selling merchandize in the shop as well as offering banking services to customers.

4.5.3 Change in Number of Employees

The study also investigated change evident between the present numbers of employees in respect to the number of employees employed at the start of the business. Figure 4.26 shows the results.
Figure 4.5: Change in number employees

Majority (86%) of the agents had not changed the number of employees from those they started with. Perhaps this was also to reduce on cost of wages paid to staff as emphasized by Flaming et al. (2011). 12% of the agents have reduced the number of employees from the ones they had at the start of their business while 1% of the agencies have increased their employees from the ones they had at the start of their business.

4.5.4 Effect of Agent Banking on Customers Visiting the Store

The study investigated the effect agent banking had on number of customers coming to the shop since its introduction. Results are shown in figure 4.27.

Figure 4.27: Effect of agent banking on customer visits

Majority (65.91%) of the businesses that offered agent banking saw an increase of 31-50% in the number of customers to those stores, 12.5% of the
businesses did not record any change in number of customers while 1.14% of the businesses recorded a decrease in the number of customers. Generally, the results in Table 4.26 indicate that the businesses recorded an increase in the number of customers when they adopted agent banking business. The difference was in the number of new customers attracted with majority of the businesses attracting between 31% and 50% of new customers. This shows that agent banking added value to the existing business by increasing customer reach.

Additional operational factors that affect agent banking were also presented in figure 4.28 (Scale used was: 1= extremely un-important; 2=Not important; 3=Important; 4=Extremely Important).

![Operational Factors affecting agent banking](image)

**Figure 4.28: Operational Factors affecting agent banking**

Majority of agents concur that market demand for agent banking services is extremely important to the performance of the agent businesses (Mean =3.93; std. dev. = 4.35). However, the huge standard deviation indicates that the findings cannot be relied upon as they spread significantly away from the mean. Mobile network coverage was also extremely important to the performance of agent banking business (Mean =3.80; std. dev.= 0.40). This is because transacting with agent banking depends significantly on availability of network since the agent transaction gadget must communicate with the bank (Ivatury, 2006; Lyman *et al.*, 2006).
The findings show that security of agent banking environment is extremely important to the performance of the agent banking business in Kiambu (Mean =3.53; std. dev. = 0.50). This could be attributed to the fact that security of the environment guarantees safety to the agent and the customer hence making it possible for the parties to conduct their activities without fear. This increases the number of transactions and amount transacted each day hence the performance. Majority of agent owners/managers also concur that security of customer financial information is important to the performance of agent banking business (Mean =3.43; std. dev. = 0.52). Based on the differences in the mean, it is clear that to majority of agent bank owners, security of banking environment is more important compared to security of financial information. This could be attributed to the high security of customer information banks keep hence reducing the attention customers/agents give the security of financial information. Nevertheless, the importance of security to agents in Kiambu concurs with Lyman et al.’s 2006; Flaming et al.’s (2011) submission that security significantly impacts agent banking as it affects customer transactions and the amount transacted.

Location of the agent banking business is also an important factor affecting the performance of the business (Mean =3.04; std. dev. = 0.40). Agencies located in inconvenient places make it difficult for customers to access banking services hence promoting customers seeking competitor services. The number of employees was also found to be important towards the performance of agent banking in Kiambu County (Mean =2.46; std. dev. = 0.64). Having many employees is relational to the amount of output they give hence directly affects the performance of the agencies.

4.6 Management Factors Affecting the Performance of Agent banking in Kenya

The third objective aimed to investigate the management factors affecting performance of agent banking businesses. The results are as shown in the following subtopics.
4.6.1 Experience in Agent Banking

The study investigated the length of time respondents had worked/owned and managed agent business and the results presented as shown in figure 4.29. The scale used was: 1=Less than 1 year; 2=1-5 years; 3=over 5 years.

![Figure 4.29: Length of time as agent](image)

The results mean=1.92; std. Dev. 0.46 show that majority of the respondents had worked or managed agencies for a period ranging from 1-5 years, an indication that the respondents were experienced in the management of agent banking. Experience enables better management of the current business to ensure high returns/profits. Averagely most of the agent owners/managers agree that the performance of their agent banking business is good, an effect brought about due to the experience acquired (Marvel & Lumpkin, 2007).

4.6.2 Education Qualification

Education qualification of the respondents was investigated and results presented in figure 4.30.

![Figure 4.30: Education Level](image)
Majority (43.18%) of the owners/managers cum workers of agent banking are educated up to the diploma level, 38.64% have degrees and only 1 has a masters’ degree. This shows majority of the owners/managers were well educated to offer the desired management to the business. This finding disagrees with that fronted by King and McGrath (2002) that majority of those who run SMEs are ordinary lot whose educational background is lacking and may not be well equipped to carry out managerial routines for their enterprises. Those less educated and, perhaps can fall into King and McGrath’s (2002) definition are the 17.05% who have KCSE certificate as their highest education level.

4.6.3 Motivation for Venturing into Agent Banking

Figure 4.31: shows the results concerning the motivation for venturing into agent banking business.

<table>
<thead>
<tr>
<th>Reason for venturing into agent banking</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I didn’t have alternative employment</td>
<td>1%</td>
</tr>
<tr>
<td>Agency banking was the trending business among...</td>
<td>1%</td>
</tr>
<tr>
<td>Agency banking is the trending business</td>
<td>2%</td>
</tr>
<tr>
<td>was unhappy with previous employment,</td>
<td>3%</td>
</tr>
<tr>
<td>Friends/ family</td>
<td>3%</td>
</tr>
<tr>
<td>Be my own boss</td>
<td>13%</td>
</tr>
<tr>
<td>Bank’s sales people were convincing</td>
<td>13%</td>
</tr>
<tr>
<td>Customers demanded/expected me to have agent...</td>
<td>16%</td>
</tr>
<tr>
<td>Wanted to be associated with banks brand</td>
<td>17%</td>
</tr>
<tr>
<td>Brings more people into store</td>
<td>54%</td>
</tr>
<tr>
<td>Earn profit</td>
<td>56%</td>
</tr>
<tr>
<td>Agent banking market was promising</td>
<td>57%</td>
</tr>
</tbody>
</table>

Figure 4.31: Reason for Venturing into Agent Banking Business

Majority (57%) of the agent bank business owners ventured into the business due to the promising nature of that market while 56% were motivated to join agent banking by the need to earn profit thus concurring with McKay and Pickens (2010) that branchless banking has great potential. Before the onset of agent banking, banks
were concentrated in big cities leaving those in small cities and rural areas unbanked. Agent banking began in 2010 and happened to thrive on this gap and is yet to reach maturity as majority still demand its services due to its convenience compared to branch banking hence its promising nature/the potential to offer profits. 54% of the agents were motivated by the fact that agent banking brought more people to their stores. As was established earlier, majority of the agencies were secondary businesses as the agents already had other businesses. The adoption of an agent business therefore created another source of revenue that brought in more customers different to those who sought to buy items/services of the main business activity.

4.6.4 Managerial Capabilities

The study also investigated how the capabilities managers had could impact the performance of the agent banking business. Results were as shown in figure 4.32. (Scale used was such that: 1 = extremely un-important; 2 = Not important; 3 = Important; 4 = Extremely Important)

![Managerial Capabilities](image)

**Figure 4.32: Managerial Capabilities**

Majority of agents agreed that ability of the manager to borrow funds was an extremely important determinant of the performance of agent banking business (Mean =3.61; std. dev. =0.65). Given that agent banking business is a capital intensive business (CGAP, 2011) owing to the fact that at all times there must be float/deposit money, having good borrowing skills is critical towards accessing needed finances. This concurs with Atandi’s (2013) findings that being able to
borrow can enhance an agent’s access to finances to offset the huge capital requirements. Management of core business is another factor majority of respondents consider important to the performance of agent banking business (Mean=3.26; std. dev. 0.74). Ability to manage core business means that one can create a balance between the agent banking activities (for example between withdrawals and deposits) to the extent that they satisfy majority of the customers as well as meet the organisational needs like profit generation. This finding concurs that presented by Ndungu (2014) that management of the core business of an agent increase the adoption/performance of agent banking than when no concern is focuses towards the core business.

The findings also show that majority of agents agreed that capability to manage finances was an important factor affecting performance of agent banking in Kiambu (Mean=3.2; std. dev. = 0.43). This result agrees with the one arguing that liquidity management is critical challenge to the development of the agent banks model (Eijkman, 2010). When finances are well managed, the business will have the right working capital to transact its daily activities hence impact profits in the long run. Poor management of finances can result into underperforming working capital that may force the business not to transact at certain times hence loss of revenue and profits. Business management capability was also an important factor towards the performance of agent banking business (Mean=3.19; std. dev. =0.43) just as was explained by Hill (1987). Business management is the overall overseeing of all operations to ensure they work towards the organisational goal-profit making. This is the reason why it was rated an important factor towards performance of agent banking.

4.7 Inferential Results

4.7.1 Correlation Analysis

First, on inferential analysis, the study did a correlation analysis to establish whether there was any causation (correlation) between the independent and dependent variables. The results collected were as shown in table 4.6.
Table 0:6 Correlation Results between Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance (Profits)</td>
<td>1</td>
<td></td>
<td>87</td>
</tr>
<tr>
<td>Management of core business</td>
<td>.301**</td>
<td>.005</td>
<td>85</td>
</tr>
<tr>
<td>Number of employees</td>
<td>.284**</td>
<td>.008</td>
<td>86</td>
</tr>
<tr>
<td>Capability to manage finances</td>
<td>.282**</td>
<td>.009</td>
<td>86</td>
</tr>
<tr>
<td>Availability of Capital</td>
<td>.277*</td>
<td>.011</td>
<td>83</td>
</tr>
<tr>
<td>Price transactions by bank</td>
<td>-.102</td>
<td>.361</td>
<td>82</td>
</tr>
<tr>
<td>Security of agent banking environment</td>
<td>.172</td>
<td>.110</td>
<td>87</td>
</tr>
<tr>
<td>Security of agent banking customer financial details</td>
<td>.102</td>
<td>.349</td>
<td>87</td>
</tr>
<tr>
<td>Mobile network coverage</td>
<td>.098</td>
<td>.364</td>
<td>87</td>
</tr>
<tr>
<td>Worked/Owned/Managed Agent banking</td>
<td>.083</td>
<td>.449</td>
<td>86</td>
</tr>
<tr>
<td>Business management capability</td>
<td>.033</td>
<td>.765</td>
<td>85</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

NOTE: Complete correlation matrix available in appendix I.

The results show that management of core business had a positive highly significant relationship to the performance of agent banking business (p<0.05). This could be attributed to the fact that managing core business ensures good direction of
business activities with a focus to enhancing the value/benefits accrued from the business while reducing the costs likely to threaten profits. This finding agrees with the argument that better management of core business resulted in improved performance (Ndungu, 2014).

The number of employees had the second most significant positive relationship with profits ($p<0.05$). This means that having many employees resulted in enhanced profits. Many private businesses employ employees so that when they work as a team they can individually contribute to the overall organisational performance. In the case of this study as has been explained earlier, the agent banking shops had other business activities taking place. Having one employee to manage both the primary business activity and the agent banking business could reduce output as some customers who may not want to queue to be served may be lost. However, when two or more employees each handle a specific business activity, there is efficiency in service and more business/customers can be attracted to the store hence increased output. As such, this justifies the finding.

The study also established that the capability to manage business finances also impacts the profits of agent banking business positively and significantly ($p<0.05$). In agent banking business, good management of business finances means that there will be a balance between cash at hand and electronic (virtual) cash such that no customer wanting to either withdraw or deposit will be turned down. This ensures that the agent earns commission on any customer seeking agent banking services as they will be able to transact their business. This analysis agrees with Eijkman’s (2010) argument that liquidity management is critical to the development of agent banking.

Availability of capital was the fourth factor that had a positive significant relationship with performance of agent banking business ($p<0.05$). This indicates that increasing the cash invested in the agent banking business results in increased profits. As much as agents are representative of banks, the money they use to trade is theirs hence having more money guarantees conducting many transactions and/or transacting large amounts of money. This finding is in agreement with that submitted by Flaming et al. (2011) that agent banking is a capital intensive sector that thrives with high capital investments.
4.7.2 Regression Model

After establishing the independent variables that correlated with the dependent variable, the study went ahead to regress them so as to establish the quantity of each of the independent variables affecting a unit quantity of the dependent variable. The basis or conducting a regression analysis was to establish the nature of the relationship between the variables under study as well as establish how the dependent variable is influenced by each of the independent variables in the presence of the other independent variables. Through regression, the researcher was able to establish how increase in profits was associated with the independent variables under study.

Given that data on the dependent variable was presented in a Likert scale mode, ordinal logistic regression was preferred over the other models of regression (as per assumption 1). No assumption was significantly violated. In this regression, the dependent variable was performance (measured according to profits) while the independent variables were: Availability of Capital; Number of Employees; Capability to manage business finances; and Management of core business. The initial regression model conducted showed that availability of capital was not significantly associated with the performance of agent banking in the presence of the other variables. As such, the variable of availability of capital was deleted and the regression run again with three variables- Number of Employees; Capability to manage business finances; and Management of core business. The regression output is given in table 4.7.
Table 4.7: Coefficient Results for Logit Regression

<table>
<thead>
<tr>
<th>Iteration</th>
<th>Log likelihood</th>
<th>No. of obs.</th>
<th>LR chi2(3)</th>
<th>Prob &gt; chi2</th>
<th>Pseudo R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-107.19254</td>
<td>84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-99.162685</td>
<td></td>
<td>16.31</td>
<td>0.0010</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>-99.03864</td>
<td></td>
<td></td>
<td></td>
<td>0.0761</td>
</tr>
<tr>
<td>3</td>
<td>-99.038489</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>-99.038489</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Log likelihood = -99.038489

| Performance (profits) | Coef.  | Std. Err. | z      | p>|z| |
|-----------------------|--------|-----------|--------|-------|
| Number of employees   | 0.717034 | 0.3403261 | 2.11  | 0.035 |
| Capability to manage business finances | 1.013433 | 0.5223514 | 1.94  | 0.052 |
| Management of core business | 0.5969538 | 0.3173801 | 1.88  | 0.060 |

The results show that the likelihood ratio chi-square of 16.31 with p<0.05 indicate that the model as a whole is statistically significant. This means that the number of employees, capability to manage agent business finances and the management of core business, on average, have significant effect on the performance of agent banking businesses in Kiambu County. Similar to the findings established by the Pearson’s correlation analysis, the p-values show that the number of employees had positive statistical significance with the profits of agent banking business (p<0.05) leading to the acceptance of the alternate hypothesis on operational factors. The capability to manage business finances was slightly significant with the profits of agent banking business (p>0.05 (slightly)) also causing the study to accept the alternate hypothesis that management factors affect the performance of agent banking business.

The management of core businesses had no statistical significance to the profits of an agent banking business (p>0.05) contrary to what was found in the correlation analysis. This indicates that in the presence of the other variables, the management of core business is not statistically associated with profits. The coefficients show that, when all other variables are held constant, a unit increase in
the number of employees results in a likelihood increase of 0.72 in the profits of an agent banking business (p<0.05). As explained earlier in this study, the relationship between employees and profits could be attributed to the fact that the agent banking shops had more than one business activity hence having each employee handle a specific business activity led to enhanced profits as more sales/transactions are likely to be recorded.

When all other variables are held constant, a unit increase in the capability to manage finances in an agent banking business causes a likelihood of the profits of the business to increase by 1.01 units (p=0.052). Good management of finances ensures that an agent banking business has an adequate working capital to run day-to-day activities and satisfy all customers in need of the services. For instance, good management of finances will ensure an agent has adequate float and electronic money so that he/she does not turn away any customer in need of such but rather earns commission from any transaction the customer makes—whether deposit or withdrawal. Similar to this finding, Eijkman (2010) argued that liquidity management is critical to succeeding in agent banking.

The relationship of availability of capital and profits was also investigated using ordered logistic regression and the results presented as shown in figure 4.8. Table 4.8: Ordinal Regression Output: Availability of Capital and Performance

<table>
<thead>
<tr>
<th>Iteration 0: log likelihood = -105.9663</th>
<th>No. of obs. = 83</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iteration 1: log likelihood = -102.90947</td>
<td>LR chi2(3) = 6.14</td>
</tr>
<tr>
<td>Iteration 2: log likelihood = -102.89486</td>
<td>Prob &gt; chi2 = 0.0132</td>
</tr>
<tr>
<td>Iteration 3: log likelihood = -102.89485</td>
<td>Pseudo R² = 0.0290</td>
</tr>
</tbody>
</table>

Log likelihood = -102.89485

| Performance (profits) | Coef.  | Std. Err. | z     | p>|z| |
|-----------------------|--------|-----------|-------|-----|
| Availability of capital | 0.779535 | 0.333679 | 2.34  | 0.019 |

The P > chi2 of 0.0132 shows that generally availability of capital has a significant relationship with profits of agent banking businesses (p<0.05) thus the null hypothesis is rejected. The coefficient shows that a unit increase in the
availability of capital results in a likelihood of the profits increasing by 0.78 units (p<0.05). This shows that increasing an agent business’ capital enhances the profits. This could be attributed to the fact that having more capital enables an agent banking business to conduct many transactions or conduct transactions involving large amounts of money from which high commissions are likely to be earned hence the high profit. Flaming et al. (2011) also established a similar finding in their study. This is because, offering financial services depends on how much finances one has at hand to transact hence, the more available capital the more profits expected in terms of commission.

4.8 Chapter Summary

This chapter has presented the findings collected by the study. The chapter shows that financial, operational and managerial factors affect the profits (performance) of agent banking. The performance of agent banking businesses has a positive statistically significant relationship with availability of capital; number of employees; and capability to manage business finances; The next chapter presents the summary, conclusions and recommendations.
CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings, the conclusions and the recommendations of the study. The chapter is organised according to the objectives under study and as per the presented findings in the previous chapter.

5.2 Summary of Findings

5.2.1 Performance of agent Banking Businesses

Majority of the respondents agreed that the performance of agent banking business measured by profits was good. The main challenge to the performance of agent banking business was inability to balance float due to excessive withdrawals than deposits. The second most challenging problem to agent banking was conning/robbery and theft from both employees and fraudsters. Majority (85.56 %) of the agents have never thought of quitting their agent businesses because their agent banking business is performing well/promising. Robbery and theft is the main reason that encourages agents to quit agent banking business.

5.2.2 Financial Factors

The first objective investigated the financial factors affecting agent banking business. The findings show that majority of the agent banking businesses in Kiambu transacted between Ksh 100,000 and 200,000 every day. On average, agent banking outlets in Kiambu recorded between 31-40 transactions daily worth withdrawals and between 21-30 transactions daily worth deposits. Majority 59.32% of agent banking businesses recorded no account opening activities in a day while majority (69.88%) of the agents recorded between 10 and 20 transactions of balance inquiry daily.

Majority of the agent banking businesses incurred the cost of between Ksh. 10,000 and Ksh. 20,000 on acquiring a transaction device; less than Ksh.10, 000 on contingency costs, a monthly electricity bill of less than Ksh. 1,000 and a monthly rent bill of Ksh. 10,001-20,000. Majority of agent banking businesses did not incur the cost of security, connectivity, transport and cost of staff. The availability of
capital was an extremely important financial factor that affected the performance of agent banking business while commission banks paid on each transaction was also important factor affecting performance of the agent baking business. The findings further show that availability of capital had positive significant relationship with performance of agent banking business at 5% significant level; (p<0.05). The linear relationship is that a unit increase in the availability of capital results in a likelihood of the profits increasing by 0.78 units (p<0.05).

5.2.3 Operational Factors

The second objective investigated the operational factors affecting performance of agent banking business. Findings show that majority of agent businesses in Kiambu County have operated for between 1 and 5 years. The agents operated their businesses for an average of 6.56 days a week, and for more than 8 hours every day. Majority (50%) of the agent banking businesses have less than five employees excluding the owner while 48.84% of the businesses are only run by the owners. Since adoption of agent banking, majority of the agent businesses had not changed the number of employees from those they started with. Majority of the businesses that offered agent banking saw an increase of 31-50% in the number of customers frequenting the stores per month. Mobile network coverage and security of agent banking environment are extremely important contributors to the performance of agent banking business while security of customer financial information, location of the agent banking business and number of employees are important to the performance of agent banking business. The study also found a positive statistically significant relationship between the number of employees and profits made by an agent banking business. A unit increase in the number of employees results in a likelihood of 0.72 increase in the profits of an agent banking business (p<0.05).

5.2.4 Management Factors

The third objective investigated the management factors affecting the performance of agent banking in Kiambu County. Findings show that majority of the respondents had worked or managed agencies for a period ranging from 1-5 years. Majority (43.18%) of the owners/managers of the agencies were educated up to the
diploma level and 38.64% had degrees. Concerning the motivations to venturing into agent banking business, 56.67% ventured into the business due to the promising nature of that market while 55.56% were motivated to join agent banking by the need to earn profit and 54.44% of the agents were motivated by the fact that agent banking brought more people to their stores. Majority of agents agreed that ability of the manager to borrow funds was an extremely important determinant of the performance of agent banking business while management of core business, capability to manage business finances, and business management capability were important factors to the performance of agent banking business.

**Conclusions**

Agent banking business is a profitable though it is significantly affected by the inability to balance between withdrawals and deposits and robbery and theft cases. Current owners of agent banking businesses in Kiambu do not think of quitting. Customers do not prefer to open bank accounts at agent banking shops. To begin an agent business, an investor incurs the cost of acquiring transaction device; contingency costs, monthly electricity bill of less than Ksh. 1,000 and a monthly rent bill of Ksh. 10,001-20,000. Agents in Kiambu avoid incurring the cost of security, connectivity, transport and staffing. Availability of capital is an extremely important financial factor that affects the performance of agent banking business. There is a positive statistically significant relationship between availability of capital and profits of agent banking business (p<0.05).

Agent banking enhances the number of customers patronizing a given store. Mobile network coverage and security of agent banking environment are extremely important contributors to the performance of agent banking business while security of customer financial information, location of the agent banking business and number of employees are important to the performance of agent banking business. There is a positive statistically significant relationship between the number of employees and profits made by an agent banking business (p<0.05).

Owners/managers of agent banking businesses in Kiambu are experienced and well educated to offer good management to the businesses. The promising nature of agent banking, the need to earn profits and the ability of agent banking businesses
to attract customers to stores are motivators to the adoption of agent banking. Ability of an agent banking manager to borrow funds is extremely important determinant of the performance of agent banking business while capability to manage business finances, and business management capability were important factors to the performance of agent banking business.

**Recommendations**

Banks should encourage their customers to embrace agent banking particularly for deposits, account opening and balance inquiries. This can be achieved by both banks and agents promoting the banking services one can access at an agent banking shop so as to create awareness. This will enhance the performance of the underperforming agent banking services hence contribute to the overall performance of agent banking. The study also recommends that agent banking managers/owners invest in security measures as this directly impacts the performance of agent banking business. Due to the importance of capital availability in agent banking business, owners/managers should work out ways of ensuring that adequate capital is available in their agent banking businesses by exploring various methods of accessing finances.

Business people experiencing low numbers of customers should adopt agent banking as it attracts more customers. Banks should ensure that the gadgets used to do transactions in agent banking are always supplied with network coverage to ensure all-time accessibility/use. This will enhance the performance of agent banking businesses. Owners or managers of agent banking businesses should ensure their shops/business areas are easily accessible and secure to eradicate issues of inaccessibility, conning or robbery. Banks on the other hand should ensure the security of customers’ financial information so as to reduce cases of fraud/theft from customers. Managers/owners of agent banking business should ensure they increase the number of employees they have (in respect to the business available) so as to increase the number of transactions made in a day hence enhance profits.

Managers of agent banking businesses should be equipped with skills/capability to borrow funds, manage core business, manage business finances as well as manage the business. As such, owners of an agent banking business should
ensure they bring on board managers who have high capability to manage business finances. The owners/managers should also ensure agent banking business is managed with focus on the core business.

**Areas for Further Study**

This study has surveyed select agent banking businesses in Kiambu County hence its findings may not be readily generalised to rural counties or other regions with varying demographic characteristics. As such, this study can be replicated in other areas to eliminate region-specific biases in generalisation. Additionally, a study should be conducted to determine the long term success of agents and one that samples a larger number of agents.
REFERENCES


## APPENDICES

### Appendix I: Correlation matrix

<table>
<thead>
<tr>
<th>Performance rating to</th>
<th>Performance rating to</th>
<th>Unavailability of Capital</th>
<th>Profits</th>
<th>Price transactions by bank</th>
<th>Security of agent banking</th>
<th>Number of employees</th>
<th>Mobile network coverage</th>
<th>Worked/Owned/Managed</th>
<th>Capability to manage</th>
<th>Business management</th>
<th>Management of core</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.277</td>
<td>-</td>
<td>.172</td>
<td>.102</td>
<td>.284</td>
<td>.09</td>
<td>.08</td>
<td>.282</td>
<td>.03</td>
<td>.301</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td>**</td>
<td></td>
<td>8</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.01</td>
<td>0.36</td>
<td>0.11</td>
<td>0.349</td>
<td>0.00</td>
<td>0.36</td>
<td>0.44</td>
<td>0.00</td>
<td>0.076</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>4</td>
<td>9</td>
<td>9</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>87</td>
<td>83</td>
<td>82</td>
<td>87</td>
<td>87</td>
<td>86</td>
<td>86</td>
<td>85</td>
<td>85</td>
<td>85</td>
<td></td>
</tr>
</tbody>
</table>

| Unavailability of Capital | Pearson Correlation |                           |         |                            |                           |                     |                        |                     |                    |                     |                     |
|                          | .277                 | -                         | .09     | 0.249                      | 0.499                      | 0.15                | 0.23                   | 0.17                | 0.27               | 0.85                |
|                          | *                    |                           | 1       | .697                       | *                          | *                   | *                      | *                   | 0.17               | 0.12                |
|                          |                       |                           | 2       | 3                          | 8                         | 3                   | 6                      | 7                   | 8                  | 2                   |
| Sig. (2-tailed)          | 0.01                 | 0.09                      | 0.802   | 0.065                      | 0.76                       | 0.10                | 0.69                   | 0.89                | 0.05               | 0.27                |
|                         | 1                    | 8                         | 8       | 6                          | 6                         | 7                   | 7                      |                     |                    |                     |
| N                      | 83                    | 85                        | 84      | 85                         | 85                        | 84                  | 84                     | 84                  | 84                 | 83                  |                     |

| Price transactions by bank | Pearson Correlation |                           |         |                            |                           |                     |                        |                     |                    |                     |                     |
|                           | -                    | 0.18                      | 1       | 0.028                      | 0.202                      | 0.17                | 0.04                   | -                   | -                  |                     |
|                           | 0.10                 | 2                         | 1       | 0.028                      | 0.202                      | 0.17                | 0.04                   | -                   | -                  |                     |
|                           |                       |                           |         |                            |                           |                     |                        |                     |                    |                     |                     |
| Sig. (2-tailed)           | 0.36                 | 0.09                      | 0.802   | 0.065                      | 0.76                       | 0.10                | 0.69                   | 0.89                | 0.05               | 0.27                |
|                         | 1                    | 8                         | 8       | 6                          | 6                         | 7                   | 7                      |                     |                    |                     |
| N                      | 82                    | 84                        | 84      | 84                         | 84                        | 84                  | 83                     | 83                  | 83                 | 82                  |                     |

| Security of agent banking | Pearson Correlation |                           |         |                            |                           |                     |                        |                     |                    |                     |                     |
|                          | 0.17                 | 0.12                      | 0.02    | 1                          | .697                       | -                   | -                      | .313                | .265               | 0.15                |
|                          | 2                    | 6                         | 8       | 4                          | 0.00                      | 0.05                | .313                   | **                  |                    |                     |
|                          |                       |                           |         |                            |                           |                     |                        |                     |                    |                     |                     |
| Sig. (2-tailed)          | 0.11                 | 0.24                      | 0.80    | 0                           | 0.97                       | 0.37                | 0.58                   | 0.00                | 0.01               | 0.14                |
|                         | 9                    | 2                         | 2       | 1                          | 2                         | 6                   | 3                      | 3                   | 9                  |                     |

77
<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>87</th>
<th>85</th>
<th>84</th>
<th>90</th>
<th>90</th>
<th>89</th>
<th>89</th>
<th>88</th>
<th>89</th>
<th>88</th>
<th>88</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Security of agent banking</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.10</td>
<td>0.07</td>
<td>0.20</td>
<td>.697&quot;</td>
<td>1</td>
<td>0.03</td>
<td>0.19</td>
<td>0.00</td>
<td>0.20</td>
<td>-</td>
<td>0.01</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>4</td>
<td>2</td>
<td></td>
<td>5</td>
<td>9</td>
<td></td>
<td>1</td>
<td>7</td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.34</td>
<td>0.49</td>
<td>0.06</td>
<td>0</td>
<td>0.74</td>
<td>0.06</td>
<td>0.99</td>
<td>0.05</td>
<td>0.87</td>
<td>0.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>9</td>
<td>5</td>
<td></td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of employee s</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.284</td>
<td>0.15</td>
<td>-</td>
<td>-0.004</td>
<td>0.035</td>
<td>1</td>
<td>0.04</td>
<td>0.08</td>
<td>0.09</td>
<td>-</td>
<td>.218</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>0.03</td>
<td>3</td>
<td></td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.00</td>
<td>0.15</td>
<td>0.76</td>
<td>0.971</td>
<td>0.743</td>
<td>0.70</td>
<td>0.42</td>
<td>0.39</td>
<td>0.80</td>
<td>0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>3</td>
<td>6</td>
<td></td>
<td>1</td>
<td>8</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mobile network coverage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.09</td>
<td>0.13</td>
<td>0.17</td>
<td>0.096</td>
<td>0.199</td>
<td>0.04</td>
<td>1</td>
<td>.229</td>
<td>0.07</td>
<td>0.14</td>
<td>0.17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>3</td>
<td>8</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.36</td>
<td>0.23</td>
<td>0.10</td>
<td>0.372</td>
<td>0.061</td>
<td>0.70</td>
<td></td>
<td>0.03</td>
<td>0.49</td>
<td>0.17</td>
<td>0.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>8</td>
<td>6</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>2</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Worked/Owned/Managed Agent banking</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.08</td>
<td>-</td>
<td>0.04</td>
<td>-0.059</td>
<td>0.001</td>
<td>0.08</td>
<td>.229</td>
<td>1</td>
<td>-</td>
<td>0.01</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.15</td>
<td>3</td>
<td></td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td>0.08</td>
<td>7</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.44</td>
<td>0.17</td>
<td>0.69</td>
<td>0.586</td>
<td>0.992</td>
<td>0.42</td>
<td>0.03</td>
<td></td>
<td></td>
<td>0.44</td>
<td>0.87</td>
<td>0.52</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>2</td>
<td>7</td>
<td></td>
<td>8</td>
<td>2</td>
<td></td>
<td></td>
<td>7</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Capability to manage finance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.282</td>
<td>0.12</td>
<td>-</td>
<td>0.01</td>
<td>.313&quot;</td>
<td>0.207</td>
<td>0.09</td>
<td>0.07</td>
<td>-</td>
<td>1</td>
<td>.312 &quot;&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>0.01</td>
<td>5</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.00</td>
<td>0.27</td>
<td>0.89</td>
<td>0.003</td>
<td>0.052</td>
<td>0.39</td>
<td>0.49</td>
<td>0.44</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>7</td>
<td>6</td>
<td></td>
<td>1</td>
<td>7</td>
<td></td>
<td>7</td>
<td>3</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Business management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.03</td>
<td>0.02</td>
<td>-</td>
<td>0.21</td>
<td>.265*</td>
<td>0.018</td>
<td>0.02</td>
<td>0.14</td>
<td>0.01</td>
<td>.312</td>
<td>1</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
<td></td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

78
<table>
<thead>
<tr>
<th>ent capability</th>
<th>on</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.76</td>
<td>0.85</td>
<td>0.05</td>
<td>0.013</td>
<td>0.87</td>
<td>0.80</td>
<td>0.17</td>
<td>0.87</td>
<td>0.00</td>
<td>0.20</td>
</tr>
<tr>
<td>N</td>
<td>85</td>
<td>84</td>
<td>83</td>
<td>88</td>
<td>88</td>
<td>87</td>
<td>87</td>
<td>88</td>
<td>88</td>
<td>87</td>
</tr>
<tr>
<td>Manage ment of core business</td>
<td>Pearson Correlation</td>
<td>.301</td>
<td>**</td>
<td>0.17</td>
<td>1</td>
<td>0.12</td>
<td>3</td>
<td>0.155</td>
<td>0.07</td>
<td>.218</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.00</td>
<td>0.12</td>
<td>0.27</td>
<td>0.149</td>
<td>0.516</td>
<td>0.04</td>
<td>0.10</td>
<td>0.52</td>
<td>0.00</td>
<td>0.20</td>
</tr>
<tr>
<td>N</td>
<td>85</td>
<td>83</td>
<td>82</td>
<td>88</td>
<td>88</td>
<td>87</td>
<td>87</td>
<td>86</td>
<td>88</td>
<td>87</td>
</tr>
</tbody>
</table>

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

** Correlation is significant at the 0.01 level (2-tailed).
Appendix II: Regression Outputs As Copied From Stata

. ologit PerformanceInProfits NumberofEmployees CapabilityToManageBuzFinances ManagementOfCore > Businesses

Iteration 0:  log likelihood = -107.19254
Iteration 1:  log likelihood = -99.162685
Iteration 2:  log likelihood = -99.038864
Iteration 3:  log likelihood = -99.038489
Iteration 4:  log likelihood = -99.038489

Ordered logistic regression  Number of obs =  84
LR chi2(3)     =  16.31
Prob > chi2    =  0.0010
Log likelihood = -99.038489  Pseudo R2 =  0.0761

| PerformanceInProfits | Coef. | Std. Err. | z     | P>|z|  | [95% Conf. Interval] |
|-----------------------|-------|-----------|-------|-------|-----------------------|
| Number of Employees   | .717034 | .3403261 | 2.11  | 0.035 | .0500071  1.384061   |
| CapabilityToManageBuzFinances | 1.011343 | .5223514 | 1.94  | 0.052 | -.0103566  2.037223 |
| ManagementOfCoreBusinesses | .5969538 | .3173801 | 1.88  | 0.060 | -.0250997  1.219007 |
| /cut1                 | 6.122886 | 1.935406 |       |       | 2.335533  9.922187 |
| /cut2                 | 7.547659 | 1.997082 |       |       | 3.633449  11.46187 |
| /cut3                 | 9.822461 | 2.126601 |       |       | 5.654399  13.99052 |

. ologit PerformanceInProfits AvailabilityOfCapital

Iteration 0:  log likelihood = -105.9663
Iteration 1:  log likelihood = -102.90947
Iteration 2:  log likelihood = -102.89486
Iteration 3:  log likelihood = -102.89485

Ordered logistic regression  Number of obs =  83
LR chi2(1)     =  6.14
Prob > chi2    =  0.0132
Log likelihood = -102.89485  Pseudo R2 =  0.0290

| PerformanceInProfits | Coef. | Std. Err. | z     | P>|z|  | [95% Conf. Interval] |
|-----------------------|-------|-----------|-------|-------|-----------------------|
| AvailabilityOfCapital | .779535 | .333679  | 2.34  | 0.019 | .1255361  1.433534  |
| /cut1                 | 2.024553 | 1.183536 |       |       | -.2951346  4.344241 |
| /cut2                 | 3.290247 | 1.219874 |       |       | .8993374  5.681157  |
| /cut3                 | 5.397833 | 1.303896 |       |       | 2.842243  7.953423  |

80
Appendix III: Covering Letter to the Questionnaire

Dear Sir/Madam,

The purpose of this letter is to invite you to participate in the research project entitled “ASSESSMENT OF FACTORS DETERMINING THE PERFORMANCE OF BANK-LED AGENT BANK BUSINESSES IN KENYA: CASE OF KIAMBU-COUNTY”. Based on the findings, policy recommendations will be proposed, to address the problems constraining the performance of agents hence lead to the development of a more vibrant agent network that supports financial inclusion.

At this stage your involvement in the project will be limited to completion of the attached questionnaire. It should not take any more than 20-30 minutes to tick the relevant boxes with the support of the study’s interviewer. You have the right to withdraw from the project at any time, including the withdrawal of any information provided, until your questionnaire has been added to the others collected. Because it is anonymous, it cannot be retrieved after that.

The results of the project may be published but this will not be done in a way that allows identification of the individuals or businesses that responded. All information provided will be treated in the strictest confidence. To ensure anonymity and confidentiality the names of the individuals or businesses who completed questionnaires or participated in the interviews will not be made available to any person other than the researcher and his supervisors. By completing the questionnaire it will be understood that you have consented to participate in the project and that you consent to publication of the results of the project with the understanding that anonymity will be preserved.

If you are interested in receiving a summary of the findings of the survey and/or willing to participate in the research project, please complete the details requested in the last page of the attached questionnaire. This project has been reviewed and approved by Strathmore Business School.

Thank you for your assistance in the project.

Yours Sincerely

Michael M. Kiburi
Appendix IV: Questionnaire

ASSESSMENT OF FACTORS DETERMINING THE PERFORMANCE OF BANK-LED AGENT BANK BUSINESSES IN KENYA: CASE OF KIAMBU-COUNTY

A questionnaire to be completed by Bank Agents in Kiambu County Kenya

Compiled by Michael Mungai Kiburi
Strathmore Business School
| Respondents Name:  
(not compulsory, but relevant for follow up and verification) |  
| Respondents Tel Number:  
(not compulsory, but relevant for follow up and verification) |  

**BACKGROUND DATA**

These questions are designed to determine the nature of your business

1. Which banks are you an agent to?

2. The ownership of the business? (Please tick one box)
   - [ ] Sole Proprietor
   - [ ] Private Limited Liability Company
   - [ ] Partnership.
   If partnership:
     - [ ] How many partners? 
     - [ ] Are any partners, family partners YES [ ] No [ ]

3. What is the other main business you conduct in this establishment?
   - [ ] General Shop
   - [ ] Groceries
   - [ ] Pharmacy
   - [ ] Electronics
   - [ ] Stationery/copy shop
   - [ ] Cafeteria/bar/restaurant
   Other (specify)
   ...............................................................................................................................

4. Is your current business the first business you have owned? (Please tick one)
   - [ ] Yes
   - [ ] No

5. Gender (Please tick as appropriate)
   - [ ] Male
   - [ ] Female

6. Age (Please tick one box)
   - [ ] Under 30 years
   - [ ] 30-39 years
   - [ ] 40-49 years
<table>
<thead>
<tr>
<th></th>
<th>50-59 years</th>
<th>60 years and over</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PERFORMANCE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. How long have you worked as an agent for a bank (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. How can you rate the performance of your agent banking business in respect to the profits made?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Performance is poor</td>
<td>□ Performance is fair</td>
<td>□ Performance is good</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. What is the biggest problem you encounter in the agent business that affects the business’ profits? [Detail adequately]</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Have you ever thought of quitting being an agent?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ YES</td>
<td>□ NO</td>
<td></td>
</tr>
<tr>
<td>Why?...</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FINANCIAL FACTORS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. What is the average amount of cash (Ksh.) you transact in any given day (total of receipts and issues)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Following is a list of financial factors that affect the performance of agent banking business. Please rate the importance of each factor towards influencing the current performance of your agent business (Please tick one box on the 1 to 4 scale for each factor).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Extremely UN-Important 1</td>
<td>NOT Important 2</td>
</tr>
<tr>
<td>Unavailability of capital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pricing of transactions by bank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other factor and rate of importance?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OPERATIONAL FACTORS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
13. How many years have you operated your main business?

14. How many days per week is your business open?

15. How many hours per day?

16. How many employees does your agency business have?

17. With respect to the number of employees you had in the first six months of starting your agency business, how can you describe the current number of employees in your business?

- Employees have increased
- Employees have reduced
- No change in the number of employees since starting the business
- Others (specify)

18. On average, how much did the number of customers coming into your store change after you became an agent?

- Increased by less than 10%
- Increased by 10-20%
- Increased by 21-30%
- Increased by 31-50%
- Increased by 51-70%
- Increased by 71-100%
- Increased by 71-100%
- Increased by over 100%
- Increased by over 200%
- Decreased by less than 10%
- Decreased by 10-20%
- Decreased by 21-30%
- Decreased by 31-50%
- Decreased by 51-70%
- Decreased by 71-100%
- Decreased by over 100%
- Decreased by over 200%
- No change in number of customers received

19. If you could not be an agent any longer, what kind of effect would it have on your other business?

- Large negative effect on my main business
- Small negative effect on my main business
- Neither positive nor negative effect on my main business
- Small positive effect on my main business
- Large positive effect on my main business

20. Following is a list of operational factors that affect the performance of agent banking business. Please rate the importance of each factor towards influencing the performance of your agent business (Please tick one box on the 1 to 4 scale for each factor)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Extremely UN-Important</th>
<th>NOT Important</th>
<th>Important</th>
<th>Extremely Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security of the agent banking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security of customer financial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>details</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of employees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
21. Following is a list of **external** factors that may affect the growth of your agent. Please rate the importance of each factor in influencing the current growth performance of your agent business (Please tick one box on the 1 to 4 scale for each factor)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Extremely UN-Important 1</th>
<th>NOT Important 2</th>
<th>Important 3</th>
<th>Extremely Important 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company location</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market demand for Agent services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pricing of transaction costs by bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile Network coverage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other factor and rate of importance?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

22. Following is a list of internal (ie. management) factors that may affect the growth of your agent. Please rate the importance of each factor on influencing the current growth performance of your agent business? (Tick one box on the 1-4 scale for each factor)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Extremely UN-Important 1</th>
<th>NOT Important 2</th>
<th>Important 3</th>
<th>Extremely Important 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capability to manage finance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial cost of expansion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to borrow funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequacy of cash flow</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of costs (fixed/variable)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business management capability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security setup</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of core business</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other factor and rate of importance?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MANAGERIAL FACTORS**

23. How long have you worked/owned/managed your agent-banking business

24. Your Educational Qualification (Please tick the highest qualification you have obtained - either academic, professional, technical or vocational)

- Primary Level

...
| □ KCSE Level |
| □ Diploma (technical/vocational) |

25. What motivated you into venturing into agent Banking business? [Check all that apply].

- □ I wanted to earn/profit from the business
- □ Brings more people into my store
- □ My customers demanded/expected me to have it
- □ I wanted to be associated with the bank’s brand
- □ I did not have alternative employment
- □ I was unhappy with my previous employment
- □ I wanted to be my own boss
- □ The market for agent-banking was promising
- □ Other
### REVENUES AND EXPENSES

#### REVENUES

<table>
<thead>
<tr>
<th>Category</th>
<th>Transaction type</th>
<th>Transactions per day</th>
<th>Commission per transaction</th>
<th>Revenue</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdrawals</td>
<td>Cash-out from Mobile cash or bank Account</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deposits</td>
<td>Cash-in to bank account</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Account opening</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Balance inquiry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### EXPENSES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>COST</th>
<th>PORTION ASSOCIATED WITH AGENT BUSINESS</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology</td>
<td>Transaction Device</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Security e.g. camera</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>Connectivity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contingency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>Transport</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric</td>
<td>Monthly Bill</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>Monthly Cost</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Space</td>
<td>Rent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

Your contribution to this survey is very greatly appreciated. Thank you for the time you devoted to answering the questionnaire.