UNIVERSITY OF NAIROBI

SCHOOL OF JOURNALISM AND MASS COMMUNICATION

THE ROLE OF WIRELESS COMMUNICATION IN FINANCIAL INCLUSION:
A CASE STUDY OF SELECTED MOBILE BANKING PRODUCTS IN
KENYA.

BY

MARTINA MUTHEU MULWA

K90/85401/2012

DISSERTATION SUBMITTED AT THE SCHOOL OF JOURNALISM IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE DOCTORATE
DEGREE IN COMMUNICATION AND INFORMATION STUDIES, SCHOOL
OF JOURNALISM AND MASS COMMUNICATION, UNIVERSITY OF
NAIROBI

2012
DECLARATION

This dissertation is my original work and has not been presented for a degree in any other university. No part of this dissertation may be reproduced without the prior permission of the author or The UNIVERSITY OF NAIROBI.

STUDENT NAME:

MARTINA MUTHEU MULWA    Signature __________________    Date ____________

The dissertation has been submitted for examination with our approval as University Supervisors.

NAME OF SUPERVISORS:

Prof. Timothy. Waema    Signature __________________    Date ____________

Dr. Muiru Ngugi    Signature __________________    Date ____________

UNIVERSITY OF NAIROBI
TABLE OF CONTENTS

Declaration.................................................................................................................. ii
Table of contents......................................................................................................... iii
List of Tables............................................................................................................. x
List of Figures........................................................................................................... xi
Acknowledgement................................................................................................... xv
Dedication.................................................................................................................. xvii
Definitions ................................................................................................................ xviii
Abstract .................................................................................................................... xxiii

CHAPTER ONE: INTRODUCTION

1.1. Financial inclusion.............................................................................................. 1
1.1.2. Agency banking in Kenya ............................................................................ 5
1.2. Background of the study................................................................................... 11
   1.2.1. Justification of use of mobile banking for financial inclusion................. 11
   1.2.2. The Network Society ............................................................................. 14
   1.2.3. ANT........................................................................................................ 16
1.3. Statement of the problem.................................................................................... 17
   1.3.1. Research questions................................................................................... 19
1.4. Purpose statement.............................................................................................. 19
   1.4.1 Objectives of the study.............................................................................. 19
1.5. Significance of the study.................................................................................... 20

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction ....................................................................................................... 22
2.1. Financial Inclusion............................................................................................. 23
CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction ........................................................................... 98
3.2. Type of research ..................................................................... 98
3.3. Paradigm of research ........................................................................................................ 99
3.4. Research Method ........................................................................................................... 102
3.5. Research population and Sampling ................................................................................ 105
   3.5.1 Sample size and Sampling Techniques ............................................................... 105
   3.5.2 Target Population ................................................................................................. 105
   3.5.3. Situation Analysis- Makueni County ............................................................... 109
   3.5.4. Gaining Access ................................................................................................. 113
   3.5.5. The Researcher ................................................................................................. 115
3.6. Data collection techniques and tools .............................................................................. 116
   3.6.1 In-depth Interview Guide for Key Informants ...................................................... 116
   3.6.2 In-depth Interview Guide for Experts ................................................................... 117
   3.6.3. FGD ................................................................................................................. 117
   3.6.4. Observation ....................................................................................................... 118
   3.6.5. Guided Questionnaire ....................................................................................... 119
   3.6.6. Actual Data collection ....................................................................................... 120
   3.6.7. Pilot Study ....................................................................................................... 121
3.7. Methodology Procedure ............................................................................................... 126
   3.7.1. Methodology Procedure Explained .................................................................... 126
   3.7.2. Secondary Data ............................................................................................... 127
3.8. Data analysis and reporting: Qualitative Analysis ............................................................ 128
3.9 Validity and reliability ..................................................................................................... 135
3.10. Ethical considerations .................................................................................................. 135

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION OF FINDINGS
4.1. Introduction .................................................................................................................. 137
4.2. Findings from the questionnaire with Agents ............................................. 137
4.3. Findings from the questionnaire with Users ............................................. 147
4.5. FGD with agents and users ....................................................................... 161
4.6. Case study ................................................................................................. 166
  4.6.1. Introduction .......................................................................................... 166
  4.6.2. Agency banking .................................................................................... 169
4.7. Equity Bank Case A ..................................................................................... 169
  4.7.1. Equity Agent Services ......................................................................... 171
  4.7.2. The Basic structure ............................................................................. 172
  4.7.3. The interview ....................................................................................... 175
4.8. Cooperative Bank Case B .......................................................................... 183
  4.8.1. Recognition .......................................................................................... 183
  4.8.2. Coop Kwa Jirani ............................................................................... 185
  4.8.3. Requirements ....................................................................................... 186
  4.8.4. Structure ............................................................................................. 186
  4.8.5. The interview ....................................................................................... 187
4.9. KCB Case C ................................................................................................. 194
  4.9.1 KCB Mtaani .......................................................................................... 196
  4.9.2. Services ............................................................................................... 197
  4.9.2 Summary of findings from case study ..................................................... 198
4.10. Agency Bank Regulator ............................................................................ 201
4.11. Network Regulator ................................................................................... 203
4.13. The Triad .................................................................................................. 210

4.14.1 Discussions aligned to objectives ...................................................................... 214

4.14.1 Factors Facilitating Mobile Banking Today .................................................. 214

4.14.2 Role of context of use in studying Mobile Banking ......................................... 216

4.14.3 Usefulness of ANT in studying context of use ............................................... 230

4.14.4. Role of Actors in the design, roll-out and use of Mobile Banking ............... 236

4.15 Outcome of data analysis and interpretation ...................................................... 243

4.15.1. ANT model for financial inclusion explained ............................................. 247

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction ............................................................................................................ 250

5.1.1 Preview .............................................................................................................. 250

5.2. Summary .............................................................................................................. 250

5.3. Theoretical contributions ..................................................................................... 256

5.4. Methodological contributions ............................................................................. 257

5.5. Conclusions ......................................................................................................... 257

5.5.1 Specific conclusion from cases ....................................................................... 257

5.5.2. General conclusions ....................................................................................... 260

5.6. Research limitations ............................................................................................ 262

5.7. Recommendations for practice .......................................................................... 264

5.8. Recommendations for further research .............................................................. 265

REFERENCES .............................................................................................................. 267

APPENDIX I: An In-depth Interview Schedule with Bank Officials ....................... 286

APPENDIX II: Guided Questionnaire for Agents .................................................... 289

APPENDIX III: Guided Questionnaire for Users ..................................................... 294
APPENDIX IV: An In-depth Interview Schedule for Experts................................. 301
APPENDIX V: FGD guideline for Users and Agents ........................................... 303
APPENDIX VI: Interview guide for Regulators- CCK and CBK............................ 304
APPENDIX VII: Discussion Guidelines for the Triad ......................................... 306
APPENDIX X: Sample Request for Authorization ................................................ 307
APPENDIX XI: Sample Authorization Letter ..................................................... 308
APPENDIX XI: Sample Data Reduction Code Sheet ........................................... 309
APPENDIX XII: Mountain of Absolute Poverty ................................................ 312
APPENDIX XIII: Overall Rural Poverty .............................................................. 313
APPENDIX XIV: Sample Tariff Guide ................................................................. 316
APPENDIX XV: Sample M-PESA application form ............................................ 317
LIST OF TABLES

Table 1.1. Mobile coverage in Kenya ................................................................. 1

Table 3.1. Transformational Products in Kenya ............................................... 102

Table 3.2 Sample frame and Size of Key Informants ................................... 104

Table 3.3 Sample Frame for agents ................................................................. 106

Table 3.4 Stratified Sample for users .............................................................. 108

Table 3.5 Demographics indicators ............................................................... 109

Table 3.6 Socio-economic indicators ............................................................ 112

Table 3.5 Key constructs and Operationalized Meaning ............................. 121

Table 3.6 Conceptualization of the Data Analysis process ......................... 132

Table 4.1. Rating of services at the agency ..................................................... 156

Table 4.2. Roles of actors in stabilization of mobile banking products ........... 243
LIST OF FIGURES

2.1 The fin Access surveys of 2006 and 2009…………………………………………….. 23

2.2 The Economic Pyramid ………………………………………………………………… 34

2.3 The BOP Curve ……………………………………………………………………….. 35

2.5 The theoretical Framework based on ANT ………………………………………… 90

3.1 Research Perspective ………………………………………………………………….. 103

3.2. Farm produce …………………………………………………………………………. 110

3.3. Landscape showing maize, cattle and homes ……………………………………… 110

3.4. Scattered homes ……………………………………………………………………… 111

3.4. Irrigated Farm. …………………………………………………………………………. 111

3.2 Makueni county Map …………………………………………………………………… 112

3.3 Methodology Process ………………………………………………………………… 126

4.2.2. Position of respondent …………………………………………………………… 138

4.2.3. Age bracket ………………………………………………………………………… 138

4.2.4. Length of operation. ……………………………………………………………… 138

4.2.5. Operating hours …………………………………………………………………… 139
4.2.6. Bank Agency ................................................................. 139

4.2.7. Sources of Information on agency business opportunity .................. 140

4.2.8. Influence on decision to become an agent .................................... 140

4.2.9. Challenges of being a Multi Agent .......................................... 141

4.2.10. Length of Time between time of application and operation .......... 141

4.2.11. Services offered at the Agency ............................................. 142

4.2.12. Initial cost of investment ....................................................... 142

4.2.13 Profitability of Agency Business ............................................. 143

4.2.14. Approximate commission per Month ....................................... 143

4.2.15. Incentives to Agents ........................................................... 144

4.2.16. Expectations from business .................................................. 144

4.2.17. Special Techniques in service delivery ...................................... 144

4.2.18 Creating trust in customers ..................................................... 145

4.2.19 Success Indicators ............................................................... 145

4.2.20. Challenges in agency business .............................................. 146

4.2.21 Opinion of Agents on the way forward ..................................... 146
4.3.1 Gender of respondents. ................................................................. 147
4.3.2. Education Level ........................................................................ 148
4.3.3 Age Bracket................................................................................. 148
4.3.4. Occupation ................................................................................ 149
4.3.5 Existence of a bank account before the agency............................ 149
4.3.6 Factors that hindered existence of a bank account........................ 150
4.3.7 Convenient use of existing bank accounts ................................. 150
4.3.8 Reasons for not using account conveniently................................ 151
4.3.9 Reasons for using agency services............................................. 152
4.3.10 Expenditure in the Agency per Month.................................... 152
4.3.11 Initial source of Information on agency business.................... 152
4.3.12 Information on Agency bank related services......................... 153
4.3.13 Devices used in Agency Banking.............................................. 153
4.3.14 Reason for using agency bank services in the locality .......... 154
4.3.15 Most useful services .................................................................154
4.3.16 Use of other Financial services ............................................... 155
4.3.17. Frequency of transactions per Month................................................. 155

4.3.18. Reasons for using agency services .................................................... 156

4.3.19. Success of Agency banking in the locality........................................... 158

4.3.20. Product description making it successful ............................................. 158

4.3.21 Evidence of changed lives................................................................. 159

4.3.22. Challenges of transacting at the agency............................................. 159

4.3.23 Opinion of respondents on the way forward....................................... 160

4.3.24. FGD in session .................................................................................. 161

4.3.25. Equity agent shop ............................................................................ 172

4.3.26. Coop kwa jirani shop ................................................................. 185

4.3.27. KCB Mtaani shop .......................................................................... 196

4.3.28. A Multi agent shop .......................................................................... 203

4.3.29. Stabilization process following key actors ......................................... 244
ACKNOWLEDGEMENT

This dissertation would not have been completed without the wisdom of my supervisors Prof. Waema and Dr. Ngugi who not only supervised what my thinking was but also went further to help redesign the work.

Special thanks go to professor Waema who went out of his way to give me leads to valuable websites that provided current studies on Mobile Money and the PhD seminars he facilitated and invited me to attend at the School of Computing and Informatics which significantly shaped the outcome of my study.

Professor Waema also introduced me to the Africa Mobile Money Research Centre where I was involved in the planning and eventually hosting of a successful world Mobile Money Conference in Nairobi in April 2012. Mr. Mwaura’s (CBK) presentation on Mobile Money regulation and subsequent clarifications on due diligence, exclusivity and subagent networks and Steve Esselaar’s mobile money studies in different countries directly contributed to concerns of the study.

The support I received from my key data sources was laudable. Special recognition goes to Chris Cheruiyot, Head Alternative Banking Channels Cooperative bank and Samson Sigu Relationship Manager, Alternative Banking Channels Cooperative bank, Joseph Kagicha Head of Distribution Agency, Isaac Wabuge Agency and Acquiring Supervisor Equity Bank and Justus Mutala Credit Manager Equity Bank, Simon Ontomwa, Losie Nyamwenga legal Department, Philip Kimina agent banking consultant and Japheth Mulandi of KCB, Mr. G. Langat of CBK agency regulation, Mr. Kimei, Regulatory and compliance affairs CCK, Gerry
Rasugu of Lead agency consultants, Joseck Mudiri formerly of Safaricom, research assistants Georgina Ochaya, Mutinda Musila and Angela Kitonyi, Jane Kamau (2007 M.A Communication class) for spending lots of time with me during my data analysis, agents and users in Makueni for volunteering the much needed information for this study among others. Without all of them the insights to the research problem would not have been realized.

I recognize also with appreciation the important role played by my family. My husband George for being understanding and supportive both morally and financially and my children Kylie and Alastair for their love and patience which contributed a great deal to the completion of the study.
DEDICATION

This dissertation is dedicated to my late father David Mulwa for ensuring that all his children went to school. Thank you very much father.
Definitions

1. Concepts

Actors

Actors are elements that together cooperate for the success of a product. All actors of which have interests try to convince other actors so as to create an alignment of the actors interests with their own interests. An actor is an actant endowed with a character.

Actor Network

This is the heterogeneous network of aligned interests. All involved (animate or inanimate) in the execution of a common goal for the network.

Translation

This is the formation of a network. First the identification of actor needs for a common purpose, then convincing actors to accept the definitions in the goal and finally the acceptance of those definitions for a common good.

Problematization

This is the initial stage of translation when a focal actor defines identities and interests of other actors that are consistent with its own interests and establishes itself as an obligatory passage point. Thus rendering itself indispensable.

Enrollment

This is when actors in a network accept definitions by the focal actor.

Interessment

This is the process of convincing actors to accept roles defined by the focal actor in an actor network.

Mobilization
This is situation where by the product on offer (Mobile banking product) gets accepted by all actors. To sustain this relationship compliance is ensured by monitoring the network and addressing dissent as when it arises.

**Black box**

A black box is any setting that, no matter how complex it is or how contested its history has been, is now so stable and certain that it can be treated as a fact where only the input and output counts.

**An intermediary**

An intermediary is anything that passes between actors in the course of relatively stable transactions. It can be a text, a product, a service, or money. Intermediaries are the language of the network. Through intermediaries actors communicate with one another and that is the way actors translate their intentions into other actors.

**Stabilization**

The stability of a network depends on the impossibility it creates of returning to a situation in which its current form was only one possible option among others. In other words, stabilization, or closure means that the interpretive flexibility diminishes. Consensus among the different relevant social groups or more broadly, actors about the dominant meaning of an artifact merges and the pluralism of artifacts decreases. An actor-network thrives for stabilization because none of the entities which make it up would exist without that network in that form. The promotion of a network is a way to ensure the actor's existence and development. It is, therefore, in the interest of all actors within a particular network to stabilize the network which guarantees their own survival to a higher or lower extent.

**Context of Use**
Context of use refers to the situational factors that influence the use and usability of a system, including environmental factors such as physical conditions like space, time, temperature or noise, the organizational factors such as social network, management and organizational pressures, and work processes, technical or system factors such as network connectivity, system configuration, system stability and broad social factors such as family relationships, career aspirations, economy or ethical standards.

**Mobile Banking**

Mobile Banking refers to provision of banking and financial services with the help of mobile telecommunication devices.

**The Network Society**

The network society constitutes a group of people/institutions/individuals linked together by technologies of networked communication, with shared meaning of messages generated (space of flows) in infinite localities.

**Informationalism**

Informationalism is a technological paradigm based on the augmentation of the human capacity of information processing and communication made possible by the revolutions in microelectronics, software, and genetic engineering. Computers and digital communications are the most direct expressions of this revolution.

**Space of flows**
The Space of flows is a high-level cultural abstraction of space and time, and their dynamic interactions with digital age society. This is the share meaning resultant from communicating nodes in a network such that this meaning is instantaneous in different spatial places.

**Scalability**

In Information Communication Technology (ICT), scalability is the ability of a system, network, or process, to handle growing amounts of work in a graceful manner or its ability to be enlarged to accommodate that growth. For example, it can refer to the capability of a system to increase total output under an increased load when resources (typically hardware) are added.

**Survivability**

This is the capability of a system to fulfill its mission amidst hostile conditions in a timely manner irrespective of all manner of threats.

2. **Abbreviations**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD</td>
<td>Agent due Diligence</td>
</tr>
<tr>
<td>AML</td>
<td>Anti Money Laundering</td>
</tr>
<tr>
<td>ANT</td>
<td>Actor Network Theory</td>
</tr>
<tr>
<td>BOP</td>
<td>Bottom of the Pyramid</td>
</tr>
<tr>
<td>CBK</td>
<td>Central Bank of Kenya</td>
</tr>
<tr>
<td>CCK</td>
<td>Communications Commission of Kenya</td>
</tr>
</tbody>
</table>
CDD  Customer due diligence
CFT  Combating the Financing of Terrorism
CGAP  Consultative Group Assisting the Poor
DFID  Department for international Development
FSD  Financial Sector Deepening
GIA  Global Industry Analysts
GSM  Global Systems Mobile
KYC  Know Your Customer
MNO  Mobile Network Operator
OPP  Obligatory Passage Point

3. Acronyms

IKO PESA  Mobile Banking service by Equity Bank and Orange Money
M-KESHO  Mobile Banking service by Safaricom and Equity Bank
MOBI BANK  Money transfer service by KCB
M-PESA  Money transfer service in Kenya by Safaricom
PESA PAP  Mobile banking service by family bank and Safaricom
4. Categories and Subject Descriptions

**General perspective:** social and technological interplay.

**Key words in the study:** Mobile banking, financial inclusion, the poor and marginalized, stabilization, context of use, the network society and the Actor Network Theory.
ABSTRACT

The poor and marginalized have been excluded from formal banking services for a long time. This exclusion has been occasioned by various factors key among them logistics and economic viability. Mobile banking, a wireless communication innovation promises to break these two barriers by providing access and also aggregating financial transactions by individuals to constitute viability. While this exclusion persisted, the use of the mobile phones to perform monetary transactions did not occur. So what has happened all of a sudden? Consequently, despite this breakthrough, products utilizing this mobile phone technology have not experienced success in uptake and use. So, what ails these relationships and what needs to be done to stabilize these networks for financial inclusion?

The specific objectives of the research were to Justify mobile banking as a viable model for financial inclusion, determine the context of use of mobile banking and its role in the uptake and use, draw lessons on the usefulness of the Actor Network theory as a framework for studying context of use and finally ascertain the role of actors in the design, roll out and use of mobile banking products for stabilization of the networks.

The Multi case study approach was used whereby the ANT interpretivist ontological foundation was used to follow actors while ANT distinct ontology was used to study actors and in the analysis of the study findings. Data sources were purposive dictated by the ontology of following actors. An agents list was obtained from participating banks while users were identified at the outlets. Actual data collection involved qualitative questionnaires, in-depth interviews, FGDs and a triad.
Findings revealed that agency banking was positively received by both users and agents and could be used to extend financial services to marginalized populations. However agency banking had challenges that could hinder its effective implementation and in effect increased uptake and use. Only 17% of the typical rural farmer had taken up the services leading to low commissions which could not support the business, many deserving markets still did not have outlets and people still did not have access. This was attributed to the stringent regulation by the agency banking regulator, customer awareness and education especially to the new segment, and quality of service by the agents.

Conclusions included that translation needed to recognize that products were context specific, the stability of mobile banking products was dependent on the interplay of all the actors (human and non human) and what emerges from this interplay. Successful translations depend on how faithful key actors are towards their alliances. Significantly the study established three key theoretical implications in mobile banking if the implementation process has to result to stabilization: No single actor has the ability to set the networks course or impose its own culture and personal goals upon the other nodes sharing the network because the logic of the network sets the rules for participation in the network, a certain size of access points and users was necessary if mobile banking was to sustain itself and translation required that all means be used to ensure that the most successful model of mobile banking is put in place before roll out.

The recommendations of the study included that regulators needed to revise regulations to promote market development, the focal actors to step up awareness campaigns and literacy seminars for rural populations, support agents financially and also train of assistants.
CHAPTER ONE: INTRODUCTION

1.1 Financial Inclusion

Financial access studies (2009) put the bankable population outside the traditional financial access bracket at 32.7%. One of the Vision 2030 goals in Kenya is to provide financial services to majority of the poor. Though this may have been a long stretch, a ray of hope lies in the Information Communication Technology (ICT) based mobile banking models. The promise is reliant on the three basic characteristics of ICTs, self expansion, flexibility and recombination.

Banking on the wide mobile phone access as indicated in Table 1: where 89.10 percentage of the Kenyan population had access to mobile services as of March 2012 and the increasing mobile network coverage by the four Kenyan Mobile Network Operators (MNO) where the land mass coverage rose to 34.45 from 32.12 this communication infrastructure may as well leapfrog the traditional bank branch model and provide a solution to the long sought solution for financial exclusion. Mobile communication is consistently praised as having had a bigger impact on humankind that any other intervention in human history (World Bank, 2012).

Table 1.1: Mobile coverage

<table>
<thead>
<tr>
<th>Mobile Coverage in percentage</th>
<th>January- March 2012</th>
<th>January – March2011</th>
<th>Variation in percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population coverage</td>
<td>89.10</td>
<td>84.0</td>
<td>6.1</td>
</tr>
<tr>
<td>Land coverage in percentage</td>
<td>34.45</td>
<td>32.12</td>
<td>7.3</td>
</tr>
</tbody>
</table>
Source CCK, Operators Returns 2012.

Mobile penetration also recorded tremendous increase over the years with the latest CCK operator report indicating that mobile phone users in Kenya were 29.2 million as of March 2012.

A report commissioned by the Government of India (GoI, 2008) defines financial inclusion as ‘the process of ensuring access to financial services and timely and adequate credit, where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost’. The study significantly highlights access to financial services, provision of timely and adequate credit, assistance to vulnerable groups and extension of assistance at an affordable cost as key determinants of an effective financial inclusion strategy.

Further the GoI (2008) report states that for a country to be classified as developed the strategy and also goals for growth are normally interpreted and assessed in terms of inclusion and exclusion. This is informed by the fact that a large number of the poor and economically disadvantaged and other vulnerable groups continue to remain excluded from the mainstream society devoid of necessary services among them formal financial services and end up being bypassed by the associated benefits of development. As a result of exclusion from associated benefits these people’s lives are characterized by starvation, disease hunger, inhabitable living conditions, deprivation and suffering. It is therefore necessary for economic growth to be approached in manner that touches on empowering the BOP populations in the world across all sectors.

Access to affordable financial services therefore enlarges livelihood opportunities and empowers the poor and usually bottom of the pyramid (BOP) populations to participate actively in activities
that would transform their lives and effectively make important decisions in regard to the direction they would like their lives to take. Sustenance of this empowerment by nations across the diverse segments of its populations is instrumental to social and political stability. Therefore financial inclusion is not only crucial for achieving inclusive growth, but an overall sustainable growth in a country results to quality of life for its citizens.

Continued exclusion has far reaching consequences in the management of financial obligations of those affected. A World Bank (2010) report on consequences of financial exclusion explains that these people first are excluded from any payment system, that is to say, not having access to any type of banking facility and Secondly, exclusion from the formal credit markets leads these excluded individuals and groups to depend on informal and exploitative markets. In the informal market, the money lenders charge exorbitant interest rates, which are generally known as “scissors interest rates”\(^1\). The commonly excluded sections are poor people living in rural and remote areas, small scale farmers, laborers in farms and construction sites and other casual engagements, the self-employed, urban slum dwellers and small enterprises in the informal sector. On account of their exclusion, they are not able to access mainstream services a situation which compounds their difficulties.

Mobile banking (m-baking), Mobile payments (m-payments), Money transfers (m-transfers) and Mobile-finance (m-finance) are terminologies interchangeably used to describe the tendency of people to use their mobile telephones to perform various financial transactions. Some of the transactions performed using mobile phones include storage of value (currency) in an account linked to their handsets (virtual account), transfer funds or even access credit or insurance

\(^{1}\) An example in Kenya is the Shylock money lenders who charge 10% interest per month for money borrowed plus collateral.
products and general manipulation of the bank account to perform other transactions like withdrawals and bill payments (Jonathan and Camilo, 2008). In general terms this constitutes mobile money; however this study will focus on mobile banking in reference to financial services offered through alternative banking channels by the traditional bank branches, delivered via mobile networks and performed on either the mobile phone or a Point of Sale (PoS) device. These models are referred to as agency banking in Kenya.

Mobile banking is emerging as a preferred channel for banking and financial services because of the ubiquitous nature of mobile devices and services, and the ability of mobile banking services to reduce overall operational costs, streamline operations, and expand customer base through flexibility. This promises to leapfrog the bank branch which has remained elusive to rural populations by tapping into these markets through the wireless communication technology.

Mobile banking is also seen as a promising model for increasing access to formal financial services to those who have been living without it and could as well make banking more convenient and possibly even cheaper in the long run for those who already have access. Porteous (2006) identifies two forms of mobile banking emerging from these new models:

**Additive approaches**, which target existing banked customers and which offer mobile channel as an additional channel alongside or as part of others and

**Transformational approaches**, which intentionally reach out to markets beyond the existing banked groups through a product offering which meets the known needs of the unbanked people.

Unbanked people in most developing countries are a heterogeneous group that constitutes people who may have adequate incomes from both formal and informal sources as well as poor rural dwellers. MicroSave (2006) lists elements required for basic financial services to meet the needs
of the unbanked and in that sense to be transformational as follows: A safe place to keep money, The ability to cash in and cash out at convenient locations at a reasonable fee; and the ability to transfer money to make payments and to remit money to friends and relatives.

Mobile banking services are delivered by different institutional and business models. Some are offered entirely by banks like, ‘Equity Agent’, by Equity bank and KCB ‘Mtaani’ by KCB, Coop Kwa Jirani by Co-operative Bank; others entirely by telecommunication providers like M-PESA, Airtel Money, YU Cash and Orange Money while others involve a partnership between a bank and a telecommunications provider like M-KESHO between Safaricom and Equity bank, PESA PAP between Safaricom and Family bank and IKO PESA between Orange and Equity bank and the latest Mobi-bank a money transfer service by KCB among others.

Branchless banking in Kenya is also in its early stages. The four mobile operators; Safaricom, Airtel, Orange and Yu all have rolled out money transfer services and continue partnering with banks to offer banking services while independent banks also have stores that operate remotely to offer their own services (Bedah Mengo, 2012). The banking sector is in a period of transition, adopting more modern methods and embracing technology and processes that ensure improved efficiency, more transparency, wider access and consolidation. Money transfer services that are mainly transformational have been for a while in Kenya and particularly M-PESA has been very successful. Almost all banks in Kenya have rolled out mobile banking products but of the additive nature, a few have bank led products that are designed to be transformational. However the impact of these products is yet to be felt as they still are being conceptualized.

Flexibility, wider access and efficiency seemed to be the genuine motives for banks entry into the mobile banking arena but the Kenyan market is currently characterized by a roll out of products by banks with the sole aim of cutting into the profitability experienced by M-PESA money transfer services.
1.1.1 Agency banking in Kenya

Agency banking is a new banking model that allows banks to appoint agents to offer selected banking services on their behalf. In February 2011, the Central Bank of Kenya (CBK) released regulations to govern the new agency banking model. The regulations allow banks to offer services through third party agents approved by the CBK. Agents can be essentially any profit-making entity that has been in business for at least 18 months and can afford to fund a float account to facilitate payments.

Kenya Commercial Bank (KCB), Co-operative Bank and Equity Bank, all financial institutions with a large retail distribution chain and particularly those that target mass populations, have rolled out agent banking networks. The agency banking model will therefore provide an extension of services to segments that may have been difficult to harness though targeted.

Under the CBK regulations, agents can offer a number of banking services, including cash deposits and withdrawals, fund transfers, bill payments, loan payments, payment of benefits and salaries, and collection of accounts\(^4\) and loan applications. However, agents are limited to cash-only transactions and cannot access applications which makes opening of new accounts especially in new markets cumbersome irrespective of the fact that it could serve as an indicator of the receptivity of the people as well as a measure of inclusion.

The CBK regulations require that agents have secure operating systems capable of carrying out real time transactions, generating an audit trail, and protecting data confidentiality and integrity.

\(^4\) Once an account opening is initiated, the documentation is taken to the bank where the account is opened and the customer can collect the details of the account at the agency.
Transactions are made via mobile phone, a point of sale (POS) system and reflected in the main banks databank in real time.

At present, most agents only process deposits and withdrawals, which offers minimal value beyond various money transfer services by MNOs. However, banking services that break the mobile money mould are coming soon. Key amongst these may be the collection of loan applications, tailor made programs for school fees payment among others. Agent banking may also grow in importance by expanding regional banking networks as banks have a broad scope. Equity Bank and KCB both operate throughout East Africa and it will not be long before agency banking is eventually incorporated in these extended services.

Use of agents in reaching remote areas that serve majority of the target population in this study is instrumental in supplementing the Kenyan bank network which according to the Central Bank of Kenya survey CBK (2008), has limited infrastructure. With 876 bank branches and 1500 ATMs countrywide, the figure represents two ATMs per 100,000 people which reflect the sectors narrow outreach. However, the number of mobiles in Kenya has grown to 29.2 million (CCK, 2012), an indication that the mobile phone offers both banks and users a tremendous financial opportunity. The concentration of the bank infrastructure is in urban areas which excludes those in remote rural areas. Many Kenyans therefore are excluded from traditional banking services, and this study focuses on the transformational services with the potential of providing actual banking services to the poor and marginalized.

The mobile phone penetration in Kenya is also promising as an alternative bank access avenue and is likely to close the gap faster as CCK (2012) operators returns estimated that 89.1% of the
adult population owns a mobile phone\textsuperscript{5}, or has access to it while the Financial Sector Deepening (FSD Kenya) 2010 annual report, indicates that only 40.5\% of the adult population has access to formal bank services. The high mobile phone penetration offers a way to cheaply and rapidly provide financial services to the un-banked, something no other technology offers. Mobile banking is increasingly being seen as convenient, fast, simple, and secure.

Mobile banking’s branchless advantage can help banks provide cost-effective services and accelerate access to their products. Mobile banking uses the existing mobile communications infrastructure which already reaches un-banked people. Thus a bank does not have to invest time, money and effort in setting up a new infrastructure. It offers a physical proximity which other methods, such as the internet or ATMs, cannot match. With mobile phones, customers do not have to walk miles to find a branch they are instead carrying the bank with them (Kopicki and Miller (2008).

Sida Review (2010) further forecasts a reliable platform for innovative mobile applications for East Africa in general. This is attributed to the findings that East Africa has more than 120 million citizens with a large majority living in rural areas. Almost half of it’s population is under the age of 15 years and about one third of the grown up population is illiterate. The region is characterized by general weak infrastructure, such as bad roads, poor transport systems, non-existent electricity, few health units, and financial institutions, weak public offices among others, yet, by the end of 2009 there were almost 50 million mobile subscribers in the region resulting in a mobile penetration of 40\% of the total population. This makes mobile phones one of the most widely available platforms for information dissemination and interactive communication.

\textsuperscript{5} with 72.8 \% ownership in urban areas and 80.4\% in Nairobi ( FSD Kenya 2010)
Mobile banking is undoubtedly a breakthrough to the unbanked populations in the developing world. However most of the mobile banking products are just concepts yet to be diffused, studies have not yet established why mobile banking is possible today and the actual uptake of mobile banking by the poor and marginalized is scanty. It is the purpose of this study therefore to focus on the context in which mobile banking operates in an effort to unearth whatever it is that surrounds the usage and come up with an informed model for a successful uptake and use.

Context of use has been defined as the actual conditions under which a given artifact/software product is used, or will be used in a normal day to day working situation (Encyclopedia Britannica), these situational factors that influence the use and usability of a system. They include:

- Environmental factors which include physical conditions such as space, time, temperature and noise. Going by the Sida Review Report (2010) East Africa in general is characterized by general weak infrastructure, such as bad roads, poor transport systems, non-existent electricity, few health units, financial institutions and weak public offices. This picture already paints East Africa as a place where basic necessities do not reach the majority of the population because of the inadequate facilities available.

- Organizational factors which include social network, management and organizational pressures, and work processes. For the purpose of this study this may include functions of organizations that propel mobile banking products to the target populations. These functions include innovation, diffusion, implementation and sustainability of the products in the market.
• Technical or system factors which include network connectivity, system configuration, and system stability. As indicated in the CCK Sector report 2012, the mobile penetration in Kenya is 89.1%, yet coverage is 34.14 meaning that there are many areas where access to signals is not available. According to Nairobi GSM Networks Report (2009) also, Safaricom provides bulk of this coverage because it has the best coverage however the report further indicates that Safaricom has the lowest quality network compared to Airtel, Yu and Orange which are the other Mobile Network Operators (MNOs) in Kenya. This again means that access to services may not be effective.

• Social factors such as culture, family conflicts, career aspirations, economy, ethical standards. The society engaged in mobile money use has been described by various scholars as the Network Society, Information Knowledge Society, and Post Modernists among others (Manuel Castells 1996, Van Djik 2009, Stalder 2006). Peculiar in this descriptions is the fact that these is a liberated society with a high affinity for independence and freedoms and are eager to take charge of activities in their lives at convenience. Kenyans have also been described as supportive of relatives in the rural areas and 79% of Kenyans live in rural areas (IFAD, 2011). Further the success of M-PESA in Kenya as described in detail in this study (2.5.1) has accustomed the Kenyan population to the mobile phone as an alternative mode of handling financial transactions. Besides, the fact that the shops are located in the market centers where users visit for other needs makes these shops communal therefore reinforcing a sense of ownership.

An in depth analysis of the above factors, together with other emerging factors specific to mobile banking is key to establishing relationships that could facilitate a successful execution and sustainability of mobile banking products for financial inclusion of the poor and marginalized.
1.2 Background of the study

1.2.1 Justification of use of m-banking for financial inclusion

In a 1995 speech, McColl\(6\) Jr. said,

‘As every school child knows, the dinosaur didn’t survive the Ice Age, It’s not that it lacked the capacity to evolve. It just didn’t have the time. Unlike the dinosaur, bankers can see the changes and have a choice in the matter. The dinosaur never did’.

McColl’s leap from Ice Age dinosaurs to Internet Age banks may have been a stretch, despite years of change however, none of the banks’ challengers have put together the combination of customer value, convenience, and trust necessary to be an effective alternative to the traditional banking style. However the increasingly ubiquitous mobile phone is strategically seen as more of a natural channel for consumer financial services and the greatest challenge to the market banks have always enjoyed. Scared of losing their market share to MNOs, banks were originally unreceptive of these new modes of doing business. The Kenyan Banking Industry was originally very hostile and occasioned various audits on the M-PESA model with an intention of having it rendered unlawful (Sirken, 2009) or regulated by the Banking Act.

With the runaway success of M-PESA and other models in different parts of the world, telecom providers now view financial content as a viable business\(7\). This is an appealing model because a combined banking mobile communications product is a way for wireless telecoms to move beyond commodity voice services and differentiate their products to improve customer retention

\(6\) Hugh McColl Jr, the CEO American bank was speaking to an audience assembled by the administrative institute, an education and research organization serving the banking industry.

\(7\) Since the launch of M-PESA, the revenues accrued from the product have consistently topped the list as the most profitable business line for Safaricom (Safaricom annual financial reports 2009, 2010, and 2011).
in a business with a notoriously high churn rate. Another attraction is that financial information is already stored and transmitted in precisely the form that allows it to be delivered by wireless means. In fact, it is the raw material of the existing telecom franchise. Besides, wireless communication delivers the interactivity to perform transactions on the spot.

Whereas Internet banking seems to be too great a leap for people to make because of barriers of investment as well as know how, wireless finance is a direct and natural extension of the way the typical consumer takes care of finances today. Furthermore the number of people with access to a mobile phone is increasing considerably. Recent statistics (CCK operator returns 2012) in Kenya indicate that 89.1% of Kenyans have access to mobile phones compared to ownership of 74.1% meaning that people share phones in a household or in the community. Most people are therefore comfortable paying for various commodities using the phone and adding banking to these services, can hardly be a stretch.

A natural transition is strategic in the diffusion of products targeting BOP populations (Fredrik, B. and Martin, P. (2009). Retail finance innovations often fail because they require wholesale changes in consumer behavior. Successful innovations in retail finance, allow people to manage their lives on their own terms. In other words, they complement rather than complicate people’s lives (Osborn et al, 2010). The mobile phone is in that mold. Today, people usually don’t leave home without their mobile phones, so using the phone as a cashless way to make payments is certainly as convenient as using other traditional methods they are accustomed to. The benefits of wireless finance can be extended to customers with scant or poor credit histories with less risk to the institution than that incurred by credit card companies.

---

8 The Kenyan landscape has recently been characterized by price wars amongst the competing MNOs and constant remodeling of products to retain customers and woo others from the competing firms.
9 In Kenya, the population is so accustomed to the use of the phone such that the slogan ‘lugha ya pesa ni m-pesa, was coined.
Even though the telecommunications and financial services industries share important traits, they have some fundamental differences that partnerships can help overcome. Telecoms need certain capabilities in order to provide wireless finance services. Those they do not already possess, they can acquire relatively cheaply by allying themselves with banks. Banks already have a number of the front-end capabilities needed to handle payment transactions at low cost. These are commodity capabilities that can be provided by many banks, and the combination can create competitive advantage with the right regulations. These partnerships in Kenya have been rocky with M-KESHO almost non existent, IKO-PESA barely surviving and the latest Mobi Bank by KCB modeled to compete with the Telecom led money transfer models.

As explained above, there is a sound justification for the mergers between financial players and telecommunication companies to reach those excluded from traditional banking services due to issues of infrastructure, logistics and business volume. Positive effects especially of the transformational nature are yet to be realized. The nature of mobile banking is that of interdependence. This study recognizes that mobile banking cannot take place in a vacuum and without cognizance of the influence of a wide range of surrounding factors.

This study therefore seeks to introduce two theoretical perspectives to aid in the understanding of partnerships that now create mobile banking. The first theory is used to explain what facilitates mobile banking particularly wireless finance today. It is also instrumental in the understanding of the process that describes activities surrounding mobile banking as a social, economical as well as a technological innovation.
The second theory is used to follow these actors as well as analyze their interplay in the network formation. It is for this reason that the Actor Network theory (ANT) is central in the study of mobile banking to not only guide the identification of actors as a methodology but also as the theoretical framework to gain an in depth understanding of the emergent actor network in mobile banking from the perspective of all the influencing factors.

1.2.2 The Network Society

A network is a decentralized matrix of nodes through which communication can occur with a multidirectional freedom which is neither time-bound nor spatially-restricted. In his Information Age Trilogy, Castells (2000, 2001, and 2004) traces the effects of three independent processes that have come together to produce a new society i.e. the information technology revolution (ITR), economic crisis of capitalism and communism and new social movements.

The ITR facilitates access of information by people in areas previously excluded as signals penetrate almost all areas, the economic crisis has ushered in a new global economy, where lack in one geographical area does not limit access to services by those in that locality while the social freedom movements describe the personal endeavor to take charge of activities and limit reliance on organizations for services. The three processes are causing a new social structure (the network society), a new economic structure (global informational economy), and a new culture (a culture of ‘real virtuality’) all organized around networks (Castells, 2001). The new information technology paradigm provides the basis for the pervasive diffusion of networking throughout society.

In the network society, power resides in the activities of users and it is no longer controlled by institutions, organizations, or symbolic controllers nor is it limited to particular areas; the unit is
the network (2000). It is diffused in global networks of wealth, power, information, and images, which circulate around a variable landscape. A new culture is formed by networks in which a space of flows transcends a space of places. According to Castells (2000), space is inseparable from time. A space of flows produces timeless time. Together, the space of flows and timeless time produce a culture of “real virtuality,” through a system of codified meaning that becomes reality.

As described above the Network society is a new form of organization where National, regional and local economies depend ultimately on the dynamics of the global economy to which they are connected through networks and markets.

Mobile banking is the ICT based product that is proposed for financial inclusion of the poor and marginalized. By the virtue of the impeded ICT attributes of flexibility, recombination and self expansion, the products stand viable to disenfranchise the two notorious barriers i.e. geographical access and economic viability to facilitate financial inclusion of the rural populations. The fact that rolled out products have not been successful there is need for a holistic contextualization of the stabilization process. This study seeks to underscore all contextual factors surrounding the innovation, implementation and actual use of mobile banking products.

The success of mobile banking depends on six key elements: The people that perform the transactions, the nodes which may be the phones or points of intersection in the network, the way of doing business (mode of production), the conduits transporting information (the network, software and transmitters), time involved which increases trust (timeless time) and the places the nodes are found.
1.2.3 Actor Network Theory.

The ANT is a theory associated with sociologists Michael Callon, Bruno Latour and John Law. It postulates that a set of negotiations describes the progressive constitution of a network in which humans and non-humans all called actors assume identities according to prevailing strategies of interaction. Actors’ identities and qualities are defined during negotiations between representatives of human and non-human actants. Representation is the process of delegation where common definitions and meanings, representativities and co-option in pursuit of individual and collective objectives are translated.

Actor network theory is suggested as a methodology towards a more detailed understanding of the relationships between information technology and its use (Akrich 1992; Akrich and Latour 1992; Callon 1991, 1994; Latour 1987). This choice is motivated by the way actor network theory offers a language for describing the many small, concrete technical and non-technical mechanisms which go into the building and use of information infrastructures.

ANT has been used by other researchers in IS system studies. ANT has been used by Stanforth to illustrate that technology is just one of a number of heterogeneous socio-technical elements that must be considered and managed in the design and implementation of a successful information system. ANT was used to analyze the Construction of the Failure Concept in a K-12 ICT Integration Program in Israel. An ANT analysis of the network of relationships related to the talk about failure (and about success) in two ICT integration programs succeeded in yielding novel insights such as actant identity, actant roles, information flow in the network, technological actants, and relationships as possible factors that could explain the predominance of talk on
program failure in the national ICT integration program. ANT has also been used to examine the process by which mobile communication technologies are adopted within different countries by considering the descriptive use of ANT in describing the process. The conclusion suggested possible ways of using ANT prescriptively to encourage the embedding of mobile communications within geographies.

In this study the researcher used ANT as both a theoretical framework to inform the study and a methodology to study the heterogeneous relationships in mobile banking (animate and inanimate). The main focus was how activities in the network society govern themselves i.e. the network logic. Gaining a deeper understanding of how elements in the mobile banking networks co-opt each other and how translation occurs and can be enhanced to result to a successful relationship (stabilization) for the financial inclusion of the poor and marginalized.

1.3. Statement of the problem

While researchers have documented evidence about the potential of mobile banking to close the digital divide (Dholakia & Kshertri, 2004) and have described it as a leap from the world of cash to cellular banking (The Economist, 2006), there is also evidence that the only successful venture of mobile money in Africa is M-PESA in Kenya despite such initiatives having been tried in countries like Uganda, Tanzania among others (GSMA annual report 2011). While also the benefits of mobile money are clear, there is doubt over whether these mobile money systems are truly fulfilling their growth potential (World Bank 2012). There are also similar products in Kenya that have not experienced a rapid adoption as M-PESA (Mulwa, 2009)\(^\text{10}\). Existing theory about the significance of mobile communications in the developing world has focused on voice

\(^{10}\) This is an unpublished Master of Arts in Communication studies research project presented at the University of Nairobi titled Integrated Marketing Communication and the adoption of Safaricom’s M-PESA in Kenya.
and text messaging mainly (Donner, 2008) which is inappropriate or has been overtaken by events with the advent of mobile banking along with other capabilities enabled by the increasingly flexible technology.

Mobile banking has been attributed to double leapfrogging, the first one from landline to mobile and the second one from traditional banking to virtual banking (Dr. Lennart Bångens and Björn Söderberg 2008, World Bank, 2012) yet there is not much of a success story as challenges and uncertainties remain in reaching a deeper understanding of demand, usage, and impact amongst lesser off market segments.

Similarly studies have been done on the adoption and impact of mobile phones on users’ (Ivatury & Pickens, 2006; Porteous, 2007), yet scholarly research on the context and use of mobile banking systems in the developing world is not evident as the systems are new (Maurer, 2008) and no study whatsoever has linked the stability of mobile banking products to the interplay of actors in the emergent network nor has any study gone further to determine the role of the key actors in each context. In addition, without dissecting the underlying processes that describe mobile banking, state of the art innovations will continue to be implemented by ad hoc and experimental means, making successful implementation a mere chance. This study seeks to fill this gap.

Mobile banking systems are innovations that could be used to reach out to un-banked populations in rural and remote areas but so far studies of adoption, impact and use indicate disparities in the uptake of the innovation. Suggestions by the researchers as indicated above call for various perspectives for closing in on the gap. It is in the backdrop of the highlighted
concerns that this study sought to not only study aspects suggested but divert from disjointed analysis to a holistic approach that tries to fill in the gaps through an in-depth analysis of the stabilization process from the perspective of all the actors (human and inhuman) and the roles they play in the emergent mobile banking networks.

1.3.1 Research questions

While the relatively poor populations have lived with exclusion from traditional banking services as long as it can be remembered, the use of the mobile phone to perform monetary transactions did not occur. So what has happened all of a sudden? Why are banks able to merge with telecoms today and what has happened to our social structures? Consequently, despite this breakthrough, products utilizing this mobile phone technology have not experienced success in uptake and use. So, what ails the relationships in mobile banking and what needs to be done to stabilize these networks for financial inclusion of the poor and marginalized? Who are the actors in mobile banking? What are their roles in the emergent mobile banking networks? And what trajectory would best address financial inclusion of the poor and marginalized?

1.4. Purpose statement

The purpose of the study was to underscore all the contextual factors surrounding the use of mobile banking products with the aim of reinforcing relationships that would stabilize mobile banking actor networks selected. This entailed contextualizing the Actor Network theory through the case studies and further determining who the actors are in mobile banking and establishing how these actors (animate and inanimate) construct common definitions and meanings, define representativities and co-opt each other in the pursuit of individual and collective objectives.

1.4.1. Objectives of the research

The specific objectives of the research were to:
• Illustrate the key trends (evolutions) that justify mobile banking as a viable model for financial inclusion of the poor and marginalized today.

• Determine the context of use of mobile banking and its role in the uptake and use of mobile banking products targeting the poor and marginalized.

• Draw lessons on the usefulness of the Actor Network as a framework for studying the stabilization process of mobile banking products.

• Ascertain the role of actors in the design, roll out and use of mobile banking products for financial inclusion.

1.5. Significance of the study

Mobile banking has not been a success story in Kenya and other developing countries despite the strong case for financial inclusion. What has characterized the Kenyan landscape and equally neighboring countries is an influx of mobile money products that do not address the needs of the target populations because they barely take off. Findings in this study are therefore of significance to the following actors:

Innovators in mobile money products/services. Targeted populations are sparsely distributed, of limited means and deskilled. Products need to be easy to use, affordable and accessible round the clock. In view of these specific needs of the targeted populations innovators are informed to design products that enhance usability and in effect increase uptake and use.

The poor and marginalized in Kenya. The study proposes specific interventions to increase the use of the products by the poor and marginalized. These include awareness campaigns, literacy classes and intermediation coupled with easy to use, affordable and convenient products.

Policy makers. Mobile banking is a new innovation and requires specific interventions to enable uptake and use. Roles in the stabilization of the mobile banking actor networks by policy makers include: customer protection, enabling regulation, support from governments and infrastructure
logistics. Regulators particularly will be able to align roles to facilitate scalability of the products.

**Researchers**: This study deviates from a priori in the mobile banking paradigm to an emergent outcome. The focus for researchers will shift from analyzing independent actors in existing networks to the interplay of these actors in the emergent network. There is recognition that circulatory attributes in the network formation are collapsed to a single role which acquires different prescription befitting the making of the new actor network. Mobile banking studies will therefore be focused on the network formation, stabilization strategies and specific context studies to guide implementation processes.

**Mobile money players**: banks, telecoms, regulatory authorities, innovators and service providers have been identified as some of the actors in mobile banking; these players need to actively play their roles. As dependency is clearly understood, each element stands to benefit from a stable relationship and will therefore strive to reinforce each other for a continued business relationship.

**Business practitioners**: The poor and marginalized constitute the bulk of populations at the BOP who are sparsely distributed yet provide a viable business volume. Scaling products to ensure access coupled with constant monitoring and evaluation and feedback to address emerging issues will ensure sustainability of products and retention of these populations in the network for increased returns for investment by the business people involved.

**Communication operators**: findings of the study clearly indicate that availing services to the poor and marginalized is not a guarantee that these segments will actually use the services. Interventions for communication firms to ensure that ICT based applications actually benefit the poor include; constant monitoring and evaluation, education and awareness. This study provides a clear direction for communication interventions that could be used to enhance uptake and use.
CHAPTER TWO: LITERATURE REVIEW

2.1. Overview

The stabilization of various mobile banking products rolled out in Kenya has been precarious. In order to establish why the status has prevailed, there was need to underscore the dynamic relationships that define the paradigm, from the innovation stage, through its definition to its implementation and actual use. In view of the complex relationships in the networks defining mobile banking and further the need to address financial inclusion of the poor and marginalized, literature reviewed was used first to establish characteristics of the poor and marginalized, why they are financially excluded and the implications of exclusion to address both the environmental and social contexts of mobile banking.

A detailed discussion of ICT attributes permitting the execution of mobile banking today was then presented which paved way for a definition of the society actually engaging in mobile banking practices which constituted an exploration of the technological, economical and social contexts. Prior studies and models that could provide useful lessons in the stabilization of products targeting poor and marginalized populations were discussed. These significantly informed the study on organizational and regulatory perspectives in the stabilization of mobile banking products.

Finally the section provided a theoretical trajectory based on the Actor Network Theory which served to blend the social and the technical and further allowed the researcher to follow the actors (both animate and in animate) and their roles in the network formation. The theory culminated in a theoretical framework which directed data collection and consequently the analysis of the study findings.
2.2. Financial exclusion

Mobile banking is a model this study proposes as a trajectory for financial inclusion of the poor and marginalized. The poor are the least connected to financial services due to their economic viability and also their effective incorporation requires requisite skills (World Bank 2012). Besides the interests of this study, various institutions\textsuperscript{11} have actively sought to ensure that the gap between the financially included and those excluded is reduced or eliminated altogether. The Financial access surveys of 2006 and 2009 (FSD, 2010) show that Kenya has made impressive strides in financial inclusion compared to other African countries.

In line with the thinking proposed in this study the performance in Kenya could be attributed to Mobile money products like M-PESA which is transformational and products modeled to target the poor particularly by Equity bank, supportive regulation by bank regulator CBK and innovative business models and technological advances. However, despite the efforts by interested players to increase financial inclusion, the challenge of financial inclusion remains large as shown by the results of the Fin Access demand side survey undertaken in 2009.

**Figure: 2.1 Fin Access Surveys of 2006 and 2009**

![Figure 2.1 Fin Access Surveys of 2006 and 2009](image)

Source FSD, 2010

Findings in the study show that while financial inclusion increased from 58.7% to 67.3% (between 2006 and 2009), an estimated 32.7% of Kenyans are still financially excluded.

However, despite speculation that this increase could be due to M-PESA, there was a debate in a mobile money conference held in Nairobi in April, 2011 on whether really M-PESA could contribute significantly to financial inclusion as the service was purely a money transfer service. Representatives of the Bank led models especially the agency banking products felt their products were more specific in addressing the needs of the unbanked populations in Kenya. This debate pitting M-PESA against Agency Banking in regard to which among the two leads to financial inclusion is significant to the thinking in this study as Agency Banking is proposed as a channel of reaching out to the poor and marginalized. However at the moment the products are new and the process of their implementation is on course though not with much enthusiasm. A scenario which necessitated this research; to gain a deeper understanding of all contextual factors surrounding usage of mobile banking in order to unearth what it is that may hinder a successful uptake and use of the products aiming at designing a strategy that would guarantee increased use and sustainability of the products for the benefit of the targeted populations.

In order to justify the need for financial inclusion, this study discusses what really constitutes financial inclusion and what are its consequences that call for various interventions. In a study commissioned by the European Union (2010), financial inclusion was found to consist of two elements: good financial decision-making (the ‘demand side’ of the equation) and access to suitable products and services (the ‘supply side’). Good financial decision-making requires financial literacy or a basic understanding of financial concepts in order to participate constructively as well as financial capability, or the ability and motivation to plan finances, seek
out information and advice, and apply these to personal circumstances. Financial capability is increasingly important, as the range of financial products becomes more complex. The need for financial education is continuous through people’s lives as the market and personal circumstances change. In addition the targeted populations in this study have little or no experience in banking and financial literacy training is important.

The consequences of financial exclusion tend to form part of a much wider social exclusion, faced by some groups who lack access to quality essential services such as jobs, housing, education or health care. Difficulties accessing appropriate financial services and products beside the fact that use of financial services makes more and more part of a standard life, the way to access and use those services may be more and more over demanding on various aspects as geographical, technical, cultural, educational or financial history which the unbanked lack. This leads to a large range of access and use difficulties that are deeply related to each specific market structure.

Financial products will be able to address the user need when their provision, structure and costs do not lead the customer to encounter either access or use difficulties. These difficulties are caused simultaneously by the characteristics of the products and the way they are sold (supply side) and the situation and the financial capability of the customer (demand side) (EU 2010). The analysis of each structure (both demand and supply sides) may, for each segment, highlight the way supply meet demand, and how appropriate it is provided by mainstream providers. Much of the exclusion appears to arise from a failure of the mainstream commercial providers to supply a range of products and services that are appropriate to the needs of all sections of society. This failure partly is as a result of business decisions on viability of markets, and so far these regions have remained unattractive.
Many traditional or mainstream banks in Kenya are seen to target previously excluded markets through independent agents which is a new model that may be described as the alternative authenticated provider. This study particularly tries to identify how best these bank services can be availed to the poor and marginalized in order to benefit from the advantages of financial inclusion.

2.2.1 The financially excluded

In many occasions what determines the status of an individual in relation to financial exclusion or being inadequately served is determined by the specific individual, the financial circumstances and the locality (World Bank, 2010). A large percentage of the excluded face barriers which inhibit their use of financial services. These include:

- Products being too expensive or intimidating models of offer, for example, language used, slippery floors in banks, procedures of transacting for people of limited education and means as well as exposure for people living in deprived areas;
- Conditions attached to products which make them inappropriate, for example, introduction letters, identification documents, minimum account opening charges, high ledger fees; and
- Financial institutions which are not keen to attract people of low incomes as customers; consequently there is a lack of marketing to this group.
- Some government policies may also encourage or reinforce financial exclusion\(^\text{12}\).

The model that seeks to address financial exclusion of the poor and marginalized must then ensure that products meet the needs of these people by being relatively priced and make them free of

\(^\text{12}\) If Mr. Githae, the Minister of Finance in Kenya was serious about his allegations during the Tax payers’ award (2012) function that anyone who offered financial services for free would be taxed for the free services to discourage such practices, then products targeting poor populations will not exist in Kenya.
conditions as mostly what these people would need is a safe keeping of their money, however the pricing should not compromise quality. The model also needs to be enticing to investors as an alternative channel that comes with minimum investment and able to tap into the aggregate volume of the market in order to constitute a reasonable business opportunity.

2.2.2 Implications of financial exclusion

As captured in Vision 2030, financial exclusion is a current policy concern in Kenya. Some of the problems associated with the exclusion include:

- Exclusion from affordable loans leaves people who need to borrow money with no option but to use alternative sources which charge high interests and have punitive repayment regimes.
- A lack of insurance and savings makes families vulnerable to financial crises following unexpected events. A lack of savings can also lead to poverty in old age.
- Many employers will only pay wages into a bank account, without convenient access of the service, getting ones salary becomes burdensome.
- Cheque cashing agencies may charge percentage of the value of the cheque plus a fee for the transaction and this leads to added and unnecessary costs.

Financial exclusion reinforces social exclusion. It is not just an individual problem: a whole community can suffer from under-investment in financial services. Conversely, financial inclusion significantly contributes to a route out of poverty (EU, 2010). There are however documented barriers to financial inclusion (Benerd, 2010) particularly instrumental in the exclusion of poor and marginalized populations which are classified into social, supply and demand factors:
1. Societal factors
Demographic changes: the ageing population in Kenya is particularly dependent on breadwinners and relatives and most of those in rural areas have no money of their own. They also have difficulty in staying up-to-date with all the new ways of dealing with money. Consequently younger people tend to use credit more often, however in a country like Kenya they stay longer with their families and therefore find it less useful to open a bank account.

2. Supply factors
Risk assessment procedures: generally they are becoming more and tighter and thus create financial exclusion. Many poor people in Kenya do not have credit histories because they have never held a bank account. It therefore becomes difficult to assess the risk involved hence they get excluded.
Marketing methods: they can be unclear and lead potential clients to abandon the request or to mistrust financial institutions and look for other alternatives
Geographical access: Financial services tend to cluster around urban areas excluding potential clients who reside in rural and remote areas
Product design: the terms and conditions are not clear and target public is not defined. The appropriate financial service is also non existent on the market
Demand factors
Service delivery: the financial service is delivered by inadequate means for the target public, e.g. Internet for older people
Complexity of choice: can be an education issue, too many products proposed, target public has trouble to choose.

3. Demand factors
Belief that bank accounts are not for poor people or low self esteem.
Concern about costs: potential clients fear costs might be too high or lack information.
Fear of loss of financial control: bank account feels intangible compared to cold cash, also some means are seen as “unsure” i.e. Internet hacking.

Mistrust of providers: fear of bankruptcy or lack of confidence with financial institutions. Some people might be afraid that creditors will seize their minimal guaranteed income.

The convenience of offer suggested in this study will go along way in changing lives for the users of the new products. Tarazi (2010) acknowledges that a major obstacle to financial inclusion is cost; not only the cost incurred by banks in servicing low value accounts and extending banking infrastructure to underserved, low-income areas, but also the cost incurred by poor customers (in terms of time and expense) in reaching bank branches. Achieving financial inclusion therefore requires innovative business models that dramatically reduce costs for everyone and thus pave the way to profitable extension of financial services to the world’s poor. This is why banking agents are part of an increasingly potent model for financial inclusion. This study strives to design a mobile banking model that seeks to address all the barriers in order to ensure financial inclusion of the targeted populations is effective and useful in addressing their needs.

2.2.3. Strategies for addressing financial exclusion of the low income segments

The EU study report indicates that most existing financial products are inappropriate to the needs of low-income households, and this explained the low levels of usage. Current provision is rarely designed for use by people with low incomes or unstable circumstances. Equally, the way in which financial products are delivered can also make it very difficult for low-income households to use them. These reasons which hinder financial inclusion of the poor and marginalized need to be addressed for a successful uptake and use of any financial intervention. These reasons therefore need
to form a basis of:

Reducing barriers to access: Widening access requires overcoming the barriers presented by risk assessment as well as improving physical access. Most of the poor segments lack financial histories that could be used for risk assessment, other modes of determining their worth could be sought to limit barriers. Using intermediaries to deliver financial products can overcome the problems of physical access and now mobile banking is in this mode.

Product design: requirements of people without financial products are not unrealistic (EU, 2010). For day to day money management the poor require a simple account which can allow them to retain tight control over their money as their savings rarely remain in savings for long.

Delivery systems: According to a world bank (2011) report on financial and private sector development, People on the margins of financial services want to deal with organisations which are financially secure, trustworthy and understand their needs. The poor are said to be sceptical of new products as well as strangers, models that counter the two barriers would foster trust in the offer.

Encouraging take up: Gerald (2012)\(^3\) confirms that knowledge of financial products is remarkably low among households that are without them. This is compounded by marketing policies which reinforce the belief that financial services are 'not for the poor'. Measures to encourage take-up must, therefore, tackle the widespread mistrust which such households have of many financial providers, particularly those which are geographically remote. Use of trusted intermediaries could overcome these barriers. Targeted marketing and delivery of new products as they become available would also increase take-up. Equally, the language and cultural barriers faced by some potential users need

\(^3\) Gerald, C. Okereke is an Information Communications Technology course developer, Open University of Nigeria.
to be taken into account.

There is also a need for an independent information and advice service. Lack of knowledge and experience of financial products renders some households especially vulnerable and as a result may access products that may eventually be expensive because they lack knowledge on how to choose the right products, as well as deterring them from taking up financial services.

Legislation and government policy: Financial exclusion is influenced by government policy and practice in a range of ways. There is evidence that regulation of financial services can cause or reinforce financial exclusion and government policies can create a new market for financial services. Legislative action by governments to promote financial inclusion can either be direct by imposing upon financial service providers an obligation to provide a certain kind of financial service and to organize, regulate, monitor or control financial services provision in order to ensure financial inclusion, or through indirect regulation where by the government removes obstacles that increase financial exclusion and finally through positive incentives that are designed to encourage the changes in the banking system to promote financial inclusion (Government of India, 2008).

The need of assessing the final impact of regulation is crucial because if not implemented properly, it can add to distribution system costs, which, in turn, increases costs for consumers and may also push the low-income marginal consumers out of the market. Another risk is that the relationship between financial institutions and consumers becomes too complicated and less educated people are frightened by contracts. Right to an account, adequate transaction and payment banking services provision, accessing transaction bank accounts and payment services is a crucial issue today because without reasonable and affordable access to these services, the chances of participating in normal
social life are reduced, leading to a greater risk of social and financial exclusion.

Developing new products and services: motivated by the need for increased profits, focus on marginal customers has come up on some banks’ search for a bigger market share. Some mainstream commercial providers have been active in finding and implementing solutions to financial exclusion in different areas of financial services provision. These include developing new products and services that are more appropriate to the needs of people who are financially excluded. The trend has seen banks working in partnership with agents to reduce costs and barriers to access, promoting financial education to encourage the use of financial services by those reluctant to do so and to raise levels of financial capability. Closely monitored this model could be of substantial benefit to both the users and the bank.

2.3 Modeling mobile banking for financial inclusion of the poor and marginalized.

Transformational mobile banking is targeted at the masses excluded from traditional banking services due to various reasons. These populations constitute a viable business volume if tapped as a whole. This section explores ways of access to these populations.

The distribution of wealth in the world can be captured in the form of an economic pyramid. At the top are the wealthy, which have the opportunities for generating high levels of income. At the bottom of the pyramid (BOP) there are about 4 billion people living on less than a dollar a day. Even if every individual’s wealth in this group is marginal, added together the total purchasing power for this market is estimated to be 5 trillion dollars (Richardson, 2008). However for companies to convert the 4 billion people into a consumer market, they have to create the capacity to consume
because they are cash poor and have a low level of income. Companies have to devise specific techniques that target value from mass markets. According to Prahalad (2006), the capacity to consume is based on three principles:

- **Affordability.** Products or services must be affordable for the BOP consumer without compromising on quality or efficacy,
- **Accessibility.** Distribution patterns or services to the poor must take into account where they live as well as where they work. Most BOP consumers work long days before they can have enough cash to buy what they need for that day. Further the BOP consumers cannot travel great distances. Therefore products and services that are offered to them must be easy to reach, often within short walk. This calls for geographical intensity of distribution.
- **Availability.** The decision for BOP consumers to buy is often based on the cash they happen to have at hand at a given point in time. They cannot defer buying decisions and therefore availability of the product/service and distribution efficiency is crucial when servicing the BOP consumer.¹⁴

In Figure 2.2, the pyramid portrays four levels of the consumer market. At the top are few but rich clients whose purchasing power is viable per individual. At the bottom are many customers whose individual purchasing power is minimal constituting a viable business opportunity in aggregate. This is the population that has been excluded from traditional banking services and as a result constitutes the un-banked. By focusing on the consumer’s capacity to consume, private sector businesses can create new markets. What is critical is the ability to invent ways that can take into account the

¹⁴ ITU (2008) identified the three (affordability, accessibility and availability) principals in its concept of universal access from the perspective of inclusion for all like the poor and the disabled and also in their convenient places. Access should also incorporate friendliness of the service and usability in terms of design for all.
variability in the cash flows of these consumers that makes it difficult for them to access the traditional market oriented toward the top of the pyramid (Prahalad, 2006)

**Figure 2.2 The economic pyramid.**

![Economic Pyramid Diagram]

Innovations are increasingly making it possible to reach out to those who have traditionally been excluded from mainstream services due to barriers to access (Borg, F. and Persson, M. 2009). However, the product consumer specific factors that influence adoption for BOP populations must be in place for diffusion to emerge. Many of the drivers of market growth and change are present in the Bop markets and they interact. Some of these drivers are deregulation, involvement of the private sector, high degree of connectivity, young population and an attendant change in the aspirations of people. This fact requires a manager acting in these markets to be prepared for a fast diffusion process, instead of the traditional “S-curve”, which conceptualizes how technology diffuses in developed countries the “I-curve”, is evident if the implementation process is effected with the needs...
of the segments in mind.

**Figure 2.3 The BOP adoption “I curve” versus the “Traditional S curve”**

![Figure 2.3: The “S curve” shows the traditional adoption trend with periods between the innovators, early adopters, early majority through to the late majority and the laggards (Rogers, 2003), while the “I Curve” shows a rapid adoption that combines all the stages.](image)

When the poor are converted to consumers for the first time they do not only get access to products and services, but also acquire dignity, attention and choices from the private sector previously a reserve for consumer’s further up the pyramid. In acquisition of the poor as consumers, companies have also to take care of mistrust stemming from stereotypes from both sides. The poor tend to believe that the firms only want to exploit them as cheap labor without regarding them as worthy consumers and firms see the poor as consumers likely to default on payments. Means of diffusing this tension is therefore crucial for a working relationship (Prahalad 2006).

The basic economics of the BOP market dramatically differ from those of the consumers higher in the pyramid. Instead of high margins, small volumes and reasonable return on capital employed, the approach towards the poor must be based on low margins per unit, high volumes and high return on capital employed. Infrastructure in the developed markets exist or can be made economically viable
which is not the case with poor markets and advanced technology solutions must be used to exist with poor infrastructure. A new philosophy of product development and innovation that really reflects the realities of Bop markets is needed. Pahalad (2006) discusses twelve principles that together constitute building blocks for such a philosophy: These are:

• Price and performance for products and services. Besides low priced services and products, the required value should (quality, quantity and efficacy) be for less money and must be retained hence quantum leaps in price performance must be reached.

• Hybrid solutions. Old technology is not usually appropriate for solving the problems the BOP usually have. Scalable and price performance enhancing solutions need advanced technologies that are creatively implemented and blended with existing and evolving infrastructures.

• Scalable and transportable. The BOP is large markets but sparsely distributed, the innovation must be scalable and transportable across countries, languages and cultures. Solutions have to be designed for easy adoption in similar BOP markets. Without this it is difficult to gain scale which is a prerequisite for being profitable. Most of the individual Bop markets such as African Nations are small; innovations must therefore be supported by organizations that have significant geographical ambition and reach.

• Products offered must be resource efficient. This is because the BOP market is large in size. Their ability to sustain themselves in hostile conditions must be ensured.
• Functionality before form. Products targeting BOP populations need to be specifically tailored to address their needs. A total rethinking of functionality is therefore necessary.

• Process innovations are as important as product innovations. Process innovations are critical in making services and products available for the poor. The consumers must also be educated on how they benefit from these services.

• Since the skill levels in the BOP populations in general are lower than those in their western counterparts, new innovations must take into account enabling work to the deskilled.

• Innovation for the BOP requires education of consumers on the appropriate use and the benefits of a product or service. Innovations on how to do this with a semi illiterate customer base often living in areas without TV, newspapers or radio communication can pose a real challenge to firms and will demand creativity.

• Products offered to the BOP markets must work well in hostile environments. This includes noise, abuse, dust, bad infrastructures like bad or inexistenent roads, no electricity or eminent fluctuations, low water quality among many others.

• BOP markets are heterogenic in terms of language, culture, skill level and prior familiarity with the function of feature. Many users are first time users of products or services and the learning process must be simplified. The use of the product or service must be as self instructive as possible. Developers must therefore conduct thorough research on product and service interfaces.
• The innovations must reach the poor in order to get diffused. Therefore innovations in distribution are necessary. Designing methods on how to access the poor at low cost is crucial. In developing countries minimal or no logistics systems exist and therefore it becomes crucial for innovators to come up with a solution on how to reach the customers.

• Feature and evolution of BOP markets can be rapid and developers must not lock themselves in rigid consumer structures that do not allow for fast changes or modifications. Instead they should focus on the platforms of the system so that new features can easily be incorporated when demanded.

If the purpose of innovation is to address financial inclusion of the poor and marginalized, the twelve points have to be considered in the design of the innovation, usability has to be informed by the needs of target populations and the organizations must incorporate diffusion strategies that target the specific population for value for investment.

2.3.1. The M-PESA model in Kenya

M-PESA in Kenya is rated as one of the world’s most successful mobile money products (GSMA report 2011). This success has been attributed a combination of four factors. Environmental factors in Kenya that set the scene for a successful mobile money development, the service design features that facilitated the rapid adoption and frequent use of M-PESA, the elements in Safaricom’s execution strategy that helped M-PESA rapidly reach a critical mass of customers and the specific Integrated Marketing Communication strategies used to diffuse the product.
A. Specific conditions in Kenya

The success story of M-PESA benefited from launching the service in a country which contained several enabling conditions for a successful mobile money deployment, which were: dependency on breadwinners in urban areas, poor quality of available financial services, a banking regulator which permitted Safaricom to experiment with different business models and distribution channels, and a mobile communications market characterized by Safaricom’s dominant market position. Although this may be the stated position, the then Safaricom CEO Michael Joseph was practically instrumental in ensuring that the right regulation was in place to scale the product in the shortest time possible.

B. Diffusion

While M-PESA’s explosive growth was fueled by certain country-specific enabling conditions, the success of such an innovative service hinged on the design of the service. Conducting financial transactions through a mobile phone was a new idea that needed reinforcement. To overcome this adoption barrier, Safaricom had to design M-PESA in a way that (i) helped people grasp immediately how they might benefit from the service, (ii) removed all barriers that might prevent people from experimenting with the service; and (iii) fostered trust in the retail outlets who would be tasked with promoting the service, registering customers, and facilitating cash-in/cash-out services. This was done through: i) A Simple Message Targeting Money Transfer.

ii) A Simple User Interface iii) Send Money to Anyone iii) Building Trust in the Retail Network

iv) Simple and Transparent Pricing

C. Critical mass

With a strong service design in place, Safaricom then set about developing its execution plan. It recognized that it would be difficult to scale M-PESA incrementally as it had to overcome three significant hurdles that are common to any new electronic payment system (Ignacio Mas and Dan
Radcliffe, 2010), namely:

**Country network coverage:** The value to the customer of a payment system depends on the number of people connected to and actively using it. The more people on the network, the more useful it becomes.

**Sub agent contracting.** Every agent was allowed to form their own network by assigning outlets to people interested in the M-PESA business but could not meet all the agency requirements to be registered as agents. This model ensured substantial coverage of the country in the first three years (Ignacio Mas & Dan Radcliffe, 2010)

**Trust:** reliability of the new system was also a cause of concern. In this case, customers had to be comfortable with three elements that were new at the time in Kenya: *(i)* a payment system that was operated by a mobile operator, *(ii)* going to non-bank retail outlets to meet their cash-in/cash-out needs, and *(iii)* accessing their account and initiating transactions through their mobile phone.

**D. Promotion of the M-PESA brand:**

From the beginning, Safaricom sought to foster customer trust in the new payment mechanism and relied on existing customers to be the prime mechanism to draw in new customers. This was all the more difficult because Safaricom was introducing not only a new product, but an entirely new product category to a market that had little experience with formal financial services. This was done through:

*i) National launch at scale.* After small pilots involving less than 500 customers, (Ignacio Mas and Dan Radcliffe, 2010), M-PESA launched nationwide, strategically aiming at reaching a critical mass of customers in a short time frame. At launch, Safaricom had 750 stores that were distributed in at least all of Kenya’s 69 district headquarters.

*ii) Integrated Marketing Communication Strategy.*
The adoption strategies used with the innovation were based on market studies to identify gaps that needed to be filled and to understand the customer needs and wants focusing on the customer and not the product, the cost of the product and not the price, the convenience of buying process and not the place. Besides they also moved from mass media advertising to multiple forms of marketing creating a positive perception by making statements that were clear, concise and comprehensive through all the forms of the communication channels.

**E ) A scalable distribution channel**

Safaricom understood that the primary role of the mobile phone is to enable the creation of a retail outlet-based channel for cash-to-digital value conversion. And, for this cash-to-digital conversion to be broadly available to the bulk of the population, it had to develop a channel structure that could support thousands of M-PESA stores spread across a broad geography. To achieve this, Safaricom built four elements into its channel management execution strategy: (i) engaging intermediaries to help manage the individual stores, thereby reducing the number of direct contacts it had to deal with; (ii) ensuring that outlets were sufficiently incentivized to actively promote the service; (iii) maintaining tight control over the customer experience; and (iv) developing several different methods for stores to re-balance their stocks of cash and e-value.

**2.3.2 The role of the regulator in mobile banking**

Mobile banking is a new product in Kenya and in many developing countries. The Kenyan regulatory authorities particularly the CBK and CCK had to provide new legislation to enable the roll out; uptake and use of various mobile money products launched in the country besides letting the earlier players try out products with little interference\(^\text{15}\). However the current legislation governing Mobile banking operations may hinder the effective take off of the mobile banking products.

\(^{15}\) One of the reasons given for the success of M-PESA is the little interference in terms of regulation effected on the product either by the CBK or CCK.
Nevertheless here below is a summary of studies that have highlighted areas that need to be regulated in the mobile money space. This analysis is a culmination of various studies on mobile banking regulations key among them, David P. (2006). ‘The enabling environment for Mobile Banking in Africa’ commissioned by DFID, Paul M. (2010). ‘Regulatory issues around branchless Banking’, principal consultant, consult Hyperion and CGAP (2010). ‘Notes on regulation of Branchless Banking in Kenya’.

Makin (2010), common themes in branchless banking discussions include: 1) schemes such as M-PESA, with no direct bank involvement, should not be allowed. Instead, schemes should always be led by a bank. 2) A lack of familiarity with non-bank institutions. Generally, regulators feel comfortable with their existing relationships with the banks and other financial institutions they regulate. 3) The effect that the failure of a branchless banking scheme would have on customers, and the wider economy. The affinity to retain the status quo prevents the regulators from designing commensurate regulations to risks involved in the mobile banking models. A scenario which impedes fast growth of the products.

The financial regulator plays a crucial role in the economy of any country. According to Porteous (2006), policy makers and regulators in the financial sector usually seek the following outcomes:

Financial stability: that the safety and soundness of the banking and payments system is not compromised

Economic efficiency: that the efficiency of the financial system as payments mechanism and intermediation system is maximized and in turn contribute towards overall economic growth

Access to financial services: that broader access to appropriate affordable financial services is
promoted.

Financial integrity: that the efficiency of the financial system is not compromised by its abuse for criminal or terrorist financing purposes

Consumer protection: protection of vulnerable consumers against abuse and loss.

In his study on the legal and policy environment in Kenya and South Africa Porteous, proposes various interventions in enabling mobile banking. These include; there should be sufficient certainty around electronic contracting, customers should be protected against fraud and abuse and that interoperability should be encouraged through ensuring that providers have access payment platforms and that consumers are able to switch financial providers.

For the interventions to be transformational he also suggests that, account opening customer due diligence (CDD) procedures should be risk based and not unduly prejudice remote account openings by small customers. Furthermore the limits allowed in mobile transactions rarely constitute amounts that could be classified under money laundering. Customers should be able to at least make deposits and withdraw cash through agents and remote points outside of bank branches. He further advocates for adequate provision for the issuance of e-money by appropriately capitalized and supervised entities which are not necessarily banks as this may provide reach even to outlets in remote areas.

2.3.3 Current legal framework for branchless banking in Kenya

- Agents

Banks’ Use of Agents. In November 2009, Kenya amended the Banking Act to include Provisions on financial institutions’ use of agents to provide banking services. Prior to the 2009 amendment, the Banking Act did not specifically address the issue of banks using agents to carry out banking
activities, nor were there any regulations explicitly governing the outsourcing of functions by banks. Instead, CBK approved such arrangements on a case-by-case basis. The amended law\(^\text{16}\) establishes “agency” as “an entity contracted by an institution and approved by the Central Bank to provide the services of the institution on behalf of the institution, in such manner as may be prescribed by the Central Bank.”

- **AML/CFT**
  The AML act (2009) establishes the Financial Reporting Centre as Kenya’s Financial Intelligence Unit to receive and analyze reports of unusual or suspicious transactions, draft the regulations required there under, and generally work with other bodies to identify proceeds of crime and combat money laundering\(^\text{17}\). The Finance Minister is authorized to adopt regulations on various matters, including for identification and verification particulars and record-keeping requirements. The AML obligations under the AML act apply to financial institutions and designated nonfinancial businesses and professions.

- **E-Money**
  E-payment regulations, which govern e-money issuers, are linked to the National Payment System act. The primary regulator of e-money issuers and transferors is the CBK, according to the National Payment System act. The issuing of e-money by a licensed financial institution does not appear to raise any issues with CBK. With regard to nonbanks, CBK’s current approach seems to depend on whether the activities involved in e-money issuance fall under the definition of “banking business” in the Banking Act or “deposit taking microfinance business” in the Microfinance Act. A nonbank can avoid falling under the definition of banking business by not lending, investing, or otherwise


\(^{17}\) AML act, Part III.
placing at the risk of such nonbank institution the funds mobilized (i.e., the e-money proceeds)\textsuperscript{18}. The same applies to the definition of deposit-taking microfinance business, although the definition is less easy to interpret.

- **Payment systems**

  The National Payment System act 2011\textsuperscript{19}, states that anyone proposing to transact the business of payments shall apply to the CBK for authorization. This is done in a prescribed form together with the prescribed fee. The bank in consideration for authorization must be satisfied as to: 1) the financial condition and history of the applicant 2) character and adequacy of its capital 3) structure and convenience 4) the needs of the area to be served and 5) the public interest which will be served by granting authorization.

### 2.4 The technological paradigm of the Network Society

Mobile banking has been proposed as a promising trajectory in the effort to address financial inclusion of the poor and marginalized. Yet the genesis and underlying concepts facilitating this breakthrough constitute an important factor in understanding the activities taking place and the actual use of the products. According to Fischer (1991) technology is seen as a fundamental dimension of social structure and social change as it is defined as the use of scientific knowledge to set procedures for performance in a reproducible manner and it evolves interaction with other dimensions of society, with its own dynamics linked to the conditions of scientific discovery, technological innovation and application and diffusion in society at large. Financial exclusion is one condition the social has lived with for a long time and there has been a deliberate effort by human beings to find solutions to the problem. According to Gould, S. (1980) society is constantly seeking

\textsuperscript{18} Safaricom has avoided lending or investing proceeds from M-PESA

\textsuperscript{19} www.kenyalaw.org
solutions to issues that affect their day to day activities and in the event the current status does not address these issues effectively the quest for discovery is enhanced.

In this regard, dissatisfaction with the functionality of the Industrial revolution in addressing current societal issues led to the quest for a technological paradigm capable of addressing societal issues adequately. Informationalism, a technological paradigm that constitutes the material basis of early 21st century societies has replaced the Industrial revolution as the dominant technological paradigm. This new paradigm is based on the augmentation of the human capacity in microelectronics, software and genetic engineering (Castells, 2004). Computers and digital communications are the most direct expressions of the revolution. As information and communication are the most fundamental dimensions of human activity and organization today, a revolutionary change is the material condition of their performance that affects the entire realm of human activity (Castells, 2004).

Three specific features attributed to the new system of information and communication in relation to previous historical developments of information and communication technologies are:

1. Their self expanding processing and communicating capacity in terms of volume, complexity and speed.
2. The ability to recombine on the basis of digitization and recurrent communication.
3. Their distributing flexibility through interactive, digitized networking.

Digital technologies allow for an unprecedented increase in the capacity to process information, in volume, complexity of operation involved, speed of processing and communication. This is because
the history of electronics information and communication technologies in the past three decades show an exponential increase in processing power, coupled with an equally dramatic decrease in the cost per production; an indication of a technological revolution (Paul, D. 1975).

Consequently these technologies have the capacity to self expand their processing power because of their recurrent, communicative ability. This is as a result of the continuous feed back effect of technological innovation produced by knowledge generated with the help of the technologies; they hold emergent properties, i.e. the ability to derive new unforeseen processes of innovation by their endless reconfiguration (Johnson, 2001).

Digital technologies also have the ability to recombine information on the basis of recurrent interactive communication: hypertext. Internet has capacity to recombine in chosen time information products and information processes to generate a new output which is immediately processed in the net in an endless process of production of information communication and feedback in real time or chosen time (Castells, 2001, 2004). Recombination is the source of innovation and innovation is the root of economic productivity, cultural creativity and political power making. Whereas the generation of new knowledge always required the application of theory to recombined information, coming from a multiplicity of sources considerably extends the realm of knowledge generation. It also allows increasing connections between different fields of knowledge and their applications according to Kuhn’s theory of scientific revolutions (Kuhn, T, 1962). What is experienced in mobile banking is a combination of communicative (calls) text (SMS) and financial functions based on virtual accounts.
The third feature of the new information and communication technologies is their flexibility, which allows the distribution of processing power in various contexts and applications such as business firms, military units, the media, public services such as health and distant education, political activity and personal interaction (Castells, 2004). Software developments such as Java and Jini languages that power the distributive networks and wireless communication make the multiplication of points of communication possible almost at the level of each individual. It’s not a matter of the density of the network but its flexibility, the ability to be integrated in all sites and contexts of human environment (Mitchell, 2003). This has profound implications for the locations and spatial distributions of all human activities that depend in some way upon access to information which interacts with the traditional space of places so that the view of spatial structure associated with informationalism is not placeless but made up of networks connecting places by information and communication flows.

The fact that this feature accommodates people in their places makes it possible to tap the volumes from vast areas and eliminates exclusion of the un-banked due to inadequate infrastructure and other logistics. Each actor wherever they are located is able to be part of the system. However the capacity of any communicating subject to act on the communicating network gives people and organizations the possibility of configuring the network according to their needs, desires and projects. This again brings in the notion of differentiation, different players design products for the needs of their specific customers. Flexibility is a crucial facilitator of financial inclusion which is the main objective of this study. Target populations have been excluded due to logistical issues related to infrastructure, reach and business viability. With the new invention each person counts and their contributions however minimal can be tapped from their respective places and through a networked system pooled together
to constitute volume.

Besides digital electronics the second component of information and communication revolution is Genetic Engineering (G.E) whose consequences are far reaching compared to those induced by the digital revolution in the structure and dynamics of society; it affects the programs of life and the basis of existence (Castells 2004). G.E is an information technology focused on the decoding and actual programming of DNA, the coding of living matter. According to Fritjof, (2002), G.E. technologies are also characterized by their self expanding processing capacity, ability to recombine through communication networks and flexibility of their distributive power. The existence of the Human Genome Map and increasingly of genetic maps of specific parts of the human body as well as a number of species and subspecies raises the possibility of cumulative knowledge in the field of G.E. leading to the understanding of processes that were beyond the realm of observation. Better targeted, new, meaningful experiments become possible as knowledge progresses.

The promise of G.E is its ability to reprogram different codes and their protocols of communication in different areas of different bodies (systems) of different species. Transgenic research and self regenerative processes in living organisms are the frontiers in G.E. Just like Genetic drugs are intended to induce in the body the capability of self programming by living organisms is the expression of distributed information processing power by communication networks. In other words cells are defined in their function by their relationship to others. Their DNA structure is meaningless outside the context of their specific interactions. Therefore interacting networks of cells, communicating through their codes rather than isolated sets of instructions are the object of genetic recombination strategies. Possible recombination outcomes in this case become endless.
G.E embedded in the computer technology is also crucial in designing products that specifically suit the needs of a particular society. The ability to pick and combine what works for a particular situation is a necessary factor in addressing financial inclusion. Through this new paradigm exclusive business models i.e. the banks and the telecoms have been able to each pick suitable functionalities from their existing portfolios and together come up with a product that targets financial inclusion of the poor and marginalized.

2.5. The space of flows

An emergent functionality of the network society with profound implications on the workings and conditions of existence in mobile banking is what Castells calls the space of flows. Space, is an historical conjuncture and a social form that derives its meaning from the social processes that are expressed through it (Castells, 2004). Consequently historically, the only space that allowed for time-sharing was a place, that is, “a locale whose form, function, and meaning are self-contained within the boundaries of physical contiguity. However a new structuring is taking place. In this restructuring process a new material basis for time-sharing on which the dominant social processes are reorganized and managed through flows is taking place. That is, through “purposeful, repetitive, programmable sequences of exchange and interaction between physically disjointed positions held by social actors (Castells 2004)”

The fact that two actors can be in different places but share the same time indicates that the social reality of space has been transformed. A new kind of space must be present which brings those actors together in time without contiguity of physical space. Since time and space are coextensive, then the new space is fundamentally different from physical space, yet connected to it because actors
are physical beings (Castells, 2004).

This new space, the space of flows, does not replace the geographical space; rather, by selectively connecting places to one another, it changes their functional logic and social dynamics. For Castells, the emergence of the space of flows signifies, more than anything else that we have passed a historical watershed and have, indeed, entered a new era, defining the relationship between the different time-sharing practices with their distinct material foundations.

Castells differentiates between three dimensions that make up the space of flows: The first are the global information and communication infrastructures that enable real-time interaction across the globe. Importantly, this infrastructure does not just transport digital information around the world, but it is also the foundation of the accelerated movement of people and goods. This infrastructure creates potentiality. The ability to hook up to this infrastructure is the precondition for entering the space of flows. Disconnected from the technological networks, social institutions, places, and people are marginalized. The massive, material infrastructure of the space of flows is highly maintenance intensive and requires advanced knowledge and services to work efficiently.

Hence the network is not evenly distributed, but clustered in nodes and hubs, the second dimension in Castells’s model. In such places, multiple services are provided and consumed, thus creating critical mass for a self-sustaining ecology capable of continuously (re)producing the material basis of the space of flows. Castells points out that, depending on the types of processes managed in the space of flows, the geography and functionality of its hubs and nodes differ. Yet, in all of these networks, the most important nodes require a certain size without which it is impossible to manage
the intricacies of advanced processes that make up the space of flows.

Places play a central role, despite the placeless logic of processes organized within the space of flows. Thirdly the space of flows is the infrastructure of high-speed, high volume, high-precision communication and transportation, spanning the globe but clustered in specific places based on their ability to provide the resources relevant to advancing the networks’ particular programs. This placeless logic separates the space of flows, its physical nodes and the people operating them, from their geographic environment, the neighboring local population and their local cultures, in that two people can be living together in one place, but are not sharing the same experiences. Programs running on physical nodes (mobiles) may also be different as a result also influencing the kind of experiences for people in the same physical places.

Using these linkages, people are finding ways to enter the space of flows without leaving the space of places, or to be more precise, to go back and forth easily. Mobile technologies allow people to develop new spatial practices by coordinating each other, ad hoc, through the space of flows, congregating and dispersing in self-selected rhythms.

Within the space of flows, there are, in principle, only two states of distance: “here” and “not here,” presence and absence, no distance and infinite distance. It is this condition that allows nodes to flexibly connect within one another, no matter where they are located, because they are all “here” in the same time-sharing environment that is the space of flows. The connection between nodes, then, is dominated by functional considerations. However, as Castells stresses, “the space of flows is not placeless, the ability of a node to contribute to the program of a network is often directly related to
its location, but seen from the point of view of the network, nodes are differentiated.

2.6. The network society and its relevance to mobile banking

The knowledge society according to Stadler (2006) or Network society according to Castells (2000b) and Van Djik (2009), among other names is the society that engages in information technology as their mode of operation. Just like there was the industrial society associated with the Industrial Revolution, today’s society associated with information technology has its own genesis, dependent on spatio-temporal contexts. Naturally, there is a relationship between the historical process of production of a given social structure, and its characteristics. Throughout history it is observed that different forms of society came and went by accident, internal self-destruction, serendipitous creation, or, more often, as the outcome of largely undetermined social struggles. Societal dictates determine trends towards technological developments incidentally or deliberately (Stalder 2006).

So what is the network society? Castells (2000) defines it as ‘A network of interconnected nodes’ and a node as a curve which intersects itself. He further adds that connections between nodes are digital communication channels. To understand this definition Castells uses the Network Enterprise to demonstrate the meaning. The network enterprise is made up of simultaneously autonomous and independent components. It has defined goals and these goals continuously restructure its means (Castells, 2000). It is the unit, or actor of the network society. In other words network enterprises are not companies, they are independent units made up of various parts. Networks can be made up of any combination of large, medium and small firms, yet the common denominator is a horizontal organization throughout, meaning that large companies do not control smaller network partners (Castells 2004b). In effect the network society is characterized by a shift from vertical to horizontal business structures and the formation of the network enterprise is a result of this shift.
Manuel Castells has traced the birth of the network society through events in history. He attributes the rise of the network society to ‘… the accidental coincidence, in the 1970s, of three independent processes, whose interaction constituted a new technological paradigm, informationalism, and a new social structure, the network society, inseparably intertwined (Castells 2004b)’. These three processes were: the crisis and restructuring of industrialism and its two associated modes of production, capitalism and Statism; the freedom-oriented, cultural social movements of the late 1960s and early 1970s and the revolution in information and communication technologies (Castells, and Kiselyova, 2003).

In Castells theory the culture of freedom was decisive to induce network technologies that, in turn, were the essential infrastructure for business to operate its restructuring in terms of globalization, decentralization, and networking. Only then the knowledge-based economy could function at its full potential because data, minds, bodies and material production could be related globally and locally, in real time, in a continuous interactive network. From the interaction between three originally independent processes (the crisis of industrialism, the rise of freedom-oriented social movements, and the revolution in information and communication technologies) emerged a new form of social organization, the network society.

Technological revolution essentially receives the most significant treatment in the rise of the Network society, by the virtue of the description of the society, ‘Our society is characterized by the power embedded in information technology’ (Castells, 2004b). Just to relate his emphasis of the telecommunications technologies to mobile banking, first processing abilities increased in volume,
complexity and speed allowing communications to also increase, two, by going digital today’s technologies allow information to be recombined into new forms and new information and lastly digitized networking opens up new opportunities to distribute information in flexible and interactive ways (Castells 2004b).

These telecommunication technologies combined with the restructuring of capitalism paved way for the rise of the networking system of organization. Due to the improvements in technology people have begun to collaborate on a grand scale changing the way people interact with one another. In the new formation people are able to send digital signals from one part of the world at speeds inexistent in the past transcending the physical limits of space and time. This transcendence of space and time is the heart of the network society because by transforming the physical boundaries in the communication process, technology has opened new doors for collaboration affecting how people organize themselves and work. Castells 2000, p.214) writes,

‘For the first time in history the basic unit of economic organization is not a subject, be it
individual (such as the entrepreneur) or the collective (such as the capitalist class, the
corporation, the state). As I have tried to show, the unit is the network, made up of a variety
of subjects and organizations, relentlessly modified as networks’.

Castells does not claim that networks have just begun to exist, he claims that people always had various forms of networks, rather the new prevalence and prominence of the networks is what has changed; the privileged role networks are playing in the organization of the core processes of society.

Two features of the network society emerge from the telecommunication revolutions; the networks
are both global and self reconfiguring. The network society is a global society because networks are not limited to boundaries; not that they include all parts of the globe but rather are not limited or cut off from any area and are capable of a global reach (Castells 2004b).

It is important to note that in the network society there cannot be one single culture dominating because of the need for flexibility in the networks, further through self reconfiguration networks keep up with the pace of change in a highly technological society where communication and innovation occur at digital speed. Rather than operating under a dominant culture networks operate on the principles of network logic. The network logic is a binary logic based on the distinction between inclusion/exclusion (Castells, 2004b). One is either a part of a particular network or one is not. For those on the inside access to the rest of the network is equally achieved. For those on the outside, access is completely denied. However networked structures gain speed and flexibility but lose self sufficiency, independence and a share of their autonomy in the process (Castells, 2000). By opening up their innovation practices, large firms are no longer self contained and they lose some control over processes fundamental to their businesses.

Another significant contribution of Castells (2000) theory in Mobile banking is the conflict he attributes to the net and self. He describes this conflict as a fundamental, split between abstract, universal instrumentalism and historically rooted particularistic identities. The net according to Castells is the network logic and the prevalence of networks on the society while the self is the identity of a single actor whether individual or a group of collected individuals. Castells claims that the conflict lies in the fact that the net exists in the space of flows and timeless time while the actor on the other hand continue to exist in the physical places and everyday. Because of this actors are
separated from dominant practices of their society as the information age is increasingly organized around networks (Castells 2000). The result is that the actors or people feel disconnected from processes shaping the society in which they live. This leaves normal people feeling as though they live in an uncontrollable society and a perpetual state of disorder (Bakalar, 2008).

The impression that the network society is a meta-social disorder directed only by an uncontrollable, and nearly unintelligible logic permeates all actors in the network society but perhaps excluding actors based on their structures binary logic. The net is simply unable to absorb the majority of the world’s people into the power making aspects of its logic (Castells 2004a) as a result the disempowered people rebel against the system and its logic. If I could provide clarification in respect to this conflict, what has characterized the Kenyan mobile money industry is the fact that banks were caught off guard by the processes that were taking place in the network logic. While banks remained in their historically rooted, particularistic identities, they could not absorb the reality that the way of doing business had been altered altogether. The spirited resistance meted against the M-PESA product fronted by a telecom by banks is an example of what castells sees as a deliberate move to contradict the dominant logic of the network society. In his words Castells (2004a) says ‘the communal resistance takes the form of collective identities aimed at combating the network logic at the core of the network society’.

Another important contribution is that in the network society each element in the network can hardly survive by itself (Castells 2000) and networking is compulsory. Consequently it is also a reality that, ‘a single node cannot impose its diktat because the logic of the network is more powerful than the powers in the network’ (Castells 2000). No single node has the ability to set the networks course or
impose its own culture and personal goals upon the others sharing the network. In this way the logic of the network sets the rules of operation in the network. In close agreement with the Actor Network Theory, Castells (2000) trying to establish who holds the power in networks asks, ‘under these new technological, organizational and economic conditions who are the capitalists?’ He provides an answer by claiming that that there is no capitalist in the network society (Castells 2000) and further adds, to much agreement with the proponents of the Actor Network Theory in their ‘animate and inanimate’ action, that

‘Above a diversity of human flesh capitalists and capitalist groups, there is a faceless collective capitalist, made up of financial flows operated by electronic networks. This new agent is faceless, bodiless and inhuman. It is the financial flows circulating through out the network society’ (Castells, p. 505).

What Castells implies in this phenomenon is that flesh and blood capitalists whether individual or groups of individuals are pushed to the sidelines and are mere appendixes. They are not in control and they can only hope to ride the whirlwind to success, because there are other faceless capitalist who also have a part to play. In conclusion Castells (2000) writes ‘I suggest that the power holders are networks themselves’.

Just to hint further before turning to the analysis of the interplay of actors as provided for in the Actor Network Theory, which ultimately answers the question of stabilization sought in this study, Castells also asks, ‘ but do networks hold all of the power?’ in an attempt to provide an answer to his question, in his book, ‘The power of Identity ‘ Castells identifies networks as the dominating force in the network societies but by examining the interaction networks have with social movements, he implies that social movements also have some form of power in the Information Age. He defines
social movements as ‘purposive collective actions whose outcome in victory as in defeat transforms the values and institutions of society’ (2004a). The fact that the collective action of movements impacts values and institutions of society implies that they have power. Therefore networks do not hold all the power in the network society, they do hold an absolute monopoly but are constantly threatened by the power of social movements.

The explanation provided by Castells in regard to the centre of power in networks is the most cited criticism of the theory (Stalder, 2006, Bakalar, 2008). The same provides a conflict with the centre of power in the ANT as in ANT the power is in the network itself. In my opinion, since Castells attributes the ‘other’ power to the institutions of rebellion, then these institutions still remain outside the networks though according to him they can make networks not to thrive. The focus of the current study is stabilization of the networks in mobile banking. To avoid the debate that would require a different topic and to focus on the stabilization of the networks themselves, this study would choose to adopt the first power by Castells (2000) i.e. the networks, which is in collaboration with the centre of power in ANT. The power of the network is also instrumental in the establishment of stable relationships in mobile banking which is in the heart of this study.

Fundamentally this study seeks to stabilize mobile banking products for financial inclusion of the poor and marginalized and is therefore concerned with identifying actors, their roles and how these actors can align their interests to those of the collective benefits of the products. My aim of introducing the residence of power in networks is not to deviate from the core insight of this study, but to try and highlight the issues that could constitute an impediment to successful stabilization of mobile banking networks. While Castells would like to see social movements as another centre of
power in networks, this study would like to see this resistance as outside forces against the stabilization of mobile networks. Consequently as the next section of the study tries to understand network formation in mobile banking, it is then important to view the barriers to successful implementation\textsuperscript{20} of these products from the perspective of the flourishing of the networks against the power of resistance.

\textbf{2.7 The social and the technological aspect of mobile banking}

Having discussed the genesis and logic of the network society; the society engaging in mobile banking, we now seek a trajectory of understanding how the relationships identified in the network society i.e. the people, technology and the mode of production (represented by the organization) coexist. ANT introduced in chapter one addresses the actual rollout of mobile banking products creating a natural link of actors identified in the Network Society and the roles played by those actors in the rollout of mobile banking products. ANT is an umbrella theory that blends technology and society in a practical perspective and in effect the context in which mobile banking takes place and afforded this study an opportunity of identifying and addressing issues of effective financial inclusion of those that lack it.

\textbf{2.7.1 Theories addressing technology and people}

Information studies have attracted various theories in its analysis. Some of the theories that have been used include:

Hebarmas Theory of Communicative Action (Gustavsen and Engelsad 1990) has been proposed as a suitable theory for understanding structure and agency in IS studies. According to the theory actors in society seek to reach a common understanding and to coordinate actions by reasoned argument, consensus and action strictly in pursuit of their goals reason and the rationalization of society

\textsuperscript{20} Seen as the second centre of power by Castells
(Herbermas, 1984). While this theory allows for the explanations of the emergent actions of the humans in the mobile banking scenario it is silent on how to handle the functions played by technology and further besides explaining how and why we have the technologies we have today, the theory cannot go further to explain the relationships in mobile banking and how these relationships can be reinforced for the stability of networks formed.

The problem of how to conceptualize and account for the relationship between on the one hand Information Technology (IT) development and use and on the other hand organizational changes is complex because of the interwoven and dynamic nature of the relationships. This study required a thematic representation of each of the two main aspects i.e. technology and social without being deterministic.

The focus of the study requires that technology and social be treated as equals. This is already preempted by the case at hand. The coinage of the name; mobile banking is both technical and social. Mobile refers to the technology in the product while banking is purely action undertaken by the social. Two theories have been extensively used to analyze this dual relationship. The two are Structuration and the Actor Network Theory. As introduced in the Literature review, this study used the Actor Network theory to gain understanding of the concepts delineated in this study. However Structuration has been used extensively in the study of Information Systems and it would be unjust to dismiss the theory in the analysis of the study at hand without a justification. This study therefore seeks to justify the choice of ANT in the quest to stabilize mobile banking products by first describing the Structuration Theory; drawing upon its key concepts, ideas, terms and then highlighting the main reasons why ANT stands superior in the study of the stabilization process of
mobile banking.

2.8. A Critical analysis of Structuration Theory

Developed by Anthony Giddens in 1984, Structuration is a means of breaking out of the unsatisfactory dualism of action and structure and also that between individual and society. His aim was to integrate the two opposing strands of social thinking: Structuration and functionalism. According to Giddens (1984), structuration was strong on agency and weak on structure while functionalism was strong on structure and weak on action. He posits that what should be emphasized is on the understanding of how the social practices are ordered across space and time. He recasts structure and human agency as the duality of structure and action in that social structure is drawn upon by agents in their day to day actions and is therefore produced and reproduced by this action at the same time action is both constrained and enabled by structure and structure itself can only be constrained through action.

i) Key elements in the theory

Structuration

One of the main tenets in Structuration theory is that human social activities are recursive; meaning that human beings are purposive agents having reasons for their activities and being able to elaborate discursively upon these reasons. These actions are not a series of separate intentions, reasons or motives but are a continuous flow of conduct as does human action. What Giddens means is that humans have a purpose for every action they do, and as long as people are human beings they cannot live but act in space and time and the spaces they create reflect and shape social life in totality (Stalder, 2006).

Agency

Giddens (1984) views agency as the capability of people in doing things. Agency implies power and
power plays a central role in the exploration of resources, it is inherent in social actions and relates to domination involving resource authorization and resource allocation. Authoritative resources derive from the coordination of the activity of human agents while allocative resources stem from the control of material products of the natural world. Gould, S. (1980) puts it in simpler terms,

‘Society is constantly seeking solutions to issues that affect day to day activities and in the event the current status does not address these issues effectively the quest for discovery is enhanced’.

Structure

According to Giddens (1984) structure is better understood as normative elements and codes of significance, in other words they shouldn’t be seen as a thing or object of some kind (Orlikowski 1992) but as rules and resources recursively implicated in social reproduction. Rules serve to constitute meaning in a context and to sanction conduct of the human agent (Giddens 1984). Apart from engaging in these rules to understand the circumstances or to determine how to act the agents’ ability to act depends on resources.

Duality of structure

Giddens (1984) argues that structure consists of rules and resources that are created through actions of individuals through practices and routines. In this Giddens means that human action is enabled and constrained by structure but structure is also the result of human action. The duality in structure is the manner in which action and structure presuppose each other. The structural properties of social systems are both medium and outcome of the practices they recursively organize (Giddens, 1984). Following the exploration of duality of technology Giddens (1995) and Orlikowski & Robey (1991) argue that while humans develop technology, technology affects their activities; while individuals design technologies to enable new actions these technologies constrain their actions.
ii) Main ideas of the theory

Structuration theory implies that social inquiry shouldn’t give prominence to either the individual experience of actors or the social totality but rather focus on social practice that lies at the root of the constitution of both the individual and society.

Social practices are created by knowledgeable agents with causal powers i.e. powers to make a difference. Instead of viewing human agents as cultural robots or the product of class forces, focus should be directed on their capacity for self reflection in day to day interaction demonstrating their consciousness of what they are doing and their ability under certain circumstances to do it.

Social practices are not random or voluntary but ordered and stable across space and time, routinized and recursive in producing social practices. In producing social practices which constitute society actors draw upon structural properties which themselves institutionalize features of society.

Structure is actively depended on both medium and outcome of practices across time and space (Giddens 1984). People create society and at the same time they are constrained by it.

Technology does nothing except as implicated in the actions of human beings (Giddens & Pierson, 1998) and only become resources when incorporated within processes of structuration. In other words Structure is in the minds of social actors and only given substance through their actions.

Structure is not simply constraining but also enabling and that except in situations where they have been manhandled by others, human agents always have possibility of doing otherwise (Giddens
Thus the seed of change is there in every act which contributes towards the reproduction of any ordered form of social life and power is only effective to the extend that actors subject to it allow it to influence their action.

iii) Criticisms of the theory

Archer (1982) argues that the problem of reducing structure to action and vice versa in the treatment of agency and structure weakens the analytical power of ST. Further conceptualization of Structuration roles and resources existing only in memory traces has also led to criticisms of subjectivism.

In IS studies the limitation of Structuration is that it does not allow for the examination of the relationship between people and technology beyond the recognition that technology both enables and constrains action. Structuration as a theory is more of a social organization that explains change and stability in a social system over time. In fact Gregson (1989) describes ST as a second order theory concerned not with theorizing the unique explanatory events but with conceptualizing the general constituents of society. It does not directly address how power and values are embodied and found in the use of technology. It is not also able to unpack how technology regulates people and how people react to technology. It is a way of thinking about the world rather than as an empirically testable explanation of social behavior. This leads to Monteiro and Hanseth (1996) to argue that Structuration simply does not provide a fine grained analysis of the interaction between individuals and technology for its relative neglect of technology. For Giddens (1984) structure does not exist in material artifact such as technology but in human memory traces and is seen to be enacted through social practices. Jones & Karsten (2003), Giddens & pierson (1998) also argue that technology does nothing except as implicated in the actions of human beings.
Monteiro & Hanseth (1996) also clarify that the neglect of technology does not mean that Structuration cannot deliver a satisfactory level of precision, but what is missing are concepts that allow the interrogation of the relationship between the individual and technology, concepts found in ANT which is concerned with interactions between technology and individuals. Various researchers Hanseth (2004), Monteiro (2000) concur that ANT contains a wealth of concepts for understanding the relationship between technology and individuals such as actors, networks, the processes of inscription and translation.

Giddens (1983) dismisses use of the theory as a concrete research program because it does not supply concepts useful for actual prosecution of research. Giddens (1990) also criticizes those who have attempted to import Structuration in total to their given area of study preferring those who use concepts of it either in the logical framework of ST or other aspects of his writings sparingly and in a critical fashion adding that Structuration can be used to provide an explication of the logic of research into human social activities and cultural products (Giddens, 1991).

2.8.1 Justification for use of ANT

Although ST can be used to understand the context of use of mobile banking products and in effect the stabilization process for financial inclusion of the poor and marginalized the theory has a strong tendency to neglect the role of technology in the social context. As indicated earlier the product of study (Mobile banking) suggests that both technology and social be accorded implied equal status as none of the two words i.e. mobile-technical and banking – social determine the other; there is no boundary in the constitution of the product. The contextual use of mobile banking has both technical and social merits at the same time and it may be appropriate to overcome the distinction between
social and technical for better understanding. ANT particularly stands out from the rest of the theories for the fact that neither the inherent properties of technology nor the properties of the social context drive the success or failure of the implementation of mobile banking rather the associations that exist and are created between the technology and its surrounding actor’s i.e. actors that are both technical and social. ANT proposes a new translation which focuses on associations rather than properties which is a radical deviation from ideas proposed in Structuration.

The radical deviation focusing on associations is particularly ideal for this study as the greatest interest is to gain an in depth understanding of why various mobile money products do not seem to attain significance in uptake and use through a thorough analysis of all contextual factors (environmental, technical, social, regulatory or organizational). This particular treatment of actors has a significant appeal of understanding the contextual use of mobile banking and in effect inform on an effective trajectory for implementation that can guarantee uptake and use by the targeted populations.

ANT proposes to treat all actors the same way based on three principles (Callon, 1986):

a) Agnosticism- researcher abstains from censoring actors human or inhuman i.e. to be analytically impartial

b) Generalized symmetry- explains conflicting viewpoints of different actors in the same way. It does not advocate in the change of register in the explanations attributed to actors affiliated to either the social or the technical.

c) Free associations- abandon all previous distinctions between natural and social i.e. all should
be accorded the same status.

Law (1999) and Callon (1993:183) state,

‘ANT was developed to analyze situations in which it is difficult to separate human and non humans and which actors have variable competencies’.

Hanseth and Aanestad (2004:117) in the introduction of a special issue of ANT in IT and People Journal emphasized the superiority of ANT over ST in analysis of technology,

‘ST approach has been picked up by a vast number of scholars and a wide range of studies have been carried out. These have given many valuable insights into social processes related to adoption and use of Information Systems. There is one aspect of these studies that is of crucial importance here that relates to the role of technology in these studies as well as other theories for both ST and Institutionalization. The studies of IS based on these studies do not address the role of technology in a proper way. This fact is largely a consequence of the fact that these theories totally ignore technology. This makes ANT different and in this respect ANT offers some unique and very important contribution to information systems’.

2.9. The Actor Network Theory (ANT)

Evident from the studies on mobile banking products rolled out and those that advocate for strategies of deployment is the fact that mobile banking takes place under the influence of a wide range of surrounding factors. The actor Network Theory affords this study the opportunity to understand the major methodological trap that lurks beneath the attempts to conceptualize processes that come into play in the event of technological and social change. The search for the ultimately determining instance (Fredrick, J. 1995). This instance is most often looked for in the dichotomy of society and technology.
Approaches that lean towards society begin with the assumption that technology and its resulting consequences are planned and inaugurated by social actors’ usually large institutions pointing to the social construction of technology being purely social the most extreme of the spectrum being social determinism. Those that lean towards technology assume technology develops according to its own internal necessity and out of dynamics beyond human control the extreme spectrum in this instance being technological determinism (Stalder, 2006). What characterizes the two models is a clear distinction between society on one side and technology on the other. The question that follows this description is whether technology is constructed of society or society made of technology? In an attempt to address this issue the ANT\textsuperscript{21} approach has been developed to look at social and technological development together. The theory’s aim is to describe a society of humans and non-humans as equal actors tied together into networks built and maintained in order to achieve a particular goal (Callon and Latour 1991). This theory stresses the fact that these networks do not act in isolation but are built in and have to be maintained in order for goals to be achieved. There is effective cognizance of the role of each actor in the execution of defined mandates in the network.

According to Bruno (1993), the ANT attempts to overcome the major shortfall of slicing of a continuous hybrid reality into analytical domains. According to Bruno the epistemology of modernism\textsuperscript{22} and extended by postmodernism\textsuperscript{23} is artificial because technological reality is simultaneously real like nature, narrated like discourse, and collective like society.

\textsuperscript{21} This approach is prominently associated with the two French sociologists Bruno Latour and Michael Callon at the Ecole Des Mines in Paris.
\textsuperscript{22} Modernism divided nature and society into two incommensurable poles. Nature was only observed, never man made; whereas society was only made by humans only. Language was used to connect the two poles allowing humans to make stable references to either one of them.
\textsuperscript{23} Postmodernism declared language referred to in modernism as autonomous increasing the separation of nature and society.
The ANT methodology is appropriate in the analysis of the set of negotiations that describe the progressive constitution of a network in which humans and non-human actors assume identities according to prevailing strategies of interaction. In order to address the objective of financial inclusion by the mobile banking product, it is important to understand what elements are involved and how these elements map out their coexistence. In ANT, the actor identities and qualities are defined during negotiations between the representatives of human and non-human actants. At the initial stage, the focal actor representing the innovation, like Equity agent, has to identify crucial associates in order to execute the product. Even before trials, there has to be effective legislation to ride on, the telecom company to provide the infrastructure and a technological device for the transactions. The representation by these players involves delegation. A translation of these negotiations addresses three aspects of the nature of the interaction:

1) Construction of common definitions and meanings – the product execution must be of relevance to the actors approached.

2) Define the representativities – the specific role of each actor approached must be spelled out. This spells out the functions of the actors in the execution of the product. Banks to offer float balancing, telecoms to provide the network infrastructure, regulatory authorities to provide laws of operation, users to perform transactions and system operators to ensure programs work effectively and efficiently.

3) Co-opt each other in the pursuit of individual and collective objectives – there is an agreement of the benefits to each actor at an individual level and at a collective level and consensus has to be reached on what each actor gets then follows the agreement in partnership. Users must be clear of accrued benefits, banks and telecoms must map out profits for the company and other benefits, agents must consent on commissions to be earned and regulatory authority
must achieve its objective for co-option to take effect.

The ANT is a systematic way of bringing out the infrastructure that is used in the deployment of technological products. Actor Network is the act of linking together all influencing factors technical and non technical. ANT takes the distinction between subjects and objects, the subjective and the objective. The actant is both human and inhuman. The actants are defined relationally as arguments or functions in the network and not that humans and non humans are treated symmetrically. ANT is based on the stable theory of the actor; it assumes the radical intermediacy of the actor. Neither the actor’s size nor its psychological make up nor the motivations behind its actions are predetermined. In other words actors in a network function as per definitions of that particular network, and the functions only measure up to the definitions of the network. Usually actors may be in different networks and their roles are independent in each network. This opens up social science to non humans as actors do not have to exist in themselves prior to any participation in eco-social and semiotic networks of interactions.

ANT’s methodology embraces scientific realism, social constructivism and discourse analysis units central concepts of hybrids that are simultaneously real, social and discursive. The theory derives from it refusal to reduce explanations to natural, social or discursive categories while recognizing the significance of each (Latour, 1993). The stability and form of artifacts should be seen as a function of the interaction of heterogeneous elements as these are shaped and assimilated into a network. Emphasis here is of that relationships are constructed at the time of the network formation. Each end product is described from the perspective of actual actors in the network.

24 The criticism of this theory is embedded in the positivist view that objects or actors exist in themselves prior to any participation in ecosocial and semiotic networks of interactions including the interactions by which they are observed or named.
Demonstrating with the mobile banking products, each process of deployment must be guided by its specific construction. Besides lessons learned from similar products, there is no guarantee that an extensive study of a product like M-PESA which is the only successful mobile money product world over would be an instant success story in another environment. The stability of every product is dependent on the specific interactions of heterogeneous elements shaped and assimilated into a network. To further illustrate, influx of interested parties into Kenya from other countries to study M-PESA would only yield vital lessons and not the actual strategy of deployment of similar products in their countries. Deployment of products begins with an intention, and then construction and lastly deployment all guided by specific needs informed by gaps in a specific social setup. The interrelationships that emanate in the formation of various networks are what have to be stabilized through problem specific translations. It is the process of nature/society construction that results in the stabilization of a strong network (Latour 1992a) and by using the actor network\textsuperscript{25} to study the context of use in mobile banking it is possible to understand the simultaneous construction of culture, society and nature. Reality is studied as transitional in its becoming and as trajectories of creation and the idea of becoming and change is the central methodology in this study.

A network ties together two systems of alliances:

a) sociogram: everyone who is involved in the invention, construction, distribution and usage of an artifact.

b) Technogram: all the pieces that were already onstage or had to be brought into place in order to connect the people.

\textsuperscript{25} Society and nature are seen as one in the network and studied together as both are results of science and technology making.
While the two levels are separated analytically they are highly interconnected and a change on one level simultaneously changes the other. Each alteration in the technogram is made to overcome a limitation in the sociogram and vice versa (Latour, 1987). The actor and the network are mutually constitutive. An actor cannot act without a network and a network consists of actors (Callon, 1981).

The size or importance of an actor is dependent on the size of the networks he/she/it can command and the size of networks depends on the number of actors it can align. Since networks consist of a large number of actors which have different possibilities to influence other members of the same network, the specific power of an actor depends on the position of his/her/its network. For example taking the four telecommunication companies in Kenya we could ask: how many subscribers does/can each align themselves with/ or how many agents would want to get on board to offer mobile banking services for any?

2.9. 1. The Dynamics of actor networks

In the dynamics of networks, there are three analytical stages a network may undergo during a lifetime:

a) Emergence.

Networks are put into place by actors. Since there is no actor without a network, new actors emerge form existing ones. The attempt of an existing actor to grow and include new domains is the starting point in the emergence of a network. Networks allow actors to translate their objectives, be it conscious human choice of prescription of an object, into actors and adding the other actors’ power to their own. Through negotiations, intrigues, calculations, acts of persuasion and violence an actor is conferred authority by the actors to act or speak on behalf of others (Callon, Latour, 1981). Translation is the creation of actors and the process consists of four major stages (Callon, 1986):
a) Problematization- this is the first moment of translation during which the focal actor defines identities and interests of other actors that are consistent with its own interests and establishes itself as an obligatory passage point, thus rendering itself indispensable. It is the stage and process where the focal actor sets to recruit others to partner in offering the product.

b) Interessment- this is the process of convincing other actors to accept definition of the focal actor. It involves the recruitment of actors. Key actors build interest and lock key allies in by finding ways to formulate the problem or solution in such a way that key allies will associate with their own interest with the formulation.

c) Enrollment- this is the moment that actors accept the interests defined by the focal actor. Problem or solution is enacted as an accepted fact. The problem or solution is legitimized by controlling or influencing the production of facts by using allies and spokespersons and by inscribing problems or solutions in the organizational memory.

d) Mobilization – At this stage the actors are already enrolled and the solution gets wider acceptance. Compliance is ensured by monitoring the network and addressing descent as and when it arises. The key actors use the stability in the network to enact solutions.

Networks emerge and are shaped by aligning more and more actors (Latour, 1992). Actors are isomorphic; their size and shape is not priori but the result of long development. Large networks are those networks that have translated others and have therefore grown. Some networks are so large that they appear to be independent of actors, this is a misconception, though they seriously can constrain the range of action for some actors, they will always need actors. It would seem as though Safaricom’s dominance in mobile service would make subscribers feel insignificant, but the truth is that every subscriber is of value to the stability of the network.

b) Development
A network can develop into different directions, towards convergence or towards divergence. Adding actors to a network increases their divergence. There is the mutual shaping between a new actor and an existing network. In the end neither the network nor the actor now included remains the same. The changes can be so subtle that they are negligible or massive for either or for both of them.

According to Latour, (1992) the translation process always has a direction; the focal actor translates other actors i.e. the focal actor recruits other actors it deems fit for the common undertaking. This means that the focal actor assumes the function of the translator through problematization, interessment, enrolment and mobilization. However, the focal actor is not completely free in how it translates the actors because these actors are never independent or undefined but always already part of other networks which define the possibilities of what they can be translated into. In this process, the focal actor might have to alter itself in order to translate other actors more successfully or the translation might result in different effects on the actors than what the focal actor expected. Translation is at the beginning always an attempt which might or might not be successful.

For networks to operate successfully, the circulation of intermediaries needs to be coordinated. This means the included actors do not, or may only to a limited extent, contest their own translation. Actors thrive towards an internal agreement which allows for an optimal circulation of intermediaries, because their strength depends on the coordination within the networks. In networks where actors have successfully converged, the network as a whole stands behind any one of the actors who make it up. Actors do not necessarily need to be successful in their attempt to optimize the circulation of intermediaries. The translation process can be denied.
The way agreements can be reached, the scope of translations possible, shapes the form of the network. The stronger the coordination of the circulation is, the more the different elements are aligned, and the more stable and predictable it becomes (Callon, 1992). The more stable a network is, the better it defines its components, the smaller is the leeway for other networks to untie the connections in order to redefine the actor for his/her/its own purposes. The setting becomes a black box. The black box is not permanent and needs to be reinforced through intermediaries, however if the translation process is denied and actors leave, circulation of intermediaries becomes difficult and alignment becomes weaker and weaker, actors begin to diverge and the setting disintegrates.

c) Stabilization

An actor network thrives for stabilization because none of the entities which make it up would exist without that network in that form. It is therefore the interest of all actors in a particular network to stabilize the network which guarantees their own survival. The stabilization of a network depends on the impossibility it creates of returning to a situation in which its current form was only one of possible option among others. The interpretive flexibility diminishes. Once forged into an artifact, embedded social relations remain stable as long as the artifact is used.

Explaining the mismatches in networks and in effect answering the main question in this study Latour (1992) says that technology and society are not two ontologically distinct entities but more like phases of the same essential action. He concludes that if we display a techno-socio network defining trajectories by actants’ associations and substitution, defining actants by all the trajectories in which they enter, by following translations and finally by varying the observer’s point of view—there is no need to look for any additional causes. The explanation emerges once the description is saturated. If something is missing it is because something is missing. In other words if we identify
the actors in mobile banking, the roles assigned and how they perform the roles and interests in a network together with an informed view of the network, issues related to performance or stability of the network can be defined. A network will thrive or tumble depending on the relationships developed.

Heterogeneity is also central to stability of a network. The more diverse elements are interrelated, the more complex and stable a network becomes, because each element is kept in place by different elements. In order to disconnect an actor from a network many connections have to be untied. Heterogeneity and size are also related. The larger it becomes the more heterogeneous it becomes because it develops additional elements just to keep all elements in place. Large organizations are up and about creating products in order to add value to their network actors. The actors are entangled in a myriad of associations within the network such that it becomes difficult to leave. For instance if one is a Safaricom subscriber, one is able to access a product like M-PESA to transfer money and also access bank accounts, one is able to pay bills, save money, the card is also internet enabled amongst other added values. Besides retaining those that are part of the network new ones are also created and others integrated.

2.9.2. Network formation in mobile banking

Methodologically, ANT approaches “science and technology in the making” as opposed to “ready made science and technology” (Latour 1987). Mobile banking is a highly heterogeneous relationship where various actors come into play. ANT sets out to “follow the actors”; the various elements involved in the network. The reference as a network is because the bank, the regulator, the telecom, the agents, the users, the mobile phone, the tariffs, the system capability, customer preferences and accessibility all play a role in the success of the diffusion, adoption and use, including some who
may emerge and disappear long before a recognizable network is finalized

ANT looks to the network builders also referred to as the focal actors as the primary actors to follow and through whose eyes they attempt to interpret the process of network construction. Differentiation begins to occur. Identification of who the focal actors are, what power to network they posses, who can they rally behind them is crucial in mobile banking for critical mass. From this perspective, ANT attempts to “open the black box” of science and technology by tracing the complex relationships that exist between governments, organizations, technologies, knowledge, texts, money and people. These connections result in science and technology, and by examining them it becomes easier to describe why and how we have the science and technology that we do therefore rejecting a linear model of scientific and technical change and with it any hint of social, technical or scientific determinism, reductionism or autonomy.

Besides cognizance that there exists no boundary between social and technical ANT further includes distinct qualities and characteristics that make it a unique approach in and of itself. An actor-network is simultaneously an actor whose activity is networking heterogeneous elements and a network that is able to redefine and transform what it is made of” (Callon, 1987). ANT also distinguishes itself from other socio-technical approaches by considering both human and non-human elements equally as actors within a network. In other words, the same analytical and descriptive framework is employed when faced with a human, a text or a machine.

An actor in ANT is a semiotic definition ; that is something that acts or to which activity is granted by another; an actant can literally be anything provided it is granted to be the source of action”
This ontological leveling, although philosophically radical, derives from empirical observation of activities in labs, research centers and field tests where texts, technologies and humans all play equally important roles in the construction of actor-networks (Callon & Latour 1981; Latour 1987; Law 1994).

The primary concern is not to map interactions between individuals but to map the way in which the actors define and distribute roles, and mobilize or invent others to play these roles” (Law & Callon 1988). To do this ANT studies associations between heterogeneous actors - associations that are proposed and attempted, failures or successes. These associations, in turn, can be used to describe how networks come to be larger and more influential than others, how they come to be more durable through enrolling both social and material actors, and where power comes from and how it is exerted. Power (or lack thereof) and connectivity are intertwined then, to speak of one is to speak of the other. We should not ask if this network is more powerful than another; rather, we should ask if this association is stronger than another one. Any actor-network then is the effect, or result, of the connections that constitute it.

This idea of a heterogeneous, or socio-technical, network can subsequently be used to describe everything. This is another of the radical moves that ANT makes: arguing that everything – people, organizations, technologies, nature, politics, social order(s) are the result, or effect, of heterogeneous networks. This has two significant consequences. First, the social world is neither entirely social nor inevitable. Any kind or form of social ordering be it work, economics or education is the effect of the associations within a heterogeneous network. Even people are the effect of a heterogeneous network. Thus, for ANT there are no causes, only effects. There are no essences, only heterogeneous networks.
networks.

Second, the division between micro and macro actor-networks is not to be assumed present. There are, obviously, differences between the two; but, like the analytical and conceptual symmetry between the social and the technical, ANT turns away from conventional distinctions and dichotomies. Thus we do not reify those who are successful while obscuring the methods by which such large-scale social control is achieved and precariously maintained (Law 1986, Callon & Latour 1981). For ANT, to study any type of organization, social order, technical innovation or scientific discovery is to study the connections between heterogeneous actors enrolled within a network. If we assume size and power without explaining how it is performed and made durable we miss out on explaining how it is that the socio-technical world we inhabit is performed.

To further exemplify the relevance of ANT in analyzing uptake and use of mobile banking products for financial inclusion of the poor and marginalized, three concepts unique to ANT are illustrated: 1) Black-Boxes/Punctualization; 2) Engineer-Sociologist/Heterogeneous Engineer; and, 3) Translation/Delegation.

- **Black-Boxes & Punctualization**

Adapted for technology studies, a black box is a technical artifact that appears self evident and obvious to the observer (Latour 1992). Opening the black box of technology leads the way to an investigation of the ways in which a variety of social aspects and technical elements are associated and come together as a durable whole, or black box. Every element in a network constitutes its own independent network. A phone for instance depends on electricity or credit to function, the owner uses it, the engineer is responsible for its assembly but it is referenced as a black box for it is a unit
Punctualization refers to the process by which complex actor-networks are black boxed and linked with other networks to create larger actor-networks, “the process of punctualization thus converts an entire network into a single point or node in another network” (Callon 1991). However all black boxes are “leaky” (Callon & Latour 1981) meaning that there will always be competing ideas and initiatives that seek to open black boxes that have been punctualized within larger actor networks. Punctualization is always precarious; it faces resistance, and may degenerate into a failing network. On the other hand, punctualized resources offer a way of drawing quickly on the networks of the social without having to deal with endless complexity (Law 1992). What is important to note is the fact that black boxes are not permanent. It is prudent therefore to establish ways of reinforcing relationships in mobile banking that will ensure sustenance of various black boxes.

ANT approach is curious about how actors and organizations mobilize, juxtapose and hold together the bits and pieces of their composition. Law (1992) is also interested in how they are sometimes able to prevent those bits and pieces from following their own inclinations and making off and how they turn a network from a heterogeneous set of bits and pieces into a punctualized actor. Latour (1987) describes five (5) alternative stages for enrolling others into the punctualization or creation of black boxes:

a) To appeal to others explicit interests (I want what you want)

b) To get to the others to follow our interests (You want what I want)

c) To suggest a short detour (I will take care of your interests if you follow me)

d) To reshuffle interests and goals by tactics such as inventing new goals and inventing new
groups (We all want this)

e) By becoming indispensable to others (You need me to get what you want)

- **Engineer-Sociologist/Heterogeneous engineering**

In order to address the formation of a working relationship, it is important to find out who the innovators are? Which actors to follow? And, what to look for? ANT seeks a symmetrical account of the social and the non-social in describing how and why we have the technologies we do, In explanations of technological change the social should not be privileged as other factors natural, economic or technical may be more obdurate than the social and may resist the best efforts of the system builder to reshape them. Other factors may, therefore, explain better the shape of the artifacts in question and, indeed, the social structure that results (Law, 1987). The main point to note in this regard is that technology is constructed to address a particular social need. For mobile banking to achieve any success, the innovation besides being technologically determined is specific to the social need it’s designed to address. The technology is from scratch socially influenced.

- **Translation/Delegation**

In the description of ANT, three aspects stand out: that ANT focuses their attention on technical black boxes, how they conceptualize the emergence of these technologies (heterogeneous engineering) and who initiates these technologies (sociologist-engineers). However conceptualization of what actually occurs during the process of technical innovation provides insight into the usability and/or value addition to the user. Translation provides this conceptualization. In the methodology detailed thus far, technology cannot be presupposed as an autonomous thing that exists outside of the social world. Technologies contain a variety of political, social and economic elements as well as science, engineering, and the particular histories of these practices. Translation “appears as the process of making connections, of forging a passage between two domains, or simply as
establishing communication” it is “an act of invention brought about through combination and mixing varied elements” (Brown, 2002).

Banks and telecoms have existed as independent entities but now new relationships are coming into being and the existence of this relationship has to be described. If there are countless entities and meanings built into technology, translation is the process by which these elements are related in a socio-technical network, the process by which “the identity of actors, the possibility of interaction and the margins of maneuver are negotiated and delimited” (Callon 1986; Callon 1981; Latour 1993). By not abiding by the distinctions that isolate seemingly dissimilar aspects of technological development, ANT is able to focus on the numerous moments of translation as they are enacted in the process of building the socio-technical. Translation is therefore a complex exercise where a technological artifact is availed in a manner that persuades the user to consider using it to solve a certain need. Persuasion will involve an understanding of the specific role to play in the network.

ANT provides a research trajectory that can reveal complexities and contingencies that describe mobile banking uptake and use and in effect explore translation options that can ensure successful financial inclusion of our target population. This framework is therefore sufficient in the study of the context of use of mobile banking.

2.9.3 Inanimate actors.

ANT has distinguished itself as a deviation from other deterministic perspectives like the Technology Adoption Model (TAM) and Theory of Reasoned Behavior (TRA) as a useful theoretical framework for understanding the relationship between technologies, the social actors and the patterns of use that stem from the interplay. Yet the non human agency is not devoid of debate
(Collins and Yearly, 1992). Consequently it is the idea of the inanimate actors that differentiates the ontology of ANT from the interpretivist lens that has been used in IS studies. The recognition of the role played by technology also puts IS studies in perspective as the interpretation of IT is skewed towards technology. It is therefore imperative for this study which has benefitted from the giving of actionable power to non humans to shed light on how non humans create reality because they too have agency.

Barley (1996), highlighting the inadequacies of Giddens (1984), structuration theory recognizes that, ST is used to describe the ongoing effects of organization, institution settings behaviors and the new technologies. It takes to consideration one aspect of the interplay; the process of social construction of technologies and their characteristics in the understanding of social context and therefore fails to recognize that the characteristic of the object/technology is also an essential element to consider when trying to understand possible ways it can be shaped.

So what is the position of non human actants particularly technology in the ANT framework? Rose et al, (2005) argue that technology does not have the capability to decide what actions to take outside those parameters established by their designers. They also argue that the ANT framework does not also treat technology and its other non human allies and human agency as equivalent, because technology doesn’t have the capacity to reflectively evaluate its own purposes and actions of others in an autonomous fashion unlike human agents. While humans can interpret the meaning of technology, technology does not have the ability to interpret human action. Humans can also direct towards achieving certain outcomes despite actions being prone to unintended outcomes. In response to these arguments Callon, (1995) explains how agency is an emergent property because by
themselves things do not act, he clearly states,

‘Indeed there are no things by themselves, instead there are relations, relations which sometimes makes things’.

This is the main argument of both the strongest realist overtones of ANT and how this is possible because of actant agency rather than just human. Non human agency is possible because of the asymmetry role of ANT (Callon, 1986), ANT doesn’t recognize the dichotomy between human and non humans. Reality is understood as a heterogeneous network of relations, these relations perform and it is in their performance that creates agency.

An actant is any entity capable of being. ANT poses ontological questions in the effect that human beings have always been known to exclusively have the capability of performing actions. On the contrary in ANT anything that participates in a network has the capability of contributing to the survival of the network. Any weakest link whether animate or in animate can cause the tumbling of a large network. In this respect therefore actants in mobile banking products are anything animate or inanimate that contributes in one way or another in the keeping of the network in operation.

In this perspective ANT does not only propose a new way of questioning reality but also introduces a new way of conceptualizing the understanding of reality (Latour 1999b). Stalder (2000) also argues that reality does not exist per se but takes that the making of reality is realized through the interplay between different actors both human and non human with equal constitutive characteristics.

2.9.4 Critiques and limitations of ANT

Just like any other theory ANT has attracted various limitations and criticisms. Among them include:

The theory has been criticized for neglecting the macro social structures and focusing on the local
contingencies, how to relate the local and global. However the proponents argue that the macro can be investigated with the same methodological tools as the micro level since the macro structure of society is made of the same stuff as the micro structure (Latour 1991). ANT allows movement between levels of analysis. Latour (1999) denies a difference between macro structures and micro interactions.

‘ANT has a scalable notion of actors. Macro actors are micro actors on top of many leaky black boxes. If one opens one finds an actor network’.

To Latour the difference between network and actor are two faces of the same phenomenon. According to Latour (1999) the social is always circulating between actor and network, a treatment of society which is similar to Giddens treatment of structure and agency as a duality. Callon and Latour (1981) argue for the use of the same framework of analysis for tackling both a macro actor and micro actor and for the making the notion of actor network scalable; one element of an actor network may be expanded into a new complete network and vice versa, a whole actor network may be collapsed into one element of another actor network (Monteiro, 2000).

Another key criticism is in its assumption of according symmetry between the social and the technological in ANT (Walsham 1997). People have been reduced to the same level as things and treating all actors as equals creates problems as not all actors are equal. Some exert a stronger influence that others. However ANT does not claim humans and machines are the same. It merely states that one should first attempt to discover the influential elements that actually determine action be it technical or non technical (Monteiro, 2000). Hanseth also argues that although ANT assumes everything to be an actor network and accordingly so are both human and technologies, all networks are inevitably different and different actors (human and inhuman) play different roles in life.
Knights and Murray (1994) criticize ANT for the way in which it gives little or no attention to the broader powers and inequalities that are both the condition and consequences of network formations. Latour (1997:197) counter argument is that critical theorists rely too much on the inequalities it the social.

‘Critical theory is unable to explain why artifacts enter the stream of our relations, why we so incessantly recruit and socialize non humans. Its not to mirror congeal, crystallize or hide social relations but to remake these relations through fresh and unexpected sources of action’.

Latour continues to claim that society is not stable enough to inscribe itself anything, on the contrary most of the features we mean by social order i.e. scale, asymmetry durability of power, hierarchy and the distribution of roles are impossible even to define without recruiting non humans. So while it is true there are inequalities; inequalities are not a priori dividing the social and the technical. ANT does not accept any reductionism; neither machines nor are human relations determinate.

ANT is also alleged to be much more a method of describing than explaining (Bloomfield and Vurderbakis 1999). However Latour (1999) argues that ANT doesn’t claim to explain the actor’s behavior and reasons but only to find procedures which render actors able to negotiate their ways through one another’s world building activity.

‘It was never intended to explain the behavior of social actors but in a much more ethnographic sense a way of a researcher to study what, how and why actors behave the way they do and not explain this behavior by all kinds of exterior forces unknown to the actors
Another critique is the position of the researcher in labeling actors, defining passage points, scoping the actor network and telling the story which is very influential in the results that an ANT study delivers (McLean and Hassard, 2004). The researcher enters the study with his own theoretical backgrounds, ideas and preconceptions (Clarke, 2001). Monteiro (2000) argues that employing ANT requires the researcher to be critical of his/her labeling of actors and in the analysis in general, therefore being guided by actors themselves.

Monteiro (2000) also highlights issues of ANT as a methodology. That unpacking of the network will cause an explosion in terms of complexity as each actant can potentially be expanded into another whole actor network. However while this may be true the boundaries of a particular study determines the function of an actor as indicated earlier the actor network is scalable:

‘One element of an actor network may be expanded into a new complete network and vice versa, a whole actor network may be collapsed into one element of another network (Callon & Latour, 1981)’

Collins Y. (1992) also insists that ANT concedes too much to the realist and technical accounts. Similarly Grint and Woolgar (1997) accuse ANT of technism in its need to refer to actual technical capacities of technology.

Despite these criticisms, this study is convinced that ANT points to a better possibility of understanding the heterogeneous relationship that is emergent in mobile banking. Though the criticisms may be numerous, most of them have been clarified by the proponents of the theory to satisfy the needs of this study. ANT was therefore used to guide the research epistemologically in the study of the context of use of mobile banking, emphasizing how technology and the social actors
influence one another in the process of negotiations involving the heterogeneous and the socio-technical actor network. ANT also provides the ontological lens through which to scrutinize the roles of the elements in the network formation which informs the context of use in mobile banking.

ANT is also not restricted to certain analytical levels but will rather encourage the opening of black boxes and closing others which is interesting as it safeguards the researcher from the risk of being restricted by the rigidity of strict use of theory (Walsham, 1995).

The perception that both technology and the social are intertwined brings the researcher to a more detailed understanding of the relationships between information technology and its use (Akrich and Latour, 1992; Callon, 1991, 1994). This choice is motivated by the way ANT especially the minimalistic variant employed offers a language for describing the many small, concrete technical and non-technical mechanisms which go into building and use of information infrastructures. The theory cuts across political, strategic, social and technical issues related to Information Systems and allows for making sense of the unfolding implementation process (Monteiro, 2000).

2.9.5. The Theoretical framework
Theories are formulated to explain, predict, and understand phenomena and, in many cases, to challenge and extend existing knowledge, within the limits of the critical bounding construct (USC Libraries, 2012). The theoretical framework is the structure that holds or supports a theory of a research study. The theoretical framework introduces and describes the theory which explains why the research problem under study exists. A theoretical framework consists of concepts, together with their definitions, and existing theory or theories that are used for a particular study. The theoretical framework demonstrates an understanding of theories and concepts that are relevant to the topic of
research and also relates it to the broader fields of knowledge in the field of study. Having discussed the various concepts supporting the theories used in this study we now conceptualize the same to aid in the explanation of pertinent issues defining the process of stabilizing mobile banking products in Kenya.

Figure 2.4. The Theoretical Framework
2.9.6. The theoretical framework explained.

Mobile banking is the ICT based product that is proposed for financial inclusion of the poor and marginalized. By the virtue of the impeded ICT attributes of flexibility, recombination and self expansion, the products stand viable to disenfranchise the two notorious barriers i.e. geographical access and economic viability to facilitate financial inclusion of the rural populations. The fact that rolled out products have not been able to address the needs of the unbaked population in Kenya and other parts of the world; there is need for a holistic contextualization of the stabilization process. This study seeks to underscore all factors surrounding the innovation, implementation and actual use of mobile banking products.

The network society is the society formed out of the dynamic interrelationships of actors animate and inanimate in the mobile banking structure. The success of mobile banking depends on six key elements: The people that perform the transactions, the nodes which may be the phones or points of intersection in the network, the way of doing business (mode of production), the conduits transporting information (the network, software and transmitters), time involved which increases trust and the places the nodes are found. The node, the mobile phone and the mode of production constitute the Network Society while the places, timeless time and the flows constitute the Space of flows. The following is an explanation of each concept:

*People:* the people in the network society are liberated people with a high affinity for independence and convenience. These people exercise various freedoms in their way of doing things. The freedoms include but not limited to, transacting unaided, transacting at any time of the day, transacting at places of choice (at home, at work at night or day), making decisions on how much to
transact, to who and with which model or network. These people also value the privacy associated with the execution of these transactions. These people also reside in physical locations.

Technology: These are used to perform the transactions and constitute the technological aspect of the service. Mobile phones are owned by anyone, male or female, can access available networks from any point private or public, have the capability of joining networks even in the most remote areas, do not depend on laid down infrastructure but can access signals from any point, have in build features that facilitate various mobile banking functions like payments, savings, transfers, top ups; all in different models. Operation is universal in regard to all human beings. The signal received by the nodes is boosted before transmission to the telecoms database and the software for decoding this is then communicated to the banks database and software before the node receives a response. Channel of transmission is the network connecting nodes and the databases.

Mode of production: The people involved believe in liberated economies and globalization. They value access to goods and associated services/products from the world over. In them a culture of sharing, give and take is inculcated and access is not tied to places but to the network logic.

Places: People must reside in physical places, however this physical place does not mean that only what is available in that locality is what they can access. These types of people have the capability of accessing information based items and services from other places without living their places. To be part of the society one has to function as a node i.e. if one does not have the connection then they are excluded from this type of places.

Timeless time: Since these people are connected through conduits or networks, the chosen programs in these networks are shared instantaneously. People share the same experiences from their physical places. Transactions performed are updated in the banks databank instantaneously.

Flows: In the network information is synchronized i.e. it is processed in such a way that the recipient
understands the intention of the sender. Thus the conduits or network ensure that the there is communication. Otherwise without the flows then there is no communication and the messages lack meaning and therefore are valueless. Flows are the major component that joins people in different localities by enabling users to share information. Flows process information in such a way that people connected can make value of the information in the system. Further people may be in the same locality but disjointed because they do not share the same space though they are in the same place.

Various products have been selected for study, and each product is conceptualized by independent companies, these companies act as the focal actors bearing the responsibility of translating the product to realize their goals.

Mobile banking does not take place in a vacuum but under the influence of surrounding factors. Context of use analysis provides for a limitless understanding of the various factors that may influence the actual use of the products.

**The focal actor**

For the mobile banking product to reach its target populations, there has to be an actor with the mandate of ensuring that the relevant partners in the execution are recruited and enrolled to participate in various ways to assist in the realization of the product execution. This entity acts as the focal actor and any other actor willing to participate in the particular mobile banking relationship has to be aligned with. The focal actor is the main actor without whom association is impossible. The focal actor assumes the role of the obligatory passage point (OPP) and develops the m-banking product from its existing network; in a company set up the product development department. The focal actor has a role of identifying possible actors with whom to translate the product.

**Context of use**
The actualization of mobile banking depends on many factors. These factors constitute any element that affects the execution of the product to address the financial inclusion of the target populations. The conceptualization of the context of use in mobile banking includes all surrounding factors that shape the trajectory of mobile banking: They constitute environmental, technological, social, organizational, regulatory, security among other factors.

Translation

Guided by the context of use the focal actor sets out to establish partnerships through translation in order to enlist actors that would enable the product diffuse in to the targeted populations and attain actual use by the end users. Translation involves construction of common definitions and meanings i.e. establishing roles that are beneficial to would be actors, defining representativities i.e. targeting the particular actors to execute the particular roles that have been assigned and co-opting each other in the pursuit of collective objectives i.e. pursuing those actors in order to take up their roles in the network. This is done through a series of steps:

Problematization

When the focal actor identifies the partners to follow he sets out to define roles for each and communicate the same to these actors. He then negotiates with the partner’s terms of their recruitment. These partners are not limited to human beings and involve all the contextual factors identified as actors. For example survey of target areas, accessibility of these areas in terms of networks, populations, and regulations required by the team to deploy the product, penetration of mobile phones and agents to be recruited among others. Each of these contexts has specific actants but all the actants work together, their actions cannot be divorced. For example if CBK or CCK device rules which bar any mobile banking product from deployment, users or even the focal actor will not function. Consequently when the actants blend and all actors activities fit easily with those
of other actors despite of heterogeneity, then convergence is realized which leads to stabilization.

This relationship has to be nurtured however through mobilization: these are the set of methods that initiators employ to ensure that allies do not betray the initiators interests. Compliance is ensured by monitoring the network and addressing descent as and when it arises. At this stage the proposed solution gains wider acceptance and achieves stability. Stability implies that the technology content is institutionalized and is no longer controversial. It is black boxed.

**Interestment**

Key actors build interest and lock key allies in by finding ways to reformulate the problem or solution in such a way that key allies will associate their own interest with the formulation. The main idea is to entice the actors to team up with the initiating actors by demonstrating how the common interest is beneficial to both sides.

**Enrolment**

The problem or solution is established as an accepted fact. The problem or solution is legitimized by controlling or influencing the production of facts by using allies and spokespersons and by inscribing problems or solutions in the organizational memory. At this stage the actors have managed to convince other actors to join in the partnership and are actually performing roles as prescribed i.e. ‘we are in it together’

**Mobilization**

The solution gains wider acceptance. Compliance is ensured by monitoring the network addressing descent as and when it arises. The key actors use the stability in the network to enact solutions. At this stage the heterogeneous relationship has been black boxed and activities taking place emanate from both sides of the recruited actors and the recruiting actors. Usually at this stage the benefits are
two way. The recruited actors provide feedback of the progress on the ground with the aim of having any implementation issues ironed out for a smooth running of their roles while the focal actors listen to this feedback so that they can improve on the product informed by actual usage in order to tailor it to address the specific needs of those targeted. Mobilization is a way of addressing feedback and reinforcing the relationships with intermediaries to ensure sustenance and suitability of the product.

**Actors**

The translation process is dependent on actors. These are elements that together cooperate for the success of a product. In the framework any element that is involved in the execution of mobile banking becomes an actor. In essence any factor that affects the realization or the being/becoming of mobile banking is considered an actor. These actors can either be animate or inanimate. Any actor assigned a role and participates in action is referred to as an actant; that which is capable of doing.

**Animate**

All actors that are human are called animate. They include the users, agents, bank officials, marketers, communicators, regulators, innovators, communication officials among others.

**Inanimate**- these include all non human actants and they include networks, outlets, mobile devices, electricity, chargers, mobile network tariffs, product design, transaction tariffs, opening hours, location, security, convenience of shops, culture, trust, float availability, literacy, awareness, IDs, compliance documents for agents among many others.

If translation does not result to convergence, it means persuasion by the focal actor did not yield enrolment and intermediaries have to be used more to bring consensus. Intermediaries may result to increased commissions, more fees to the regulator, more persuasion or any strategy to reinforce the relationship. Emerging issues from actual use have also to be addressed effectively through
mobilization to ensure that the products address the needs of the people.

When stabilization has been reached the focal actor will continue to grow in size and heterogeneity. Actors will find it difficult to leave and new actors will seek to join the network. Because of the heterogeneity and size actors will be dependent on the focal actor as a result the focal actor will become heavy with norms of entrance.

Stabilization following the theoretical framework therefore is as a result of activities in the network society, the context of use of mobile banking products, the translation done by the focal actor and the ability of the actors themselves to perform roles as assigned.
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides a discussion of the research methodology that was used in the study. It discusses the research design especially with respect to the choice of the design. The methodology specifies the scope and characteristics of the entire population under study and also the methods used to select the sample. In addition, the methodology discusses the methods used for data collection, analysis and presentation.

3.2. Research design

A research design provides a framework for the collection and analysis of data and the choice gives a reflection on priorities that have been given to the range of dimensions of the research process (Bryman 2001).

The researcher used the qualitative research design to explore and gain understanding of the Mobile Banking phenomenon. Creswell (1994) describes qualitative research as an inquiry process of understanding a social or human problem based on building a complex holistic picture with words, reporting detailed views of informants and conducted in the natural setting. Mashall and Rossman (1980) are of the view that human behavior is significantly influenced by the setting in which it occurs. Thus one must study that behavior in its context. The physical setting (schedules, space, internalized notions of norms, traditions, roles and values) are crucial contextual variables. Therefore research must be conducted in the setting where all contextual variables are operating and human behavior cannot be understood without understanding the framework which subjects interpret their thoughts, feelings and actions.
The aim of the study was to explore and understand how, why and who/what facilitates mobile banking with the aim of adopting a successful model of financial inclusion for the poor and marginalized. Typically the study explored three Mobile banking cases and described them in detail. This was done through an extensive study of all partnerships in the execution of the product. The aim was to establish specific roles for each actor and further determine whether the functions were commensurate with the specific definition in the actor network for stabilization or it was dysfunctional leading to divergence.

The researcher was directly involved in seeking views of the actors in regard to who/what the main actors were, their roles in the network(s) and further determine what interests towards the stability of the network each actor had. The outcome of the study was aimed at establishing a winning strategy to address adherence of actors to definitions in the actor network and address the ad hoc adoption patterns recorded so far in mobile banking yet many deserving people continued to be excluded from basic financial services.

The unit of analysis was the interplay of actors. Significantly what was important was to find out what roles would each actor play in the network in order to stabilize the mobile banking networks. ANT methodology allowed for the following of actors in the translation process in order to suggest where to seek answers to questions, with whom to talk/what to investigate and what to observe (Miles & Huberman, 1984).

3.3 Paradigm of research

The interpretivist research paradigm was used. The case study method was adopted and combined with the ANT methodology because of the socio - technical elements and interactions involved. ANT allowed for both an interpretive lens to follow actors and collect relevant data and as a
distinct ontology to understand the emergent network formation in the interplay of actors. The scope enabled the analysis of the complex relationships of actors in the heterogeneous Mobile banking execution to identify problems that hinder successful deployment for stability of the products.

Characteristics of the case study were valuable as the researcher was able to employ various data collection methods. This was because a case study is a bridge across the traditional paradigms; it has a broad research application and epistemological, ontological and methodological flexibility. According to Cavaye (1996) and Doolin (1996), Case study has been used in both the positivist and the Interpretivist philosophical traditions. In the positivist perspective research, there are pre-existing irregularities that can be discovered, investigated and characterized relatively unproblematically using constructs devised by the researcher. The study at hand sought solutions for financial inclusion of the poor and marginalized. It was then inevitable that the study qualitatively explored the implementation process from the perspective of all key actors though in-depth interviews. Mobile banking products studied had already been rolled out, it required a survey of use experiences to establish how best to address emergent issues. For this a quantitative analysis was required and the case study method was equal to the task as questionnaires and FGD groups were used.

Recent debate (Latour, 1999) has centered on the ontological existence of reality. Yet for this study to realize its objectives there is need to focus data collection informed by the contextualization of the study objectives in order to allow the actors as described to participate in the network formation. Mobile banking is an existing phenomenon, and a lens is required to locate the relevant data in order to interpret and explain the process that produces the phenomena. This approach follows concepts outlined by Lee (1997) that: subject matter of
Interpretative research involves created meanings, the researcher must inevitably serve as an instrument of observation, interpretation is iterative and the validity of an interpretation can be assessed.

The interpretive approach thus adopts the stance that knowledge is socially constructed and that positions concerning reality provide ways of making sense of the world rather than discoveries only. This lens is important when certain features are focused on and emerge (Orlikowski, 2000) and where the rest of the picture fall in the background. It is a way of viewing in order to contextualize (Klein and Myers, 1999). In this regard despite the fact that the need for this particular research is to study the heterogeneous relationships taking place amongst actors in mobile banking, the study needs focus i.e. who are the actors in mobile banking? It is only after this then this research can follow the actors and establish the acts as they emerge. Hence it is after the contextualization that the research seeks to expose the nature of relationships that emerge, focusing on the constitutive forces in the interplay among actors themselves to constitute, define and construct the interplay (Latour, 1999, Law, 1999). ANT considers the interplay between the different actors technology included as the constitutive forces. Reality in this study is constructed through the interplay between actors both human and non human with equal constitutive forces.

This research therefore used ANT as a lens and as a distinct ontology to provide a better understanding of the relational dimensions of people and technology. The focus is on the emergent properties of the relationships followed by its evolving dynamics rather than the mere effects of either people over technology or vice versa. Case study is therefore both the process and the end product of research. It provides a delineated boundary for inquiry and a structural process within which any methods appropriate to investigation can be applied.
3.4. The research method

This is a multiple case study of selected mobile banking products in Kenya following the key actors in every case through interviews and ethnographic research and examination of inscriptions which include texts (journals, articles, conference papers, presentations and other relevant artifacts). Cases targeting transformational products with actual banking services were selected.

Table 3.1: Transformational products in Kenya 2012

<table>
<thead>
<tr>
<th>Iko Pesa</th>
<th>Equity agent</th>
<th>KCB Mtaani</th>
<th>Coop Kwa Jirani</th>
<th>M-KESHO</th>
<th>Post Bank Mashinani</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity and Orange</td>
<td>Equity bank</td>
<td>KCB bank</td>
<td>Cooperative bank</td>
<td>Equity and Safaricom</td>
<td>Post Bank</td>
</tr>
</tbody>
</table>

The multiple case studies were undertaken to provide a platform for actual measurement of variables that were the basis for making actual recommendations on the best way to diffuse mobile banking innovations to poor populations. The diversity in the execution of the products was significant in establishing possibilities of financial inclusion of the poor and the marginalized, assessing the contexts of use, ascertaining dynamism of roles to similar actors and in establishing the mismatches/matches which guided in creation and becoming of each product and its process of deployment.

---

26 As of early October 2012, Kenya only had six transformational products as indicated in the matrix however Post Bank Mashinani had just been launched and did not have any significant presence that could provide enough material for a case study. The diffusion of M-KESO and IKO PESA was slow and not clearly defined as a result there were no outlets to sample for the study. These two products barely exist.
Figure 3.1: Research perspective

<table>
<thead>
<tr>
<th>Topic</th>
<th>Philosophy</th>
<th>Goal of the study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Inclusion of the Poor and Marginalized: A multi case study of the stabilization process of Mobile Banking in Kenya.</td>
<td>Epistemological and ontological</td>
<td>Identify actors, their roles and how they can be co-opted in the stabilization of mobile banking products targeting the poor and marginalized</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Method</th>
<th>Unit of analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case study</td>
<td>Guided Questionnaires, in depth interviews, FGD, Triad</td>
<td>Interplay of actors in selected transformational mobile banking products</td>
</tr>
</tbody>
</table>

3.5.1 Sample size and sampling techniques

As Sandelowski (1995) points out, "determining adequate sample size in qualitative research is ultimately a matter of judgment and experience and researchers need to evaluate the quality of the information collected in light of the uses to which it will be put, and the research method, sampling and analytical strategy employed". Abbie Griffin and John Hauser (1993)
Suggest that an N of 30 respondents is a reasonable starting point for deciding the qualitative sample size that can reveal the full range (or nearly the full range) of potentially important customer perceptions. An N of 30 reduces the probability of missing a perception with a 10 percent-incidence to less than 5 percent (assuming random sampling), and it is the upper end of the range found by Griffin and Hauser. If the stakes and budget are high enough, a larger sample may be considered in order to ensure that smaller (or harder to reach) subgroups are still likely to be represented.

Due to the multi case study method adopted for this study and exploration of different customer segments in the three selected cases, the N of 30 was inadequate and to play it safe the researcher was of the view that each segment should have its own N large enough so that appreciable groups within the segments are likely to be represented in the sample. Consequently in cognizance of the fact that the products were from different companies it was important to ensure representation to measure the extent to which actor perceptions may vary from segment to segment.

Purposive sampling was used to identify participating banks offering actual banking services on agency basis. Three banks were identified and each provided two key informants. Besides the key information from the participating banks, 2 key persons from CBK and 2 experts and 1 person in CCK\(^27\) were purposively identified for interview. A total of 11 key informants were sampled.

**Table 3.2: Sample frame and size for key informants**

---

\(^27\) The agency bank products have now been designed to use any network. Provision of the services is not network specific and agents are advised to use the networks they prefer. This is because besides network quality the SMS’ are charged and the tariff of the network chosen is a factor in the profit margin of the business.


<table>
<thead>
<tr>
<th>Regulators</th>
<th>Equity agent</th>
<th>KCB Mtaani</th>
<th>Coop Kwa Jirani</th>
<th>Experts in mobile money</th>
<th>Regulator CCK</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBK</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

3.5.2 Target population

The study sought financial inclusion of the poor and marginalized in Kenya. According to The Kenya National Bureau of Statistics, Basic report on Well Being in Kenya Survey report (2005) the overall rural poverty line estimated at Ksh 1,462 per adult equivalent per month was 49.1 of the rural population below the poverty line. The poorest province was North Eastern with 73.9%, followed by Coast at 69.7%, Western at 52.2%, Eastern at 50.9%, Rift Valley at 49.0%, Nyanza at 47.6% and Central Province at 30.4%. Out of the seven rural provinces in Kenya only two were above the poverty line. In four of the provinces more than half of the populations lived in poverty with close to three quarters of the population in North eastern living in poverty. Findings in this study aims at the provision of mainstream financial services to this vast population in Kenya.

For purposes of access and a representative population of the poor in Kenya the sampling techniques sought to justify the selection of Makueni Country as an ideal area of study. According to the KNBS (2005) report of Well Being in Kenya, Machakos district had the highest number of poor people in the country with 660 220 persons followed by Makueni district with 619 145 (Appendix VIII). However the Mountain of absolute poverty indicates that the poverty level in Makueni district is severer than that in Machakos with 64% of the population in Makueni below the poverty line against Machakos’ 59% (Appendix XII). The highest poverty level is in Turkana at 96 % with a population of 481 442. Though the number is large, the population
distribution is sparse and with the pastoralist way of life, getting people to interview would have been elusive. However the shedding to show shared tendencies groups Makueni together with Turkana, meaning that the poor in this areas experience the same constraints. The percentage of the poor in Machakos is 59% and therefore not an ideal representation of the poorest poor in Kenya. Since the aim of the study was to study the poor in order to target them for financial inclusion, the researcher felt that Makueni was a better representative population of the poorer districts and with the large number of very poor people in Makueni, chances of interviewing the poor was considered very high compared to other districts that may be poorer but have very few people. According to the technique therefore the poorer the area and the chances of accessing the poor for the actual data collection were major considerations. Makueni exhibited the two characteristics, was considered ideal and consequently satisfied the needs of the study.

Consequently information sought in Mobile banking concerned money. The Kenyan population is secretive about their financial status and it is difficult to get any information unless there is an established relationship between the researcher and the agent or user. For this reason Makueni was suitable as the researcher speaks the local language and was familiar with the area. This enabled the researcher to collect rich data with undertones that could only be realized through proper translations that are only possible through a shared cultural background. Such provided crucial links that were of value to the design of the strategy for financial inclusion. Any agent identified in these areas regardless of location provided the necessary information as recruitment of agents was rigorous and uniform across banks. All agents underwent an intense training program before they commenced operations.

**Figure: 3.3: Sample frame for agents**
<table>
<thead>
<tr>
<th>Product</th>
<th>Model</th>
<th>Partners</th>
<th>No of agents in Makueni</th>
<th>Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity Agent</td>
<td>Bank Led</td>
<td>Equity</td>
<td>28</td>
<td>Cannot be ascertained</td>
</tr>
<tr>
<td>KCB Mtaani</td>
<td>Bank Led</td>
<td>KCB</td>
<td>14</td>
<td>Cannot be ascertained</td>
</tr>
<tr>
<td>Coop Kwa Jirani</td>
<td>Bank Led</td>
<td>Cooperative Bank</td>
<td>10</td>
<td>Cannot be ascertained</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>52</strong></td>
<td></td>
</tr>
</tbody>
</table>

Number of outlets rolled out was obtained from the agency bank departments although all the banks also had the list of outlets indicating their locations displayed in the branch banking halls as well as in their websites.

The sampling was influenced by the status on the ground. The representation on the ground was uneven and also the number of rolled outlets rendered the sampling purely purposive as we followed the actors. Due to the limited number of outlets, all 52 outlets were sampled. The limited number however did not affect results of the study as the research was mainly interested in an in depth understanding of usage of mobile banking products.

Qualitative research focuses on depth of information gathered and upon saturation at any number it’s advisable to discontinue further questioning. Purposive sampling was necessitated by the fact that agents were scattered. Probability sampling methods would not have been useful as a possibility of getting no sample was high as what was evident from the actual field study was that though the Country had slightly over 40 townships many small and deserving markets did
not have a single agency to offer banking services. The study therefore had to specifically identify the location where an agency existed. Since the study aimed at addressing issues of financial inclusion of the poor and marginalized, the researcher felt that any location apart from the three considerably large markets with bank branches i.e. Emali, Mtito Andei and Wote which were purposively removed from participating because services by agents would be additive, any other location where an agent existed in the district was viable.

The researcher also administered a questionnaire with open ended questions on 120 users; 40 users per product. The users were stratified from specific outlets that the researcher purposively sampled to capture age group categories and equal gender representation. This was necessary to address uptake and use of technology based products by groups based on age. It also gave insight into who among the respondents were likely to embrace new technology and aid in structuring of messages that target the appropriate group. Since the research assistants targeted those transacting in shops, they purposively interviewed respondents to satisfy the stratification.

Table 3.4: Stratified sample for users

<table>
<thead>
<tr>
<th>Strata (in ages)</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth (18-35)</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Middle age (36-55)</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Old (56 and above)</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120</strong></td>
<td></td>
</tr>
</tbody>
</table>

The study engaged focus group discussions on two levels;

1) 4 users and 4 agents (8) after the final data had been collected and
2) The triad which consisted of three agency supervisors i.e. those in charge of rolling out the product on the ground.

### 3.5.3 Situation analysis-Makueni County

Makueni county is situated in the southern part of the Eastern Province and boarders considerably semi arid counties of Kitui, Kajiado, Machakos and Taita taveta. The 2009 Kenya Census put the population of the county at 884, 527 with 49% of the population being male and 51% being female. With the 2005/2006 basic report on well being tagging the number of the poor in the county at 619, 148 out of the 884, 527 most of the people in this county are poor. Statistics (SoftKenya.com 2012) indicate that 34% of the urban and 67% of the rural population is poor and that the population lives under the poverty line.

**Table 3.5: Demographic indicators**

<table>
<thead>
<tr>
<th>Population (2009 census)</th>
<th>884,527</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>47.7%</td>
</tr>
<tr>
<td>Females</td>
<td>52.3%</td>
</tr>
<tr>
<td>Under 15 years</td>
<td>49%</td>
</tr>
<tr>
<td>Youth (15-25) years</td>
<td>25%</td>
</tr>
<tr>
<td>Dependency ration</td>
<td>100:109</td>
</tr>
<tr>
<td>Population Growth Rate</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

Extrapolated from the Makueni District Statistics of 2001

A large population in the area undertakes subsistence farming with a touch of commercial farming in some areas like Kilungu and Mbooni Hills. However the greatest impediment in this
endeavor is the fact that the county is semi arid and experiences periods of prolonged draught which makes it impossible for the people to get enough food to eat. To remedy this situation, some of the people in the country have resulted to planting draught resistant crops mainly oranges, mangoes and pawpaws which they sell to earn a living.

**Figure 3.2: Some farm produce displayed at Emali market**

![Figure 3.2: Some farm produce displayed at Emali market](image)

Source study: Farm produce for sale at Emali

**Figure 3.3: Some drying maize due to lack of rain, cattle and dry land.**

![Figure 3.3: Some drying maize due to lack of rain, cattle and dry land.](image)

Source: Study
Makueni County is one of the counties in Kenya that experiences severe draught and occasionally the government of Kenya is forced to provide meals for school going children and also relieve food to the adult population. Diseases like Malaria, respiratory infections and HIV Aids are prevalent in the county and the less than 5yrs mortality rate is 84/1000. Economically the County is among the poor regions of Kenya. There are no economic mineral resources and the land is within the arid and semi-arid areas of Kenya. Agriculture though elusive is the
mainstay of the economy of the County. Currently Agriculture contributes 75% of the income in the County.

**Figure 3.6: Makueni County Map**

![Makueni County Map](image)

<table>
<thead>
<tr>
<th>Table 3.6: Socio-economic indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of households</td>
</tr>
<tr>
<td>Average Household size</td>
</tr>
<tr>
<td>Absolute poverty</td>
</tr>
<tr>
<td>Income from Agriculture</td>
</tr>
<tr>
<td>Income from Rural employment</td>
</tr>
<tr>
<td>Remittances from Urban Kenya and outside</td>
</tr>
<tr>
<td>Unemployment</td>
</tr>
</tbody>
</table>

Though Makueni County is not wealthy, the Socio Economic Indicators give justification for some sort of formal financial needs. Makueni has lived with only one Bank the KCB for a long time; however in the recent years the bank branch numbers have increased. This includes Barclays Bank of Kenya in Wote, Equity Bank in Emali, KCB in Mtito Andei, K-Rep in Emali
and Post Bank in Emali. However the establishment of these banks continues to be concentrated on the main Nairobi-Mombasa highway with the only interior locality with bank presence being Wote. The scenario is irrespective of the fact that the county has a considerable number of substantial market centers which include Kalawa, Kasikeu, Kathonzweni, Kibwezi, Kikima, Ngwata, Kilome and Tawa. These market centers miss out on the traditional bank branch; however all have now been served by the agency bank models and populations in need of these services do not need to travel to the main branches.

3.5.4 Gaining access to study cites

The study utilized the Multi Case study method to explore three Mobile Money Products to ascertain their suitability in the provision of financial services to the poor and marginalized especially in the rural areas where traditional financial services are non-existent or inadequate. The three cases were 1. Equity Agent by Equity Bank 2. Coop Kwa Jirani by Co-operative Bank and 3. KCB Mtaani by Kenya Commercial Bank (KCB).

The study required a research authorization by the various bank departments in charge of agency banking in order to:

- Assure agents and users that information sought was for academic purposes and the parent banks were aware of the study
- To be able to gain access and get information from relevant bank personnel
- For Central Bank to be aware that the study was in place
- Be able to interview the regulators and other key data sources

The first strategy used to gain entry was through contacts in all the three banks. This was fairly straightforward in Cooperative Bank and Equity Bank. This was partly because besides using
contact persons the researcher was also an agent for the two banks in the provision of the agent bank services. The Heads of agency banking services in the two banks were excited over the study and provided us with the necessary information in regard to the exact locations of their agents in Makueni and the number of outlets in the County. However the conditions were that the researcher had to provide raw data to the agency banking departments after coming back from the field. The supervisors and the researcher did not have a problem with this condition.

KCB was the most difficult to gain access. After the initial use of our contact person, the researcher was required to appear in person to the legal department after which she was introduced to the Human Resource Officer in charge of research authorization. However at the HR department, the official insisted that it was bank policy that research authorization was only given to the banks student staffs and he could therefore not authorize an outsider to interview their agents and users. The researcher was not convinced and tried another senior contact in the bank but also without success. The product KCB Mtaani could not be excluded from the study because at the time of the study only three transformational products were in offer and remaining with only two would have been inadequate. The researcher with the approval of the supervisors applied to the bank to become their agent in the KCB Mtaani services which was approved within two weeks.

Being a participating agent enabled the researcher get contacts of those in charge of rolling the products on the ground, and luckily the researcher was able to persuade one supervisor to participate in the discussion (triad) that preceded data collected from the users and agents\textsuperscript{28}. This

\textsuperscript{28} The supervisor participated at a personal capacity on condition that the researcher did not disclose his identity as policy did not allow him to disclose information, nevertheless the triad was mainly to triangulate information from actual usage and brainstorm on possible solutions.
discussion was valuable to the KCB supervisor as KCB agents and users had experience issues that needed to be addressed. Besides being granted access the researcher was in a position to understand the structure of the product through various agent seminars and also access literature relevant to the product. However key informants in KCB were not allowed to grant this study an interview as sampled and the researcher relied a lot on observation, experience surveys from other KCB sources, the users and agents of the bank.

Getting an appointment with the CBK person in charge of Agent Banking regulations was also not possible. First the CBK official requested for the data collection tool via email, which was done, and then he kept on post phoning the appointment. He later agreed to respond to the questions on email which could not permit probing but nevertheless insightful information. This shortcoming was triangulated with information provided by Mr. Stephen Mwaura, head of payments at the CBK. Inputs from the two officials were sufficient in addressing the needs of the study.

The CCK official was not available for a physical interview and he opted for a telephone interview which was also sufficient for the needs of the study.

3.5.5 The researcher

The researcher was an agent for the three cases in the mobile banking products. As indicated, attempting to gain access in KCB without being part of the team was difficult and getting the necessary information for this study may have been impossible. Being actively involved in the execution of the products gave the researcher first hand information on how the product was designed and the basic execution strategies used. However the supervisors were concerned about how the researcher was to avoid biases as a result of active involvement. This issue was
addressed by first seeking factual information from users and agents through a standard questionnaire and interviewing various segments of key informants in the field. Information gathered was further subjected to focus group discussions for confirmation and interpretation. Key informants from participating banks also gave their independent views. Information from regulators and experts in the field was also sought all which was significant in authenticating results and also findings.

The researcher is also a lecturer with experience in training of students in statistics for communication research, research methods and project writing. The researcher was therefore able to provide adequate training to the research assistants who were all students at the Catholic University of East Africa and familiar with the area of study as they were all Kambas from the County. One of the research assistants i.e. Mutinda Musila had participated in a research project by Equity Bank, collecting data from Kibwezi and Emali areas of Makueni County.

3.6 Data collection techniques and tools

Primary data was obtained through: observation by the researcher, an in-depth interview with identified focal actors, key regulatory authorities in mobile banking and experts in the mobile money field, a focus group discussion with agents and users, a discussion with three supervisors in charge of roll out and implementation of the mobile money products and a guided questionnaire with users and agents. Secondary data was obtained through an extensive document analysis. This included online studies, books, latest journals, seminar papers, Magazines and literature describing products from the banks offering the products among others.

3.6.1 In-depth interview guide with key informants

According to Dillon et al (2001) in-depth interviews are sessions in which free associations and hidden sources of feelings are discussed, generally through a very loose unstructured question
guide. It provides detailed background about reasons why respondents give specific answers and an elaborative data concerning respondent’s opinions, values, motivations recollections experiences and feelings. In-depth interviews also allow for lengthy observation of respondents non-verbal responses (Babbie 2001). They are customized to individual responses reason why this was most appropriate for the Focal actors - bank officials who are the key informants in the study. Research concerns included: 1) necessity of the invention 2) key actors 3) intermediary strategies to sustain actors in the actor network 4) features of the product targeting the poor and marginalized 5) challenges faced in translation 6) strategies to stabilize the network 7) understanding the roles of actors and how each actor executed their roles.

3.6.2 In-depth Interview with experts.

The in-depth interview technique was used with experts in the Mobile Money field with an aim of establishing the role of context of use in the uptake and use of mobile banking products in Kenya and further to find out the most appropriate strategy for deploying mobile banking services to the poor and marginalized. The discussion mainly focused on creating meaning of information gathered in terms of usability, applicability and realignment in order to address the objectives of the study. Specifically this interview was used to: 1) determine key issues in a successful uptake and use of mobile money products 2) Work out a strategic recommendation plan for translation which can be adopted for financial inclusion of the poor and marginalized and sustainability of the product in Kenya.

3.6.3 Focus Group Discussion (FGD)

- users and agents

The focus group discussion was used with users and agents to clarify information gathered during the primary data collection exercise and also sum up the usage and execution experience it terms of 1) the financial needs of users 2) their specific roles in the network 3) their interests in
the success of the products 4) Challenges in use and 5) opinion on best strategies to ensure successful financial inclusion.

- **the triad**

This was a discussion held with three supervisors’ one form each participating bank. The aim of this session was to 1) confirm the findings from the questionnaire and the focus group discussion from the users and agents 2) to understand the experiences of the supervisors in the roll out process and 3) understand strategies they used to address the feedback the research gathered from the field or any other feedback they had gathered in their capacity in regard to usage of the products.

**3.6.4. Observation**

Observing is indispensable to the research styles of ethnography, naturalistic inquiry, and the case study. Only the human investigator situated in a scene is able to register the subtle, processual actions of other human beings” (Lindlof, 1995). This method was used by the researcher continuously and in the natural setting (outlets) to provide data rich in detail and subtlety on the following: 1) customer transaction experience; 3) concerns of agents in regard to mobile banking products they offer and 3) evidence of changed lives 4) general mobile banking interactions, opinions and experiences.

Besides observation the researcher also engaged in a lot of informal experience surveys in order to gain understanding of the usage of the products. These surveys included casual conversations with agents, users and bank officials and were instrumental in understanding real use experiences that may not have presented themselves in a real interview scenario and also in triangulation of information from the sampled sources. This was necessitated by the fact that besides the formal interviews the aim of the research was to really understand what the experiences of mobile
banking were in order to design an informed strategy for the financial inclusion of the poor and marginalized. The researcher also attended various agent seminars where agents reiterated the challenges they encountered in the day to day running of the business and responses to those issues were provided. This was important in triangulation of information gathered from sampled sources.

3.6.5. Guided questionnaire

The questionnaire was used to gather information from users and agents. To begin with users were used to capture basic and factual information regarding the use of the products. This is because they are the end users of the product and it is crucial that certain basic information in regard to their financial status (inclusion or exclusion) be accurately established and also determine impact of the use of the product on their lives as well as evidence of added value to their lives after use. This was crucial in the design of the stabilization process for the products. The intention of using the questionnaire was to capture as much information as possible in regard to actual usage, however since the study was mainly exploratory the process was guided to enable respondents provide the information as required to address the specific objectives and also desist from further questioning after reaching saturation. The researcher was interested in the following from users: 1) suitability of the product to address their needs - convenience in terms of location, usability, real time issues, confidentiality, personal esteem and cost 2) interests of the users 3) role played- actual use of the service i.e. saving, money transfer, payment of bills and features like independence etc 4) social practices like dependency, social networks, relationships 5) evidence of financial inclusion of the user 6) evidence of quality life after use and 7) preferable model to address their financial needs and its sustainability.
In addition, Agents were also the link between the banks and users, and it was through them that the study could establish if mobile banking as a product could address the issue of financial exclusion of the poor and whether the product had improved their lives. Research questions here established: 1) services offered; 2) recruitment strategies; 3) operations support; 4) specific strategies addressing needs of the poor and marginalized; 5) impact of use—positive or negative; and 6) evidence of financial inclusion of the poor and marginalized and 7) challenges faced in operations and opinion on the way forward 8) suggestions on how to counter a negative impact with the aim of ensuring a successful uptake and use and sustainability of the product.

3.6.6 Actual data collection

The data collection team comprised of three research assistants and the researcher. Because of the nature of the study and the need to assure respondents of confidentiality of information and trust, all researchers were able to speak the native language of the respondents. The roles of the research assistants included:

Visiting study sites before data collection for a survey of the area and mapping of outlet locations, creating rapport with agents to permit data collection from their customers, actual interviewing of agents and users for information needed, ensuring that all questions were answered, assisting respondents in answering questions and filling in answers where respondents were unable to and sorting and organizing data for analysis.

The role of the researcher was to: train assistants before going to the field on how to establish a relationship with respondents and how to use the data analysis code sheet to sort and organize data from the field, visiting the research area, mapping out the actual outlets to participate in the research process and establishing a relationship with agents and users in the area, guiding the assistants throughout the process to ensure that data collected was relevant, conducting all interviews with key informants and experts in mobile money, record interviews where necessary,
write notes, take photographs and collect support documents from the field, chair and mediate the focus group discussions with the agents and users and the triad, keep in touch with the supervisors for advice on the way forward in respect to emerging issues during and after the actual data collection period and to perform data analysis and interpretation in line with the objectives and requirements of the study

3.6.7 Pilot study

The data collection tools were tested on a representative sample to ascertain validity and reliability of tools. Study tools were adjusted according to the findings of the pilot study.

Table: 3.7 Key constructs and the operationalized meaning

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Constructs</th>
<th>Concepts</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illustrate factors facilitating mobile banking for financial inclusion</td>
<td>Network society and space of flows</td>
<td>1. The Network Society-Informationalism</td>
<td>1. The ability to network people in different parts of the country to communicate seamlessly through the use of mobile devices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Society</td>
<td>2. self empowered people with a high affinity for independence, able to initiate transactions and execute them on their own at their convenience</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Flows</td>
<td>3. The granting of an immovable</td>
</tr>
<tr>
<td>Translation-emergence</td>
<td>1. Problematization</td>
<td>1. Coming up with the product and figuring out who/what are to be participating in the deployment of the product. It also involves identifying the partners and assigning roles for collective and individual gains</td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>---------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Interesment</td>
<td>2. Enticing the partners to take up roles by showing them how they stand to benefit collectively or as individuals.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. intermediaries</td>
<td>3. The real incentives like money, opportunity, anything that exchanges hands towards the acceptance of roles assigned.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. enrollment</td>
<td>4. the acceptance of roles assigned and successful participation in the</td>
<td></td>
</tr>
<tr>
<td>Determine the role of context of use in the uptake and use of Mobile banking products for the financial inclusion</td>
<td>Context of use</td>
<td>1. Environmental factors</td>
<td>1. This includes the landscape, distance, accessibility based on geographical conditions of locations in the rural areas in Kenya</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>2. Social Factors</td>
<td>2. This includes all human attributes that affect the uptake and use of mobile banking products. They include peoples culture, independence, liberalization habits, literacy, trust and general way of life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Technological</td>
<td>3. All technological factors and execution of the mobile banking products</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Legitimization of the partnership and the active monitoring of progress through feedback to iron out usage issues.
| Ascertain the role of actors in the design roll out and use of m-banking products for increased uptake | 1. The effectiveness of the probematization, interessment and actual enrolment, where all actors have successfully taken up their roles and the heterogeneous network | 4. This is the organizational factors enabling mobile banking. They include conceptualization of the product design and its deployment strategies, marketing, communication strategies, agent networks, government intervention, economic factors among others | 5. This is the special role of regulatory authorities in coming up with structures enabling the effective uptake and use of mobile banking products. |
| and use |  | of actors is operating as intended. The product is in actual execution for the use and sustainability for the benefit of the poor and marginalized |
|---------|---|---------------------------------------------------------------------------------------------------------------------------------
|  |  | 2. meeting the needs of the target populations in the design, rollout and execution of the services for value addition in the lives of users |
3.7 Methodology procedure

The case study methodology adopts both the qualitative and quantitative research designs. The researcher and research assistants used the ethnographic techniques of questioning. This is because despite the study being an exploratory study, certain facts relating to actual usage were necessary in order to establish suitability of the product to actually address issues of financial inclusion to the poor and marginalized in rural areas, experiences of the users with the mobile banking products provided these facts.

Figure 3.3: Methodology Process

3.7.1 Methodology procedure explained

a) Context of use

This enabled the researcher to follow all actors involved in the execution of the product.

b) Aggregate data

The aggregate data was from all the data collection tools i.e. the users, agents, regulators and focus groups.

c) Iterations
Ideas that arise during active involvement in the field are transformed, translated, or represented in a written document. It involves sifting and sorting through pieces of data to detect and interpret thematic categorizations, search for inconsistencies and contradictions, and generate conclusions about what is happening and why. The data is categorized and keyed in for data analysis.29.

d) Data analysis

Quantitative data was analyzed using the SPSS program where items in the questionnaire were coded and findings displayed through percentages, pie charts and bar charts. Each pictorial representation was followed by an appropriate explanation. Qualitative data analysis was guided by the conceptualized data analysis process (figure 3.8). Relevant themes were explained and where necessary direct utterances incorporated.

e) Discussion of findings and interpretations

At this stage key issues identified at the data analysis stage were identified and then grouped according to the key themes in the translation process. Particular processes in the ANT were also categorized clearly with indicators of the emergence, development and stabilization of products identified. This was then followed by interpretations in line with the study objectives.

f) The recommendations - Stabilization proposal

Key issues identified and interpreted in line with the study objectives were used to design the proposal for financial inclusion of the poor and marginalized sought in this study. This proposal constituted the stabilization strategy that the study sought to infuse into the scholarly world as new knowledge as well as ensure that the new models of mobile banking could be used to address financial inclusion of the poor and marginalized successfully.

3.7.2. Secondary data

29 Data analysis procedure is explained in detail in 3.7
Secondary data was used to inform the study in regard to:

1) Studies by scholars on how to target financial inclusion of the poor and marginalized
2) Lessons to be learned from case studies of related mobile money products in respect to diffusion and sustenance of mobile money networks
3) Literature on specifics of transformational products launched by every focal actor
4) Conceptualization of theories to assist in understanding the execution process of mobile banking and inform on the design of a successful model for financial inclusion of the poor and marginalized.

3.8. Data analysis and reporting: Qualitative data analysis

Step 1: sorting
This involved transcription of all recorded data and thorough reading of the data from the interviews and focus group discussions for a clear understanding, and to weed off biased and irrelevant information. The main themes of the study were to ascertain the use of mobile banking for financial inclusion as informed by the Network Society and Space of Flows, translation strategies which include problematization, interessment enrolment and mobilization which are all aimed at stabilization, informed by both the ANT and the study objectives as captured in the Data analysis strategy.

Step 2: preparation of data
The researcher focused on the key questions that constitute the basis of the study by an analysis of how individuals and members of the focus group responded to each question measuring relationship between the key concepts in mobile banking and its use. Then the researcher looked across all respondents and their answers in order to identify consistencies and differences and later explored the connections and relationships between questions. The data was grouped
according to various data collection tools i.e. the interviews and the focus groups to get an overall picture of the each category.

**Step 3: Categorization.**

The researcher first identified themes emerging from responses. This included ideas, concepts, behaviors, interactions or phrases. By reading and reading, these were organized into coherent categories indicated in the data analysis strategy that summarized and brought meaning to the text. Descriptive names for each category created was used. Other themes that emerged were also categorized. The researcher paid special attention to responses addressing key issues in the objectives though emergent and significant themes were incorporated as they become apparent. Main categories reflected subcategories of smaller more defined categories as captured in the data collection tools. These helped in reflecting the nuances in the data and its clear interpretation.

**Step 4: Actual data analysis**

The case study data analysis was divided into two sections:

- Quantitative analysis of data sourced from agents and users in the implementation, uptake and use of the products
- Qualitative analysis of information from the in-depth interviews with key informants and the two focus group discussions (users, scholars and experts)

Quantitative data was analyzed using SPSS. This was done with all the data collected from agents and users irrespective of the affiliate banks. The aim of the data information was to identify needs of the unbanked populations, suitability of product, actual usage; challenges associated with use of the service so far and value addition. This was to ascertain the best way for these actors to be aligned to the interests of mobile banking execution. All the named reasons were considered factual and separate analysis would have yielded replication.
On the other hand qualitative data analysis was case specific. This was because the study sought to identify product designs of each product and ascertain which design addressed the needs identified from the users and agents effectively.

Key information crucial in the execution of the three products was followed; describing the efforts employed to ensure financial inclusion, succinctly dissecting all regulations put in place to address the needs of target populations and seeking opinion on the way forward for challenges experienced. All this information was aligned to the objectives, constructs and meanings as captured in the coding template.

Focus group discussions were the most crucial in contextualizing information gathered from all sources. FGD with users and agents was used to crystallize needs of the users and agents, the general use experience, the challenges they faced and how they felt their needs were to be addressed. On the other hand the in-depth interviews with experts was critical in contextualizing/putting in perspective all evidence gathered from the enormous sources in the study; not limited to actors identified and to realign actor roles or even create new ones and to finally design a strategy for effective deployment of mobile banking products for financial inclusion of the poor and marginalized.

- **Initial data management procedures**

Ms-Excel was used to create a database for storing all documents. It provided a similar functionality as the qualitative data analysis tools in the market in the management of text excerpts to the codes. The initial analysis techniques for qualitative data analysis were coding
and document summary. Otherwise quantitative data was keyed in the SPSS program and analyzed straightaway.

Voice data collected during the interview sessions was listened to and transcribed. Although volumes of pages were produced, each transcript was read thoroughly and data reduction achieved through use of the coding strategy (figure 3.8) in the coding template as guided by the study objectives, themes in the study and associated meaning of constructs. Actual coding entailed segmentation of themes in the actual data hived and captured into the M-Access database.

In addition relevant documents collected during data collection were read and contents summarized. Essential information entailed description of the document, its significance in the study, a brief summary of the contents and the researchers’ reflective notes. These were then posted to the database for further analysis. Where necessary documents were scanned and stored for further use. All artifacts collected during the data collection process or photographs taken were processed and stored appropriately for further use in the study.

**Step 5: Interpretations and reporting**

The interpretation was based on thematic concerns of the study guided by the ANT theoretical framework. The researcher addressed findings on each objective of the study and clearly explained in detail the relationships established from the respondent’s perspective. Reporting involved chronological organization of the materials according to objectives. Detailed quotes were followed by analysis and interpretations. Discussions included summary of findings as captured from the data analysis and the testing stage, recommendations and additional implications of the study informed by ANT.
Table 3.8: Conceptualization of the data analysis process

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Constructs</th>
<th>Data sources</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illustrate factors facilitating mobile banking for financial inclusion</td>
<td>Network society and space of flows</td>
<td>Agents and users</td>
<td>1. Quantitative- data from agents and users was used to establish actual use in remote areas, the ability of mobile devices to execute financial transactions, characteristics of use i.e. who performs transactions, when, where, amounts of transactions and with what effect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Literature review</td>
<td></td>
</tr>
<tr>
<td>Draw lessons on the usefulness of ANT in studying the stabilization process in Mobile Banking.</td>
<td>Translation-emergence-problematisation, interessment and enrolment</td>
<td>1.Bank officials/agents/users/ regulators</td>
<td>Qualitative- to explore the translation process, identifying the partners (animate and inanimate), the critical roles they play, incentives and other give and takes used to ensure partners are attracted and enroll to offer the product. who and what are involved in the executions of m-banking services</td>
</tr>
<tr>
<td>Determine the context of use in mobile banking and its role the uptake and use of Mobile banking products for the financial</td>
<td>Context of use-</td>
<td>Agents/Users/Regulators/Bank officials/focus group discussions</td>
<td>1. Quantitative-analyse information that supports the existence of mobile banking services in remote areas.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>1. Environmental factors</td>
<td>2. Social Factors</td>
<td>2. determine the characteristics( attributes) of people executing mobile banking</td>
<td></td>
</tr>
<tr>
<td>3. Technological factors</td>
<td>4. organizational Factors</td>
<td>3. devices used in the execution of mobile banking services Qualitative-</td>
<td></td>
</tr>
<tr>
<td>5. Regulatory factors</td>
<td>5. establish the strategies used in implementation of products for the benefit of the poor and marginalized</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ascertain the role of actors in the design, rollout and use of m-products to</td>
<td>ANT- Focus group Qualitative</td>
<td>5. establish enabling factors that have been specifically put in place to enable mobile banking rollout uptake and use</td>
<td></td>
</tr>
</tbody>
</table>
| Increase uptake and use by the poor and marginalized | Animate and Inanimate Actants | Discussion with users, scholars and experts, bank officials, users, agents, regulators, expert opinion, literature review | 1. Establish enrolment of human actors and what they are doing-users, agents, bank officials, network providers, marketers, innovators, regulators etc.  
2. Establish enrolment of non-humans and what their functions are and what they are actually doing-networks, shops, technological devices, communications materials, distance, working hours, float availability, electricity. Culture, trust etc. |  
Establish the function of each actor, the roles they play, problems in execution and what each actor |
3.9. Reliability and validity

According to Hammersly (1992) validity and reliability are achieved when description of phenomenon under study depicts its existence in its natural setting. Credibility of the research process was determined during the actual process of data collection. However the study incorporated the following strategies to increase the credibility of findings:

1. Use of several sources of data. This included the interview schedules with various group categories, focus group discussions, extensive literature review and actual interaction with respondents.

2. A pilot study to ascertain suitability of data collection tools for the specified groups.

3. The researcher also documented decisions made during the data analysis process. This included reasons for the focus taken, category labels, any revisions and observations.

4. The main recommendations constituting the stabilization strategy were designed from the data analysis which was interpreted in line with the study objectives.

5. The researcher involved other scholars in the field in the entire analysis process, reviewing and discussing of the data and their meaning and in the arrival of major conclusions and presentation of results.

3.10. Ethical considerations

Permission to conduct the research from the three participating banks was sought. Where access was denied alternative and appropriate methods of accessing information were pursued. Consent of each participant was sought and principal of voluntary participation was adhered to. The nature and purpose of the study was shared with each participant before being engaged in the research. Confidentiality and privacy were strictly observed by ensuring that names of participants did not appear anywhere on either the questionnaire or the interview schedules. The
researcher consequently ensured that all sources of information were properly quoted. Results of the study would be availed to stakeholders of the research where applicable.
CHAPTER FOUR: PRESENTATION OF FINDINGS AND DATA ANALYSIS

4.1. Introduction

This chapter is divided into two main sections: quantitative and qualitative presentation of findings and data analysis. The section begins with the presentation of findings from the guided questionnaire with users and agents, followed by the FGD with the users and agents. The case studies and data from other key informants follow in the second section.

The purpose of the quantitative measurement was mainly to gather evidence on actual use of banking services ascertaining the roles of the users, agents and also the mobile devices used. It is a demonstration of the activities in the network society and also actual execution of roles in the mobile banking actor network. Particularly the section sought to find out how technology - mobile devices were being used and how effectively they could be used for financial inclusion of the poor and marginalized. This entailed facts from actual use by the users themselves, the agents offering the services, devices used to perform transactions, diffusion of innovation and information strategies together with peculiarities of usage in the context of every actor. As a prerequisite to an effective strategy, this section therefore sought to identify the needs of the users, usability of mobile devices to provide banking services, actual use by those in remote areas, challenges and the way forward as experienced by the people. This being an exploratory study the questionnaire was guided to ensure that appropriate answers were given for all questions.

4.2. Findings from the questionnaire with agents.

4.2.1. The questionnaire completion rate

The study targeted all 52 agents in the district. However only 45 were actual respondents as 7 were in market centers where other bank services were available making use of the services
additive and not transformational. The completion rate was 100% as researchers ensured that they administered the questionnaire on the 45 agents identified. Extra copies were carried to replace those that were torn or misplaced. The assistants resided at the market centers during the data collection period in order to collect all the questionnaires issued.

**Figure 4.2.1 Position of respondent**

The study revealed that various people could offer services to clients. Assistants and administrators were most likely to transact for clients sharing a percentage of 38. These were mainly employees serving in the shop which occasionally had other businesses. Owners were unlikely to perform transactions for clients standing at 24%. This is a clear indication of the simplistic nature of the design which resonates well with products targeting BOP populations.

**Figure 4.2.2 Age bracket**

Majority of those working in the shops were mature people of between 36-55 years at 38%, followed by youthful workers at 31%. Beyond 55 years were 16%, while those below 18 years were 15%. The spread in age provides assurance that the products do not require any special
skills and upon a short training session, workers already serving in the shops could combine all the roles. This significantly reduced the costs associated with wages.

**Figure 4.2.3 Length of operation**

The study revealed that agency banking had been around for two years. No one claimed to have operated beyond two years. 36% had been in operation for between a year and two years; those who had operated for less than a year formed the bulk of the agents at 64%.

**Figure 4.2.4 Operating hours**

Unique about agency banking was that agents regulated their working hours. Majority opened at 7 am and closed at 8 pm at 33.3% followed by those who opened at 6 am and closed at 7 pm at 28.9%. Those who opened at 8 am and closed at 8 pm were 17.8% while other categories stood at 11.1%. Extended and unique working hours were one of the strategies that ensured that people had access of the products as long as possible and could address the informal work schedules of the rural populations.

**Figure 4.2.5 Bank agency**
The three agency models targeted in this study were represented; However Equity bank had rolled out the highest number of stores at 36%, followed by KCB at 27% and Cooperative at 20%. Various agents combined services of the banks. Though not in all markets, this was a significant step towards access of the services to rural populations.

**Figure 4.2.6. Sources of information on agency business opportunity**

It was important to establish how information on agency banking as a business was communicated to them. Majority cited the bank officials at 49%, while others learned from promotions and road shows at 31%. 9% learned from respective banking halls, while others cited the local FM radio station at 11%. This was exhaustive of communication channels.

**Figure 4.2.7 Source of influence to actually decide to offer services**
It was also important to establish what or who influenced the agents to make that final decision to enter into the agency business. 55% cited family as the most influential, followed by bank representatives at 29%, others cited promotions at 7% while 9% cited business colleagues. At the end of the day the decision was determined by whether there was a budget for an extra business line which had profound implications on quality of service in terms of float availability.

**Figure 4.2.8 Challenges of being a multi agent**

Being a multi agent posed various challenges to the agents. The most cited challenge being ineffective networks at 26.7% followed by insufficient cash or float to serve customers at 24.4%. Others included inability to offer all services required by clients at 20.0% , few clients 17.8% and low income of clients 11.1%. Nevethlessr this was an innovative way of providing choice in a one stop shop. It was likely to resonate well with the needs of the populations in the long run.

**Figure 4.2.9 Length of time between application and operation**
The study revealed that most of the banks were quick to enlist the services of interested agents. This mostly took less than 5 months at 69%, and 6-11 months at 31%. It constituted one of the interest strategies, to avoid keeping agents waiting long for approvals.

**Figure 4.2.10 Services offered at agency**

Although at the agency there was a display of possible services, most of the agents offered three main services i.e deposits, withdrawals and pay bills at 58.8%, some cited deposits at 17.8%, withdrawals 17.8% and paybills at 4.4%, however some agents offered all the services at 20%. The reason for the limited service was attributed to the fact that the shops could not offer all the services as in the bank branch because CBK had not authorised.

**Figure 4.2.11 Initial cost of investment Kenya shillings**

The amount required to start operations was flexible and some agents started to operate with less than Ksh 50,000 at 24.4% however the greatest number of agents started with capital of between Ksh 50,000-100,000 at 26.7%. Some invested over Ksh 200,000 at 22.2%. Cited by the experts
this was one way of escalating diffusion of new products. After critical mass is attained the focalactor can be strict on requirements.

**Figure 4.2.12 Profitability of agency business**

80% of the agents revealed that agency banking was not a profitable business at the time of the study and only 20% acclaimed positively. It was a negative implication for sustenance because agents would be discouraged and drop the business.

**Figure 4.2.13 approximate commission per month in Kenya shillings**

In regard to profitability, agents made little commission per month. 42% got between 3000 and 5000 as commission per month. 2% got less than 1000 while 27% got between 2000 and 3000. 11% got between 5000 and 7000. Only 2% got more than 10000 per month. A point to note is that close to 2/3 of the agents made less than 5000 per month. Money which could not pay the assistant and take care of other bills.

**Figure 4.2.14 other incentives offered by banks to agents**
Some of the incentives provided to assist in offering the services were branding, promotion materials like t-shirts and caps and stationery.

*Figure 4.2.15 Expectations from business*

Agents had various expectations in the business. Those who expected to serve many customers and make profits constituted 31.1% while those who wanted to make profits from the business were 17.8%. Significantly close to ½ of the agents went into the business hoping to make profits which was not the case (4.2.14) at the time of the study. Those who wanted to offer all services as in bank branches were 26.7%, while those who wanted the new business to bring in new customers and be able to serve many agency bank clients stood at 13.3%. This enthusiasm was not realized in the commissions made and collective benefits of translation were not aligned.

*Figure 4.2.16 Special techniques in service delivery*
The study revealed that agents had business strategies of attracting customers to their shops. This included opening early and closing late at 37.8%, followed by investing enough capital at 22.2%, training of assistants at 17.8% and assisting customers to transact at 11.1%. Other techniques mentioned included speaking the local language to customers and sometimes re-opening the shop after closing to transact for customers. The relationship between the shop assistants and their clients points to an informal relationship which has heavy undertones of cultural and communal influence as residents were able to determine how they wanted served.

*Figure 4.2.17 Creating trust in customers*

From the study with users, trust was a crucial issue in agency transactions and the study sought to find out what agents did to ensure that users had faith in their services. 29% explained to customers why messages confirming transactions were not forth coming, 20% let customers operate phones themselves, 9% addressed customer needs effectively while 9% combined all the strategies.

*Figure 4.2.18 Success indicators*
Despite the fact that agents were not making money, they were optimistic that it would get better as customers could transact at their own time and near their homes at 36%, the operation schedule was convenient as they could regulate working hours at 31%, the amounts clients could transact were affordable at 22% and customers were able to get loans on account of their transaction history at 11%.

**Figure 4.2.19 Challenges in agency business**

Although agents were offering services to clients, they encountered various challenges. Some of the challenges cited were that they did not have enough cash or float to serve customers effectively at 40%, employees were tempted to steal cash they operated with and occasional burglary at 15.6%, the network was not always effective making customers fail to trust the system at 11.1%, the assistants offering the services lacked professionalism at 6.7% and that there were also few clients transacting in the shops per day at 13.3%. These challenges were administrative and commitment in implementation process through negotiations for a better structure of the service would create an improved use experience.

**Figure 4.2.20 Opinion of agents on what should be done to increase uptake and use of products**
26.7% of the respondents felt that registration of agents was laborious and needed to be reviewed, 22.2% cited the fact that customers were not transacting because they did not know how banking could benefit them therefore they needed to be educated, another 13.3% felt that agents needed to be supported by banks inorder to offer all services conveniently and 8.9 % were of the view that the network was ineffective and confirmation messages were not always forthcoming. another 11.1% was of the opinion that they needed to know which services were able to add value to their lives and the best way to manage the accounts they had opened requiring financial literacy classes. The study also revealed that tafiffs charged for transaction at the agency was pegged on amounts transacted, the higher the amount the more money the client paid which was different from the banking hall; making transactions tariffs different from those in banks and significantly more expensive. 8.9% felt that these charges needed to be reviewed downwards.

4.3. Findings from the questionnaire with Users

4.3.1. The questionnaire completion rate

The questionnaire completion rate was 92%. The researcher enlisted the services of three assistants each assigned 40 copies of the questionnaires to administer to users. Each was required to liaise with the identified user in terms of the time required to fill in the questionnaire, extra copies were carried to replace those that were not returned or torn. The assistants resided at the market centers during the time of data collection, besides they had the telephone numbers of
those they had given the questionnaires. The assistants could not get the 10 respondents who did not return their questionnaire on phone and 110 copies were used for the analysis. However the researcher felt that 92% was a viable percentage for the study as the results would still be triangulated with the FGD for users and agents.

**Figure 4.3.1 Sex of respondents**

The study targeted an equal number of both sexes as explained in the stratification (table 3.4) inorder to capture banking habits of each segment. 51% of respondents were female while 49% were male. Coincidentally the demographic statistics of the study area points to the same ratio.

**Figure 4.3.2 Education level**

Most of those who were using agency bank services had an education level of primary at 43.6%, 15.6% were of secondary level while 23.6% were of university level. 13% did not have any formal education and 10% had acquired adult education. This was in agreement and a reflection of the literacy levels (4.3 years) across the Kenya population.

**Figure 4.3.3 Age bracket**
Majority of users were of between 18-35 years at 52.7% followed by those between 36-55 years at 37.3%. Those of 55 years and above were 7% while those below 18 years were 3%. Though the youth took up more than ½ of the sample, the important factor is the realization that use was not affected by age. The product could be used across represented age groups.

Figure 4.3.4 Occupation

Majority of the respondents were business people at 42%, with farmers and those in formal employment sharing at 19%. Others included housewives as well as those offering skilled services at 7%. This constitutes a significant finding and implication for this study. Only 19% of the population was a representation of the common rural folk. This means that although financial services have been availed to rural poor populations it is not a guarantee that they will take up the services. There is need to establish what conditions are necessary for this segment to embrace financial services as well as technology based applications.

Figure 4.3.5 Existence of a bank account before agency outlet

The study revealed that 52% had bank accounts before the agency came to their locality; however 48% registered at the agency. The fact that this segment was underserved, agency
banking was instrumental in providing the service conveniently. This group did not necessarily constitute the poor but were marginalized.

Figure 4.3.6 Factors that hindered existence of a bank account

The study sought to find out what had hindered the people who were now registered from owning bank accounts. Some of the reasons cited included that there was no bank account in the area at 48%, others were not aware of what accounts could do for them at 22%. Some would have liked to own accounts but some banks required bank balances that were too high, 16% others could not afford fare to the nearest bank at 6% while 8% felt that requirements to open accounts were high. If the model availed to rural populations was to experience uptake and use, the barriers of cost and value for use would need to be addressed exhaustively. That was not the case and it contributed to the few transactions performed in a day.

Figure 4.3.7 Convenient use of existing bank accounts
From those who had bank accounts and resided in this area, we sought to find out how their banking experience was. 54% said they were not able to bank conveniently.

![Figure 4.3.8 Reasons for not using account conveniently](image)

Reasons cited for the inconvenient banking experience included that the bank was far at 63%, that they did not see the need as they could save, get loans and also earn interest through groups 29% and that sometimes the main banks had long queues at 8%. There was need for customer education on the benefits of a mainstream bank account compared to the informal financial services as well as general education on how to manage a bank account and some of the added values accrued from a credit history.

![Figure 4.3.9 Reasons for use of services at the agency](image)

Respondents who were previously banked and those that had acquired accounts through the agency had various reasons for using agency banking services. These included that they were able to save money conveniently at 53.6%, they were able to receive payments through the accounts at 14.5% and that their money could earn interest as opposed to keeping it in the house at 15.5%. Others included that the agency was conveniently located at 9.1% and that they could get credit from the bank at 4.5%. This implies that banking services are necessary for day to day
financial planning. Whether the income one has is regular, irregular or little, there are services that require that a person holds a bank account. This has been a disadvantage to rural populations.

**Figure 4.3.9 Reasons for use of services at the agency**

![Figure 4.3.9](image)

**Figure 4.3.10 Expenditure in the agency per Month**

We also sought to find out how much was transacted in the agency in a particular month and majority transacted amounts less than 5000 per month at 45% followed by those who transacted between 5000 and 10000 at 26%. Slightly less than 1/3 at 29% transacted amounts exceeding 10000. The amounts transacted are minimal which could be of significance to regulators while assessing the level of risk and probable due diligence procedures.

![Figure 4.3.10](image)

**Figure 4.3.11 Initial source of information on agency services**

![Figure 4.3.11](image)

It was important to find out how the information on agency banking was diffused to them.
The channel cited most was word of mouth at 25.5% followed by road shows and TV and FM radios stations at 18.2%. Next was posters and billboards at 15% followed by displays in agent bank shops at 13%. Other channels cited were digital adverts, and newspapers.

**Figure 4.3.12 Information on agency bank related services**

Besides initial information on diffusion, registered clients were able to learn of new services through word of mouth and SMS alerts at 18.2%. 14.5% cited posters and billboards. 12.7% learned from bank displays while 7.3% cited road shows and promotions. Significantly the method of communication moved to more personalized means through the SMS as the persons were now using the services.

**Figure 4.3.13 Devices used in agency banking**

Agency bank services were accessed through two devices. These were the mobile phones and visa or bank cards. 30% exclusively used the phone to transact while 14% used the card. The majority at 56% used either the card or the phone to transact. However Coop bank had not rolled out their mobile phone option and majority of card users were clients of the bank. The POS was used to swipe the card. The efficient use of the devices to perform transactions was evidence that mobile technology was an innovation that promised to provide access of banking services to
rural populations. However access alone as realized in the findings is not enough, specific interventions are necessary to ensure that the populations use the products. 

**Figure 4.3.14 Reasons for using agency services**

There were various reasons for using agency services. Top in the list was to keep money safely at 37.3%. Other reasons included to be able to access credit at 13.6%, pay school fees at 17.3%, to avoid unnecessary spending at 12.7% and for deposits to earn interest at 4.5%. Others were to qualify for services that required bank statements at 4.5% and also to transfer money electronically at 7.3%. 4.5% for deposits to earn interest would mean that these people do not keep a lot of money in the banks and again not for long. For a start the range of products resonated with needs of the target populations as cited in MicroSave (2006). The current offer of cash in cash out services was adequate for the time being.

**Figure 4.3.15 Most useful services**

The most useful service to this segment of users was to be able to deposit money at 32.7% and to withdraw money at 30.9%. Ability to pay bills was third at 10.8% followed by balance inquiry at 6% and money transfers 4%. What was noted through observation was that majority of the
clients withdrew money from their accounts and then send the same money to others using M-PESA. However the menu for the three agent banks had the M-PESA service incorporated. This shows the mindset of Kenyans in terms of the M-PESA shop; it is synonymous with money transfer, similarly one is also able to move money from M-PESA to a bank account, our observation was that this again did not happen and people withdrew the money and deposited it to the bank account through the agency service. This behaviour has profound implications on both co-existence and differentiation of services. Instead of the Telecoms trying to enter into banking and the banks entering into money transfer each should strengthen their core businesses and explore possibilities of strengthening each others interests through a give and take relationship. Market segmentation could improve on the functionality of the products like negotiating for minimal costs for SMS transactions while transacting at the agency.

**Figure 4.3.16 Use of other financial services**

The study was keen to establish what alternative financial services were available and evidence of use from respondents. 59% were positive that they had used MFIs, 19% had used Merry go rounds and 12% had borrowed money from money lenders. Only 9% had access to saccos. The findings point to the gap that prevailed and could be solved through formal services if agency banking services were stabilized for continued use.

![Pie chart showing usage of different financial services](image)

**Figure 4.3.17 Frequency of transactions in a month**

Agency banking was popular among the users and about 1/3 transacted at the agency more than twice a month at 29.1%. 30.9% transacted twice a month while 27.3 transacted three times a...
month. Only 12.7% of the respondents transacted only once. This was because while some were dependants and got money at particular times of the month, others were business people who needed the services often and could transact frequently. All in all the services addressed the needs of both categories adequately.

Figure 4.3.18 Reasons for not using agency services

We sought to find out the experience they had transacting at the agency and various impediments to effectiveness were cited. Over ½ of the respondents at 54.5% claimed that most of the services were not offered and this still called for their going to the main branches. 22% said that most of the times they were not served as the agents did not have enough float or cash to transact. 12% did not trust the agents and 12% said the network was ineffective as sometimes they were not able to get confirmation messages.

Table 4.1 Rating of services at the agency

<table>
<thead>
<tr>
<th></th>
<th>Very good</th>
<th>Good</th>
<th>Moderate</th>
<th>Bad</th>
<th>Very bad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer</td>
<td>32.4%</td>
<td>34.3%</td>
<td>18.5%</td>
<td>14.8%</td>
<td>0</td>
</tr>
<tr>
<td>Service</td>
<td>18.5%</td>
<td>43.5%</td>
<td>31.5%</td>
<td>6.5%</td>
<td>0</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>Time taken to transact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of Service</td>
<td>56.5%</td>
<td>22.2%</td>
<td>14.8%</td>
<td>6.5%</td>
<td>0</td>
</tr>
<tr>
<td>Availability of float</td>
<td>17.6%</td>
<td>31.5%</td>
<td>32.4%</td>
<td>18.5%</td>
<td>0</td>
</tr>
<tr>
<td>Trust</td>
<td>42.6%</td>
<td>28.7%</td>
<td>14.8%</td>
<td>11.1%</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

The general rating for the experience in the agency outlets was promising and despite some few negative ratings float and trust, customers were pleased with the agency experience. Rating of the banking experience indicates that quality of service was most appreciated with over 2/3 of respondents very happy about how they were treated. This entailed convenience; interaction with assistants and general feeling of operating at the agency, customer service was also favorably rated with over 50% of respondents appreciating the responses they got for questions and clarification to various issues. The users also trusted the service at 42.6% though some users did not trust the services at 11.1% for bad and 2.8% at very bad. The extreme rating was as a result of the fact that some employees in the agencies were people known to customers and associated them with non formal jobs and had reservations over their ability to hold customer information in confidence as well as be accurate in performing transactions. Availability of float in the shop was moderately rated with only 17.6% stating that the float levels were very good, then majority at 31.5% for good and 32.4% at moderate. The time taken to transact at the agency was also moderately rated with the highest number voting 43.5% for good and 31.5% for moderate. The
users were comparing the agency with queues at the bank. The delays were mainly system based sometimes messages not forthcoming totally even for a day or two.

**Figure 4.3.19 Success of agency banking in locality**

Despite the challenges cited, respondents were pleased at the introduction of agency banking and 93% said that the service was a success in the locality.

![Pie chart showing 93% success and 7% failure]

**Figure 4.3.20 Product description making it successful**

Asked what they felt made the product successful, 37.3% felt that they were in a position to access credit on account of their transaction history, while 21.6% said it was because the shops were near their homes, another 13.6% said that the shops opened early and closed late as well as those who felt that they communicated conveniently with the assistant using the local language. Other descriptions included that they were assisted when they had problems transacting and also they could deposit and withdraw small amounts of money. The conveniences exhibited in use of the products resonated with the freedoms associated with the use of the products as explained in the network society.
**Figure 4.3.21 Evidence of changed lives**

Respondents were able to pinpoint some things they were able to do now that were not available when the agency had not been opened, this included being able to save money conveniently after work at 31%, that they were no longer keeping money in houses at 20% and that they did not need to go to money lenders anymore 12% or join groups in order to qualify for loans at 8%. They were able to get loans from the banks at 14% and also pay school fees and other bills conveniently at 15%. Though the sample in (4.3.4) indicates that over 70% was not really poor, Evidence of changed lives is a starting point and these services could gradually be entrenchied in the lives of the low income earners in these area slowly mitigating the negative implications of informal banking channels.

![Figure 4.3.21 Evidence of changed lives](image)

**Figure 4.3.22 Challenges of transacting at the agency**

Respondents however had challenges as they transacted in the new platform. Some of the challenges they had included that they sometimes did not get messages after initiating transactions at 26.4% followed by that they needed to be clear of what benefits they could accrue...
from actively operating their accounts at 25.5%. Other challenges included that they felt the transaction procedure was difficult at 13.6%. Those who felt that transaction fees were high as well as those who did not trust agents shared at 15.5%. Agents sometimes disappointed them as they did not have enough money to transact at 0.9%. These interventions were necessary while targeting BOP populations as well as to address the issues raised by Prahalad (2006) discussed in section 2.2. The product design and constant monitoring and evaluation were necessary to address emerging issues and the specific needs of the people.

**Figure 4.3.23 Opinion on what should be done to increase uptake and use of agency bank services**

24.5% of respondents were of the opinion that agents needed to employ professionally trained assistants followed by need for awareness campaigns to sensitize users on the importance of using services at 17.3%. 15.5% felt that a reliable network needed to be sought and 13.6% were of the opinion that customer education on how best to operate accounts was necessary while another 13.6% were of the opinion that banks needed to support agency operations financially. Another 12.7% felt that enough shops could escalate use of services. 2.7% thought that the services should be cheaper. The suggestions pointed to the weak translation effort and limited resources availed by the focal actors in the implementation process. The model did not really consider the actual needs of the people because the cost of the product was still high, customer
education had not been done sufficiently and awareness campaigns had not registered significant impact.

4.5. FGD - Users and agents

The purpose for this focus group discussion was to enrich data collected through the guided questionnaire. The major findings included:

*Figure 4.3.24: FGD in session*

*Source: study*

**Major needs**

Users were happy with agency shops particularly because they had bridged the mainstream financial access divide. They were in a position to access banking services conveniently in their locality and did not have to go to the main bank to attend to their banking needs. They appreciated the product structure of small amounts as their incomes were limited. The convenience of transacting in the normal commodity shops and the assistants intermediation made them feel comfortable. Convenience of time was also appreciated and in fact some said that even if the shops were closed they could request the owners to open and perform just that one transaction and once money was in their accounts they could initiate transactions on their
own at home or anywhere at any time. They were able to decide how to use money in their accounts for various needs dividing the amounts to address needs as they deemed fit, they also chose whom to send money to without asking for assistance from anyone and in privacy. One of the respondents candidly said,

“I don’t have to embarrass myself going to the bank to deposit Ksh 500. These bank people, they look at you and start asking, “where do you work?’ yet I know when I keep the Ksh 500 in my pocket I will definitely use it for other things. I can now bank my Ksh 50 without any one asking me anything, in fact most of us here bank at least Ksh 100 everyday and at the end of the month it is around Ksh 3000 which can pay school fees”.

They appreciated the fact that now they did not need to keep money in the houses or go home with it after work as they were now able to safely leave it at the agency.

Agents were optimistic that the products would pick with time and the businesses would be profitable. They attributed this hope to the business brands as the three cases were considered banks that targeted low end customers. Consequently each bank targeted a particular segment of customers, for example equity was popular with small value bankers as well as SMEs as they had a structure that allowed for flexible borrowing, Cooperative was popular with farmers and those who were in Micro Finance Institutions and Merry go rounds while KCB was popular with institutions and came in handy for schools and eased the payment of fees for users.

Users were now able to service payments for MFIs they had borrowed money from and the contributions to these groups were safely banked after the weekly meetings. Further they did not need to be in groups to access loans from the banks as individuals could get a loan on account of
individual collateral or their new account history. This was convenient as most of the other lenders embarrassed those who did not submit weekly contributions by going to the defaulter’s home as a group and ransacking the house for any saleable item to recover the amounts needed an exercise that was traumatizing to children. The experience was captured by one of the respondents as follows,

‘Agency banking has come to change things. These women will not come to my house again. They do not even respect your husband or the children. They come all at once around fifteen of them and start picking this and that as the children cry’.

They also appreciated the fact that in banks repayment times were flexible unlike in the MFI or money lenders conditions where repayment of loans was on a specific date failure to which all group members were kept in the meeting by the officers in charge until the group contributed all the money due. Money borrowed from money lenders was expensive, before getting the borrowed money a certain percentage mostly 10% was paid in advance; further the repayment structure was harsh for most of the times it was on a weekly basis.

The mode of transacting was also very convenient as they were able to use their phone to initiate transactions and also confirm the same. Most of the banks gave cards in a week’s time after opening an account and they could also use the cards to transact. Transaction charges were convenient as they only required airtime of less than Ksh 5 on average across all networks for an SMS. At the time of the study Yu charges were free. This was reasonable according to them as they saved transport costs to the branch and time wasted. Use of phones was convenient as those without phones could borrow phones and transact using their personal SIM cards where the virtual account resided; it was therefore not a requirement to own a phone but a mobile SIM card. Phones were easily charged at the market centre for as little as Ksh 10, and depending on
the make of the phone the charge could take up to three days. The users used the phone for all other communication needs.

**Use experiences**

Although agent banking was a success story and had changed the lives of users, various challenges were cited. Key among the issues raised by agents was the number of clients trickling into the shops, as indicated in the field experience, we had to get telephone numbers of frequent customers from the agents in order to get some of them to answer questions as we could not get them at the shops transacting. This was attributed to the fact that customers were not quite aware of the role of the product as customer awareness campaigns had not been frequent. First time account holders did not know how they would benefit from owning bank accounts nor did they possess any knowledge on the best banking practices; these people therefore needed financial literacy training.

Agents had challenges of capital, it was possible to get one customer collecting all the money held in cash or another depositing an equal amount to the e-money held in the float account, this led to disappointment of customers for changing cash to float or float to cash had to be done at the branch which was not near. The solution was to operate with a reasonable amount; a figure which stood at not less than Ksh 100,000. Most of them could not raise such amounts and were of the opinion that the banks they acted on behalf needed to revise lending rules to favor them as they were partners. Agents felt that interest rates at the time of the study were too high for businesses that were starting and commissions were minimal.

Theft was also an issue, most thieves associated agency banking with liquid cash, most of the times even when there was no cash in the shops thieves broke in leading to losses of other goods
sold as upon missing cash they stole anything else that was in the shop. Workers employed were also tempted by the huge amounts of money they operated with and most of the times cash and float did not balance with the capital invested meaning that the workers lend themselves money. The fact that shops were in the neighborhood of the workers, relatives felt if they had a need they would easily borrow money to refund not knowing that the money was what was on sell in the agent shops. This led to unnecessary conflict and strained relationships.

Users also felt that agent shops needed to be increased so that they could complement each other. Most of the times if the only agent in the locality was in some way un able to offer a service, the users ware left with no option but to keep the money in the house which more often than not took care of other needs.

KCB agents were particularly unhappy with the cost of performing transactions using the phone and in fact a participant in the discussion was almost certain that she was going to leave the business\textsuperscript{30} claiming that the transactions were few, she actually showed us the log book she used to record transactions,

\begin{quote}
‘I do three transactions per day, then I spend over Ksh 20 credit on the transactions, some of the transactions don’t go through yet I also pay for them’.
\end{quote}

The KCB agent also informed us that the POS device was going to be availed for Ksh 500 a month, for this she was furious asking,

\begin{quote}
‘If I am transacting for only three people per day, how many transactions will I need to raise Ksh 500 for the POS? It means I’ll be working for nothing’.
\end{quote}

\textsuperscript{30} I actually passed by her shop later after the study and she had made true her threat. the branding was still there but she was not offering the service.
Participants were also concerned that besides the transaction costs all transactions attracted charges for the SMS which was expensive.

Members were also concerned that the transaction in the agency was more expensive than at the ATM, and were asking how an expensive product like that was going to add value to their lives, they claimed that they were being fleeced of their hard earned money.

Poor network services were a frustration that could hinder increased uptake and use. Both agents and users were not able to transact effectively as messages were occasionally not forthcoming. Such transactions were cancelled meaning that the service was not availed at the time of need taking the users back to the time the agency was non existent. The network coverage was also poor. Further from the market only designated areas had the network and people would be seen crowded in these areas trying to catch the signal.

4.6.: Case Study

4.6.1 Introduction

In the previous section the survey findings on usage by agents and users were presented. This section sought to gain a deeper understanding of the three cases involved in the actual roll-out of mobile banking products in this study. Critically and informed by the ANT theoretical perspectives data collected was to aid in understanding the heterogeneous relationships that existed in the product development, its execution and emergent outcomes of the relationships. Key areas of interest were the translation process with all steps in the process i.e. problematization, interessment, enrolment and mobilization. Further aspects of prescription which had an impact on the actual execution of roles by actors recruited into the relationship were also explored. This was done through an in depth understanding of the basic structure of the
product; the company portfolio the key translators and the translation process specific to each company studied. Understanding the company and personality attributes of the key translators was necessary in establishing the suitability of both the company and the CEOs power in attracting and influencing suitable and substantial partners in the mobile banking network. Framing of actant roles to address the financial needs of the poor and marginalized was sought through various data sources to inform the final stabilization model.

The case study is a description of the three cases in a natural language\textsuperscript{31} prior to the analysis, discussions and interpretation of the cases in line with the theoretical frameworks and objectives of the study in chapter five. The presentation entailed actual quotes from the respondents and consequent explanations and clarifications to convey the process of mobile banking network formation from the perspective of the actors themselves.

The context of use of the products was traced through the three mobile banking products (KCB Mtaani, Coop Kwa Jirani and Equity agent) to ascertain their suitability in the provision of financial services to the poor and marginalized especially in the rural areas where traditional banking services either did not exist or customers had to travel long distances to main banks leading to being underserved. The ANT methodology was particularly useful in the study of the stabilization process because it allowed the researcher to focus on ‘anything’ in the network formation that could contribute to the sought stabilization model. The good news being that this ‘anything’, so long as it played a role in the network was recognized as an actor.

\footnote{\textsuperscript{31}Walsham and Han (1993) advocate a natural language description of a case prior to a formal analysis.}
The interview guide for the bank officials was used to collect the information that was important in understanding the actors, their roles and how they performed these roles in the creation of mobile banking. Information gathered from the actual use in chapter four guided the questioning of the bank officials. The officials were questioned at two levels:

- Level one involved the Head of agency departments who mainly interpreted the product development and implementation process (actors, roles and role execution), financial inclusion needs addressed in the product and the understanding of the regulations governing the execution of the implementation process.

- Level two was supervisors in contact with the actual users and these were instrumental in addressing issues related to enrolling users and agents and the actual use experience as reported by users and agents. This was done inform of a discussion and constituted the triad.

However the in depth interview was only done for Equity and Cooperative bank as KCB Agency department claimed that they could not give information on their KCB Mtaani agency product. Nevertheless the researcher was allowed to collect data from the independent users and agents who were willing to give information on their own accord. The information gathered from the agents and users formed the basis of the triad discussion. The researcher was able to convince one of the KCB bank agency supervisors to participate in the discussion on condition that the researcher did not disclose his identity. By the time of the triad discussion the researcher had established a very good relationship with Coop and Equity supervisors and it was easy to convince the two to participate in the discussion. Furthermore Equity and Coop supervisors were eager to get the feedback from users and agents; they were very cooperative. The discussion was
conveniently held in a class at St. Paul’s University church house building during the day. Apparently all supervisors were very appreciative of the discussion including the KCB supervisor; it was insightful and the best part of the data collection process.

4.6.2 Agency banking

The central Bank of Kenya in recognition of financial challenges of the unbanked populations especially in remote areas released legislation in 2010 (CBK, 2010) that allows commercial banks to contract third party retail networks as Agents. Upon successful application, vetting and approval, these agents are authorized to offer selected products and services on behalf of the bank. This relationship creates an Agency Banking business model. All banks involved in agency banking are regulated directly by the CBK and the regulation is universal across all banks.

Key among the reasons driving this innovation was the fact that many people in Kenya were excluded from the traditional financial services. There was a deliberate effort by the banks to try and accommodate the unbanked populations in Kenya. Initially a lot of energy was directed towards MFIs (CGAP, 2008), however these models had their own challenges and the agency banking innovation was a solution long overdue.

4.7. Equity Bank: Case A

Equity bank is a fairly new bank in the Kenyan Market having acquired the Banking license in December 2004. However it has taken the Banking Industry by storm practically changing the way banking has been done in Kenya. With over 5.7 million accounts, accounting for over 57%
of all bank accounts in Kenya, Equity Bank is the largest bank in the region in terms of customer base and operates in Kenya, Uganda, Rwanda and Southern Sudan.

Relevant to the interests of this study, Equity has received both local and global recognitions for its unique and transformational financial models. The bank is applauded for taking banking services to the people through its accessible, affordable and flexible service provision. For once in the history of banking in Kenya Equity bank recognizes the need to empower the start up business people with special interest in the subsistence business people (popularly known as, “Mama Mboga”, in Kenya). Besides access to the facility, the product is free of all ledger fees, a strategy recommended for the BOP populations.

Equity Bank’s business model has attracted both local and international recognition. On many occasions the Bank has been invited to various international forums and bodies to share on its successes. Equity has also become a hub of other institutions worldwide keen on learning and exchanging insights on the Equity model of extending financial services to the low income segment and the un-banked population. The unique efforts of Equity as a bank and its CEO Dr. James Mwangi have been recognized through numerous awards world over. Among the recognitions include:

- Ernst & Young World Entrepreneur of the year Award 2012- held at Monte Carlo’s Salle des Etoiles. In acceptance of this award Dr. Mwangi acclaimed,

  ‘This is a global recognition for Africans who are embracing the power of entrepreneurship to change the economic and social state of society’.

170
• Best Managed Company in Africa award June 2012

• Most Innovative Bank in Africa Award June 2012

• Dr. Mwangi was awarded a Life Achievement Award by the bank for his contribution to the banking industry particularly for his efforts in financial inclusion of the previously unbanked.

• Best Bank in Kenya in 2012/2008/2009

• Best Initiative in support of SMEs and the Millennium Development Goals -2011

• African Banker of the Year 2011/2010

• Best Bank in Kenya - April 2012/2008/2009

• Clinton Global Initiative 2011: an award that recognized the banks model as geared at ensuring financial inclusivity for the unbanked in Kenya. Dr. Mwangi singled out Mobile Banking as a model that was reaching out to the unbanked by saying,

  ‘Equity has opened over 2,500 agents throughout the country to complement our mobile banking solutions which include M-KESHO, Orange Money and Eazzy 247 which makes banking accessible and convenient for a range of financial services’.

• Microfinance Bank of the Year 2009

• Africa Investor series Awards 2009

• African Business Award 2009

• Most Sustainable Bank of the Year 2009

4.7.1 Equity Agent Services
4.7.2 The basic structure

An Equity agent is described as normal business entities that provide basic banking services to equity bank customers on behalf of the bank. Captured from the Equity agent User Guide, the main objective of the product is to:

‘Offer the full range of banking services to our customers without their having to visit a branch. This will provide the opportunity to access financial products and services at a location near the customer. It is aimed at anyone with an Equity bank account and new account holders’.

1. The main products offered at the agency include:

- Basic banking- account opening origination, which still relies on approval by the main bank then a confirmation alert, is sent to the customer, Deposit and withdrawals, balance inquiries and mini-statements. This is done using both the mobile phones or swiping their Visa cards on POSs provided by the bank.

- Facilitate Payments- buy various products directly from your mobile account e.g. pay bills, utilities or rent
- Money transfer - transfer money to an equity account or any other account, transfer money to linked mobile money transfer models like M-PESA or Orange Money

2. Agency branding

External branding - Equity bank allows agents operating their agency service to use the Equity agent logo to help customers identify operating shops. The branding options include the Equity agent signage, painting, stickers and posters, one way films and non neon lights.

Internal Branding – the bank provides all branding material and customer information posters for uniformity purposes. These include the agent services offered posters which display all services offered. This poster has various services indicated and the agent has to tick against the box to indicate which among the services is offered at the shop. The other internal brand is the agent code sticker which displays the unique agent code for customers to use during transactions, agent accreditation certificate – this is issued to the agent after he goes through an application process, gets approval and is trained and to carry out agency services. It should be framed.

Tariff guide- this shows the tariffs of the transactions and guides the customers when transacting.

3. The role of an agent

- Ensure employees are trained on agent business operations
- Reconcile transactions and statements daily
- Process cash withdrawals and deposits
- Record transactions on the transaction register
- Educate customers on what services they can access through the Agency
- Brand outlet as per the equity agency guidelines
- Comply with Agent Banking Services Agreement signed between the agent and the bank.

4. Services available at an agent outlet
• Balance inquiry  Mini-statement  airtime purchase
• Bill payments  Cash withdrawals  Cash deposit
• Linking on Eazy 247\textsuperscript{33}  Dormant account activation  Orange money account
• Account opening origination

5. Service operations

To transact at the agency the basic requirement of 18 years of age and above applies. Further the customer needs to either have a registered mobile account or the Banks ATM card. The ATM cards are swiped on the POS and the required services requested. While using the mobile phone the customer has to let the agent know the kind of transaction required. For withdrawals the customer initiates the electronic transaction and follows prompts provided in the withdrawal menu until a reference number confirming the transaction is issued. This reference number is then shown to the agent who again feeds it to the agent phone to confirm the transaction and give money. Deposits are initiated by the agent after receiving money equivalent to the e-value requested. The agent goes ahead to initiate the deposit transaction which generates a reference number confirming the deposit to the customers account. Mobile phone accounts are only enabled for personal accounts, limited companies, and joint accounts cannot be operated using the mobile phone. However those with these accounts and have the Card can use the POS machines to transact at the agency outlets.

Equity agency deposits are free, however withdrawals attract a commission as indicated in the tariff guidelines (currently not provided). The amount to transact is limited by the amount of

\textsuperscript{33} This is the procedure of accessing Equity bank services. On the home page of a mobile phone entering *247# automatically leads you to a prompt to enter your PIN for Equity Bank Mobile operations.
money held in the customers account i.e. there is no limit per transaction. All charges are system based and no money is exchanged at the time of transaction.

4.7.3. The interview with the bank official.

The researcher held an interview session with the Head of distribution- Agency (HoDA), there was also an agents meeting held at The Smith restaurant in Ongata Rongai on the 4th September 2012 which he chaired among other speakers (Equity bank manager Ongata Rongai and the Agency supervisor for the region). Both occasions provided insightful information for the study.

1. Establishing the need for agency banking

What necessitated the development of the product?

According to the (HoDA), the product was aimed at reaching out to the unbanked populations in the remote areas, decongesting the banking halls and tapping into a larger market for increased profits for the institution. He was particular about the need for financial inclusion and stated that it was the CEOs passion to see that the margins of financial exclusion reduced in Kenya. The main aim was to reach out to the unbanked populations and the HoDA reiterated:

‘Although our first outlets were based in towns where we have branches, our interest was to reach out to the unbanked populations. The unbanked do not necessarily reside in rural areas though the majority do, but there are unbanked populations in urban centers who have been locked out due to unsuitable and unaccessible products. However majority of rural areas now have at least an outlet in each market centre. In fact we now have over 5000 outlets distributed all over the country’.

A unique need established was that Equity was a mass bank, tapping mostly on incomes of low income earners who are many. Most of their banking halls were overwhelmed with numbers,

---

34 The bank does not discriminate. Although the bank has interest in the small and medium business people or earners, amongst its clients are business tycoons and people of mixed incomes.
and because of the kind of clients they targeted, their presence was inevitable in all parts of the
country. Setting up full pledged banks in every market centre in the country was proofing to be
costly and the agency model seemed very convenient in decongesting the main banks and
accessing the populations the bank sought in their strategic plans. The HoDA hinted that the
future plan was to reroute all over the counter customers to agency outlets and only serve
merchant clients in the bank branches or mainly referrals from agencies.

**Characteristics of the first target populations**

It was revealed that the first target populations were the unbanked in urban areas. This included
those who were not able to access banking services because banks were not near their places of
work and ended up using money that they could have saved if the services were availed. They
included casual laborers, vegetable vendors who closed business late and other segments that
were intimidated by the traditional banking set up which was associated with sophistication.

The product also targeted the poor and marginalized in rural areas. These were a segment that
had no prior experience of banking as the services were nonexistent. There were also the
underserved, people who had bank accounts but because of strained access logistics among other
reasons, they used the services marginally. Availing services near them would add value to their
banking experiences.

**Specific needs of the target populations that are addressed by agency banking**

The study revealed that agency banking had changed lives of users both in the urban and remote
areas. The HoDA passionately reported,

> ‘The people in rural areas are now banked. They withdraw money, safe their money, pay
school fees and open accounts conveniently at agency outlets. We have experienced
increased business volumes from these new markets’.

**Specific features of the product that make it possible to address financial inclusion**
The study revealed that the use of the mobile phone and the POS which used wireless connections enabled the bank to reach out to populations that remained excluded due to logistical problems and lacked bank branches that could serve them. The HoDA reported that their customers were now able to use either the card or their phones to transact at the outlets which were located near their homes. Furthermore the opening and closing hours were flexible and people locked out of services due to rigid banking hours could now enjoy the extended services from agency outlets.

2. Actors

*Main partners in the execution of agency banking.*

In response, the HoDA had this to say,

> ‘Our main partners are numerous, the product is complex and we have many partners on board. However our most valuable partners are our agents and users. Agents are the face of the bank out there and we are keen that they get their role right; users make it happen because they are our end users. The regulator is also significant as they give us guidelines on how to execute the product’.

The study also established that new customers were the main target and agents could initiate new registrations. Agents could take photographs of customers and sent them to the bank for documentation and account number allocations. This however came with a challenge as the clarity of photographs depended on natural light and when the whether was gloomy the photographs were rejected as they were dull.

- **Critical role of sampled actors**

*Telecommunication companies*

The study was able to establish that there was no particular affiliation to any MNO and the phones and POSs used at shops could use any card. The HoDA said,
‘As you have noticed we don’t advise agents on the cards to use, any card can work. Tariffs of the MNOs at the moment are competitive and the most suitable pricing is advantageous to us, however network availability is a challenge and mostly the most convenient is Safaricom because of its wide coverage’.

**The product**

The study revealed that Equity agent was the only product that did not charge on deposits and they also had both the POS and Phones in their agent shops. The product was offered round the clock and transactions were accommodative with the lowest transaction possible being Ksh 50/-. The HoDA added,

‘We are actually revising our tariffs and in a month’s time we will avail our final tariff. We have been studying the reception of the product before rolling out the final tariff, in fact KCB has revised their tariff eight times, we don’t want to have one tariff today, another tomorrow; it is confusing. However deposits will always remain free of charge’.

Upon probing to establish what was being done about the higher rates of transacting at the agency, the HoAD said,

‘You realize that the agents have to be paid, there is the connectivity and the normal bank charges’.

He further attributed the increasing tariffs in respect to amount to the fact that agents had invested their own capital and it was only fair if higher transactions which carried a higher risk in terms of safety as well as level of commitment be rewarded accordingly.

**Marketing and communications**

It was revealed that the company had invested a lot on creating awareness of the product. The HoDA also reiterated that Equity was a strong brand and its signage was displayed in all its outlets which communicated presence. Besides mass media communication there were road
shows\textsuperscript{35}, customer literacy seminars\textsuperscript{36}, popularized graduations and agent shop launches which were instrumental in creating awareness to the end users.

**Roles that hindered smooth implementation of agency bank services**

The reception of the product was positive but the pace was slow. However the HoDA raised concerns on the slow pace by saying,

‘What is problematic at the moment is the exclusivity of MNOs on entrepreneurs they have recruited. We are however working on ways of coexistence; but we understand where MNOs are coming from. Banks were not able to tap in to the un banked populations due to logistical issues. MNOs came up with the solution using mobile phones and in effect snatched what was ours. Now we have a way of doing it but MNOs have a right to protect their cake’.

**Incentives to agents**

The study revealed that the main incentives to agents were commissions earned, prompt payments and support in training of assistants and in the offer of services and operation materials like log books, POS rolls and advertisement material displayed in shops. Otherwise most of the costs of operation were passed on to the agents. These included payment for the phones, POSs, signage and branding.

**Sensitizing users on new products**

The study was able to establish that Equity bank had an initiative called FIKA (Financial Knowledge for Africa) a partnership with the MasterCard Foundation to provide entrepreneurs with business management skills. These were basically financial literacy seminars that targeted groups both women and men and mainly small businesses like the ‘Mama Mboga’ business.

\textsuperscript{35} The most popular was the Equity bank and Royal media awareness campaign dabbed ‘Equity iko hapa’.

\textsuperscript{36} The financial literacy seminars were a FIKA initiative: a partnership between Equity bank and Master Card.
What characterized the graduations was prom to create awareness occasionally combined with a launch of an agent shop.

After some shops had started operations, Equity particularly executed a know the product caravan campaign in the country. In partnership with the Royal Media of Kenya, they traversed the country entertaining residents and demonstrating the importance of banking at the agency and actual use of the product. The slogan of the campaign was “Equity iko hapa”.

**Tariffs charged by MNOs**

The study revealed that the POS did not attract any tariff and no credit was loaded for operations. However the operations phone had to have credit while for customers the normal SMS tariff was charged if one was to access services using the phone. This included transactions like withdrawing money, paying bills or depositing or even asking for balances. The HoDA response was that the MNOs were also in business but there were negotiations to see how to restructure tariffs to avoid passing punitive additional costs to those who were using the services.

**How to differentiate services for new users**

The HoDA confirmed that there was possibility of new markets being unable to differentiate agency products offered by different banks. He was however quick to insist that the Equity product resonated well with poor populations and the products were structured to attract these new markets. He was proud to report that Equity agent was the only product that did not charge for deposits and this attracted new users who were keen to ensure that their money was intact after saving it. He claimed that this strategy ensured that new users build confidence in the product which would lead to a greater market share.

**Challenges faced by the bank in the implementation of the product**
The HoDA was happy about the way the product had been received. At its launch he claimed the problems were enormous especially with the network problems which was resolved. Other problems originally were on low numbers at outlets and recruitment of agents. These issues have now been resolved as entrepreneurs can now see the business potential and users have gained confidence in the product and numbers are growing by the day,

‘The tariffs were unfriendly, the network was not effective as both users and agents would not get messages in real-time, and account activation sometimes was not confirmed. We had actually put a tariff on deposits and we had to remove the fee by the time we went full blast in the implementation. I guess it was because we were the first to roll out the agency model and these were some of the teething problems, however most if not all have been sorted out’.

The greatest problem however was monopoly by one of the MNOs. This was because as much as they were trying to establish a common ground in the sharing of agents, the MNO was protected as a first one in the innovation and only time would tell when the exclusivity would be reviewed. The HoDA did not yield much when the interviewer insisted that the credentials of the banks CEO in his personal quest (as captured in the numerous accolades) to ensure financial inclusion of the poor were enough to translate any situation that hindered fast growth of the product. He opted to report that discussions were ongoing which he could not disclose at the point of the interview.

The scenario was so bad on the ground that in one of the agents’ seminars, one could not fail to recognize the helplessness and frustrations of both the agents and the bank officials as both were unable to take charge of the direction their businesses were taking. One multi agent said,
‘Infact they told me to remove the signage I was using to advertise my agency business and was threatened of closure of my Money transfer service business if I did not comply’.

The HoAD asked agents to bring a written document asking one to desist from multi agent business. However agents were not convinced if this was enough protection and an account of one agent was,

‘The things that can make this MNO close your shop are many. My money transfer service was closed because I had your agency together with the money transfer service and I had refused to terminate the agency business. But when I asked why my services were terminated, I was told it was because I did not have enough float. You can never with the MNO’.

The second problem was the agent recruitment process. ADD was so tedious requiring substantial amounts of documents. The study gathered that the bank did not approve of these regulations but hands were tied as the documentation was vetted by the CBK officials.

Another problem was float or operating capital for agents which rendered some agents in effective in their discharge of services to users and in effect making users skeptical of the viability of outlets as alternative banks. The HoDA was non committal in the financing of agents and reiterated that agents qualified for the agency business because they were running other lines of business in the same shop and it was possible for the bank to support those other lines in order for the entire business to support agency. He claimed that agency business at the moment could not support repayment of loans and could not attract financing. He also claimed that borrowing rules for the bank were universal and these could not be relaxed for the agents.

*The foreseen future of agency banking*
The HoDA was very positive about the future of agency banking. In fact he was particular about the progress and the interest the CEO had in agency banking. He claimed that he had to submit a report on a daily basis to the CEO on the performance of the agency department. About the growth he said,

‘Agency banking is a revolution, our transactions in the banking hall have continued to grow, the ATMs are recording more transactions, agency business is totally new business which was lying un tapped. We are no longer talking about financial inclusion because agency has sorted it out; we are now talking about growth’.

4.8. Cooperative Bank of Kenya: Case B

The Bank was initially registered under the Co-operative Societies Act at the point of founding in 1965. This status was retained until June 27th 2008 when the Bank's Special General Meeting resolved to incorporate under the Companies Act with a view to complying with the requirements for listing on the Nairobi Stock Exchange (NSE). The Bank went public and was listed on December 22 2008.

Shares previously held by the 3,805 co-operative societies and unions were combined under Coop Holdings Co-operative Society Limited which became the strategic investor in the Bank with a 64.56% stake.

4.8.1. Recognition

- The bank was awarded for a strong and unique banking model centred on facilitating coop societies and other selected partners
- The Bank has been awarded the ‘Bank of the Year in Kenya’ for 2 years i.e. 2010 and 2011 in the Global Banker Awards, by the Financial Times of London.
In August 2004 the Bank’s Board of Directors declared Co-op Bank ‘The Kingdom Bank through which God will bless the people of Kenya’ the Bank has boldly embraced ‘Biblical Principles’ in the market place.

The bank increased its customer base from 125,000 to the now 2.4 million customers, grew its branch network from 30 branches to over 94 and started unique interconnectivity with the Co-operative movement to reach the over nine million members of the movement in 2010. Reacting to this recognition the Banks CEO reiterated,

‘The success of Co-operative Bank cannot be appreciated by simply looking at its good financial performance alone rather, its strength lies in the transformative influence it has had in the lives of millions of Kenyans who depend on the co-operative movement. It is great privilege for me to serve an institution that has made such a tremendous contribution to the improvement of the welfare of so many Kenyans’.

The Banks CEO Dr. Gideon Muriuki has been recognized through various awards as follows:

An Honorary Degree of Doctor of Businesses Leadership by the Kabarak University in recognition of his exemplary performance and the demonstrated leadership in sustainable growth over the last 10 years. This recognition for was also for entrenching the co-operative banking model in the Kenyan financial market.

The CEO is also credited with successful restructuring of the bank and its listing on the Nairobi Stock Exchange at a time when even the most optimistic analysts were predicting a poor subscription of the Initial Public Offer.
Mr Muriuki is a Director of the Deposit Protection Fund, Vice President Africa International Co-operative Banking Alliance and Chairman of Governing Council Africa International University.

He was decorated by the President in year 2005 with ‘Order of Grand Warrior of Kenya’ (OGW) and in year 2011 with ‘Moran of Burning Spear’ (MBS) for the sterling performance/turnaround of the Bank and also strategic leadership of co-operative business in the region.

In year 2006 he received the award of “Chevalier de l’ordre National du Burkina Faso” from the President of Burkina Faso West Africa for outstanding performance in promotion of Rural Finance in Africa.

In July 2011 he was awarded the ‘Distinguished Leadership Award’ by African International University.

4.8.2 Coop Kwa Jirani

Co-op Kwa Jirani is a service of Co-operative Bank of Kenya which enables customers access limited banking services at third party outlets appointed by the bank. The product is special and adopts the multi agent model where all customers, non-customers, Sacco link members, co-operatives, MCU Customers, SME customers and corporate can access the service.

Figure 4.3.26 Coop Kwa Jirani shop
4.8.3 The requirements of becoming an agent were as follows:

1. A certificate of good conduct
2. Financial turnover
3. A current business permit
4. Copy Identification documents
5. CBK form 3 by the commissioner of oaths
6. CBK form 4
7. CBK application fee Kshs 1,000.00
8. Some deposit towards float
9. The financial status for the last two years
10. Business permits for last 18 months.
11. Certificate of registration
12. Business owners of Directors CV
13. Application fees to facilitate approval
14. POS lease fees
15. Some deposit towards float

4.8.4 Structure

Deposits are limitless while a maximum of Ksh 20,000.00 cash withdrawals is allowed in a day. In the agent user guide, response codes showing acceptance as well as reasons for decline of transactions is also provided.
Security of transaction is ensured through authentication software and enterprise firewalls along with full 128bit Secure Socket Layer (SSL) encryption. All transactions made are monitored by the banks upgraded software systems.

Besides the training of shop attendants the agent manual has detailed literature on KYC guidelines and also how to detect fraud of customers and the call centre numbers are indicated in case the agent has suspicions of the customer behaviour.

4.8.5. The Interview with the bank official

The researcher conducted an interview with the Head Alternative Banking Channels (HABC).

Establishing the need for agency banking

**What necessitated the development of the product?**

The HABC was categorical about the challenges the bank had been facing in reaching out to the unbanked and reiterated,

> ‘Most banking services could only be delivered through a branch of the bank and the bank faced stiff regulation to safeguard it against fraud which made setting up of branches expensive. This expense was usually passed to clients and in the rural areas people are scarcely populated and their incomes mostly limited and could not justify such an expense hence remained excluded’.

The HABC reported that with the mobile technology breakthrough; the number of people with mobile phones was increasing tremendously in Kenya,

> “We were thinking of a model which could utilize these phones to offer financial services. With the M-PESA model operational it was not difficult to structure a product that could deliver financial services using the same mobile phone capabilities”.

He also added that the bank was not oblivious of the business opportunity in the masses in remote but expansive areas,

‘A strategy to accommodate them in mainstream banking was long overdue, and the mobile phone has provided this window’.

**Characteristics of the target population**

The study found out that the most crucial was to bring on board the huge market excluded from formal banking services. Those excluded were identified as: 1; those living in urban areas well served by banks but could not access services due to huge fees, bureaucratic bank opening requirements and the kind of sophistication associated with the banks. 2. Those that did not have the opportunity to get adequate services due to the fact that they lived in rural and remote areas where the bank infrastructure was non-existent and was considered unviable. This group comprised of some people of means who included business people, formal employees earning a monthly salary, farmers, the rural folks who depended on income from breadwinners and the ordinary rural person running errands to make a living with their little earnings. The HABC candidly described the target population,

‘They lacked access to financial services, people made money but kept it under mattresses, their money was stolen, and mugging at the close of business was rampant as businessmen went home with money. To bank they had to travel long distances to the main banks. Some had never held accounts and did not know how they would benefit from having one’.

**Strategies to address needs of target populations**

The HABC was confident that they were heading in the right direction as far as addressing the needs of these target populations was concerned. Agencies were already evident in the main shopping centers near the people and all were of the view that the recruitment was in its early
stages and targeted enough outlets as close as possible to the people. The product also targeted
the low income earners as users were able to transact as little as 50/-. The banks customers were
all issued with cards which they could use to transact at agency shops.\textsuperscript{37}

\textit{Features of the product that enabled financial inclusion of the poor and marginalized.}

The study revealed that the outlets operated for long hours and people willing to transact were
not inconvenienced as the traditional banking hours did not apply. The outlets were conveniently
located at the market centers where clients did their normal daily shopping. This increased trust
as the shopkeeper was someone they knew and in most cases shared the same language.

1. \textit{Actors}

The HABC confirmed that the product attracted a complex network of partners. He describes the
roles of various partners:

- \textit{The bank regulator}

The HABC reported that they first designed the product before approaching other partners. This
was after the banking sector won the battle and CBK legalized the use of agents to offer banking
services. Previously the Kenyan regulation did not have provision for agency banking and the
banks especially the “people’s banks\textsuperscript{38}” in Kenya were instrumental in pushing for legalization.
The regulator eventually granted regulations to facilitate the use of third party agents by banks to
provide banking services. The HABC captured the struggles,

\textquote{Sessions after sessions we tried to demonstrate to the CBK the need to utilize agents in
the execution of banking services. This was an uphill task because the rules of even
establishing a branch were so stringent that to think of an outlet operated by an
individual with the mandate of taking deposits from clients and of questionable academic

\textsuperscript{37} Cooperative agency shops currently operate using the POS only, so agents do not use phones but can transact
money to either account i.e. if one has the account number but not a card or to card i.e. if one has the physical card.
\textsuperscript{38} Popularly referred to in Kenya as “bank ya Mwananchi”
qualifications to curb fraud and without doubt with no significant security was something CBK took long to consider’.

The bank official, like in case A was very frustrated, the regulation was an impediment to recruitment of agents and in effect access of services was denied to those who needed them.

CBK was instrumental in the execution of the program as vetting of agent was on case by case. The bank relied on CBK for guidelines on how to move forward. The study was able to gather that for one to be an agent, he also she paid Ksh 1,000 towards the vetting directly to CBK.

The study also learned that Agency banking in Kenya was regulated across all financial institutions centrally by the CBK. The use of the agents was still very cautious; for any agent recruited the regulator had to vet in terms of their names, locations, pre-existing commercial activities, a sample contract and services to be rendered\textsuperscript{39}. Agency operations were strictly regulated and the bank had to ensure that the agent remained compliant with technical specifications like the clients presenting themselves with their identification documents, every transaction being real-time, all transactions being system tracked, confidentiality of client information by agents and strict adherence to AML and CFT laws.

- **Agents**

The HABC identified the agents as next crucial partner to be approached after authority was granted. Selected agents were used to pilot the product; these were to check the actual functionality of the product. The study revealed that a full fledged department was created to take care of the needs of agent and users and staff were assigned regions to identify shops and entice them to taking up the product.

\textsuperscript{39} Appendix VIII provides a checklist of requirements of becoming an agent as demanded by the CBK.
‘They are the face of the bank, they are a bank themselves, and they offer services to our customers. In fact their mandate is enormous they are the tellers, the customer care departments, the public relations department and dispute resolution masters’.

The HABC also claimed that they were able to know which agents were serious with the business,

‘After providing the POSs agents who call to ask questions are working, otherwise those who remain quiet are not serious with the business.

This was a reaction towards a probe that the POS had combined various functionalities and was not easy to operate.

Agents were also required to invest in order to make money through commissions. The number of customers one was able to serve, the more commissions he or she made. The official however indicated that agents were not exempted from conditions of borrowing to finance agency services.

- **Marketing and communication**

The HABC confirmed that before implementation they created awareness through mass media, TV and radio especially community and FM stations were instrumental. This was accompanied by unique branding and signage to attract customers, information was displayed in the main branches. The bank painted the shops for free provided signage and other branding materials for free. The banks also approached their existing clients and enticed them to take up the product. Recruitment was done per region by the nearest Bank branch.

**Incentives to agents**

To attract this group into partnering with the bank the HABC confirmed that the branding was part of the incentives, at the end of the month each agent was paid a commission for the
transactions within the month into a separate account from the operations account. There was also training of assistant’s, field support teams and supply of POS rolls.

- **Users**

The HABC was particular about the role played by users as they were the target of all the efforts. Their critical role was to transact at the outlets, experience the new model and from their feedback inform the bank on the suitability of the products.

‘*We were able to get feedback on whether the products really satisfied their needs and this informed our decisions on the design and execution of the product*.‘

The HABC continued.

‘*By actual use of the products and by looking at the new accounts created especially in the rural outlets, it confirms that we may be at the start of the journey but our goal of reaching out to the financially excluded is not far from being realized. At the end of it all, these enormous markets will be part of our business as usual. Loans, deposits withdrawals name it and our business volume will swell*.‘

The study was able to establish that the bank was particular about new registrations as without users then the success of the products would not be realized. He actually informed this study that for every new account introduced by a staff there was a reward. That is how important users were to the bank.

Agents initiated new registrations for new users but the customers had to bring their own photographs and copies of identification. However the account opening was not instant as documentation was taken to the main branch where the accounts were created.

*Strategies to influence users to take up products*
The HABC confirmed that strategies to influence users to take up the products were varied. The bank ensured that the branding of their products was conspicuous and users were able to identify the shops with the special branding accorded to Coop Kwa Jirani product with conspicuous writings ‘Official Co-operative bank agent’. Besides there were clear adverts on various media simplifying the value of agency banking into a real life banking situation. In their TV advert,

‘A man is seen walking to the outlet as his wife watches, in a short while he gets to the outlet, the agent is smiling and attends to the man who happily acknowledges having been served, he then walks back to his wife’.

According to the HABC the naming of the product was to make the transition from the main bank to the agent as real as possible. Coop Kwa Jirani means Cooperative bank at your neighbors. Promotion campaigns were aimed at creating awareness of the value of banking and subsequent benefits from operating the account.

**Challenges and solutions**

According to the HABC challenges facing the roll out and uptake of the product were numerous. They included:

- The requirements by the regulator in the registration of agents, this was a bottleneck as many of the willing entrepreneurs did not meet all the requirements and the recruitment was slow.

- Though the Cooperative Banks POS was able to serve customers from other banks who had VISA cards the CBK had also not authorized this model though fully operational in countries like Pakistan popularly known as the open architecture.

- Efforts of recruitment by the bank were also dampened by the fact that one of the leading telecommunication companies had rolled out money transfer services, and had recruited a big
percentage of entrepreneurs in Kenya. The MNO was threatening their agents that those found offering other mobile money services would have their contracts terminated. The HABC describes his experience,

‘one of the things I dread every day is when one of my agents call me to tell me that they have been threatened of closure by the telecom company… he continued in fact the exclusivity clause is very clear, and our product is not in competition with theirs’.

The Relationship Manager Alternative Banking Channels (RMABC) on a different occasion in regard to the same said,

‘Whom do they think they are, we can also get our own network and offer services including money transfer, they are also doing our business’

Other challenges cited were user education, this was tricky as it required a collective effort, however the interview established that the bank was optimistic that the social system mechanisms (understood as users learning from other users i.e. the adopter categories of Everret Rogers in Rogers, 2003) coupled with media awareness campaigns would conquer the challenge with time.

The future of Coop Kwa Jirani

Though still faced with challenges, the HABC was confident that the model was the future of banking,

‘Wait until existing customers build confidence in the outlets. No one will want to queue at the bank for services that the outlet can offer in minutes. All bank traffic is headed to agency’.

4.9. Kenya Commercial Bank: Case C

Among the three banks in this study KCB is the oldest, in a series of changeovers and mergers from the predecessor the National bank of India (NBI), KCB was born in 1970 after the
Government of Kenya acquired 100% ownership of the bank. However the government reduced its shares to 17.74% in 2010 during the 3rd rights issue exercise.

KCB has continued to grow since its inception entrenching itself as the leading banking institution in the region with branches in Southern Sudan, Uganda and Rwanda. In the Think Business Banking Awards 2010, the bank beat over 40 competitors to excel in five categories out of the possible 18 categories as follows:

- Best bank in Product in Marketing
- Best bank in Mortgage Finance
- Best bank in Asset Finance
- Best Bank in Technology Use and
- Best Bank in Retail Banking

Africa Investor Award 2010, the award was in recognition of the Bank’s performance on the Nairobi Stock exchange during which the stock gained 97% compared to about 22% gains recorded by the entire Kenyan market.

In recognition of the award the CEO said,

‘This is very exciting for us and very much an endorsement of the work that has been going on in this bank for the past five years. It is deserved recognition of our efforts to grow the business and enhance shareholder value’.

The bank also won the emeaﬁnance's best local bank in Kenya 2010 Award. The emeaﬁnance's Banking Awards recognize some of the leading banks across the Central and Eastern European (CEE) region and the Commonwealth of Independent States (CIS).
'This award is a great honor to the KCB Group. It demonstrates that the strategies we have set for both present and future growth are in line with international best practices and confirms our strong leadership in the Kenyan banking sector. He said the African Banking Award medal will go a long way in supporting the bank's vision to be the preferred financial solutions provider in Africa with global reach’.

Besides the banks recognition the Groups CEO Dr. Martin Oduor was awarded The Africa Investor SRI 30 CEO of the Year an international award in recognition of his immense contribution towards development of banking sector in East African region. He was among other internationally respected winners of the 2010 Africa investor Index Series Awards.

4.9.1. KCB Mtaani

Following the amendment of the banking act in 2010 allowing banks to use third party agents to offer regulated services, KCB rolled out its KCB Mtaani product. Key among other reasons for the product was to:

- Increase customer base and market share
- Provide a low cost solution in areas with potentially less number and volume of transactions
- Increase revenue from additional investment, interest and fee income
- Improve indirect branch productivity by reducing congestion in branches

Figure 4.3.27: KCB Mtaani Shop
Besides the regulated requirements of becoming an agent, KCB has listed the following specific requirements:

- Draw in a minimum of 50 customers daily
- Business to have a capacity to handle cash flows in and out and have a good cash storage facility
- Adequate space
- A business that can generate Ksh 50,000 daily form its operations and open a float cash account of at least Ksh 100,000.
- The business to be run by a manager and at least two assistants
- Assistants should be IT literate, have a certificate of good conduct and at least three months experience in cash handling.

4.9.2. Services

- **Services available through agent banking**

1. Deposits and cash withdrawals
2. Withdrawal of retirement and social benefits
3. Withdrawal of salaries
4. Collection of documents in relation to account opening
5. Loan withdrawal and repayment
6. Payment of bills
7. Transfer of funds
- **Services not available**

1. Operate or carry out an electronic transaction when there is communication failure in the system
2. Charge any fees directly to customers
3. Carry out agent banking business when your core business is not doing well
4. Offer any type of guarantee in favor of any customer
5. Undertake cheque deposit and encashment of cheques
6. Transact in foreign currency

**4.9.2. Summary of findings from the case study.**

The study established that the barriers the current regulation posed to scalability of the product was the greatest impediment to uptake and use. The regulations of becoming an agent were stringent and many entrepreneurs were not in a position to meet them though they were willing to participate. Though banks felt that the regulations were unfair favoring scalability of money transfer services, none of the company CEOs was seen to intervene to negotiate for a restructuring of the rules to favor recruitment of both users and agents.

Allowing MNOs exclusivity rights also locked out many willing entrepreneurs from participating which slowed down recruitment of agents translating to limited access points. Though the laws on monopoly were clear in Kenya, at the time of the study, there was no case in court challenging this dominance.

The network providers were also cited as impediments to effective take off. The study was able to establish that tariffs were applied to the agent’s phone and the customers. If the customer did not have credit then they could not transact. They cited discrimination as the same network
providers were providing money transfer services and their customers did not require airtime to perform the transactions. They claimed that this access fees made the products a little expensive. Again the network regulators did nothing to protect users of agency services from these additional costs.

In order to address then needs of the poor and marginalized especially in the rural areas, presence was crucial. The stores had to be practically where the customer was at the time of need. This called for interventions as the status quo did not favor this strategy. All the cases were in agreement that scalability required special skills and presence in all the parts of the country required financial might as the agents needed support from the main banks. Banks with this type of network were few and it was only Equity and KCB which had outlets in a considerable number of market areas. Besides if central bank had yielded to pressure so far to even allow agency banking, a strong personality could prevail upon the regulator to waive some of the requirements of becoming agents just as the MNOs had done, to facilitate faster rollout of outlets to small markets in rural areas.

It was clear that the business was unprofitable. Banks attributed the status to the fact that the products were new and it was crucial that users got sensitized to products as well as to the need to use banking services. First time users did not know what benefits came with mainstream banking. Equity had partnered with the Master Card Foundation in the initiative dubbed FIKA (Financial Knowledge for Africa) to offer financial literacy seminars to various groups of the community. These seminars were given to all women groups registered in the bank, all agents, men groups and other forums organized by the local authorities. It was aimed at sensitizing people of financial management skills. However the cases were in agreement that a lot needed to be done to ensure that the products really added value to the majority of those targeted.
The network challenge was two fold according to information gathered. 1. The expense on airtime which led to the product being expensive and 2. Inefficiency - where customers and the agents did not get a confirmation message in real-time. The first challenge was tricky as all the cases recognized that the network providers were dominant and unless there was a sort of regulation in the execution of agent banking services for the benefit of the poor and marginalized, the scenario may persist as these companies were in business. The second challenge had partly been sorted out. The agent could use any SIM card to offer services, services were not network specific and at times when particular networks were down, the agent could use other networks. However this was not the ultimate solution as some of the preferred networks did not have a country wide coverage.

An observation which did not seem to get adequate attention was the fact that a part from departmental heads, none of the CEOs of the three cases had a personal input in trying to address emergent issues. The head of departments interviewed did not seem to understand that there was need for a powerful intervention to particularly cause a review of the ADD and CDD regulation to permit quick scale of the product.

In conclusion the informants from the three cases were optimistic that the agency model was going to transform the banking industry. The queues characteristic of banking halls would disappear, modes of payments would improve to be cashless as those formally excluded from financial services would be included, businesses powered by the new models would transform rural economies as a result wealth would be created, above all lives will be changed as the rural poor will be able to access loans to start up businesses and revamp the ones they have, time will
be saved as banking services will be at their door steps and lives will be saved as insecurity associated with cash in transit would no longer take place as all will know that money is deposited in the bank and not carried home.

4.10. Agency bank regulator – CBK

The researcher sought specific answers from Mr. Mwaura a CBK official in agency regulation at a mobile money conference held at the KSMS and also other findings from scholars on agency regulation in Kenya\(^\text{40}\).

*Specific obligation in enabling mobile banking*

The main interest of the Bank as captured in the interview was to ensure that customers were protected against abuse and loss of their money during transactions, the bank was also striving to achieve vision 2030 goals of ensuring a broader access to appropriate and affordable financial services to all Kenyans and the use of financial systems was guarded against misuse by unlawful groups.

*Areas that needed regulation*

Areas of regulation in the agency banking business were many, but the most crucial in line with roles of the bank included, establishing who qualified to be an agent, the informant claimed,

> ‘Agent banking is like a bank and it is very important to ascertain exactly who is to be involved in offering the services’.

The roles agents could play were also to be regulated as some required vetting, another issue was how to regulate the terms banks were to engage agents, how far banks would be held responsible for actions emanating from their agents.

*Regulations that specifically address financial inclusion of the poor and marginalized.*

\(^{\text{40}}\) a study on agency regulation by Tarazi (2011) was very useful.
Most of the crucial regulations as cited by the informant had not been finalized. Key among them was a review of agency recruitment conditions, agent exclusivity enjoyed by Safaricom; in regard to this issue the informant said,

‘The CBK, CCK and the Monopolies and Price Commission were struggling to develop regulatory approach that promoted competition and financial inclusion while providing incentives to first actors’.

In regard to the Kenyan 2010 guideline on agent banking in respect to sub agent contracting considering that Safaricom had been allowed to adopt the sub-agent model, the informant reported that, strictly no other entity could carry out agent banking on its behalf, these stringent measures of vetting and approval of agents on a case to case basis was attributed to the insecurity of fraud Kenya was experiencing at the moment, however he seemed optimistic that these regulations would be reviewed although he insisted that Safaricom and other telecommunication companies in the Mobile Money business were not regulated using the same laws.

Challenges of the regulator in enabling Mobile banking for financial inclusion

The bank was facing various challenges in enabling mobile banking for financial inclusion, key among them was the sub-agent structures, authorizing agents to open new accounts and dealing with telecommunication companies in Kenya that were operating financial services without the same regulation. In fact he sighted the Exclusivity clause (5.1) governing agency bank operations as a real challenge as Safaricom had signed exclusive service contracts with their agents. This was a predicament because with 40,000 agents scattered all over the country, the possibility of getting enough entrepreneurs besides those already taken by Safaricom would be difficult.
Safaricom does not allow its agents to engage in agency business and any agent who has signed up for agency banking together with M-PESA (Figure 4.3.31) has to either offer M-PESA exclusively or give up M-PESA and continue with the agency business. Alternatively they could rent a separate shop for the agency business. Banks have no problem with having different agencies in the same outlet.

Source: study

4.11. Network regulator – CCK

Communications Commission of Kenya (CCK) was established by the Kenya Communications Act to license and regulate telecommunication, radio communication and postal service in Kenya. However the Kenya Information Communications law was proposed to replace KCA of 1998 in order to regulate e-commerce and also expand the role of CCK to regulate SMSs, partnerships between the different licenses and the different layers of ICT. Mobile banking is relevant to CCK because it emanates from the connection between MNOs and Banking services either personal or for business accounts. Key functions of CCK include the need to ensure:

- Optimal pricing and affordability
- Efficient allocation of resources
Interconnection among operators

Quality control and consumer protection

Fair play, facilitate competition and dispute resolution

Universal access and investor promotion

4.11.1 Specific role in M-banking

Active involvement is informed by CCKs view that expansion of telecommunication services to the unserved areas will increase access to financial services, need for the two regulators (CCK and CBK) to jointly develop comprehensive guidelines that ensure growth for the mobile enabled services while ensuring consumer protection, that mobile banking promises a great potential for investing and the need to provide national fiber networks that will lead to increased internet penetration and growth in mobile banking.

The CCK undertakes the following responsibilities in enabling mobile banking in Kenya:

- License the operator providing the mobile phone networks or platform
- Provides a unified licensing platform that is technology neutral in: Network facilities provider (NFP), applications Service Providers (ASP) and Content Service Providers CSP
- Type approve communication equipments
- Ensure uninterrupted quality of service
- Ensure consumer protection
- Promote investment

4.11.2. The interview

The researcher conducted a telephone interview with the Regulatory and Compliance Affairs Officer (RCAO). Though CCK is not directly involved in the regulation of agency banking, the MNOs are crucial in the execution of mobile banking services as mobile banking is dependent on
mobile networks regulated by CCK. Further the function of MNOs in mobile banking was adversely mentioned by almost all actors. It was therefore necessary to understand what the reaction of the commission was in regard to the emerging issues.

4.11.3. The actual interview

Specific role in the execution of mobile banking products in Kenya

Information gathered revealed that CCK had a role to play in ensuring that tariffs charged for mobile banking related products was reviewed for this was an additional cost to the standard transaction however at the time of the study, customers paid the normal airtime fee for SMSs related to transactions in the agencies, in fact without airtime initiated transactions were unsuccessful.

Exclusivity rights

In respect to the exclusivity rights enjoyed by telecommunication agents, the RCAO reiterated,

‘Safaricom is a pioneer in the mobile money business in Kenya, encroaching into their agency network and taking advantage to scale other products would be unfair and kill innovation in the country. However it is a delicate matter and it’s being handled by the relevant regulators’.

Failing telecom-bank led products

He was sorry for failed products and was quick to mention that the partnerships were purely left to the parties involved to establish a working relationship. Nevertheless he added that there was a proposal for the ICT regulator to regulate partnerships between the businesses and mobile operators to ensure fair play. Interventions would see value added mobile applications providers protected from the dominant power of mobile operators especially in sharing the revenues from such services.

Fraudulent loss of money by unsuspecting customers
The highest number of frauds was recorded by M-PESA users, and it did not emanate from the system, rather it targeted gullible customers. He claimed that these acts originated from the prisons and various measures had been put in place to mitigate the losses. Some of the measures included awareness campaigns targeting users and agents and a memorandum of understanding between Safaricom and the Prisons department to disable connectivity to some notorious prisons such as Kamiti Maximum Prison. Customers could also use a toll free call service 333 to SMS any suspicion of fraud. He however added that CCK or Safaricom were not investigating authorities and these matters were better off handled by the Kenya Police.

**Main challenges**

Challenges cited included the fact that the current models were offered by telecoms and banks. He was of the opinion that a dual legal framework was necessary, also regulations in place had no specific guidelines for such businesses and mechanisms of protecting the consumer of mobile enabled financial services and handling complaints was lacking.

Besides regulation, the other frustration to users was poor network. As cited earlier the land mass coverage was only 34.12% leaving more than half of the country without network. Some of the frustrations captured in the FGD was that though the network in the markets enabled them store value in their virtual wallets manipulating this accounts further from the markets was not possible for some users as their places of residence lacked signals; the network was found in some areas only. The RCAO pointed out that CCK was committed to universal access and the commission was in cognizance of the fact that expansion of telecommunication services to the un-served areas not only provided access to financial services but was also provided great potential for investment.

**4.12. Expert opinion**
Expert opinion was sought mainly from consultants in mobile money models offered across the world and how these products were being managed by other operators in other parts with the aim of shedding some light on some of the options we had in Kenya as ours continued to evolve. The two experts consulted in this study are actively involved in consultancy work across the world. Some of the clients they had consulted for included: Uganda telecoms, Fiji, Afghanistan among others. The researcher conducted the interview session with the Lead agency consultant. Summary of findings in regard to the interview concerns were as follows:

Who are the poor and marginalized

The LAC described the poor and marginalized as:

1. Those living in well served urban areas but are marginalized because they cannot afford transaction fees or lacked necessary documentation to open accounts due to poverty related reasons, could not afford minimum balances required to open or maintain accounts or their social status did not permit free access of services in banking halls as they felt threatened by the sophistication associated with banks.

2. These constituted the marginalized lot as a result of geographies. They reside in rural areas where basic infrastructure of roads, electricity, and water supply is lacking. Another attribute of this group is the fact that populations are sparse and it is impossible to viably set up a bank branch. The populations here are mixed, there are those who are not very poor, they include businessmen, farmers, government employees and other salaried people, but the majority who are rural dwellers have little or no income and are dependent on relatives or subsistence farming.

Financial needs of the poor and marginalized

According to the LAC the poor needed basic financial solutions to their lives. These included mainly saving money they earned from work usually paid at the end of each day or weekly and withdrawing the same, payment of school fees and other bills. The challenge in addressing this
financial need was that the poor had many uses for money and saving it is only one of them. Incase there is no opportunity to safe the money it quickly takes care of the numerous needs that go un catered for in a day. To address financial inclusion of the poor, it is crucial then to avail services as close as possible to places of work, near homes and other places where they get their sources of income from.

**Customer appreciation**

The LAC claimed that he was always particular in the handling of the rural poor populations because they are skeptical of new ‘things’, his description was,

> ‘These segments are sensitive and utmost professional skills should be employed when dealing with them. They have lived without banking services for as long as they can remember and failing to use banking services brought to them will cost them nothing. Service should be delivered in an understanding manner, issues that are not clear explained and assistants should go an extra mile to retain them in the service’.

**Customer education**

According to the LAC most of the clients targeted have never operated a bank account. They neither know the value of the service nor do they know how to operate a bank account. General product awareness campaigns are necessary to sensitize the new customers on the availability of the service and basically the services they can access from the outlets. Further there should be financial literacy training that empowers the users with skills necessary to operate the accounts in order to address their needs effectively and constructively.

**Trustworthiness**

The poor are highly skeptical of new technologies. His advice was that the product needed to be designed in such a manner that it instills confidence in its use and not turn them away. For example a customer who deposits money and upon checking the balance finds less than they
have deposited may assume the agent has stolen from them, and may lead to drastic decisions like keeping the money intact under their mattresses. The poor are also suspicious of hidden charges and the new products should be as transparent as possible.

**Regulation**

In line with (Latour, 1987) sentiments, he ascertained that regulation of mobile money was new world over, the current regulation structure was not permanent and key actors shaping the product needed to push for regulation that befits the social system because various models that favor agency networks existed in other countries. He saw agency networks as promising because of their existing network of retail locations and their capacity to manage decentralized operations. Countries like Pakistan, Peru and Mexico already had flexible agent banking structures.

**Translation power**

The LAC termed mobile banking a product targeting the masses; a mass product with value realized by scaling it to huge populations across diverse areas. He was of the opinion that,

> ‘To scale a product effectively in a whole country requires specific skills and effective translation power. It may require a strong customer base, a powerful brand to attract partners, a strong research team to address customer needs accurately, a well designed product targeting a specific gap in the social system and a strong and fearless personality, one who commands authority through personal deeds and recognition, one whose opinion is unquestionable, to get huddles out of the way’.

**Critical mass**

The LAC was of the opinion that the Kenyan agency banking rollout was taking off slowly, and recommended relaxation of some of the stringent regulations in order to achieve critical mass, then after the product has diffused successfully the standard rules could be applied.
Stabilization

The researcher was interested in finding out some of the strategies he had advocated for stabilization of mobile banking products in his consultancies and he highlighted the following:

Constant support and empowerment of agents to ensure they understood the product and could be the face of the banks to the people.

Proper training of assistants on customer care skills to handle customers professionally, monitoring of execution process with feedback on progress and issues emanating from the actual use of the service addressed amicably was crucial, massive customer awareness programs and actual demonstrations targeting word of mouth strategies but executed by professionals, clear communication channels to both agents and users and in times of network or other challenges clear guidelines generated to all affected, performance based reward systems to encourage agents to invest and work long hours coupled with rewards for effective service providers.

The LAC responses were necessary interventions for escalating access of the services and actual use by the targeted populations.

4.13. The Triad - bank representatives

The triad was used to confirm findings from the users and agents and to further deepen the understanding of specific issues arising from user experiences.

4.13.1 Findings from the interviews

Structure of tariffs

Each bank had its own tariff structure. Two charged a commission on deposits. Their reason for this was that taking services nearer to the people meant that they saved on transport costs and benefited from convenience, they argued that they did not see any problem in charging a small fraction of the amount as transaction cost, in the third bank, deposits were free and amount
deposited was amount available. The argument behind this was that by imposing a tariff on deposits, the poor people would feel like they were robbed as in the main banks deposits were free. By imposing tariffs on deposits new clients would shun the service and prefer to have their money intact as it has always been.

The tariff issue also elicited further debate in that over 60% of transactions in rural areas were deposits and there was no guarantee that the money would be withdrawn from an agency. This was complicated by the fact that agents had to be paid per transaction irrespective of whether the transaction was a withdrawal or a deposit.

**Minimal commissions**

The triad was in universal agreement that commissions earned by agents currently were low and discouraging considering that agents had invested huge amounts of cash. However they were in agreement that the process had begun and a lot had to be done to increase the number of clients transacting in the outlets. Activities geared towards customer awareness included road shows and advertising on local FM stations, together with other mass media channels. There was also need to create customer trust by assuring them that agents were transacting on behalf of the bank, something the three banks had captured in the naming of the products.

**Theft**

Three forms of theft were revealed in the study; theft by servant, system theft and burglary. Those transacting at the agencies occasionally lend themselves money in effect reducing capital injected to transact at the agency, working near their homes also made that they sometimes were tempted to lend their friends and relatives the same money on temporary basis. Burglary was occasioned by the fact that some shops were on temporary structures and easy to be broken into by thieves. This was tricky to all banks as it was evident at the moment commission earned could
neither remunerate the assistant reasonably nor rent secure premises. Further due to the nature of premises rented, insurance policies taken could not compensate for the lost moneys as they did not qualify. System hackers and internal staff were in a position to illegally access codes that would lead customers to transfer money to fraudsters. Unfortunately the victims were not protected in all three cases baring the consequences of the losses.

Registration process

The registration process according to the three was also frustrating as many entrepreneurs were interested in offering the services but could not be enlisted as they did not have the requirements as listed by Central Bank. They all wished that a review of the current regulation on agency recruitment would be done to allow for friendly agency models like the sub agent network. Holding a contract document that had been signed by a prospective agent, one of the participants demonstrated,

‘This is what they do, (Scrolling down the paper with a biro) checking item by item, if any requirement misses out on a response the form is returned. No one really counter checks these things on the ground. They are making us do a lot of unnecessary work while locking out many people who would want to do this business’.

Threat from a leading mobile operator

All three were in agreement that their agents who also offered other money transfer services offered by telecom companies had been threatened to choose either agency banking or the money transfer services. This frustrated the bank representatives as mobile money transfer services had picked and were profitable, naturally if the agents were to choose then the new bank products would suffer.
The discussion established that agents were not allowed to offer bank agency services with M-PESA money transfer services in the same shop. Illustrating the different experiences, the KCB representative explained,

'The two products are totally different, a customer will pick up a phone and call to say, please send me fare (by M-PESA) I am stuck in town, while for the agency a customer will walk in to deposit school fees, or do banking for the day'.

**Float issue**

Inability to serve customers effectively because agents did not have enough cash or e-money was a critical issue. One of the banks confirmed that there was a specific consideration given to agents when they sought financing of the business, but general consensus was that the interest rates were too high at the time of the study and repayment conditions applied. Due to the little commissions earned, the agent either qualified for small loans that could not transform operations or had to repay a bigger loan from other business sources.

**Professionalism**

Bank representatives felt frustrated as some of the assistants did not go an extra mile to ensure that customers were served and served efficiently. These bank officials were in charge of agency banking and felt that they were not receiving utmost cooperation from shop assistants some who did not take agency banking seriously. They were not keen on taking photographs to initiate account opening, assisting customers who were not in a position to transact on their own or even maintain a liquidity ratio by banking to get float or changing float to cash from the bank. Unfortunately these shop attendants were not directly employed by the bank and what the bank representatives could do was to communicates these frustrations to the owners of the businesses who would decide on whether to take action or not. Meanwhile these bank officials had targets to meet.
**Tariff structure**

The SMS cost of transactions was thorny for all banks and the officials all agreed that it needed to be addressed. The study learned that discussions to this effect were being done at a ‘higher level’. The KCB cost of performing transactions had frustrated agents. The study was informed that KCB was using direct costing. The KCB official was happy to inform the group that the bank was in the process of changing the model to the SSD model.

**4.14. Discussions aligned to objectives**

The discussions are aimed at providing a thorough analysis and interpretation of findings in order for us to enlist our contribution through our understanding of the study phenomena.

**4.14.1 Factors facilitating mobile banking models for financial inclusion.**

The study revealed that mobile banking was actually in use by the previously excluded and in rural areas as found in our target area. The main attributes of the new technology are:

Mobile phones were the devices mostly used to transact at the agency. Informed by the need for an innovation to address a historical as well as a social need of the financially excluded, an innovation that could sort out barriers that occasioned the financial exclusion was necessary. With most banks eager to increase their numbers and tap into new markets, the mobile technology was a long overdue innovation; problematization and finding its place in the mobile banking network was easily identified.

Mobile devices being the main access devices, they were easy to use and most of the households owned at least one mobile phone. Maintenance costs were minimal as phone required charge which could be accessed from the shopping centers which had electricity\(^4\). Besides the mobile phone agents also used Point of Service (POS) devices to swipe cards and proceed with

---

\(^4\) Charging could not be done at home as many homes did not have electricity.
transactions as needed. The POS was enabled through a SIM card from a mobile service provider. The mobile phone and the associated devices were then crucial in the access of banking services to the rural populations as they could survive the hostile conditions in these areas.

Network signals could be accessed from any point by the users or agents. As indicated earlier in the literature review, the flexibility attribute of ICTs allows the distribution of processing power in various contexts and applications. Software developments power the distributive networks and wireless communications make multiplication of points of communication almost at the level of each individual. Therefore as long as one had a phone or acted as a node for the network and there was a signal provided by any MNO, this person was capable of participating in agency banking.

For this reason it doesn’t matter where the user is geographically, the flexibility attribute allows signals to penetrate any place any time. Since mobile transactions depend on information and communication flows, the service is accessible by those previously excluded due to infrastructural logistics of other mode of delivery. Mobile technology was the perfect actor in ensuring that barriers of geography were conquered.

Habits revealed in this study confirmed that people could transact any time, they did not need regulations of banking hours, were able to decide how much to transact sometimes to whom to transact and execute these procedures unaided via their own phone qualifying both freedom from rigid rules and exploration of personal potential (figure 4.3.21). Gratifications associated with
convenience and a promise of enjoyment of these freedoms (Anders, 2006) was a strong point for co-option of the users as the objectives were shared.

Characteristic activities describing the network society is the fact that banking services are imported via the networks, databases are resident at headquarters yet through networks this information is available at the physical locations of these people. The rural folks now enjoy services previously a reserve of the urbanites in the comfort of their rural homes an outcome attributed to the emergent mode of production of decentralization and globalization (Castells, 2004). It was therefore not difficult to find common ground with unbanked populations as they found agency banking as a service that was going to add value to their lives.

The strengths exhibited by mobile communication in reaching out to people in remote areas through signals and the capacity to incorporate information based services through the networks is a great leap towards closing up on the digital divide. Though the implementation process had just begun, there was hope that with interventions targeting use particularly by the low income segments, mainstream banking services would eventually be extended to these populations.

4.14.2 Determine the role of context of use in the execution uptake and use of mobile banking products for financial inclusion of the poor and marginalized.

Various mobile money products in Kenya have not experienced any significant uptake and use, this study therefore targeted context of use to try and identify the various actors that interacted in order to diffuse the products, and enroll actors successfully for an effective use and sustainability. ANT methodology adopted in this study allowed the researcher to follow the actors and examine inscriptions and effectively triangulate the mobile banking phenomena. The use of both animate and in animate actors was crucial in understanding the relationships that
elicited a lasting relationship for sustainability of the products for the benefit of the target population. It is prudent at this point to recognize cultural, security, and political as well as economical factors as additional and influential contexts emerging from the use of mobile banking. Contextual factors influencing the stabilization of mobile banking products include:

- **Environmental factors**

Mobile banking as a product was not limited to geographies and could be offered in any place provided there was network coverage. This was evident from the actual use by residents of Makueni County where the study took place. The product was also not dependent on physical bank branches, electricity infrastructure or telephone lines. The services were effectively executed through wireless communication i.e. mobile phones and POSs (Figure 4.3.14) used by the agents and the users to access the services and did not require any physical connectivity. People transacted in their locations and homes without leaving to other places (figure 4.3.21).

- **Social factors**

As seen in the execution of services, people prefer independence in the transaction process, secrecy of the transaction process, one is able to deposit money in the phone and send it to whoever they want and pay their bills in discrete. These type of people also transact conveniently after work or early in the morning as services are not time specific besides once the money is in the account they can transact from anywhere and any time including at night (section 4.4.2 users). The gratification of this mode of transacting is better reiterated by an agent in the FGD when she says,

> “I don’t have to embarrass myself going to the bank to deposit Ksh 500. These bank people, they look at you and start asking, ‘where do you work?’ yet I know when I keep the Ksh 500 in my pocket I will definitely use it for other things. I can now bank my Ksh
50 without any one asking me anything, in fact most of us here bank at least Ksh 100 everyday and at the end of the month it is around Ksh 3000 which can pay school fees.”.

As indicated earlier mobile banking operates in a new kind of space that brings actors together in time without contiguity of physical space, a space different from physical space yet connected to it. It doesn’t matter where the other user is located or where the database for the bank is (all banks headquarters are in Nairobi i.e. figure 4.3.27, 4.29) so long as each actor is connected to the same network sharing the same flows information based services will be shared in real time. These people therefore do not depend on information based products only available in their physical space but can access them through the space of flows changing the way business has always been done. This is evident from the fact that transactions are instantaneous with accounts updated in real time. The experience of whoever is in the urban centre and the one in the rural area is the same.

Diffusion of mobile banking products particularly to the poor require an understanding of the particular social system targeted. In line with the thinking of Prahalad (2006) a new philosophy of product development and innovation that really reflects the realities of the poor populations is needed. Their literacy levels need to be established so that education of users can be initiated as proposed by the agents after experiencing minimal transactions (Figure 4.2.21). Cited further was the fact that some users were skeptical of the functionality of agents and assurance to these people needed to be promoted in order to create trust and encourage them to use services (Figure 4.2.19). It is also important to establish their source of income in order to serve them accordingly.
Some of the poor people also lack basic identification documents required in KYC rules; getting a photocopy of an ID can be an impediment considering that many rural markets lack electricity and even if the electricity is available, there is no guarantee of photocopying services. Strategies befitting these people are crucial as these could be a factor leading to the few customers recorded (figure 4.2.20). KYC rules pose difficulties to branchless schemes in countries without ID cards, a problem experienced by M-PESA in Tanzania. The study demonstrated that over 70% of users transacted less than Ksh 10,000 per month (4.3.11), this amount did not constitute any significant threat to CFT requirements. It is therefore necessary that the current rules be revised to allow as many people as possible to access these services in the rural areas.

Culture in the network society involved sharing and caring for one another. Peculiarities of the study population were the fact that people shared phones. Transacting was not limited to ownership of a phone but access to a phone. The assistants in shops sometimes used their own phones to assist clients who owned SIM cards and needed to transact (figure 4.2.17). Phones were also charged at specific shops and shop keepers could answer calls on behalf of the owners of the phones. Interestingly, the FGD with users established that opening and closing hours were flexible and clients could request for services outside of the stipulated working times. The assistants would oblige and serve these clients. The cultural inclination to sharing, helping and communal tendencies were heavily present in the use of mobile banking products in this area.

The cultural practices have significant implications on uptake and use. First the act of sharing promotes access of the services to people who would otherwise not participate in the use of the product. Secondly the flexible working hours not only serves as a way of increasing the number of transactions but also promotes goodwill which may go along way in protecting the agency
from adversities like organized thefts. Thirdly people who may not be aware of the products may be borrowed a phone to transact and in the process the unregistered person may be curious to know what the transaction is all about. This could lead to new registrations and use of the products. Finally the sharing of phones, assistance in the shops and commitment to service of the community reinforces trust in the products and those offering them which is important if the poor have to adopt new practices.

- **Technological factors**

The study revealed that agents and users used mobile phones or POS to transact (figure 4.3.14) which proved adequate in providing access. However the devices came with use implications. The phones require network connection, airtime and charge to operate. The users need to understand the operations menu in order to transact and be able to transact effectively. However the study established that there were a lot of system related failure of the transaction devices and in effect services were not efficient (FGD section 4.5).

Services are also network based and most of the respondents cited the network as ineffective slowing down uptake and use. Confirmation messages after transaction was the only evidence that a transaction had taken place. Constant network failure could then sabotage the services permanently. Literature review confirmed that though Safaricom had the best coverage it also had the lowest quality network; Airtel had the best performance according to Nairobi GSM Networks report (2009). This explains why all the respondents were frustrated by the network. While banks depend on MNOs entirely to provide these services, there is need for these key actors to strike an understanding. Sharing the same view Ramsamy (2008) in his study of ‘Self Service Internet Services’ he reported that successful translations depend on how faithful key actors are towards their alliances. As mobile banks negotiate with the MNOs for effective
services through a reserved band width, the same banks are busy launching money transfer services to compete with these MNOs. With the cat and mouse game, there cannot be an honest relationship and customers will continue to experience poor services.

System based fraud was also cited by the key informants. According to Fico.com (2011) the increased risk is as a result of the fact that mobile devices lack the firewalls and other security measures that are found on computers. This makes the phone vulnerable to malicious software that tracks key strokes and compromises sensitive personal information, usernames, and passwords. These vulnerabilities demand advanced analytics that monitor mobile device usage to detect fraud. These in the Kenyan landscape do not exist and users occasionally bear all the risk as banks and the MNOs have clauses which leave the risk to the user be it the customer or the agent and most of the times advise victims to seek police assistance. Police in Kenya as reported elsewhere lack the knowledge to investigate IT related fraud. This is a disturbing experience that can make users shun use of services totally.

The database available via the network provides reconciliation for transactions within a certain period and is available round the clock. This is an attribute to mobile banking that cuts across the different stages of translation. First the real-time reconciliation service is a role that focal actors depend on as they problematize the functionality of the product. A real-time transaction is proof of a complete transaction as well as a reinforcement of trust in the services. Users check their balances and a confirmation of an increase or decrease in line with type of transaction is enough to build confidence in the service. As a result users will serve as ambassadors of the product through word of mouth (interessment) and confidence in the service will lead to continued use (enrolment).
The effect of the limited network coverage in Kenya (34%) of the land mass had a negative effect on actual use of products as not all areas were covered and sometimes users were unable to use their mobile phones in their localities. This was ironical considering that majority of the urban centers were adequately covered and had enough banks, it would have therefore been logical if these signals were adequate to facilitate wireless access in remote areas.

- **Organizational factors**

Organizations are key actors in the innovation of mobile banking products. The three cases in this study represent the organizations that are responsible for the innovations. The success of many mobile products is dependent on the translation power of the organization. The organizational factor in this study emerged to include two other related factors i.e. economical as well as political

Powerful organizations are able to scale products through a large customer base. One of the cases in this study has the largest number of customers in the country. The same case also has a powerful CEO, recognized world over for an outstanding performance in various products executed by his organization (4.7 Case A). A strong personality is able to convince crucial partners to become part of their network. Particularly the Kenyan regulation of mobile banking is said to be too stringent yet other countries have flexible models. A strong personality pushing the success of a product would be motivated enough to use their skills to restructure these regulations effectively. The type of relationship between the key personality and the organization is also important. In case A, the CEO owns shares in the company and profitability of the company could also be a motivating factor. A strong brand name is also a factor as many business people would want to be associated with the results which mostly translate to good profit margins.
To the disappointment of this study, none of the CEOs described in case A, B and C was actively involved in the negotiations that describe the current structure of the mobile banking products. What was evident was that agency departments were left to work with the rigid model crafted at the time of legalization of the banking model. No effort has been made beyond these structures to address the concerns emerging from use of the products. There is a disconnect between the needs of the people, the implementation process and the top decision makers who could alter the course mobile banking has taken in Kenya.

Apart from a haphazard launch of mobile banking products that seem to replicate the same mistakes, none of the cases studied has taken mobile banking seriously compared to the implementation of M-PESA described in section 2.3.1. The Safaricom CEO then, Michael Joseph, understood the product in person and was in charge of key negotiations occasionally clarifying issues in person across mass media channels. He is said to have demonstrated the functioning of the product to the then minister of finance who had commissioned an audit of the product following uproar from banks. Convinced of Michael’s intervention, the minister declared the product risk free.

The conviction in this study is occasioned by the fact that the three products studied are propelled by the three leading banks in Kenya. Yet none of the might exhibited in the achievements described in the three cases is used to influence the path the mobile money product should take. Strong organizations have the power to enlist services of the best marketing and promotion firms; they can also afford elaborate promotional strategies that reach every customer in the country. They have the ability to sustain a research team that provides the right
information for the organization to target their products to the right customers in essence ensuring functionality before form. While the three cases studied have depended entirely on their departmental staff to manage operations of the agents, this is overwhelming and sometimes they are not in a position to provide enough support. If we could emulate the Safaricoms M-PESA model, agent management is outsourced and promotion companies like Top Image and Impulse are some of the companies monitoring the operations as well as managing implementation of any changes including training of assistants and distribution of merchandise. This is in recognition of the fact that agent management is not their core business and outsourcing would add value to the implementation process as well as the monitoring, evaluation, understanding and action on feedback.

Expert opinion informed by research is crucial in the innovations and product designs of these organizations if any value for investment is to be realized. These organizations are busy launching product after product, albeit with slightly similar alterations yet predecessor products continue to struggle in their takeoffs. For example what is the value and investment for Mobi-bank by KCB? With the two characteristics of ICTs i.e. recombination and self expansion only a few functionalities would have been added to their KCB Mtaani banking menu and money transfer would be incorporated. It is better to empower one product and reinforce it in the minds of the users rather than to create new products by different names all the time yet significant features of the new products are already replicated in other products of the same company. This was the case with M-KESHO replicated in IKO PESA and KCB Mtaani and Mobi bank\textsuperscript{42}. The field of experience is crucial if messages are to be retained, without this field of experience

\textsuperscript{42} For example Ezzy 247 by Equity incorporates Equity agent menu and many other functionalities like pay bills, transfer money, buy credit among others.
messages are ignored (Miller, G. 1956). Firms should pay attention to their context and assess the business value of their innovation before proceeding to commit resources (Ramsamy, 2008).

Literature reviewed (World Bank 2010) as well as the bank officials were in agreement that although there was need to bank the poor and marginalized, the economic viability of these people did not justify the establishment of a bank branch in the locality. The new model proposed would therefore take the economic viability of the poor in rural areas as an aggregate by consolidating individual transactions into a considerable volume and in effect constitute viability. Consequently the cost of providing these services would go down considerably as individual agents, running other business lines would combine the agency business with their existing activities. The assistant in the agency would perform all the roles necessary in serving clients; roles played by different employees in the bank branches.

- **Regulatory factors**

Regulations governing agent banking in Kenya have elicited the greatest debate and concerns from all respondents. To the users the KYC rules are burdensome, being required to walk round all the time with the physical and original national ID is unfriendly considering that the acquisition of IDs in Kenya is a process, some Kenyans do not have this document or even it may get lost\(^{43}\). This requirement is evident in agent shops as communication on the same is displayed in the shops.

The agents have also cried of the same stringent requirements, and have clearly indicated that one of the challenges they have is meeting the requirements. The guidelines also require agents

---

\(^{43}\) The Kenya Immigration department had stopped issuing IDs for sometime, in order to migrate to the electronic mode. This type of identification may not be applicable to the current structure of agent banking and all new equipment may be required to recognize users. However a mobile money product Tangaza in Kenya is already using technology which is compliant with electronic identification.
to submit the same list of documents for every contract signed with each bank. So if an agent is a multi agent, the documents had to be submitted independently as indicated for each case. The cases also differ and some cases may require additional documentation. This documentation comes with a cost. For example the Certificate of good conduct only lasts six months and returns from the registrar takes years to be amended. The case to case vetting of agents impact negatively on the banks need to reach scale (Tarazzi, 2010).

Another infamous regulation in agent banking as revealed from the study is the strict rules governing sub-agent recruitment. Agents are not allowed to recruit others to offer services on their behalf. To reach scale however this model is preferred because by the use of the agents’ network of friends and relatives it is easier to scale to most parts of the country because it mainly adopts the snowball effect (Appendix XV). However the concern of the regulator is the agents due diligence eligibility. While the Kenya (2010) regulation on agency banking does not allow subcontracting, in other countries where mobile banking is in offer regulators recognize the benefits and permit subcontracting, so long as the bank remains liable for the provision of financial services. For example, in Mexico, regulation enables third parties, including MNOs and retailers, to set up and manage agent networks for banks. In Pakistan, super-agents are responsible for managing and controlling subagents, with agreements between subagents and super-agents drawn to resemble those between the super agent and the bank. In Brazil, recent regulations permit only one level of subcontracting. Closer home the M-PESA model is similar to the Pakistan model which allows for subcontracting where an agent known as the aggregator

44 The sheets provides an agent application form used by Safaricom in the initial stages of implementing M-PESA. Depending on whether the area was saturated or not agent outlets were approved. This was instant as a tick meant that the agent and the location were both approved. In a very short time Safaricom was able to provide access in almost all parts of the country.
is allowed to recruit as many agents as they can as long as Safaricom audits the shop and it meets the standards.

A threat voiced by the banks is the exclusivity requirement, banks have no problem sharing shops with one another in fact some banks have programmed their POS to take any VISA card meaning that even customers from other banks can transact in the shops though not effective as CBK yet again has not legalized it. However they are crying foul of the leading mobile money transfer service provider Safaricom for having entered into exclusive contracts with its agents. This poses a great threat to financial inclusion considering that Safaricom currently has over 40,000 agents. Removing this large number of entrepreneurs from the equation of agent banking networks is close to killing the product as Safaricom has practically tied majority of the potential agents. Furthermore observation from the multi mobile money agents does not reveal any competition; in fact customers withdraw money from their accounts and send it through M-PESA\(^45\). The Kenyan scenario is totally unique and usage of agent banking and money transfer services in clearly distinct. On the contrary to the motives behind exclusivity, whether to protect first movers or encourage innovation, availability of all mobile services in a one stop shop will increase the business volume for money transfer services and also be of convenience to the users.

Despite the feedback pointing to frustrations of junior officers in the field, we do not see the intervention of the key CEOs of the company. There has not been any forum either on media or reported to this study that any of the CEOs has tried to negotiate for a waiver of the exclusivity clause.

\(^{45}\) This was one of the feedbacks given at a Safaricom agents meeting on 16\(^{th}\) August at Safaricom house, when the company officials insisted that agents were not allowed to offer mobile banking services for banks, saying that in the short term there may be coexistence but in the long run it was going to be direct competition.
Agents in Kenya are only allowed to initiate registration of customers and submit the documentation to the bank for vetting. Depending on weather also photographs taken are rejected ending up inconveniencing the customers who still have to travel to branches if they want to open accounts. FATF requires that financial service providers identify and verify customer identity using reliable, independent documentation. In an effort to comply with this requirement, governments have sometimes insisted on documentation, such as specific identification cards or proof of address that are beyond the reach of many unbanked poor. Pakistani regulations, for example, require fingerprint scans as a condition of account registration, but the technology required for accurate fingerprinting makes it too costly for many small agents to operate especially where transactions are few. However in view of the negative implications on financial inclusion, the regulators have issued temporary exemptions to this requirement to enable the uptake and use of branchless banking products. Kenya should be informed by the context of use of the products and structure due diligence regulations equivalent to risks involved.

In countries in Latin America such as in Peru, Colombia, Mexico, and Brazil banking agents routinely are allowed to verify customer identity (Tarazi, 2010). In Pakistan, the 2008 branchless banking regulations permit banking agents to open accounts, which carry relatively low balance and transfer limits. Similarly in Mexico and Peru, banking agents may conduct CDD with respect to low transactional, low-risk, or basic accounts subject to deposit and transactional limits. Our findings also indicate that over 1/3 of users (figure 4.3.11) transact less than Ksh 15,000 and the main transactions are deposits and withdrawals which carry low risk considering that agents finance their business. The need for stringent regulation currently enforced is unnecessary and agents should be allowed to open accounts like in Pakistan. M-PESA assistants are also allowed
to open accounts and transact for clients. Although registration forms are filled, no one comes for them. There is need for regulators to realize the wisdom of enabling retail agent networks to play a role in verifying customer identity for account opening and transactional purposes as long as the agent is compliance with applicable AML/CFT regulations.

- **Security factors**

The issue of security constantly appeared in the contextual use of agent banking, and its only befitting to add it to the context of use of these products. Security of use is a special condition in mobile money. Starting from the stringent measures imposed on the agent bank guidelines and also by the International Financial Action Task Force (FATF) (FTFT, 2010). Notwithstanding the fact that these stringent procedures impede money laundering and financial terrorism the potential financial inclusion benefits could be significant.

Another security issue revealed by the study is the usage related insecurity (RCA CCK section 4.7.2). E-money is targeted by conmen who strategically defraud of unsuspecting and gullible customers their money. Though the agent banking guidelines demand that banks be liable to loses by agents, this is not actualized as the agents are required to insure the business yet most of the theft occurrences do not fall under any insurable bracket⁴⁶. Apparently also the safety requirement in the structure of agent banking is that the customer is on their own and the agents and banks are supposedly not investigating firms. Such theft is left in the hands of the Kenya police who more often than not do nothing or end up making the customer poorer by spending money to get money lost. Considering that agent banking targets the rural poor it is only befitting

---

⁴⁶ Just to enlarge on the regulation differences, in the M-PESA Customer Terms and Conditions, Section 18.11. While regulation has still not been issued with respect to e-money issuers by MNOs such as Safaricom, banks are held liable for their agents under the Banking Agent Guidelines. Some have justified this differential treatment on the basis that bank agents engage in a broader array of financial services than M-PESA agents.
that the organizations actively get involved in ensuring money lost through use of the service is recovered.

Theft also featured considerably throughout the various segments of respondents. Again unique about the product is that agents may not afford burglar proof structures to offer services from considering the kind of commission they get from the service. Most insurance firms do not provide insurance for such high risk cases leaving the agents helpless. Further the services do not generate enough income to sustain reasonable salaries for the employees tempting them to use money allocated for service provision to take care of their personal needs.

4.14.3 Usefulness of ANT in studying the stabilization process of mobile banking products

The study revealed that Mobile banking execution depended on various partners called actors in the Actor Network theory. Through representation, a process of delegation is initiated where common definitions and meanings, representativities and co-option in pursuit of individual and collective objectives are translated.

The actor network theory postulates that a set of negotiations describe the progressive constitution of a network in which humans and non humans assume identities according to prevailing strategies of interaction. Translation takes place in various stages. All three cases initiated innovations that needed to be diffused to target markets; however the diffusion needed various partners to attempt these executions. However any partner that was to be recruited into the network had to be associated with the initiating bank in a way or the other. The bank became the obligatory passage point (OPP) mandating itself with the task of seeking partners without whom the services would not take off and in effect the beginning of the process of problematization.
Conceptualization of ANT provided the study with the lens to identify and explore the crucial factors that surround the usage of mobile banking. These crucial factors do not limit the exploration to current issues only but the social and historical contexts of the artifact (Orlikowski and Iacono 2001). With majority of the world's poor and marginalized excluded from necessary services, financial services being one of them (World Bank report, 2010), consequently with society actively seeking to remedy the situation as (Stephen 1980) the search for a solution to financial inclusion of rural populations has been ongoing. Findings in this study confirm that over 48% (figure 4.3.6) of the respondents did not have accounts before agency outlets in their localities.

ANT does not only focus on the current relationship formation but strives to understand the context historical and eminent that informs the current practice. In this context therefore ANT does not limit itself to an independent perspective in describing the how and why we have mobile banking today but allows for an exploration of all factors that surround its usage. Guided by the conceptualized ANT model, the environmental, social, technological, organizational and regulatory factors together shape the emergent product of mobile banking.

A recap of the historical and social context of mobile banking network formation as captured in the findings point to the fact that financial exclusion was the unsatisfactory condition that Safaricom, the initial innovator of mobile transactions in Kenya aimed to resolve. Eventually banks referred to as the focal actors in respect to mobile banking embraced the innovation and set out to diffuse and implement the product. The actual experience of the study does not see any serious input from the banks in terms of defining their product, the specific customers they target.
or the strategy they seek to use to access these customers. Much to the disappointment of the study, one of the strategies of recruiting agents was to identify an M-PESA shop and then approach the owner. There was a serious impression in this study that agency banking was reactive and lacking independence of both approach and novelty. It is more of a reaction to the success M-PESA has recorded. Experience surveys indicated that some of the banks did not care about what the agent got; their interest was the aggregate commission of all agents.

Mobile money products in Kenya and world over have not experienced much of success. What is evident from the study is that execution of mobile banking is highly heterogeneous and translation techniques to keep actors enrolled are important.

As realized from the study, mobile banking network is put in place by an actor and since there is no actor without a network new actors emerge from existing ones. Taking an example of equity bank with its product agent bank, first the bank as an entity already has a network of users, employees, network providers, a data base, structures, a culture, brand and other partners in its existence. However the new product takes its own structure with new alignments independent of the existing ones. So through negotiations, intrigues, calculations acts of persuasion and violence the focal actor is conferred the authority of other actors to act on behalf of others through a series of stages i.e. problematization, intressment, enrolment and mobilization. Through the process, networks emerge through the alignment of more and more actors. Large networks are those that have translated others and have therefore grown. The relationship however has to be natured; exchange of intermediaries is continuous as no network is independent as they will always need actors. A significant implication here is that the power of this translation is crucial. Who can the focal actor interest, who is willing to partner with the focal actor and what is the focal actor
capable of offering as a reward (intermediaries) for the partnership. In effect the more powerful the organization, the brand, the CEO or the possible benefits of partnership or seemingly shared interests, the more likely that significant actors will agree to be aligned.

Translation power is important in the creation of a network. In order to grow, actors have to ensure that they have power to align as many actors as possible. Just to cite an example of Safaricom which has been quoted extensively in this study, the ability of the actor to systematically remove various regulatory huddles and eventually get the approval of the model they felt would work best for them was significant in the success story of scalability and profits associated with their products.

In a related observation in a mobile money conference in Nairobi, Dr. Wolfgang alluded to the fact that M-PESA succeeded in Kenya because the CBK allowed the MNO Safaricom to play around with regulation to find out what worked best for it, however in the same forum, Mr. Mwaura scathed at the remarks claiming that CBK had no loop hole and regulation to govern monetary transactions was in full force. While the two arguments may have been viable, the only missing point was that whilst regulation may have been in existence, Safaricom was able to translate the existing regulation to conform to the interests of M-PESA making the spectators out there believe that regulation was nonexistent. The cases at hand lack this commitment of owning the product to ensure that it works at whatever cost.

---

47 The conference was organized by Africa Mobile Money Research Centre affiliated to School of Science and Informatics, University of Nairobi.
48 Dr. Wolfgang is the lead economist, World Bank Office, Nairobi Kenya.
49 The ‘test and see’ approach first coined by the GSM Association, and later adopted by the G-20 in its “Principles for Innovative Financial Inclusion” (Toronto, 27 June 2010).
50 Mr. Mwaura is in Central Bank of Kenya, Mobile Money Regulation.
The exclusivity clause also makes Safaricom safeguard its profit margin as their well to do entrepreneurs are tied by the clause, the fact that they are offering financial services and consequently not regulated allows them to pass all liability to agents. Consequently they purposefully went for the sub-agent model which allows for a registered agent to recruit any willing person to offer services on their behalf and due to the snow ball effect almost every shop in Kenya is an M-PESA shop. The difference between the two mobile money operators in Kenya is that Safaricom is proactive, they think ahead and plan their actions, the banks on the other hand do not seem to understand the mobile money field, and they lack even the basic mobilization skills, and therefore are not in a position to strategize for future eventualities. These leaves their fragile partners i.e. agents and users frustrated because of products that do not address their needs as well as poor services as a result of poor negotiations of the support infrastructure.

As banks cry foul, the mobile network operators’ continue to enjoy enormous profits. Therefore the stronger the coordination of the circulation the more the different elements are aligned and the more stable and predictable it becomes. Instead of crying foul the banks should push further to get the model which works for the scalability of their products as the more stable a network is the better it defines its components and the smaller the leeway for other networks to untie the networks in order to redefine the actor for its own purposes. This was evident from FGD discussions as well as the key informants as no M-PESA agent was willing to forgo the product for the agency business. Not now. However the status is not permanent and continuous review of the impediments to a stable relationship could propel mobile banking products to profitability and irreversibility.
With the stringent rules governing agent banking, agent bank actors have a significant task at hand if the translation process is denied and actors leave i.e. no partner prefers them, circulation of intermediaries becomes difficult and alignment becomes weaker and weaker, actors will begin to diverge and the setting will disintegrate. One of the transformational products in Kenya that was of potential in this study was M-KESHO a product that was launched significantly, however Equity bank could not agree on the commission sharing with Safaricom in effect making the circulation of intermediaries difficult and the product has so far disintegrated. Data from the CBK dated February 2012 shows that M-KESHO had 799,532 accounts with 240,633 customers having already transacted. Six months after its launch in May 2010, the product had 613,000 subscribers, indicating a declined rate of uptake. The report also says the two firms have difficulties reaching a working agreement for the product.

What Safaricom and Equity do not realize is that an actor thrives for stabilization because none of the entities which make it up would exist without that network in that form. The stabilization of a network thrives on the impossibility it creates of returning to a situation in which its current form was only one possible option among others. Both firms are market leaders, Safaricom the leading MNO in Kenya (17 million subscribers) and Equity with the highest number of accounts (57% of accounts in Kenya), but the prescriptions in the current status do not count in the partnerships in mobile banking. Framing of the relevant prescriptions towards a stable relationship of the new formation is what matters. So it doesn’t matter how stable actors are in their current form, if they don’t commit themselves to the roles assigned in the emergent networks, these networks do not stabilize.
One of the strategies proposed to achieve stability is heterogeneity and this could be the entry point for agent banking at the moment. Ability to create a variety of products offer many services at the same time in such a way that any agent/user or actor involved is entangled in a myriad of associations within the network such that it becomes difficult to leave. Currently agent bank shops only offer banking services and if customers for these services do not come to the shop, assistant stays idle. However the study established that additional value would be sought to create enough business volume for agency, although officials were quick to point out that agency banking was not supposed to be exclusively offered in shops but as one of the business lines in the shop\textsuperscript{51}.

Another significant input by ANT is the realization that although actors in the network have to work together, some actors require more effort to convince than others. Actors with prior prescriptions may lead to the exchange of more intermediaries because their existing prescriptions may need to be altered or framed to conform to the interests of the new network. For example regulations in recruitment of banking agents exist in Kenya, but agent banking requires that these regulations be changed to permit scaling of the products. These requires more convincing.

4.14.4 Role of actors in the design, rollout and use of mobile banking products for financial inclusion.

The study revealed how actors construct common definitions and meanings, define representativities and co-opt each other in the pursuit of individual and collective objectives. Each actor identified is important in the successful execution of mobile bank services.

\textsuperscript{51} Banks have no problem if one shop transacts for other banks, they also have no problem if M-PESA is one of the business lines in the shop.
Various actors have been identified in the study. These include:

- **The focal actor**

The study indicates that the main goals of agent banking are to increase customer base and market share, provide a low cost solution in areas with potentially less number and volume of transactions, increase revenue from additional investment, interest and fee income and to improve indirect branch productivity by reducing congestion in branches. The three banks studied shared a common vision for their new product as reiterated by the HoDA (Case A)

> “Offer the full range of banking services to our customers without their having to visit a branch. This will provide the opportunity to access financial products and services at a location near the customer. It is aimed at anyone with an Equity bank account and new account holders’.

He further explained the strategy they adopted of first rolling out of outlets in the urban areas while their main intention was to access the unbanked populations

> “Although our first outlets were based in towns where we have branches, our interest was to reach out to the unbanked populations. The unbanked do not necessarily reside in rural areas though the majority do, but there are unbanked populations in urban centers who have been locked out due to unsuitable and unaccessible products. However majority of rural areas now have at least an outlet in each market centre. In fact we now have over 5000 outlets distributed all over the country’.

However beyond basic provision of the services through the approval of the agent model, there is no input from the focal actors to influence restructuring of services to address the needs of the poor populations.

- **Problematization**
In the endeavor to actualize the execution of mobile banking products to reach the unbanked populations, the three banks being the OPP in each products lifeline, set out to identify who the necessary partners were in the rollout of the product. As indicated in the case study the focal actors more or less followed the same translation process and the products were similar, the only difference was the actual models rolled out. The three cases identified the same actors as partners in the implementation of the products. In this regard the HoDA (Case A) had this to say,

‘Our main partners are numerous, the product is complex and we have many partners on board. However our most valuable partners are our agents and users. Agents are the face of the bank out there and we are keen that they get their role right; users make it happen because they are our end users. The regulator is also significant as they give us guidelines on how to execute the product’.

What is missing in this statement is the realization that, the regulator does not give guidelines, these guidelines are supposed to be negotiated with the interest of the new product in mind. The dis-connect again is in the lack of understanding that the partnerships are not ordinary, but primed to suit each others needs. The structure and execution must ensure that the product addresses the interests of the agent and currently this is not the case. There are two implications for the focal actor. First is that they either do not have the resources or are unwilling (lack of commitment) to invest in the product or they lack the knowledge of the conditions of success of the product.

• Interessment

The focal actor further defined how relevant partners would benefit from the relationship. This was done through explanation of the proposal to identified partners with the aim of enlisting their contributions. This translation required skillful negotiations, powerful propositions, intrigues and calculations (like the exclusivity clause and exclusion from bank regulation as seen in the
Safaricom case) acts of persuasion and violence. The first and most crucial actor was the regulator, to whom successful interessment was done and eventual enrollment realized through the agent banking regulation. Some of the techniques emerging from the agent bank study include exchange of commissions as indicated in the survey results, the common goal of financial inclusion which was clearly stated, protection of customers, and business opportunity among others. If these partners are satisfied with the collective objectives, they accept to be enrolled and actively engage in the agency bank product execution program.

Literature reviewed suggests that aligning actors to the interests of the product is not uniform. Some actors may be rigid and this has been attributed to prescriptions in the current form which may need priming. It therefore calls for exchange of more intermediaries to ensure the roles are aligned. The regulator is one actor coming to mobile banking with heavy prescriptions, it is the responsibility of the focal actor to negotiate for the favorable regulation to facilitate scaling of the product. This again points to skill and commitment which is not demonstrated.

- **Enrolment**

Enrollment of actors is crucial as execution of roles as defined will lead to stabilization while dishonesty, dissatisfaction or indifference in the execution will lead to disintegration. There are various actors enrolled in the mobile banking execution process, some of the crucial actors include:

a) **The regulator**

The main function of the regulators is to regulate the provision of agent bank services. Besides passing regulation to allow banks to offer banking services through third parties, the current regulation impacts negatively on the banks effort to reach scale. Some of the unfavorable conditions include the stringent due diligence requirements of agents, the inability of agents to
recruit other agents on the strength of their approval to offer services on their behalf, know your customer requirements for users, limited services offered at agent outlets, unclear guidelines on how to regulate mobile-bank related tariffs, impractical and superficial regulation on customer protection in case of loss of money as a result of use of these services and the passing of liability exclusively to agents.

b) **Agents**

Agents are required to offer agent banking services to customers as regulated in the Agent banking act. These services include taking deposits, withdrawals, facilitating bill payments, instatements, bank balances and balance inquiry. Besides this they should offer the services professionally and exercise utmost people’s skill as they offer the services. The study established that KCB has an extensive training program for its assistants, taking them through customer care skills and public relation skills before being able to offer the services. The agents have been able to conveniently offer the services in residential areas and markets near to customers a considerable gain for agent banking. They also offer the services at flexible times most of them opening early and closing late. Other attributes include that they assist customers who are unable to transact on their own as well as going the extra mile to explain issues to customer’s local languages. However for increased uptake and use suggestions from users include that they should invest enough capital so that they do not disappoint customers by being un able to perform transactions needed as a result of limited cash or e-money, that the assistants need to be more professional and of reasonable credibility.

c) **Users**

Users are the targets of these products. The study revealed that they appreciated services offered at the agent outlets. There was evidence of changed lives as users were able to safe money conveniently after work, deposit money and withdraw the same, pay school fees for their
children conveniently, use statements for other services, receive payments via the new accounts, access services conveniently near their homes and at flexible hours and transact at convenience in their own homes. However various challenges hindered their increased uptake and use. These included that confirmation messages for transactions were not always forthcoming due to ineffective networks. Sometimes they ended up having cancelled transactions which made them weary of the new platforms, most of the times they were not served as agents did not have enough cash or e-money. They also did not trust some of the assistants employed in agencies as they were of questionable integrity.

d) MNOs

The study has not established any significant translation in the role played by MNOs. The tariff applied for access is not any different from that applied to normal SMS communication. The efficiency of the network is poor as confirmation messages for initiated transactions sometimes are not forthcoming. A suggestion for a solution for this problem was an allocation of a bandwidth specifically for agency banking. While this is a viable and possible remedy, it has not been done. Again the poor relationship between MNOs and banks in the whole ecosystem is registered.

• Mobilization

It was evident from the experience survey and discussions that agent banking had changed the lives of users studied. They were now able to access banking services conveniently; however challenges faced could impact negatively on the uptake and use and mobilization strategies needed to focus on emerging issues. It was necessary for an effective network to be sought in order to create confidence in services offered, the effectiveness of services to be enhanced by the banks supporting agents financially and in branding of shops for effective advertising. Education on the importance of banking and best practices was important for these would encourage new
accounts and that training of assistants was crucial to encourage quality through professional service. Increased use would in effect improve agent earnings and the agents would be able to remunerate their workers reasonably and limit theft by servant and also enable them acquire permanent premises with better security.

Drawing from the actual study findings and the secondary data, mobilization specific to mobile banking for increased uptake and use include that:

The volume of transactions and the number of agents to offer these services have to go hand in hand i.e. a large number of agents to create access and a large number of users to support the services (Castells, 2004). As indicated earlier services offered attract little income and it’s not through the amount transacted but with what frequency, the more transactions done the better the business. Value is obtained per transaction, in that every transaction counts significantly. It is for this reason that mass products of the agent banking nature need to be scaled first both in provision and in actual use for the volume to create a critical mass. These findings are also shared by Ramsamy (2008) in relation to his thesis on Internet Self service Technology when he asserts when he agrees that, ‘other instrumental objectives such as use and critical mass should be complemented with notions of appropriateness and applicability. Therefore relying on Internet Self Service Technology alone to improve healthcare service delivery is a channel strategy fraught with hazard’.

It is also disturbing for agents to operate on behalf of banks with limited funds, at times when the benefit is mutual it defeats logic not to lend to oneself as long as repayments are done before commissions are remitted. As demonstrated in the findings of the survey with agent’s majority
lacked capacity to serve customers and a financing strategy for the agents by the main actors would ensure that clients build trust in the products and hence improved translation.

Awareness campaigns are crucial for any new product. And products that require demonstrations of usage require platforms for demonstrations and one on one explanation. Specific to agent banking is the need for customer education, at the moment only Equity bank has embraced this strategy; however the good thing is that they are doing it for customers across board.

4.15. Outcome of data analysis and interpretation.

The main aim of the data analysis what to establish what ails the mobile banking implementation process in Kenya and to design a stabilization model that would guarantee increased uptake and use and sustenance of the products for poor and marginalized populations in Kenya. A summary of the actors and the roles established as crucial for a stabilization effect is presented in Table 4.2 while the stabilization process whose interventions are discussed in 4.14 are presented in Figure 4.3.29.

**Table 4.2: roles of actors in the stabilization of mobile banking networks**

<table>
<thead>
<tr>
<th>Innovator</th>
<th>Innovation informed by customer needs (social context)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focal actor</td>
<td>Powerful organization in terms of skilled personnel, influential personality, money strong brand name, customer base of financial stability</td>
</tr>
<tr>
<td>Animate actors</td>
<td>Regulators- CCK efficiency of network, regulation of tariffs, customer protection, infrastructure access</td>
</tr>
<tr>
<td></td>
<td>Regulator –CBK permit agents to conduct CDD, relax ADD rules,</td>
</tr>
</tbody>
</table>
allow sub agent subcontracting and make banks liable

- **Agents**- convenience of time and location, professional services, efficient service delivery, perseverance, apt employee relations , financial stability

- **Users**- embrace new technology, acquire and maintain necessary transaction devices, seek financial literacy classes, learn how to transact, safe personal PIN, carry KYC requirements, don’t disclose financial transactions to strangers

- **Banks**- compensate agents effectively, promote product , educate customers, support agents financially and otherwise, continue developing product to address emerging needs, roll out many shops, brand free for visibility, regular supervision, out source agent management services

<table>
<thead>
<tr>
<th>Inanimate actors</th>
<th>• Product design-affordable tariffs and strategic design, small transaction amounts, interoperability, simple operation menu, convenient use in time and location, real time transactions , survivability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Network- clear, efficient and reliable, country coverage, reasonable tariffs,</td>
</tr>
<tr>
<td></td>
<td>• System- adequate capacity, reliable, efficient ,updated information, fraud detection mechanisms</td>
</tr>
<tr>
<td><strong>Transaction devices</strong></td>
<td>cheap phones, long battery life, virtual account enabled, simple to operate,</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Communication strategy</strong></td>
<td>targeted messaging, simple messages, actual demonstrations, multichannel advertising, feedback</td>
</tr>
<tr>
<td><strong>Security</strong></td>
<td>consumer protection, efficient investigation mechanism</td>
</tr>
<tr>
<td><strong>Culture</strong></td>
<td>communal ownership of outlets, habits, sharing</td>
</tr>
</tbody>
</table>
Figure 4.3.29: The stabilization process following the key actors

The Network Society

Focal Actor- OPP

Problematization

Interessment

Enrollment

Context of use

Animate actors

Inanimate actors

Culture

Product design

Network

System

Transaction

Communication

Security

Mobilization

Agents

Users

CCK

CBK

Banks

Regulators

Stabilization

Financial Inclusion

Source: Study
4.15.1. ANT based model for financial inclusion of the poor and marginalized explained.

The ANT model represents how meaning is bound by context and process and consequently how designers, agents, users, regulators, technology and the other actors are enabled as well as constrained in their practices. The interrelationships, dependencies and mutual configurations provide a better perspective lens for understanding the context of use of mobile banking.

The aim of the model (Figure 4.3.29) is to synthesize ANT in the study of Context of use in order to develop it to a systematic framework for studying consequent mobile money based products. The model demonstrates the complex and interdependent issues and their implications on the actual rollout and use of mobile banking products. Butler (1998) asserts that, the understanding of mobile banking as a product of human action is subject to a circle of understanding that includes the whole and the parts that constitute it. It is therefore only parsimonious for this study to end with a model that demonstrates the linkage of all actors animate and inanimate and the roles each plays in the stabilization (or destabilization) of mobile banking as provided for in discussions in section 4.14.

Mobile banking is a new phenomenon; however various scholars have attributed certain characteristics to people who participate in information based activities. These people use technology to access information irrespective of their geographical places. That not withstanding they seek no assistant in the access of those services. With the aid of nodes various people are connected and these connections enable the people to share certain things via the networks. These interconnected people become part of the new society i.e. a virtual society engaged in activities that do not necessarily originate from their places but sharing the same space.
The trajectory for stabilization of mobile banking products studied can be followed from the innovators of the products and the execution strategies adopted by the focal actors. The context of use of the products however determines what elements are to be followed and what roles are to be assigned for successful interplay. Therefore the translation (problematization, interessment and enrolment) process is guided by the establishment of a working relationship of all actors animate and inanimate through mobilization strategies whose intervention strategies constitute distribution of intermediaries.

When actors are comfortable with their roles (Punctualized) and the artifact (mobile banking product) is black boxed and therefore difficult to open, actors will do anything to ensure that the stability stays. Stability at this stage is for the benefit of all actors and each actor plays their role to ensure that they are not the weakest link. It is when all actors are executing their roles as assigned, they are happy with their participation in playing their roles as well as the benefits they get from the relationship that financial inclusion of the poor and marginalized, the goal of this study is realized.

A rider to stabilization in this model is that each stabilization process is actor network specific i.e. what entails one actor network formation and stabilization may not take the same trajectory as another actor network formation. In other words there is no recipe for financial inclusion parse, it is to highlight what needs to be done and by which actors and it is therefore entirely on the efforts of the translators to get it right and translate those roles they feel are crucial for the stabilization their specific network.
As indicated by Latour, network formation and stabilization is precarious, it is not a permanent scenario and the black box can be opened. Therefore, though this study may use terminologies informed by ANT such as stabilization, irreversibility or even stabilization, actor networks that have attained this status must continuously participate in mobilization to ensure sustainability of the product for continued coexistence of the actors.

The process of ensuring that the stabilized status is not lost may also lead to mistakes which could cost the actors the entire stability. Just to demonstrate, it is a fact emerging from the study that the debate of exclusivity in Kenya is being contested (Tarazi, 2011), however to crystallize the status quo, the leading mobile money transfer MNO has devised a strategy of flooding the market with outlets and also to have agents sign other contracts to reinforce the exclusivity. The motive though not explicit could be that, using the success rating to attract agents they want to lock in any willing shopkeeper with the exclusivity contract and in effect ensure that competitors (who are viewed as bank led agency banking) have no one to recruit. While this strategy may have immediate positive implications for the MNO, it may be counterproductive because there cannot be exclusivity of a product which everyone has, as it makes the product cheap and numbers would mean that the profit margins would go down, because agent would now share the same customers. If the profits go down and get to a comparable level to those the agency banking agents are getting, then these MNO agents could consider jumping ship. If the later scenario plays out then the strategy adopted may be the leak in the black box of the MNO.
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter draws conclusions and provides recommendations for issues emanating from the discussion of findings.

5.1.1. Preview

The study set out to study the stabilization process of mobile banking products in order to address financial inclusion of the poor and marginalized in Kenya. Makueni district was chosen as the area of study for exhibiting characteristics befitting the purpose of the study. Mobile banking was proposed as a possible trajectory for financial inclusion of the poor and marginalized for its ability to provide access of financial services to the target populations in their localities as well as aggregate transactions of individuals to constitute a viable business volume. However the problem at hand was that many mobile money products (mobile banking being a mobile money product) in Kenya and world over were not experiencing effective uptake and use. This study sought to use the Actor Network Theory to understand the context of use of mobile banking and in effect explore factors or conditions in the execution of mobile banking.

Following actors animate and inanimate as informed by ANT, the study established the role of each in the network formation as informed by the actors themselves and further their suggestions for increased uptake and use of mobile m-banking services for their benefit and sustainability of the products.

5.2. Summary of findings

The ability of the focal actor to put together actors and create an ecosystem that fosters the relationship is crucial for stability of mobile banking products. Active leadership and deliberate efforts to align roles of recruited actors to the interests of the common product help in reinforcing
coexistence in the network. Effective implementation of mobile banking products is expensive, time consuming and a complex process because it targets country diffusion, sparse populations and of limited resources. Direct commitment of company top leadership to the success of the implementation process not only motivates other partners to continue playing roles as assigned but also creates trust in the product itself.

Though there are many partners already enrolled in agent banking some constructively, the greatest impediment to uptake and use and consequently attaining scale is the regulation governing the execution of agent banking. There is also disconnect between products launched and availed to rural populations and their use of the products. The Kenyan banks need to look further to adopt models that have been tried successfully in other countries in order to scale the products for effective sustainability in regard to the following:

- **Targeting BOP populations.**

Translation of mobile banking products is context specific. Although the product was availed in these places, the typical rural person had not taken up the products. Comparing the 75% population that engaged in subsistence farming (Table 3.6) only 17% of farmers (figure 4.3.4) were using the products. A clear understanding of the needs of the people, contextual factors affecting the specific target population i.e. their economic status, infrastructural strengths and weaknesses of the study area as well as characteristics of the target population; education, habit or the culture of the people targeted and establishing their financial needs and how best they would like them addressed is crucial. Prior contextual studies are helpful in identifying the appropriate partners and strategizing on the translation process.

- **Exclusivity rights to Safaricom.**
The greatest cry established was that Safaricom threatened bank agents with cancelation of contracts if they did not desist from offering services for the banks. However the scenario on the ground is different, bank customers are an advantage to the money transfer services; for what happens is that customers withdraw money from the bank accounts and send it to friends and relatives via the money transfer service. The banks should look for translation skills to convince the mobile network operator of this shared benefit.

Banks have found themselves in a predicament over the translation of the very crucial issue of numbers of agents for access of the service and numbers of users to create the business volume. While debate is rife on one hand argument favoring exclusivity and arguing that the lack of a level playing field is justified since banking agents can offer far more than the cash-in/ cash-out services of Safaricom, the counter argument on the other hand is that agents and financial inclusion considerations weigh against permitting this fuller array of services to be monopolized by one actor through the use of exclusive contracts.

Kenyan regulators, including those from the Central Bank and the Monopolies and Prices Commission, are struggling to develop a regulatory approach that promotes competition and financial inclusion, while simultaneously respecting the free market and providing incentives to first actors. However countries that have successfully translated the problem have permitted temporary agent exclusivity (Tarazi, 2011), particularly in the early stages of sector development, to provide banks with short-term incentives to invest in building agent networks, while enabling other providers to compete effectively in the long term in areas with few suitable agents.
There is however a worrying trend in the current mobile money spectrum in Kenya and this is straining the bank MNOs relationship further. There is an influx of mobile money transfer services being launched by both banks and other companies mainly to target the M-PESA money transfer service. Examples are: Nation hela, Mobi bank by KCB, Ezzy 247 by equity among others). There is a deliberate effort by these companies to target the fortune seen to accrue from M-PESA. Yet in my view this is a defeating strategy since these other actors rely entirely on MNOs to offer the services. Unless these other companies acquire a network license which does not come easy, they remain at the mercy of MNOs and while the status quo remains, MNOs will continue to price their services exorbitantly to muzzle any effort by these other companies to eat into their market share. At the end of it the extra cost will be borne by users who will try the alternative money transfer services.

Surprisingly these competitors are also in partnerships with M-PESA to provide money transfer services. So the question is why the dishonesty? Ramsamy (2008) in his study of translation is clear on the fact that for any translation effort to be successful the faithfulness of the key actors to the process is imperative. There is need for the differentiation of services in the mobile banking industry where banks do what they do best i.e. their core business which is deposits, withdrawals, risk assessments and reinvestment while MNOs offer their network related services which include money transfer services. With the clear cut mandates there could be fruitful negotiations on the tariffs imposed for connectivity by MNOs and revising these tariffs downwards would benefit the end users.

- **Non exclusivity clause for banks**

Actually before these money transfer services were added to the agency banking menu, Safaricom was not explicit on whether its agents should or should not offer agent bank services. However when the money transfer service was added to the list of services to be offered at agency shops, Safaricom clearly ordered its agents to choose either to offer M-PESA or Agency bank services.
The non exclusivity clause in the 2010 agent banking act could be used to the advantage of the banks. Banks could negotiate to arrive at pricing and other terms by which other bank customers could use one point as a customer interface. Once an agent is signed by one bank this agent could be used by other banks to process transactions. This model is in use in Pakistan through the open architecture model where an agent serves multiple banks without separate contracts with each bank. Interoperability has also been suggested (World Bank, 2012) as it benefits operators by extending the pool of customers reducing incentives for many SIM cards as well as passing the benefits to agents who currently have to maintain the infrastructure of every bank they are signed to.

- **Agent Network management (ANM)**

The study has established that the agent network has credibility problems. It is important for the bank to subcontract the services of professional management firms to undertake agent supervision, training, promotion of products and also create awareness of the product. Moving from low agency accountability to greater agency accountability would work well where a small area is assigned a team to manage the implementation process and monitor operations on a day to day basis. They will also be able to reinforce regulation which may not be easy for sales representatives stationed in the head offices of these banks. With up to date feedback mechanism the banks will be able to strategize on how best to handle emerging issues of use. Tarazi (2011:9) is of the opinion that,

- **Sub agent contracting**

The Kenya 2010 guideline on agent banking explicitly provides that, ‘an agent shall not subcontract another entity to carry out agent banking on its behalf’. In this arrangement the bank must bear the expense and hassle of signing separate agreements with every agent. The fact that

---

53State Bank of Pakistan, Branchless Banking Regulations, Section 5 (March 2008).
the M-PESA sub agent sub contracting model has worked fairly well (M-PESA agent contract 2010)\(^5\), it should not be difficult to cite our own example and convince the regulator to allow agent subcontracting as long as the bank is ultimately liable for financial services rendered. Where the bank is ultimately liable for agent actions the regulator should feel more comfortable in minimizing restrictions on agent eligibility and agent due diligence. The regulators should recognize the benefits of ANMs and permit subcontracting, so long as the bank remains liable for the provision of financial services. For example, in Mexico, regulation enables third parties, including MNOs and retailers, to set up and manage agent networks for banks.

- **Professionalism in service delivery**

There should be occasional training of assistants and refresher seminars to ensure that they offer services at par with those at the branches. The KCB original model was elaborate, with suggestions to eventually remunerate the assistants at the same level with those of their qualifications at the bank, as much as this was a noble idea, it may not have succeeded because assistants are entirely the employees of the agent and are paid according to performance. However this study suggests that agents should incorporate welfare schemes that cushion the assistants at times of need. These could include benefits and Sacco’s where they can access loans at reasonable rates.

- **Efficient service to customers**

Cited mostly in the study were issues of float or cash and network failure. The two issues could discourage users from transacting in the agency shops and eventually reduce the trust in the new products. Mother Banks should initiate support financial services for agents to enable them serve customers efficiently. External regulation of tariffs on mobile banking should be enforced to

\(^5\) This is a revised contract recognizing and giving agents permission to recruit subagents. However this was in recognition of the fact that even without the explicit permission subagents constituted more than 80% of the agent network.
ensure that punitive costs are not passed to the customer making the product costly. Focal actors should consider persuading MNOs to dedicate mobile banking transactions to specific bandwidths to reduce traffic which leads to unconfirmed transactions.

The success of M-PESA (section 2.3.1) was attributed to the gap in money transfer models, diffusion strategies, right regulation for reaching critical mass as well as the distribution channels. Most of the success factors for M-PESA are missing in the cases studied. Besides the gap for financial inclusion glaring, the regulation impedes reaching scale by restricting subagent contracting, advocating for ADD and CDD. The tariffs in agency banking are also higher than those in the banks or ATMs (Appendix xiv). The roles should be translated before hand and necessary intermediaries exchanged to ensure that the product takes off with the ‘I’ curve and not the ‘S’ curve as critical mass is crucial for the sustainability of the product.

5.3. Theoretical contributions

Through the emergent properties of digital electronics and genetic engineering a new era where people are brought together in time without leaving their physical places is now evident. A technological revolution associated with the network society which explains why mobile banking is possible today.

ANT explains the dynamics of the concept of infrastructure in action as it focuses on the movement, the dynamic interaction of actors in the circulatory of the interactions between human and non human entities and their mutual consistency in the process. In other words there is no specific formula for stability; it is the actors involved to stabilize the relationship by continuously circulating intermediaries for the interest in participation to be sustained. The stability of a
mobile banking product depends on how well enrolled actors play their part and how their interests align with those of the continued participation.

5.4. Methodological contributions

The ANT methodological foundations were very useful in the study. The interpretivist ontological foundation was appropriate in following the actors while the distinct ontology was used to focus the analysis on the emergent properties of the relationships followed by its evolving dynamics rather than the mere effects on either the people or technology.

5.5. Conclusions

Informed by findings from the research, we present our contribution in our understanding of the field. The recommendations are mainly based on the theoretical framework and emerging issues and may be useful in the implementation of other mobile banking products.

5.5.1. Specific conclusions for the study

A general observation from the study is that the implementation of mobile banking products is dynamic and complex. The characteristics that make mobile banking promising; its scale and impact, its multiple uses as well as its novelty also contribute to the challenges faced in realizing them. Mobile banking deployments target customers who may be poor, dispersed, and remote and spans two distinct industries with different business models i.e. the banking and the telecommunication industries. Developing the necessary cross-sectoral partnerships including bridging cultures and regulations may therefore be difficult. In addition the relationships are under threat of disintegration and the relationship building is continuous. With these challenges translation can be ineffectively done in such a way that the roles played do not lead to the growth of the network. In addition the success of mobile banking products is dependent on scale and these products represent a two sided market, whereby new deployments must convince both
agents (supply) and customers (demand) to sign up for the service in sufficient quantity to be viable.

Power is a central determinant in the success of mobile banking products because of the dynamics of negotiations involved; no single case demonstrated the influence of the CEOs in these negotiations. The result was a rigid structure particularly the regulatory which was a serious impediment to scaling of the products. Though the three cases have demonstrated might in terms of market share and assets as seen throughout the study, there was no serious investment in creating awareness and consumer financial literacy. Majority of the users were not aware of either the product or how they stood to benefit from use as demonstrated by the few transactions recorded per day.

The teams mandated with the diffusion of these products lacked the power to influence key decisions which would otherwise influence their scaling of the product. Consequently they also lacked any theoretical fundamentals to support actions they took and were not in a position to advise decision makers on strategic interventions to increase uptake and use.

There was a strong inclination on the research team to view the whole process as being reactive, overly a mimic of M-PESA without any context specific interventions informing decisions made. Lack of theoretical foundation led to the focal actors accepting to roll out a product with flawed provisions. If the banks knew from the word go that mobile banking products could not succeed without a substantial number of users and a substantial number of agents, they would have made sure that the ADD and CDD regulations were structured to allow products to attain critical mass and sustain themselves.
Dealing with a special Kenyan population that has experience of other successful mobile money products, the study could not avoid registering the frustrations of both the agents and users as they dealt with teams whose hands were tied in terms of providing solutions to problems affecting their use of the products.

Partnerships formed were shrouded with dishonesty and lack of commitment demonstrated by the failing products and subsequent launch of others. Commitment and faithfulness in the network formation is crucial for the success of the relationships.

The influx of failing products is a clear indication of lack of empirical knowledge backing decisions made. Proponents of the products have no idea about the complexity of the execution process of mobile banking products. They do not realize that mobile banking products require heavy investments in infrastructure, maintenance, human resource as well as the commitment of stakeholders including personal commitment of the most senior personnel in the company. Importantly the execution does not constitute a boardroom decision but a series of negotiations with various partners without whom the product is doomed.

The fact that each bank has rolled out more than one mobile money product with none of the product making any significant impact is a manifestation of lack of understanding of the conditions pegged on the successful implementation process of mobile banking products. Castells (2004) clearly points out that these products require a certain size of users (demand) and agents (supply) for them to sustain the distribution chain. This implies that the implementation strategy adopted must ensure that a certain number of both users and agents are in place before
the launch of the products. This has not been the case, for most products the recruitment of agents and users has been preceded by the launch.

5.5.2. General conclusions

ANT does not propose a standard formula for success but suggests that the success of any network depends on the interplay of the actors in the particular actor network. This is to say that while a product like equity agent discussed in this study may stabilize by aligning the interests of all actors proposed in model (figure 4.3.29.) to the common interest for an increased uptake and use; KCB Mtaani may hit a snag with the same model for failing to align the interests of the same actors in the same model. Therefore it is how the actors in the particular network act or play their roles that determine the success or failure of the actor network formation.

Not all actors indicated in the model (figure 4.3.29) embody the same level of flexibility. Actors embody various characteristics that are the outcome of their relationships and heterogeneous elements animate or inanimate that have been linked to one another. The characteristics are renegotiated in the interplay with other actors leading to priming. These forces are existing rules governing the existence of these elements. To elaborate further the model (4.3.29) has various actors both animate and inanimate. Each actor has been considered to participate by virtue of the relevant role (prescriptions) each has for the network. Each of these actors participates by the virtue of what they can do for the network. However depending on the realignment required to allow the roles of each actor to fit and function according to requirements of the new network, some elements may resist change. An example is the standard SMS charge for a single SMS.

---

55 For this reason the interpretive perspective of ANT was crucial in following the actors with the prescriptions useful for mobile banking products.
Reducing tariffs from the standard charge may require more effort in the negotiation and exchange of more intermediaries.

Stabilization strategy proposed is not a priori but emergent. The stability of a network has to be viewed through the relationships that form the network and the continued agreements to continue functioning in the manner that creates the stability. Not getting it right now in Kenya is not a death nail on the head of the product. There is room for continued translation to a point where the right model is realized.

Agency banking is a new model and therefore continued translation of precarious actants through exchange of intermediaries is necessary considering that alternative channels like MFIs, money lenders and merry go rounds are all leaky black-boxes. There is a great opportunity for agency banking products to reach a point of irreversibility if translation is done following recommendations on structure and mobilization to address emergent implementation issues is reinforced

The key person must be knowledgeable, know the best way to diffuse the product successfully. The study has established that mobile money products generally target the bottom of the pyramid populations, for value to be realized, the product must be used in volumes and regularly. There is also no guarantee that availing mobile banking products to these people will result to use. One characteristic of BOP populations is that they reside in rural areas and are sparsely populated, so this product must be scalable and therefore access to this people in their localities must be ensured. One of the key strategies for scalability utilized in other countries is the agency network system.
Strength of character, authority in the field and translation skill is what is needed to move the product. There is however a rider to the personality power; this personality must identify to whom or what his power must be exercised and also the context in which the power must be exercised. The power of the key person is context specific and it is very important to realize that an excellent translator in Kenya may be a miserable translator of the same product in another country. This is because translation as earlier indicated is informed by a thorough situation analysis of the context of the target populations.

The study has clearly explained that mobile banking is a mass product that targets large markets and sparse populations. Any entrant to the execution of these products must understand the costs of sustaining such products and any strategy to reach out to these populations must be designed before hand to ensure a rapid adoption as critical mass for a self sustaining ecology capable of reproducing the material basis of the space of flows is required. Subscriber numbers, company image or any strategy to ensure immediate value must be thought out before rolling out products.

Translation is a continuous and time specific process i.e. the actors considered crucial in the stabilization of mobile banking products in this study may not be the same in another mobile banking scenario or in a similar study some other time; the summary is therefore informed by findings of this particular study.

5.6. Research limitations

Mobile banking is both a new concept as well as an innovation; as a result the study had limitations which also call for further studies. The major limitation was that mobile banking in Kenya was at its early stages. Most of launched products had barely taken off i.e. Mainly
concepts yet to be fully realized, for this reason the study had to identify the few stores rolled out for much of the required information. As a result the study was purposive in nature and the researcher had to locate participating stores in the study area.

Data collection required people’s skills. To convince people to give information that touched on money was not easy. People are skeptical about strangers asking questions related to businesses as this could lead to theft. We had to really explain our course before respondents could participate; we mainly used the local language to assure the respondents that we were not strangers and to resonate at a better level at the actual meaning of words used. The access to banks was also a process, permission was granted after a month as consultations had to be done first. Further the banks in Kenya were in competition, each trying to outdo each other for a market share. It was the feeling of the researcher that a lot of information was not availed in the interview sessions to safeguard company strategies. This called for a lot triangulation of the information from other sources which included experience surveys and an in-depth literature review.

Due to the fact that the product was new in the market and those actually engaged in the practice were few, getting respondents to participate was not easy and the researchers had to get telephone numbers of users from the agent shops and then call them and arrange to meet in order to get the information required. This made us take more time than we had anticipated, however those we called were cooperative and gave us the necessary information. Banks were also in competition and unwilling to give crucial information. These called for triangulation of data sources.
Mobile money is a topic that is new and information is not peculiar to many people, getting people to participate constructively in the focus group required extensive searching. The study originally was to have a focus group discussion with scholars and experts. This strategy did not work as besides the theoretical perspective of mobile money use, quite a number of scholars did not understand much of what was on the ground. Experts were also in and out of the country and to get them in a forum was not forthcoming. The researcher resulted to interviewing the experts individually while the FGD was done with users and agents as they had actual experience with the products. This revised strategy proved to be very useful and satisfied the needs of the research.

5.7. Recommendations for practice

The actors in mobile banking are numerous, before rollout a careful research should be done to establish crucial actors and their roles.

Agent banking products target country diffusion; this requires substantial investment and company strength. If the awareness campaigns are consistent and effective the product will diffuse faster, demand will increase and supply through agents will increase and agents will be able to break even in a short while and therefore be willing to continue offering the services. If the product take up is slow, agents will give up or be noncommittal, and the impact of the product may be insignificant.

Unbanked populations targeted by mobile money products usually have no knowledge of the best banking practices and also do not understand how banking may be of value to them.

---

56 In a PhD session with Vivien, a visiting expert in qualitative research methods at the SCI University of Nairobi, the researcher was guided to interview experts individually as the lecturer was of the opinion that it was almost impossible to get experts in a common forum.
Financial literacy training and customer education is required to ensure that the products add value to their lives. They should also be protected from exploitation through tariff controls as well as subsidies to cushion against additional distribution costs. The use of the product must also be simplified and self instructive.

The diffusion and emerging issues of new products require close monitoring and evaluation. Best models for staying in touch with agents and users should be adopted to ensure that feedback is collected and acted on immediately until a stage where the product use stabilizes. Close monitoring helps in restructuring products to address actual use needs.

5.8. Recommendations for further research

The study sought to design a model for financial inclusion for the poor and marginalized. Yet the findings point to the fact that current users are not poor populations and less that 1/3 of the poor people had taken up the product. Context specific studies to establish what drives poor populations to take up financial services or technological applications could explain this gap.

Impact studies could follow the implementation process to ascertain whether the products were beneficial to the lives of users and address emerging outcomes in relation to the specific needs of the users.

Regulation modeled according to recommendations in this study could be tried on pilot basis and a study commissioned to gauge usage risks against value of scale. If the risks involved in relaxing the regulations on CDD and ADD are found to be less than the value of financial inclusion then the regulator could revise the regulations to favor scalability.
ANT has been used to identify roles for actors which would lead to scaling of the products to attain critical mass, however ANT as designed does not go beyond the interplay of roles yet the most important success factor is that these actors find a way to work together as none of the actors is indispensable. It would be valuable if then studies were done to establish what hinders key actors from co-opting each other for the success of the products. Particularly the relationship between banks and the network operators is thorny yet the two are key in mobile banking, why is this so? And what interventions are necessary.
REFERENCES

Winter: university of Chicago.

Systems, Catholic University of East Africa.


Anyasi, F.I. & Otubu, P.A. (2009). Mobile Banking in Developing Countries, Department of
Electrical and Electronics Engineering, Ambrose A.;l University, Epkoma, Edo State, Nigeria.

Archer, M.S. (1982). Morphogenis versus structuration: on combining structure and action. The
British sociologist 33(4):455-483

Level Technology systems, Ramallah, Palestine.

MIS Quarterly March L 87-106

Bedah Mengo (2012). Mobile Money Services offered by all the four Telecommunication
Companies in Kenya.


2009-06-09.

extension Cooperative Extension Madison, Wisconsin.

Encyclopedia Britannica, Inc (1994-2011)


Consultation paper, pp.9.

Mobile Money and Branchless Banking.” Consultative Group to Assist the Poor, Web log post.

University of California Press.


Mengoh, B. (2012). Mobile money Services offered by all the four telecommunication companies in Kenya. Xinhua Correspondent.

Rector (2009), the Civil Rights Movement. University of Virginia: http:// ww2. Lib.virgina=ia edu/exhibits/sixties.htm/retrieved


APPENDIX I: AN IN-DEPTH INTERVIEW SCHEDULE FOR AGENT BANK OFFICIALS

Welcome and thank you for sparing time to answer these questions. I am a doctorate student in Communications and Information Studies at The University of Nairobi. I am required to submit a Thesis on, “Financial Inclusion of the Poor and Marginalized: A Multi Case Study of Selected Mobile Banking Products in Kenya”, in the fulfillment of the requirements of my doctorate degree. The study seeks to find out, **how Mobile banking particularly agency Banking can be effectively used to address the Banking needs of the unbanked populations in the rural areas.**

The In-depth Interview schedule will be used to conceptualize the Actor Network Theory (ANT) in order to study the context of use of Agency banking and establish the role of actors in the design uptake and use of agent banking for financial inclusion of the poor and marginalized.

**Section 1: Establishing the need agent banking**

1. What necessitated the development of the product?

2. What characteristics described these first target populations?

4. What specific needs of your target populations are addressed by agency banking?

5 What specific features of the product make it possible to address financial inclusion of the previously unbanked populations in Kenya?

**Section 2: Actors**

6. Who are your main partners in the execution of agent banking?

7. What is the critical role for each of the following in the successful implementation of the product in Kenya?

   a) Agents -
b) The telecommunications company involved-

c) The users-

d) Marketing/communication companies

e) The product

f) The regulators

CCK

CBK

g) Others

8. How did you convince the regulator to authorize agent banking?

9. Are there roles by the above actors that you feel hinder the smooth implementation and use of
the new services?

10. If yes which actors?

11. What specifically are the actors in 7 above doing/not doing to enable the uptake of the
product?

12. What incentives do you offer the agents in order to sustain them in the network of actors?

13. How would you rate the uptake and use of the product by your target population?

a) Rapid [ ] b) Moderately rapid [ ] c) slow [ ] d) Very slow [ ]

14. How would you describe the Mobile network access tariffs charged on agency services?

15. How are you dealing with this to ensure your interests are adequately fulfilled and the
network provider is also satisfied?

16. Is there possibility that at some stage the bank would acquire a telecom license?

17. How is the bank sensitizing its users on the new services and service providers?

18. How will the bank differentiate its services considering that other banks also have the same
models targeting these fresh markets?
19. What are the main challenges faced by the bank in the roll out of the product?

20. What is the foreseen future of agency banking?

Thanks for your support
APPENDIX II: A GUIDED QUESTIONNAIRE FOR AGENTS

Welcome and thank you for sparing time to answer these questions. I am a doctorate student in Communications and Information Studies at The University of Nairobi. I am required to submit a Thesis on, “Financial Inclusion of the Poor and Marginalized: A Multi Case Study of Selected Mobile Banking Products in Kenya”, in the fulfillment of the requirements of my doctorate degree. The study seeks to find out, how Mobile banking particularly agency Banking can be effectively used to address the Banking needs of the unbanked populations in the rural areas.

The guide will be used to collect data from agents to determine the role of context of use in the deployment of the product. Specifically the guide will be enable the researcher identify the interests of the agents, determine the extent of financial inclusion to the target population and establish best strategies for sustainability of the service for the benefit of the unbanked.

A. BIOGRAPHICAL DATA.

1) Position of respondent
   a) Owner □  b) Administrator □  c) outlet assistant □

2) Age bracket
   a)<18 □  b) 18< 35 □  c) 36 – 55 □  d) >55 □

B. BUSINESS PROFILE

3. Exact location of outlet ____________________________________________

4. Length of operation? a) Less than 6 months □  b) 7 months - 1 yr □  c) above 1 yr □

5 Type of business (es)________________________________________________________

6. Operating hours – opening and closing time? ________________________________
7. Opening and closing days
   Opening _____________________________________________________
   Closing _____________________________________________________

8. Kindly indicate the product you are offering?
   a) Cooperative bank (Coop kwa Jirani) □   b) KCB (KCB Mtaani) □   c) Equity Bank (Equity agent) □

9) If you offer services of more than one bank what are the challenges?

________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

C. BUSINESS OPPORTUNITY

10. How did you know about Equity Agent?

11. What specifically pushed you to consider the product as a business opportunity?

12. Who/what influenced your decision to actually start offering the service?

13. Which of the following do you practice to ensure that customers come to your shop to transact?

   (Tick against the practices you engage in)
   a) Train assistants on customer care □
   b) Keep enough float and cash □
   c) Open early and close late □
   d) Advertise my shop □
   e) Assist clients who cannot transact on their own □
   f) Others______________________________________________________________

14) How long did it take for you to start operations?
D. SERVICE PROVISION

i) Services

16) What services do your clients ask for?
   a) To deposit money
   b) To withdrawal money
   c) Assistance in paying bills
   d) Mini statements
   e) Bank balances
   f) Money transfer
   g) Loan applications
   h) Other specify ________________________________

17) Are you in a position to offer all the services?
   a) Yes   b) no

18) If not what needs to be done to help you serve customers better?
   __________________________________________________
   __________________________________________________

ii) Investment

19) What was the initial cost of investment?
   a) Below Ksh 10,000  b) between 10001- 50,000  c) 50001 – 100,000
   d) 100,001- 150000  e) 150001- 200,000  f) above 200,000.
20) Approximately how much commission do you earn per month?

a) Below 10000  

b) Between 1000-3000  

c) 3001-5000  

d) 5001-7000  

e) 7001-10000  

21) Apart from the commissions earned, do you get other benefits from companies you operate on behalf of?

a) Yes  

b) No

22) If yes in 6 name the incentives

a) 

b) 

c) 

23) What are your expectations as an investor in the agency business?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

24) Is agency banking profitable as a business as of now? Yes  

b) No

25) If agency banking is profitable now, what has contributed to the success?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

26) What are the main challenges

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

27) What should be done to make more customers use the product?
28) Have you been threatened by other operators with similar products that you offer only one of such products in your outlet? Yes □ b) No □

29). If yes in 34 above, what is your opinion?

______________________________________________________________________________

Thanks for your support
Welcome and thank you for sparing time to answer these questions. I am a doctorate student in Communications and Information Studies at The University of Nairobi. I am required to submit a Thesis on, “Financial Inclusion of the Poor and Marginalized: A Multi Case Study of Selected Mobile Banking Products in Kenya”, in the fulfillment of the requirements of my doctorate degree. The study seeks to find out, how Mobile banking particularly agency Banking can be effectively used to address the Banking needs of the unbanked populations in the rural areas.

The questionnaire is tom particularly establish: 1. how the product addresses needs of the previously unbanked 2. Suitability of the product in terms of addressing issues targeting the unbanked 3. Evidence of changed livelihood  4. Reasons for positive or negative impact 5. Opinion on ways of sustaining the product for a successful uptake and use by the poor and marginalized.

A. BIOGRAPHICAL DATA

1) Sex of respondent
   b) male □ b) female □

2) Educational Level?
   a) No formal Education □ b) adult education □ c) primary □
   d) Secondary □ e) university □

3) Age bracket
   a)<18 □ b) 18-35 □ c) 36–55 □ d) >55 □

4. Occupation
a) Business person □  b) house wife □  c) farmer □  d) dependant □  e) skilled manpower □  f) formal employment □  g) other specify □

B. ACCOUNT HISTORY

5) Did you have a bank account before the Agent product?
   a) Yes □  b) no □

6) If no in (5) give three key factors that had hindered you from having a bank account

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

7) If you already had a bank account was operating the bank from your location convenient?
   a) Yes □  b) no □

8) If it was inconvenient operating your account from your location, what made the experience inconvenient?
   a) Distance to the bank □  b) time spend on the way □  c) queues in the banking hall □  d) other specify □

9) What circumstances made you open an account at the bank agency? (Tick against the choices that influenced you)
   a) The convenient location □
   b) I needed to save money □
   c) I needed to get credit from the bank □
   d) For savings to earn interest □
   e) To receive payments through the account □
   f) To be able to pay group loans (like KWFT, Faulu etc) □
g) Convenient working hours

h) Convenient use of my phone or card to transact

i) Other specify _____________________

10) Kindly rate your expenditure in the agency banking in Kenya shillings per month?
   a) Below 5,000  b) 5001 – 10000  c) 10001 – 15000  d) above 15000.

B. DIFFUSION OF INFORMATION ON AGENT BANK SERVICES

11) How did you first know about agent banking services you are registered for? (tick against source(s) that apply)
   a) Radio advertisement  b) Newspaper article  c) Bank representatives
   b) road shows/promotions  d) SMS on my phone Information
   e) displayed in the banking hall/ATM points  f) All the above  g) Other specify

12) How do you get information on any agent bank related services? (Tick against the sources that apply)
   a) Word of mouth  
   b) TV /radio  
   c) Road shows  
   d) SMS alerts  
   e) bank representative  
   f) posters/billboards/banners  
   g) digital adverts  
   h) Displayed in agent bank outlets  
   i) Other (specify) _____________________

C. USEFULNESS OF THE SERVICE
13. What device do you use to transact at the agency?
   a) Phone    b) card    c) both card and phone

14) What are your reasons for using bank services?
   a) Safe keeping of money
   b) Access credit
   c) Be able to use cheques
   d) Be able to transfer money electronically
   e) Pay school fees
   f) Pay bills
   g) Deposits to earn interest
   h) Security of money in terms of fixed deposits
   i) To qualify for services that require statements
   j) Other specify _______________________________________________________

15) Which services are most useful to you and why? (Tick against the services that are useful to you)
   a) Withdrawals
   b) Deposits
   c) Payment of bills
   d) Money transfer
   e) Mini statements
   f) Balance inquiry
   g) A, b and c

16) Have you ever used or do you save money or get loans from other sources apart from banks?
   a) Yes    b) No
17) If yes which are the other sources? (Tick against the sources you have ever dealt with)

a) Merry go rounds  

b) Saccos  

c) MFI’s like Kenya Women Finance Trust, Faulu etc  

d) shylock or Money lenders  

d) other specify  

18 Do you use the services regularly? a) Yes  

b) no  

19) If yes in 19 above, how many times do you transact in the agency (tick against your choice)

<table>
<thead>
<tr>
<th>Weekly</th>
<th>once</th>
<th>twice</th>
<th>thrice</th>
<th>More than thrice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly</td>
<td>once</td>
<td>twice</td>
<td>thrice</td>
<td>More than thrice</td>
</tr>
</tbody>
</table>

20) I no in 19 above, what are some of the reasons that may hinder you from using the service?

______________________________________________________________________________

______________________________________________________________________________

21) Is banking with your agent a better experience than banking at the main bank?

a) Yes  

b) no  

c) partially yes and no  

22) Rate your experience of the services indicated below as offered in agent outlets and the banking hall using the scale a) very good b) good c) moderate d) bad e) very bad

<table>
<thead>
<tr>
<th>Bank</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>b</td>
</tr>
<tr>
<td>Customer service</td>
<td></td>
</tr>
<tr>
<td>Conversation</td>
<td></td>
</tr>
<tr>
<td>trust</td>
<td></td>
</tr>
<tr>
<td>Time taken to transact</td>
<td></td>
</tr>
<tr>
<td>Quality of service</td>
<td></td>
</tr>
<tr>
<td>Clarity of information</td>
<td></td>
</tr>
<tr>
<td>Availability of float</td>
<td></td>
</tr>
</tbody>
</table>
23) In your opinion has agency banking changed the way your life was before?
   a) Yes  [ ]  No  [ ]

24) If yes what are some of the things you can do now through agency banking?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

25) Do you feel there is more to be done to make services more useful to you?
   a) Yes  [ ]  No  [ ]

26) If yes what needs to be done?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

27) Please rate the success of m-banking in your locality?
   a) Very successful  [ ]  b) partially successful  [ ]  c) Not successful  [ ]

28) If your choice in 20 is (a or b) what aspects of the product make it successful?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

29) What are the main challenges?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________
30) In your opinion what should be done to make agent banking a successful product to address issues of financial exclusion,
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Thank you for your time and support.
APPENDIX IV: IN-DEPTH INTERVIEW GUIDE FOR EXPERTS

Welcome and thank you for sparing time to answer these questions. I am a doctorate student in Communications and Information Studies at The University of Nairobi. I am required to submit a Thesis on, “Financial Inclusion of the Poor and Marginalized: A Multi Case Study of Selected Mobile Banking Products in Kenya”, in the fulfillment of the requirements of my doctorate degree. The study seeks to find out, how Mobile banking particularly agency Banking can be effectively used to address the Banking needs of the unbanked populations in the rural areas.

The in-depth interview guide with M-banking experts is to conceptualize information gathered to address issues of context of use and enable the researcher design a successful strategy for effective financial inclusion and sustainability of m-banking products for the poor and marginalized and also determine the usefulness of the actor Network as a framework for studying context of use for m-banking.

1. What are the banking needs of the poor and marginalized?
2. Why the poor are excluded from mainstream financial services?
3. What product design would address needs of the poor and marginalized?
4. What are the diffusion of information strategies needed to target the poor and marginalized?
5. What are the adoption strategies to address the needs of the target population?
6. What would constitute an enabling environment for provision of the service?
7. What are the intermediaries necessary to sustain actor network for financial inclusion?
8. What translation power should the main actors exhibit to get the best model?
9. What are the effective agency networks for scaling mobile money products?

Thanks for your support
APPENDIX V: FOCUS GROUP DISCUSSION WITH AGENTS AND USERS

A focus group discussion with users to explore the user experience of m-banking products in their locality

- Areas of discussion

1. Main reasons for transacting at the agency?
2. In what ways the services have been of use to locals?
3. Suitability of the m-banking product in the locality in addressing banking needs?
4. Comparing agent banking services with other informal financial services
5. Indicators of success
6. Challenges faced
7. Opinion on what should be done to ensure the success of m-banking products in the locality
Welcome and thank you for sparing time to answer these questions. I am a doctorate student in Communications and Information Studies at The University of Nairobi. I am required to submit a Thesis on, “Financial Inclusion of the Poor and Marginalized: A Multi Case Study of Selected Mobile Banking Products in Kenya”, in the fulfillment of the requirements of my doctorate degree. The study seeks to find out, how Mobile banking particularly agency Banking can be effectively used to address the Banking needs of the unbanked populations in the rural areas.

The interview schedule is to determine the role of the regulators in enabling m-banking/Agency Banking deployment in Kenya.

**GUIDELINE**

1) What areas need regulation in the deployment of m-banking services Kenya?

2) What is the regulators position on the following in regard to the roll out, uptake and use of Agency banking services?
   - Subagent network
   - Multi agent service provision
   - Agent opening of accounts

3) What is the regulators position on Safaricom exclusivity clause with its agents, can the agents offer the services of banks?

4) Is there any regulation on Mobile network access tariffs charged on agency bank customers?

5) Can a telecom acquire a Bank license or can a bank consequently acquire a Telecom License?

6) Agents and customers in Kenya are losing money through system/technology related fraud in the mobile money related services. Does the regulator have any role in assisting these clients recover the lost funds?
7) What are the main challenges faced by the regulator in enabling these new technologies related to mobile banking?

8) What are the possible solutions for challenges faced by the regulator in enabling agency/m-banking products?

Thank you for your support
APPENDIX VII: DISCUSSION GUIDELINESS FOR THE TRIAD:

The discussion was instrumental in understanding the strategies used to address emerging issues of usage, the roll out experience and implementation challenges that needed further translation.

1. Progress in implementation of agency banking products
2. Main frustrations in the deployment process
3. Challenges in uptake and use by products
4. Suggestions on way forward
APPENDIX IX: SAMPLE REQUEST FOR AUTHORIZATION LETTER

University of Nairobi
School of Computing and Informatics

Telephone: 4446544, 4444918
Telegrams: “Varsity” Nairobi
Telefax: 4447870
Email: waema@uonbi.ac.ke

P. O. Box 30197
Nairobi
Kenya

Our Ref: SCI/RES/PhD/ 19th April, 2012

Head of Agency Banking
Co-operative Bank of Kenya
Nairobi

Dear Sir/Madam,

RE: REQUEST FOR RESEARCH AUTHORIZATION

Ms Martina M. Mulwa is a registered Ph.D. student at the School of Journalism, University of Nairobi. She is carrying out research under my supervision on mobile money and financial inclusion of the poor and marginalized. Her specific topic is “Financial Inclusion of the Unbanked in Rural areas: Context of Use and the Role of Actors in Selected Mobile Banking Solutions in Kenya”. The purpose of this research is to gain an in-depth understanding of the context of use of mobile money products and how this context influences the successful uptake and use of mobile money products by the unbanked.

The purpose of this letter therefore, is to kindly request your written permission to allow her interview your agents and their customers in your agent outlets in Makuaci County. The context of your Coop Kwa Jirani agency network is critical in understanding the use needs of the target populations and will help shape the implementation strategies of these new financial inclusion models.

I can assure you that all information obtained through this case shall remain confidential and be used exclusively for the purpose of this research. We will share the key findings of the research with your department.

We look forward to your positive response.

Yours sincerely,

[Signature]

Prof. Timothy Mwololo Waema
Student PhD Supervisor
04TH MAY 2012

EQUITY AGENTS WOTE BRANCH
THRO
AGENCY & ACQUIRING SUPERVISER
EQUITY BANK WOTE BRANCH

DEAR SIR/MADAM,

RE: MARTINA MULWA

Kindly allow the above named person to carry out a research on Equity Agency banking model in your region.

She intends to use this data for her PHD dissertation. She is well known to as one of our SME clients and she has been of much help in agency trainings in Ongata rongai.

Thank You.

Yours Truly,

ISAAC NDELEMA WABUGE
AGENCY & ACQUIRING SUPERVISER
EQUITY BANK ONGATA RONGAI BRANCH.