

**ROLE OF TELECOMMUNICATION TECHNOLOGY IN PROVIDING  
INTERNATIONAL MONEY TRANSFER SERVICES TO THE RURAL  
POOR IN NORTH EASTERN KENYA**

**BY**

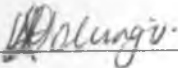
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MASTERS OF BUSINESS ADMINISTRATION SCHOOL OF BUSINESS  
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## DECLARATION

I declare that this research project is my original work and has not been submitted for a degree in any other University.

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Date: 6/11/2009

**DR. JOHN YABS**

## DEDICATION

I dedicate this research project to my father, Moses Ndungu who has supported me in all ways all through my education

And

To my late mother, Mary Nyakio for bringing me up with an upright character in my formative years, who taught me to always pursue my dream and to believe in myself. It is unfortunate you did not live to see the success you always saw ahead but your efforts are evident.

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I thank the University of Nairobi for admitting me and allowing me to do my MBA.

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Finally, I thank the representatives of the organizations that took their time to give valuable information that assisted in the completion of this.

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## LIST OF ABBREVIATIONS

AML	-	Anti Money Laundering
ATM	-	Automated Teller Machine
CBK	-	Central Bank of Kenya
CCK	-	Communications Commission of Kenya
CFT	-	Combating Financing of Terrorism
CGAP	-	Consultative Group Assisting the Poor
EFT	-	Electronic Funds Transfers
EMS	-	Express Mail Service
FSD	-	Financial Sector Deepening
MMT	-	Mobile Money Transfers
MTS	-	Money Transfer Services
NBFI	-	Non-Bank financial institutions
NFD	-	Northern Frontier District
NGO	-	Non-Governmental Organisations
KPOSB	-	Kenya Posta Office Savings Bank
KYC	-	Know Your Customer
RTGS	-	Real Time Gross Settlements
PDA	-	Personal Digital Assistants
PCK	-	Postal Corporation Of Kenya
POS	-	Point of Sale Devices
SMS	-	Short Message Service
TT	-	Telegraphic Transfer
US\$	-	United States Dollar
USSD	-	Unstructured Supplementary Service Data

## ABSTRACT

Growing internationalization and opportunity in financial services has entirely changed the competitive landscape, as now many banks have demonstrated a preference for the “universal banking” model so prevalent in Europe. Universal banks are free to engage in all forms of financial services, make investments in client companies, and function as much as possible as a “one-stop” supplier of both retail and wholesale financial services. However, structural weaknesses in the financial industry in Kenya, limit the access to money transfer services, especially in rural areas and for low-income people. This is because banks are concentrated mainly in urban centers and have conditions that constitute barriers to the use of their services. This has affected money transfers to North Eastern province

North Eastern Province is one of the eight administrative provinces in Kenya with a total population of about 1 million people (1999 Population census) covering an area of 126,902 square kilometres. A large percentage of this population considered poor lives on less than 1 US\$ a day given the harsh climatic and economic conditions in the areas. Currently, there are a number of local, national and international organisations that provide financial service to the marginalised area of North Eastern Kenya. However, recent developments in technology tend to have changed the way in which money can be transferred to individual persons in the remote areas of North Eastern Province.

It is out of this that this study focuses on determining the modes used and role of technology in making international money transfers to the North Eastern province of Kenya that is argued to be poorly served with infrastructure. The objectives of the study were to determine the modes of Money Transfer Systems to the rural poor in North Eastern Kenya, establish the role of technology in International Money transfer services to Northern Kenya and establish the challenges organisations engaged in the International Money Transfer Payments in North Eastern Kenya are facing.

This study was aimed at being of importance to the financial institutions in Kenya,, international Organisations involved in development initiatives, The Government of Kenya , Scholars and Researchers.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background

There has been an increase in globalization in the recent decades largely attributed to a number of factors. These factors include technology that is expanding especially in transportation and communications; Governments' removal of international business restrictions; Institutions providing services to ease the conduct of international business; Consumers' increased knowledge on what they want about foreign goods and services; increased global competition; improved political relationships that have improved among some major economic powers; increased co-operation among countries on transnational issues and increased cross-national cooperation and agreements. Technology however, has played a significant role in shaping the way business is done in the international arena. With technology, the distribution chain has been reduced, there has been improved and increased service recovery among others. The financial sector is the one that has been shaped significantly by technology. For instance effecting financial transactions across different countries has been made ease and hence enhancing trade

Modern Western economic and financial history is usually traced back to the coffee houses of London in 1665. At that time moneychangers were already called bankers, though the term "bank" usually referred to their offices, and did not carry the meaning it does today. Banking offices were usually located near centres of trade, and in the late 17th century, the largest centres for commerce were the ports of Amsterdam, London, and Hamburg. Individuals could participate in the lucrative East India trade by purchasing bills of credit from these banks, but the price they received for commodities was dependent on the ships returning (which often didn't happen on time) and on the cargo they carried (which often wasn't according to plan). The commodities market was very volatile for this reason, and also because of the many wars that led to cargo seizures and loss of ships.

Around the time of Adam Smith (1776) there was a massive growth in the banking industry. Within the new system of ownership and investment, the State's intervention in economic affairs was reduced and barriers to competition were removed at all times. Global banking

and capital market services proliferated during the 1980s and 1990s as a result of a great increase in demand from companies, governments, and financial institutions, but also because financial market conditions were buoyant and, on the whole, bullish.

Growing internationalization and opportunity in financial services has entirely changed the competitive landscape, as now many banks have demonstrated a preference for the “universal banking” model so prevalent in Europe. Universal banks are free to engage in all forms of financial services, make investments in client companies, and function as much as possible as a “one-stop” supplier of both retail and wholesale financial services.

Many such possible alignments could be accomplished only by large acquisitions, and there were many of them. This growth and opportunity also led to an unexpected outcome; entrance into the market of other financial intermediaries: non-banks. Large corporate players were beginning to find their way into the financial service community, offering competition to established banks. The main services offered included insurances, pension, mutual, money market and hedge funds, loans and credits and securities. Indeed, by the end of 2001 the market capitalization of the world’s 15 largest financial services providers included four non-banks (Murray and Synder, 1983).

Murray and Synder (1983) continue to argue that with these developments, transacting business all over the world has mainly been done through the money transfers from one point to another. Traditionally this has largely depended on the financial system that is available in a place or an area. Effectiveness of money transfers in an area therefore has largely relied on the physical, technological and financial infrastructure that is in place. It can therefore be argued that traditionally, areas that are well endowed with infrastructure enjoy better money transfer services and vice versa. More so, an efficient and affordable money transfer and payment services are an important financial service most people require, including those who do not typically use financial or banking services.

Sending or receiving money for either payment of salaries, settlement of business transactions, payment of school fees, or for family support is common both for businesses and for individuals. It requires efficient, reliable and affordable money transfer services

whereby money can be deposited in one location and withdrawn in another in both urban and rural areas.

### **1.1.1 Technological developments in Money Transfer Services**

Ever since currency evolved, humans have used it to lend to loved ones or friends and families, or make payments. In the earlier days, the only form of lending money used to be meeting the person and handing it over personally, over a cup of tea. As technologies evolved, and people became more and more busy there was a need for money to be transferred or lent easily. Along came cheques, and it was now easy to write a cheque and send it across. (Kabbucho, Sander and Mukwana, 2003).

Cheques were convenient to use, but the whole process was slow and time consuming. Banks later introduced Wire Transfers, which were blazingly fast to transfer money. Wire transfers, however required the person to visit the bank and order the bank to transfer money. Then came the Internet , and it was now possible for the sender himself to log on to his bank account and initiate a transfer to the party he wished to send. With the advent of mobile technologies, we were ushered into a wireless age.

Ivatury and Gautam (2006) do appreciate that mobile phones have penetrated into every household. In fact, studies have revealed that although five (5) babies are born every second around the world, 30 new mobile phones are being subscribed to every day. Evolution of mobile phone technologies has meant that it is now possible to send money to your loved ones, or make a payment to that provider located on the other part of the globe, just by pressing a button on your cell phone.

With many people travelling and moving from their homes in search of employment, money transfer has become a lucrative market for mobile phone companies as millions of people send money across. Mobile money transfer has changed lives in various countries.

Ivatury, Gautam, and Pickens (2006) have argued that in Kenya, when it was introduced as M-pesa, the technology provided cut – throat competition to existing money transfer agencies, notably the government-owned Postal Corporation, a market leader with a massive

network of agencies. The technology has been a boon to most people living in rural areas, who have to rely financially on relatives in the cities. The mobile transfer technology has replaced the much slower postal money orders, and people in urgent need of financial help are being immensely benefitted by it. A similar technology was introduced in the developing market of Afghanistan, where it was particularly relevant since the large majority of population does not have access to traditional banking services.

Even in developed countries like the US and UK, it is estimated that more than \$10bn a year is sent back to countries by migrant workers. Based on World Bank estimates, reducing remittance commission charges by 2-5% could increase the flow of remittances by 50-70%. Mobile phone companies are hence, being increasingly attracted to this lucrative market.

Money transfers suffer the risk of being prone to frauds, and wire transfers also suffered from money being sent by wire to an unknown person. Apparently, the mobile money transfer service is said to be secure, in the sense that it uses security pin codes, for the transaction.

### **1.1.2 Money Transfer Business in Kenya**

Structural weaknesses in the financial industry in Kenya, however, limit the access to money transfer services, especially in rural areas and for low-income people. This is because banks are concentrated mainly in urban centers and have conditions that constitute barriers to the use of their services; also because the cancellation of services such as the telegraphic transfers by the Kenya Postal Corporation have left fewer service options. (Kabbucho, Sander and Mukwana, 2003).

For international transfer, the situation is slightly different. In the past five years, a number of institutions targeting mainly low-income earners have entered the transfer business. Money Transfer Services (MTS) providers such as Western Union and MoneyGram have entered the market and signed up primarily banks as agents. These services primarily the urban centers, fees are relatively high, and the vast majority of transactions are funds received.

The availability of financial services suffered a setback since the mid-nineties. Commercial banks closed down less-profitable branches especially in rural areas. The post offices, with

the single largest network of offices and often the only choice for much needed basic financial services, withdrew their telegraphic money transfer service. This left many rural and low-income people with few if any formal service alternatives, especially for domestic money transfers.

Kabbucho, Sander and Mukwana (2003) do note that in Kenya, commercial banks and post offices have been the main formal providers of money transfer and payment services. Despite the network of formal providers throughout the country, however, rural areas and client segments such as low-income earners tend to be badly serviced or excluded. In the urban centers where formal financial institutions are concentrated, these largely target the corporate sector and high-income individuals and exclude low-income earners through conditions such as high minimum balances for account opening, high minimum deposits, and high fees for transactions.

Such gaps left by formal providers have typically been bridged by informal means and services. These include transporting the money oneself or sending it with a friend or through an unlicensed service. These have increased and changed over time as electronic and mobile communication has facilitated transaction. More recently, bus and courier operators have joined with money transport services.

### **1.1.3 North Eastern Province**

North Eastern Province is one of the eight administrative provinces in Kenya with a total population of about 1 million people (1999 Population census) covering an area of 126,902 square kilometres. A large percentage of this population considered poor lives on less than 1 US\$ a day given the harsh climatic and economic conditions in the areas. This region accounts for about 13,600 customer bank accounts representing only 0.2% of the total bank accounts in Kenya (World Fact Book, 2008). Financial Sector Deepening and the Central Bank of Kenya (2009) Out of over 887 formal bank branches in Kenya, the region accounts for about only 10 largely operated banks. This compares relatively low compared to other parts of Kenya.



Formerly known as the Northern Frontier District (NFD), the North Eastern Province covers most of North-Eastern Kenya. The region is and has historically been primarily inhabited by ethnic Somalis. NFD also has a number of large refugee camps with most refugees coming from Somalia.

The climate of the North Eastern Province is semi-arid and hot. Rain falls infrequently, usually only around April or October, and quite sporadically from year to year. Combined with hot temperatures and extreme evaporation, this makes the region best suited to nomadic pastoralism based around the Arabian camel, which is well adapted to surviving in hot, dry habitats (World Fact Book, 2008).

Information from the World Fact Book, (2008) still indicates that there are no rivers of any significance in the region, though there are a few tributaries of the Juba River near the Somali border, which very rarely have any water in them. Consequently, there is little or no possibility of irrigation-based development, and pastoralists rely exclusively on wells to water their stock and for domestic use.

Of all livestock in Kenya, 60-70% comes from the North Eastern Province, and is sometimes exported to the Middle East as well as elsewhere in Asia. The region is also abundant with wildlife, although figures show deteriorating trend regarding the endangered Hirola and Gazelles, Giraffe population.

The biggest airport in the area is the Wajir Airport, formerly used as a military airport. The whole region does not have a well-established infrastructure network.

## **1.2 Statement of Problem**

Transacting business all over the world has been mainly done through the money transfers from one point to another. Traditionally this has largely depended on the financial system that is available in a place or an area. Effectiveness of money transfers in an area therefore has largely relied on the physical, technological and financial infrastructure that is in place. It can therefore be argued that traditionally, areas that are well endowed with infrastructure enjoy better money transfer services and vice versa.

North Eastern Province is one of the eight administrative provinces in Kenya with a total population of about 1 million people (1999 Population census) covering an area of 126,902 square kilometres. A large percentage of this population considered poor lives on less than 1 US\$ a day given the harsh climatic and economic conditions in the areas. This region accounts for about 13,600 customer bank accounts representing only 0.2% of the total bank accounts in Kenya. This compares relatively low compared to other parts of Kenya. (World Fact Book, 2008).

Different organizations both, local and international have had an interest in initiating development activities targeting individuals in the North Eastern Province but they have been faced with a number of challenges related to infrastructure.

Locally, the significance of money transfer services started gaining prominence and a lot of focus in the recent years. This is because of the role that money transfer services are contributing towards the growing of the economy. Because of this there are few studies done touching on Money transfer Services though there are a number of studies that have been done on various aspects of banking. Kavale, (2007) established that alliances among the different financial players were mainly targeting different segments of the market. Kabbucho, Sander and Mukwana (2003) concentrated at identifying the opportunities available for Money Transfer services in Kenya and money transfer systems through the traditional formal banking systems in Kenya as a whole.

Currently, there are a number of local, national and international organisations that provide financial service to the marginalised area of North Eastern Kenya. However, recent developments in technology tend to have changed the way in which money can be transferred to individual persons in the remote areas of North Eastern Province. These have provided international development organisations partner up with the local institutions in ensuring that the money is transferred to the individual persons in Northern Kenya.

It is out of this that this study focuses on determining the modes used in making international money transfers to the North Eastern province of Kenya that is argued to be poorly served with infrastructure.

The study sought to answer the following research questions:

- a) What modes of money transfer organizations engaged in International Money transfer payments use?
- b) How has technology contributed to increase in international money transfers in North Eastern Kenya?
- c) What are the challenges organisations engaged in the International Money Transfer Payments in North Eastern Kenya facing?

### **1.3. Objectives**

The main objective of the study was to establish the role that technology is playing in the provision of International money transfer services to the rural poor of North Eastern Kenya.

The specific objectives of the study were:

- a) To determine the modes of Money Transfer Systems to the rural poor in North Eastern Kenya.
- b) To establish the role of technology in International Money transfer services to Northern Kenya.
- c) To establish the challenges organisations engaged in the International Money Transfer Payments in North Eastern Kenya are facing.

### **1.4. Importance**

This study was aimed at being of importance to the following:

- i) Financial institutions in Kenya  
The financial institutions would use the findings to come up with more innovative ways of offering financial services to the North Eastern province.
- ii) International Organisations involved in development initiatives

The International Organisations would benefit by knowing which technology to adopt in the provision of international money transfer services

iii) The Government of Kenya

The Government of Kenya more especially the Ministry of Northern Kenya Development, Finance, National Planning and Mission 2030 would use the information in formulating policy that would enhance faster development of the North Eastern Kenya.

iv) Scholars and Researchers

The study would provide a base to those scholars and researchers who will like to pursue further research in the same topic

## CHAPTER TWO

# LITERATURE REVIEW

### 2.1 Kenyan banking history

The first bank was established in Kenya in 1896 following the British occupation of the country and the construction of the Kenya-Uganda railway. Significantly, this was National Bank of India, which subsequently became the National and Grindlays Bank. It was followed by the Standard Bank of South Africa in 1910 and the National Bank of South Africa in 1916. In 1926, the National Bank of South Africa merged with the *Anglo-Egyptian Bank* to form Barclays Bank (Dominion, Colonial and Overseas) the predecessor to one of the largest banks in Kenya.

For the next 50 years until the early 1950s, there were no significant changes in the banking sector until several continental and foreign banks started entering the Kenyan banking sector: Nedelandsche Handel-Maatshappij, predecessor to the present day ABN-AMRO Bank, entered in 1951 followed in 1953 by Bank of India and Bank of Baroda (both from India), while a Pakistan bank, Habib Bank, established a branch in 1956. Ottoman Bank from Turkey registered in 1958, and the Commercial Bank of Africa started in 1962 through Tanzania. Most of these early banks are still operating in Kenya today.

Soon after independence in 1963, two Kenyan banks were quickly set up: the Co-operative Bank of Kenya (1965) to look after the interests of the co-operative movement and the National Bank of Kenya (1968) to look after other national interests, since all the other banks were either foreign-owned or foreign controlled.

In 1969, the business of Ottoman Bank was taken over by the National and Grindlays Bank and in 1971, the National and Grindlays Bank itself was split into two separate banks in which the Kenya Government had substantial ownership: the Kenya Commercial Bank and Grindlays Bank (now the Stanbic Bank after the acquisition of the governments' shares by the South African multinational bank).

Until this time, banking was the preserve of foreigners with the minor exception of the three "government" banks named above. The ordinary Kenyan did not have what might be viewed as a genuinely national banking institution.

From around 1977, Kenyan nationals started venturing into banking through non-bank financial institutions (NBFIs), i.e., finance houses and building societies. Initially, there was skepticism about the ability of these institutions to survive in the intensely foreign environment. The skepticism was well founded since indigenous nationals lacked capital, the entrepreneurial capacity required for banking and managerial skills to run independent banking institutions. Entry into this area was made deliberately easy as a matter of policy by government in order to encourage the deepening of the financial system in the country.

The Central Bank of Kenya is the statutory authority for regulating the conduct of banks in the country. It does not have power to license banks, this being the responsibility of the Directorate of Fiscal and Monetary Affairs following approval by the Minister for Finance. With the recent amendments to the Banking Act, the Central Bank is now required to "vet" individuals applying for a banking license. According to Central Bank's economic review report, there were as at May 2009, there are 46 commercial banks. This number compares with 14 banks and 17 NBFIs in 1981.

## **2.2 Nature of Money Transfer Systems in Kenya**

The money transfer has been in existence since the time the money was invented by man. Man has moved from one place to another in search of work and in many cases, leaving the family behind in his hometown. The families' back home get support from the money the migrant population sends back home. Forms of money transfer have changed over the years. The most primitive method being either carrying the money themselves when they visit back home or send it through a friend or acquaintance ([www.cgap.org](http://www.cgap.org))

For the last many years, many people have been dependant on Postal Services to remit money home. This service was popularly known as money order in many countries including Great Britain. Postal services are known to have branches where even the banks do not offer

services. This envious position of postal departments is being taken over by mobile services as their distribution network starts to out number other traditional distribution networks. Today, mobile operators have the largest distribution network in any developing economy and hence are in a better position to remit money from one location to another. This development has yielded to a lot of benefits generally to the individual user and the government as a whole.

Money transfer services in Kenya are provided by a variety of institutions and individuals. At one end of the spectrum are individuals using the very informal and basic systems of transfer such as physical transport of cash themselves or through relatives and friends. At the other end are the modern commercial banks using state-of-the-art technology of electronic fund transfer systems. Along the spectrum, exist a range of services of varying degrees of sophistication, including semi-formal providers.

### **2.2.1 Formal System**

The formal system includes commercial banking institutions regulated by the Central Bank of Kenya and other formal institutions set up under various acts of parliament to carry out services of which money transfer is a component. They include all commercial banks, non-bank financial institutions such as KPOSB, building societies, foreign exchange bureaus and non-financial formal institutions such as Kenya Postal Corporation. Also part of this are agency agreements between Kenyan banks, NBFIs, or forex bureaus with local and international money transfer operators such as MoneyGram and Western Union.

The main bank transfer instruments in the Kenyan commercial bank sector include credit transfers, bank cheques/drafts, ordinary cheques, direct debits and ATM cards.

Banks effect the transactions for credit transfers by using mail, telephones or telegrams and electronic connections. Electronic funds transfers (EFTs) and telegraphic transfer (TTs) are faster and more reliable than mail transfers which require a physical movement of mail from the issuing bank to the paying bank and to the clearing house before payment can be effected. It can take up to two weeks to realize payment when using mail transfer; transfers can be immediate or within one day when using EFTs and TTs, respectively. Due to the high level

of intra-bank connections, banks use more of EFTs and TTs to effect faster movement of funds and less paper work. For inter-bank transfers using TTs and EFTs, fax, telegraphic, or electronic arrangements have to be made with key local and international correspondent banks.

A bank cheque or draft is an instrument generally drawn by a bank in order to settle third party obligations. Regular customers of the bank may also purchase bankers cheques at a commission to make payments for business or personal transactions, e.g. school fees. This instrument is cheaper for account holders than for non-account holders.

Bank customers with current accounts may use ordinary cheques to transfer funds. Cheques need to be deposited into an account and cleared which can take between three and ten days, depending on the remoteness of the destination branch. Plans are underway for Real Time Gross Settlements (RTGS) in which banks will replace the physical movement of cheques with digital images to realize immediate value and instantaneous crediting and debiting of payees and payers.

Direct debit is a system where customers issue “Standing Orders” to their bank to make regular or recurrent payments to third parties with accounts. There is instantaneous debit to the payee and credit to the receiver. Individuals or companies use it for payments of salaries, loans, or utility bills, among others.

Of the various instruments discussed, electronic transfers, telegraphic transfers and bank cheques are typically used. These instruments require high investment in equipment, telephone lines and security systems for their operation as well as inter-bank and intra-bank networks. Specifically, EFTs and TTs need systems that scramble and unscramble codes that safeguard against interference in transit.

### **2.2.2 Semi-Formal System**

The semi-formal system includes formal institution providing money transfers services outside the regulatory mechanisms of the Central Bank of Kenya. These are not specifically licensed to transfer money nor do they typically require such a license. Courier companies



such as Securicor Courier and bus companies such as Akamba belong to this group. These and other companies, for instance BusStar and Scandinavian Bus Companies, carry out transfers or transport money as a result of opportunities presented by the absence of cheap, fast and reliable transfer services. They have the infrastructure, network, and opportunity to respond to the vast demand for transfer services, especially of low value amounts.

While this system is outwardly risky, customers tend to have great confidence in it. Given that both the users and the providers hardly experience any losses or thefts that are known to have occurred. The main courier companies in this semi-formal money transfer business i.e. Akamba and Securicor unofficially admit that money transfer is an important and significant component of their courier business. This is reflected also in the security arrangements they put in place. Both use tamper-proof sealed envelopes take drastic actions against any of their staff that may be suspected of tampering with mail.

### **2.2.3 Informal Systems**

The informal system comprise individuals, friends and relatives as well as drivers and conductors of buses and matatus (local share taxis) carrying out money transfers often more as a favor than as a business. It involves physical transport of cash carried oneself from one place to another or using others to either transport or transfer money without expecting immediate returns.

## **2.3 Developing Electronic Banking for the Poor**

Cracknel (2004), argues that electronic banking brings the potential to extend low cost virtual bank accounts to a large number of currently un-banked individuals worldwide. Change is being driven by falling costs of technology, by competition and by the ability of electronic banking solutions to offer customers an enhanced range of services at a very low cost.

Whichever technical option is chosen the development of an electronic banking solution should consider the customer perspective – the customer value proposition; the institutional perspective – the business case; and the local environment for electronic banking.

Technical Option Technologies used in electronic banking include, but are not limited to Personal Digital Assistants; Automatic Teller Machines & Point of Sale Devices; Magnetic Stripe Cards; Smart Cards and cell phones.

Personal Digital Assistants are mainly used by microfinance programmes to automate record keeping. Automatic Teller Machines & Point of Sale Devices (POS) on the other hand are used in conjunction with Magnetic stripe or Smart cards. Magnetic Stripe Cards are Low cost cards operated through a magnetic stripe on the reverse of the card. Smart Cards are more expensive chip based cards that can store information off line on the embedded chip and Cell phone banking which is done through cellular phones, either through menus or through SMS.

### **2.3.1 Customer Perspective**

Cracknel (2004), argues that for a customer is interested in a value proposition from any technology that is employed by any bank. An electronic banking solution must provide sufficient value to persuade the customer to move transactions away from cash. However, cash is an incredibly versatile medium of exchange. Waterfield (2004) also adds and agrees with Cracknel (2004) that it is universally recognized as a store of value; and it is accessible, portable and divisible.

Features: What needs does the e-banking solution meet? What features encourage the user to maintain an electronic account in preference to cash? For example, improved personal safety and the ability to transfer value from person to person. Accessibility: Limited distribution of transaction points strongly reduces the value proposition to the customer. Walking many kilometers to access services is inconvenient and costly. Saturation of an area with the service is preferable to a wider thinner, distribution. Affordability: Cash is inherently “frictionless” there is no charge that is levied each time value is transferred. Given this, start up and transactional costs need to be as low as possible for both the end user and the merchants these users frequent. Ease of use – convenience: The e-banking solution needs to be simple to use, fast and user friendly.

### **2.3.2 Institutional Perspective**

Waterfield (2004) and Cracknel (2004) continue to assert that, from an institutional perspective, the electronic banking solution should increase profitability. This means careful consideration of functionality, business volumes, fees and charges, efficiency gains, development costs, partnerships, and distribution channels.

**Functionality:** The level of functionality that the institution wishes to develop, whether this should be narrowly or widely focused. **Building volume through segmentation:** By careful development of different business segments, the financial institution is able to build transaction volume through the core e-banking infrastructure. **Fees and charges:** the functionality offered, the segments served and the anticipated volumes of transactions heavily influence developing an appropriate revenue strategy. **Efficiency Gains:** The financial institution is able to handle substantially increased business transactions without corresponding investment in physical infrastructure. **Controlling development costs:** Costs must be controlled during the development phase to ensure positive returns on investment. **Partnerships:** Multiple business partnerships are essential in building a multi-functional e-banking solution and in supporting the distribution network. **Distribution network:** The distribution network must meet customer requirements for accessibility, ease of access and widespread functionality, whilst meeting institutional cost requirements. **Developing multiple business cases:** Each partner involved in the solution must benefit, whether through reducing costs, increasing efficiency, increasing turnover, or through direct income.

### **2.4 Telecommunication Technology in international business**

Technology is a broad concept that deals with human as well as other animal species' usage and knowledge of tools and crafts, and how it affects a species' ability to control and adapt to its environment. Technology is a term with origins in the Greek "technologia", However, a strict definition is elusive; "technology" can refer to material objects of use to humanity, such as machines, hardware or utensils, but can also encompass broader themes, including systems, methods of organization, and techniques. The term can be applied either generally or to specific areas: examples include "construction technology", "medical technology", or "state-of-the-art technology".

Technology has affected society and its surroundings in a number of ways. In many societies, technology has helped develop more advanced economies (including today's global economy) and has allowed the rise of a leisure class.

Borgmann (2006) observes that technology can be viewed as an activity that forms or changes culture. Additionally, technology is the application of math, science, and the arts for the benefit of life, as it is known. A modern example is the rise of communication technology, which has lessened barriers to human interaction and, as a result, has helped spawn new subcultures; the rise of cyber culture has, at its basis, the development of the Internet and the computer.

The effect of technology can be seen and felt in the way banks have changed in effecting transactions for credit transfers by using mail, telephones or telegrams and electronic connections internationally. Electronic funds transfers (EFTs) and telegraphic transfer (TTs) are faster and more reliable than mail transfers which require a physical movement of mail from the issuing bank to the paying bank and to the clearing house before payment can be effected. It can take up to two weeks to realize payment when using mail transfer; transfers can be immediate or within one day when using EFTs and TTs, respectively. Due to the high level of intra-bank connections, banks use more of EFTs and TTs to effect faster movement of funds and less paper work. For inter-bank transfers using TTs and EFTs, fax, telegraphic, or electronic arrangements have to be made with key local and international correspondent banks. Plans are underway for Real Time Gross Settlements (RTGS) in which banks will replace the physical movement of cheques with digital images to realize immediate value and instantaneous crediting and debiting of payees and payers and all these has been as a result of technology.

### **2.5 Impact of Technology on Money Transfer Services**

The fact that mobile phones (with their latest generation 'killer' applications) have already impacted and changed most people's lives is hardly something new. But now the economic development role of mobile phones has entered a new phase: the mobile phone as a replacement for bank accounts and even debit or credit cards.

In Kenya for instance, an innovative mobile phone money transfer service called M-pesa is transforming the lives of thousands of Kenyans, many of whom do not even own a bank account because either they can't afford to, or even if they can, there's no bank nearby. In fact, Kenya's banking infrastructure is so poor that it does not reach almost 80% of adult Kenyans ([www.fsdkenya.org](http://www.fsdkenya.org)). Derived from the Swahili word pesa, which means cash, M-pesa is a mobile-payment scheme run by the UK-based telecom giant Vodafone, and Safaricom, one of Kenya's leading telecom operator, in which where Vodafone holds stake, with the backing of the British government's Department for International Development. The product concept is very simple. A customer can use his or her mobile phone to move money quickly, securely, and across great distances, directly to another mobile phone user, which makes M-PESA service is fast, secure, and very cost-effective.

Like most of Africa, mobile phone growth in Kenya, has been remarkable. According to Financial Sector Deepening (FSD) Trust, established to support the development of financial markets in Kenya, even though just 19% of the adult Kenyans own bank accounts, over 54% of the adult, including even the rural poor own mobile phones. In June 1999, Kenya had just 15,000 mobile subscribers. However, today, according to statistics from the Communication Commission of Kenya (CCK), there are more 12 million subscribers out of a population of 38 million ([www.cck.co.ke](http://www.cck.co.ke)).

But besides person-to-person money transfers or a general-purpose cash-replacement service, M-PESA has found other beneficial uses too. According to reports, another major use of the system is that it is supporting the distribution of microfinance loans and collection of repayments on those loans.

Microfinance lenders say that their customers, especially those in remote rural areas, benefit directly from the access to financial services and products without costly and time-consuming travel. These customers are often entrepreneurs, existing small businesses or farmers and access to financial services this way "is improving the general level of productivity for all members of the community." Lenders are benefiting too by extending their services to customers they could not reach using conventional marketing techniques.

Getting money transfer solution for millions of people in the developing world has away been a challenge. Given that that the supply is what has been a challenge. These technological developments therefore can be use to alleviate this challenge. "Getting cash into the hands of people who can use it is limited on the supply-side rather than demand-side; there is no shortage of funds, but it's the ability to move money from the sender to the receiver that is the stumbling block", he says.

After all in developing countries, the biggest issue is how create a safe, secure, effective, and most importantly cheap money transfer system where infrastructure is poorly developed and where very few people have or even want bank accounts. The World Bank says nearly 200 million migrant workers in developing countries remit over US\$200 billion each year much of which travel through grey channels.

In that environment then, "M-PESA has just taken the important first step," says Hughes. "We have since identified a plethora of new ways M-PESA can be used in Kenya and elsewhere," and pilot projects are already brewing in new markets.

## **2.6 Challenges in Money Transfer Service Technological models**

Technologies have been developed to assist in the easy transfer of money from one point to another especially on international level. Most of these technologies are still in the pilot phase and their success would depend a lot on the consumer acceptance hence calling into the address of a number of issues among customers. These issues include security, convenience, and ease of use, acceptability at merchant points, transaction costs, redemption points, training and education among others.

For any service to be successful, the consumer acceptance is a necessary precondition. Consumers are looking for easy to use, secured and cost efficient money transfer service. Consumers especially in the developing country may not be very comfortable with technology and may not have too much help at hand. This means that the service should be intuitive and should use an existing mechanism like SMS or IVR or USSD. USSD is better as it is more secured than other two. Consumers value security. The cost of transfer should be far lower than the other means of prevalent money transfer mechanisms. The service

providers should work towards building trust amongst the consumers. It would make a lot of sense if the most trusted brands in the business can come together to offer mobile money transfer services.

Many consumers have technology phobia. They would rather use complicated but manual processes rather than technology. Hence, it is important to have transactions as easy as sending sms and should be completed with one press of button. Acceptability at merchant points is a chicken and egg situation. Consumers would adopt if there were enough merchants accepting the payments and merchants would want enough consumer pull. In this situation, having a partner in the form of Visa, Master or Amex would certainly help.

Building of Adequate Ecosystem in MMT would include the customer acquisition setup, distribution and retailer network, technology provider and the banks. The service providers should have enough outlets where the consumers can get the mobile money loaded on their phone (cash-in) and can exchange the mobile money for cash (cash-out). Consumers are not going to travel 10 kilometres to avail the service. Treasury management, liquidity management and customer transactions management are some of the new skills that the service provider needs to learn unless there is a bank that is involved in the ecosystem. Insufficient liquidity management can kill the service.

The future of mobile money transfer is dependant on the regulatory environment in various countries. The central banks across the world need to appreciate that the risk associated with mobile money transfer is low and hence they should be ready to exempt some of the regulations when it comes to MMT. “Appropriate” and “Proportionate” regulatory environment should be the approach followed by regulatory authorities. At the same time, the service providers should fully comply with the rules and regulations laid out with respect to KYC (Know Your Customer), AML (Anti Money Laundering), CFT (Combating Financing of Terrorism), controlled risk matrix, etc.

Tim Lyman of the World Bank observes that with the spread of mobile phones themselves, a lot depends on putting the right regulations in place. They need to be tight enough to protect users and discourage money laundering, but open enough to allow new services to emerge.

Tim continues to observe that the existing banking model is both over- and under-protective, “it did not foresee the convergence of telecommunications and financial services.” (Economist, Nov 15, 2007 and CGAP)

**Training & education** – The players need to be patient when it comes to the adoption of mobile transactions. Customer training and education is the key. Road shows and awareness programs can be held in malls and other high traffic locations. The success would come only when the rural areas have sufficient adoption. In emerging markets, the players can have rural vans that can be jointly run by service providers, handset vendors and the payment players to educate the customers on mobile transactions and at the same time provide customer care.

Different money transfer service technologies are not compatible with each other, so a different solution is needed to support each new money transfer service payment network. New technologies such as NFC or RFID are not common now and in a few places they are, it is the same situation with PayForIT where the charges are applied to the user's bill and the network taking away a huge chunk of the profit. There is not a one-click solution at the moment and solution like Bango require users to enter their credit card details over the phone which not many of us feel at ease with. PayForIT or Premium SMS charges are very high for the retailer to make any profit from and different networks have different charge ranging from 30-50%.

**Service Provider Outlook** – the carriers should not view this service from the prism of their existing mobile services. Mobile money transfer is not just another VAS service and is neither a service to control churn and enhance retention. Churn reduction can be a by-product of this service but cannot be the objective in itself. Adequate top management focus should be there on this service otherwise, it may not take long before the service provider goes bankrupt due to liquidity and treasury mismanagement. There are new competencies that are required to be added to provide this service and unless a carrier or any service provider is willing to commit itself for the long haul, it is not worth getting into this service. It is essential to conduct a proper risk assessment before committing resources to this business.



# **CHAPTER THREE**

## **RESEARCH METHODOLOGY**

### **3.1 Research Design**

The study employed a descriptive research design. This mainly explains the findings on the extent to which technology contributed to the international money transfers. According to Donald and Pamela (2003) and Boyd, Westfall and Stasch (1990), a descriptive study aims at determining the what, when and how of a phenomenon which was the concern of this study. Descriptive research is suitable in situations where questions such as how, why and what are investigated on a certain phenomena to give facts of the situation as it is, without interference by the researcher. Bett (2005), Makori (2006) and Awinyo (2008) have used descriptive design in related studies.

### **3.2 Population**

The target population of the study were organisations that are directly and indirectly involved in international money transfer services in North Eastern Province. Most of these organisations are based in Nairobi but still have operations in the rural areas of North Eastern Kenya. These organisations include financial institutions, international organisations, Non Governmental Organisations (NGOs) operating in the area and the relevant Government – Ministries of National Planning and Vision 2030 and Development of Northern Kenya and the financial institutions (appendix 3).

### **3.3 Census**

A census study was used given that there were a small number of organisations that provide international money transfer services. Census is the collection and analysis of data from every possible case or group of members in a population (Saunders M, Lewis .and Thornhill, 2007). A whole sample was taken because the total population was small and selecting a sample from a small population would be meaningless (Mugenda and Mugenda, 1999).

### **3.4 Data Collection**

Data was collected by use of both primary and secondary means. Primary data was collected using a self-completion structured questionnaire (appendix 2). The questionnaire was divided to three sections. Sections A dealt with the general profile of the respondents and their organizations. Sections B and C addressed the research questions. A drop and pick method was used with follow-ups by use of telephone. The questionnaire was sent with an accompanying letter (appendix 1). Secondary data was collected from published materials.

### **3.5 Analysis & presentation**

Data was entered and analysed using the Statistical Package for Social Sciences (SPSS) and Micro Soft Excel. Measures of the Central Tendency (Mean, frequencies, and percentages) were used to describe the findings. The findings have been presented using charts and tables where applicable. Before processing the data, the questionnaire was checked for completeness and consistency. This ensured the questionnaire was completed as required.

## CHAPTER FOUR

### DATA ANALYSIS AND INTERPRETATIONS

#### 4.1 Introduction

This chapter explains how the data has been analyzed and the findings. Descriptive statistics has largely been used to summarize the data. The findings are presented in sections that cover the profile of the respondents, money transfer patterns, various issues related to money transfers, role of technology in money transfers and challenges of transferring money especially to North Eastern province.

#### 4.2 Respondents profile

This section has analysed the characteristics of the respondents to this study. A total of 23 companies were targeted for this study. Seventeen (17) of the targeted companies responded to this study. This represented a response rate of 74%

##### 4.2.1 Place of registration

The study sought to establish where the companies that responded to this study are registered. As indicated in Table 1, majority of them (71%) are registered in Kenya.

**Table 1- Place of registration**

	<b>Place of registration</b>	<b>Frequency</b>	<b>Percentage</b>
a)	Foreign (outside Kenya)	2	12
b)	International NGO	2	12
c)	Local (Kenyan)	12	71
d)	Local NGO	1	6
	Total	17	100

**Source: Research data**

#### 4.2.2 Category of the organization

The organizations that responded to this study fell in different categories as indicated in Table 2.

**Table 2 – Category of the organization**

	Organization category	Frequency	Percentage
a)	Bank/financial institution	9	53
b)	Government Agency	3	18
c)	International NGO	3	18
d)	Local NGO	2	12
	Total	17	100

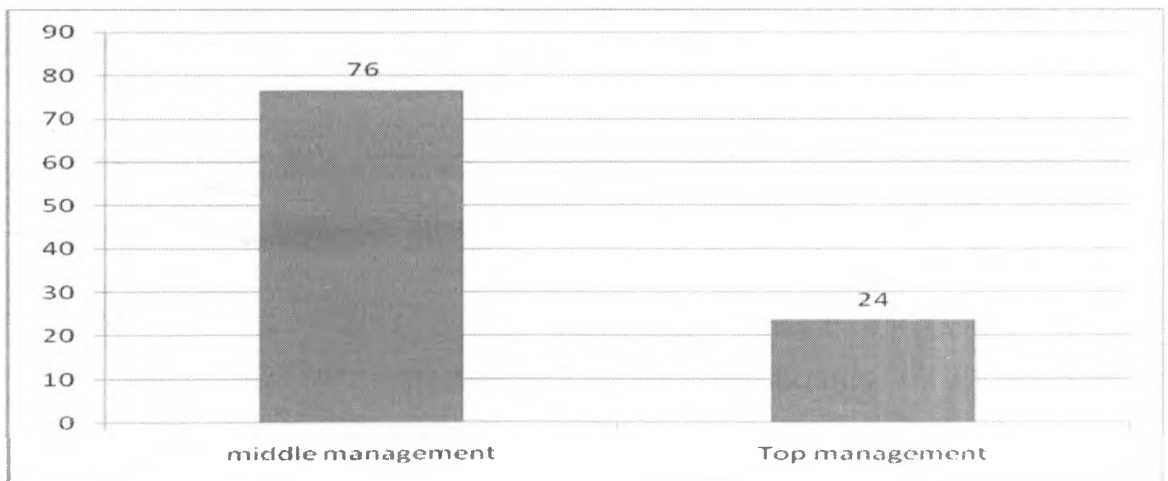
**Source: Research data**

Slightly more than half (53%) of the respondents fell in the banks/ financial institutions category followed by government agencies (18%) international agencies (18%) and local NGOs (12%).

#### 4.2.3 Position

Most of the respondents were in the middle level management compared to 24% who were in the top management as indicated in Figure 1.

**Figure 1 - Position in the company**



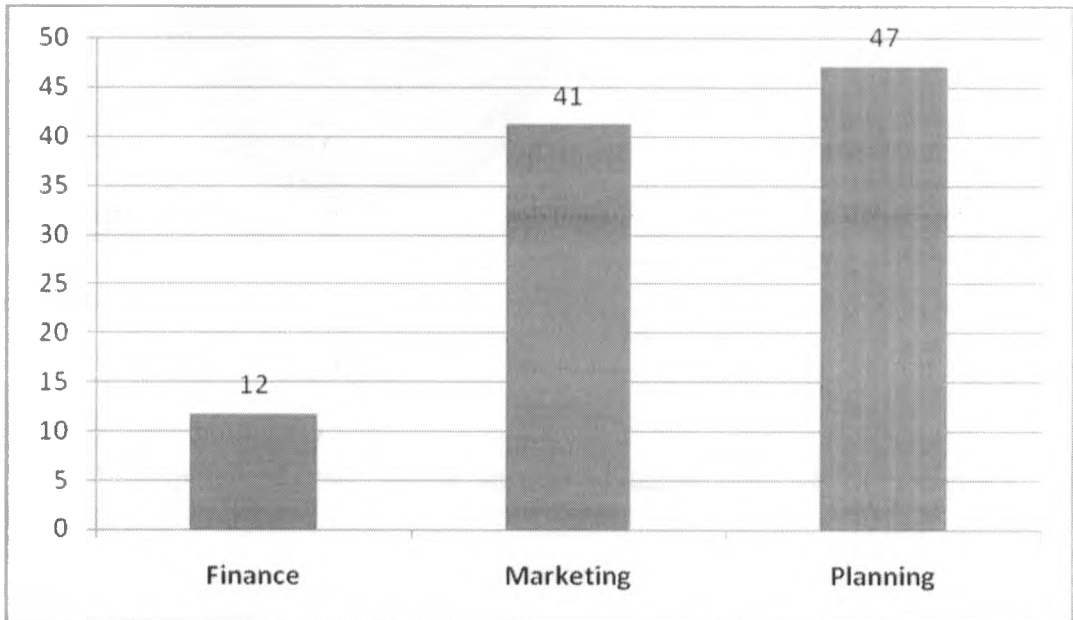
**Source: Research data**

#### 4.2.4 Department

Regarding the departments that they worked in, 47% indicated that they worked in the Planning department, 41% in the marketing department and 12% in the finance department (Figure 2).

These are the departments that deal with the planning and sending of money transfers and hence makes their findings reliable.

**Figure 2 - Departments**

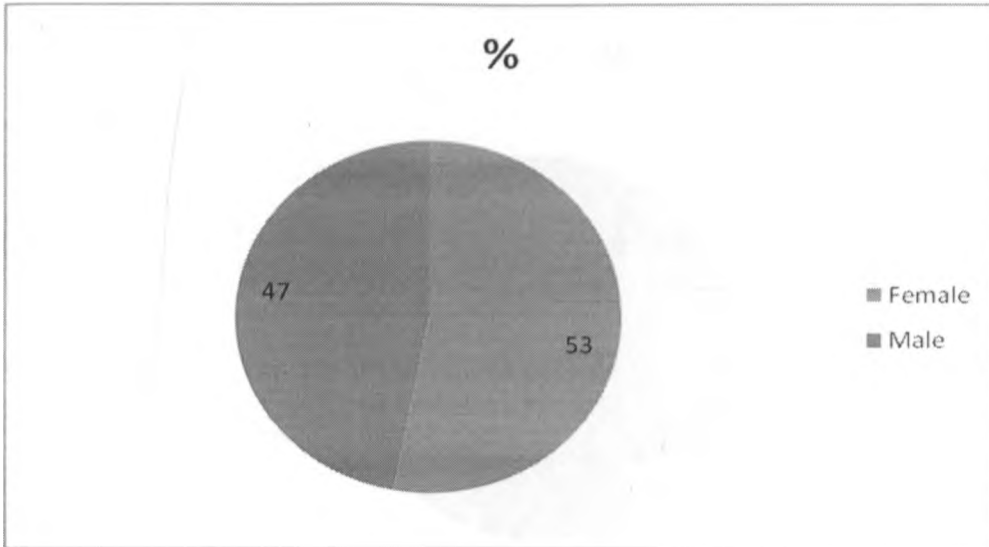


Source: Research data

#### 4.2.5 Gender

As indicated in Figure 3, 53% of the respondents were females while the rest (47%) were males.

**Figure 3 - Gender**



**Source: Research data**

#### 4.2.6 Age

Majority of the respondents were aged at between 31 and 40 years old as indicated in Table 3.

**Table 3 - Age**

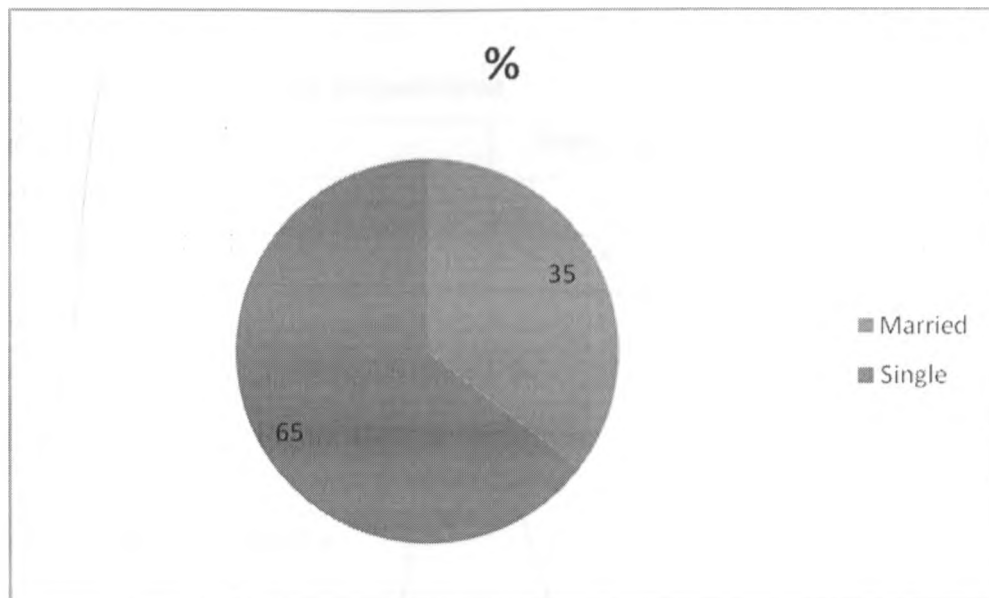
	Age	Frequency	Percentage
a)	21-30yrs	2	12
b)	31-40yrs	13	76
c)	41-50yrs	2	12
	Total	17	100

**Source: Research data**

#### 4.2.7 Marital Status

A third (35%) of the respondents indicated that they are married with 65% indicating that they are single as shown in Figure 4.

Figure 4 – Marital status



Source: Research data

#### 4.2.8 Highest education level

As indicated in Table 4, all respondents were have attained at least undergraduate level of education. Postgraduates were the majority at 88% and 12% at undergraduate level.

Table 4- Highest education level

	Educational level	Frequency	Percentage
a)	Secondary	-	-
b)	Diploma	-	-
c)	Undergraduate Degree	2	12
d)	Postgraduate Degree	15	88
	Total	17	100

Source: Research data

#### 4.2.9 Time worked with the organization

The study also sought to understand how long the respondents had worked in their respective organisations. Table 5 indicates the length of time the respondents have spent with their respective organisations.

**Table 5- Time worked with the organization**

	<b>Length of time</b>	<b>Frequency</b>	<b>Percentage</b>
a)	1-2 years	11	65
b)	3-5 years	4	24
c)	6-10 years	2	12
	Total	17	100

**Source: Research data**

#### 4.3 Money transfer Experiences

This section deals with the various experiences the organizations have had in transferring money.

##### 4.3.1 Transfers in the last 12 months

The study sought to establish if any of the organization have sent or received money in the last 12 months. As shown in Table 6, 59% indicated that they have sent, while 41% indicated that they have not. Those who have not sent are mainly those in the regulatory sector and therefore might not be directly involved in transferring money.

**Table 6- If sent/received money in the last 12 months**

	<b>Sent/received money in last 12 months</b>	<b>Frequency</b>	<b>Percentage</b>
a)	No	7	41
b)	Yes	10	59
	Total	17	100

**Source: Research data**



### 4.3.2 Destination of transfers

The study also sought to know the destination of the money that was transferred. Much of the transfers (80%) were within Kenya while the rest were within Africa as indicated in Table 7.

**Table 7- Destination of the transfers**

	<b>Destination of the Transfers</b>	<b>Frequency</b>	<b>Percentage</b>
a)	Within Africa	2	20
b)	Within Kenya	8	80
	Total	10	100

**Source: Research data**

### 4.3.3 Methods used

The methods used by the organisations in sending the money are indicated Table 8. Over half of them indicated that they have used the mobile phone transfer services, while 14% indicated that they have directly deposited into the recipients accounts and the rest 29% indicated that they have used money transfer organisations like Western Union and MoneyGram.

**Table 8- Methods used**

	<b>Methods used</b>	<b>Frequency</b>	<b>Percentage</b>
a)	Direct into banks	2	14
b)	Mobile phone money transfer (Mpesa, Zain etc)	8	57
c)	Money transfer service ( western Union, MoneyGram)	4	29
	Total	14	100

**Source: Research data**

#### 4.4 Perceptions on various money transfer methods

There are different perceptions on the various money methods that companies use. The study sought to establish how the respondents perceived the various money transfer methods on different aspects. These perceptions are summarised in Table 9.

**Table 9- Perceptions on various money transfer methods**

		MOST Risky	LEAST Risky	MOST Expensi ve	LEAST Expensive	FASTEST	SLOWEST	EASI EST to get	HARDEST to get
		<b>Percentages</b>							
a)	Courier	69		8					
b)	Hawala community based system	31							23
c)	Direct into banks		38		38				15
d)	Mobile phone transfer		15		62	100		100	
e)	Money transfer service		46	92					46
f)	Cheques						69		15
g)	Use of Post Office						31		

**Source: Research data**

Overall, courier service is perceived to be the most risky (69%) followed by the Hawala system (31%). The least risky is the money transfer service (46%) followed with the direct deposits into the bank's (38%) and followed by mobile phone transfers (15%). Money transfer is again viewed as the most expensive (92%) while least expensive are the mobile phone transfers (62%) and the direct deposits to banks (38%).

Mobile phones is regarded as the fastest (100%) while the slowest is cheques (69%) and the post office (31%). the easiest to get is the mobile phone transfers with money transfer services (46%) like MoneyGram are viewed as the hardest to get.

#### 4.5 Role of telecommunications transfers

One of the key objectives of this study was to establish the role of telecommunication in the transfer of money services. To ascertain this, the researcher posed some benefit statements to which the respondents were asked to indicate the extent to which they agreed to them.

The range was 'Very Small Extent' (5) to 'No Extent at all' (1). The scores of 'No Extent at all' and 'Small Extent' have been taken to present a role that technology has played to a small extent (S.E) in transferring money which is equivalent to mean score of 0 to 2.5 on the continuous Likert scale;  $0 \leq S.E < 2.5$ . The scores to 'To Some Extent' have been taken to represent a role that the technology has played to a moderate extent (M.E.) in transferring money which is equivalent to a mean score of 2.5 to 3.5 on the continuous Likert scale;  $2.5 \geq M.E. < 3.5$ . The score of both 'To a Large Extent' and 'To a Very Large Extent' have been taken to represent a role that technology has played to a large extent (L.E.) in transferring money which is equivalent to a mean score of 3.5 to 5.0 on a continuous Likert scale;  $3.5 \geq L.E. < 5.0$ .

The findings are indicated in Table 10.

**Table 10 – Role of technology in transferring money**

	<b>Aspect</b>	<b>Mean score out of 5</b>
a)	Enhanced speed of transfers	5.00
b)	Increased penetration of money transfers	4.94
c)	Increased frequency of transfers	4.94
d)	Made it reliable	4.94
e)	Reduced risk of transfers	4.41
f)	Demystified money transfers	4.41
g)	Attracted more players to transfer funds	4.76
h)	Led to start up of more small businesses	3.93

**Source: Research data**

Overall, it can be argued that technology has to large extent enhanced the transfer of money services. This is evidenced by the high scores of the benefit statements that follow within the range of large extent. Enhanced speed of transfers (5.00) was singled as the most benefit derived from the technology followed by Increased penetration of money transfers, Increased frequency of transfers, Made it reliable (at 4.94 each). The only aspect that scored relatively low was the start up of small businesses that were arrested at 3.93 out 5.

#### **4.6 Challenges in transferring money to North Eastern**

One of the objectives also of this study was to establish the challenges that organisation face in effecting international money transfers.

To ascertain this, the researcher like in the role played by technology, posed some challenges to which the respondents were asked to indicate the extent to which they agreed to them.

The range was 'Very Small Extent' (5) to 'No Extent at all' (1). The scores of 'No Extent at all' and 'Small Extent' have been taken to present an aspect that poses a challenge that is to a small extent (S.E) in transferring money which is equivalent to mean score of 0 to 2.5 on the continuous Likert scale; ( $0 \leq S.E < 2.5$ ). The scores to 'To Some Extent' have been taken to imply that the aspect to a moderate extent (M.E.) poses a challenge in transferring money which is equivalent to a mean score of 2.5 to 3.5 on the continuous Likert scale;  $2.5 \geq M.E. < 3.5$ . The score of both 'To a Large Extent' and 'To a Very Large Extent' have been taken to represent an aspect that poses a challenge to a large extent (L.E.) in transferring money which is equivalent to a mean score of 3.5 to 5.0 on a continuous Likert scale;  $3.5 \geq L.E. < 5.0$ .

The findings are indicated in Table 11

**Table 11 – challenges in international money transfers**

	<b>Aspect</b>	<b>Mean score out of 5.</b>
a)	Acceptability of technology by merchants	4.15
b)	High transaction costs	3.18
c)	Acceptability to number of redemption points for customers	3.85
d)	Security issues	3.77
e)	Education/Literacy levels of target recipients	4.92
f)	Inadequate infrastructural facilities like telephones	4.54
g)	Inadequate - supportive utilities (power)	4.77
h)	Technology phobia of the recipients	4.00
i)	Technology compatibility	4.08

**Source: Research data**

Overall, it can be observed that all the aspects pose a challenge to a greater extent in the transfer of money services. Education /literacy levels posed the highest challenge (4.92) followed by inadequate, supportive utilities (power) (4.77), inadequate infrastructural facilities like telephones (4.54), acceptability of technology by merchants (4.15), technology compatibility (4.08). In this category, high transaction costs posed the lowest challenge comparatively.

## CHAPTER FIVE

### SUMMARY, DISCUSSIONS AND CONCLUSIONS

#### 5.1 Introduction

This chapter discusses the findings from the data that was analyzed and the conclusions reached. Findings have been summarized alongside the objectives of the study, conclusions have been drawn from the study and the recommendations for action are also given.

#### 5.2 Summary, Discussions and Conclusions

##### 5.2.1 Profile

###### *Registration*

Majority (71%) of the organisations in the study were registered in Kenya and fell in different categories of banks/ financial institutions (53%), followed by government agencies (18%) international agencies (18%) and local NGOs (12%).

###### *Department*

Regarding the departments that they worked in, 47% indicated that they worked in the Planning department, 41% in the marketing department and 12% in the finance departments. These are the departments that deal with the planning and sending of money transfers and hence makes their findings reliable.

###### *Highest education level*

All respondents were have attained at least undergraduate level of education. Postgraduates were the majority at 88% and 12% at undergraduate level. This is an indication that they have an understanding of the money transfer aspects.

##### 5.2.2 Money transfer Experiences

From the respondents 59% indicated that they had sent money in the last 12 months while 41% indicated that they had not. Those who have not sent are mainly those in the regulatory sector and therefore might not be directly involved in transferring money.

Much of the transfers (80%) were within Kenya while the rest were within Africa.

Over half of the organisations indicated that they had used the mobile phone transfer services, while 14% indicated that they had directly deposited into the recipients accounts and the rest 29% indicated that they have used money transfer organisations like Western Union and MoneyGram.

#### **5.2.4 Perceptions on various money transfer methods**

Overall, courier service is perceived to be the most risky (69%) followed by the Hawala system (31%). The least risky is the money transfer service (46%) followed with the direct deposits into the bank's (38%) and followed by mobile phone transfers (15%). Money transfer is again viewed as the most expensive (92%) while least expensive are the mobile phone transfers (62%) and the direct deposits to banks (38%).

Mobile phones is regarded as the fastest (100%) while the slowest is cheques (69%) and the post office (31%). the easiest to get is the mobile phone transfers with money transfer services (46%) like MoneyGram are viewed as the hardest to get.

#### **5.2.5 Role of telecommunications transfers**

One of the key objectives of this study was to establish the role of telecommunication in the transfer of money services. Overall, it can be argued that technology has to large extent enhanced the transfer of money services. This is evidenced by the high scores of the benefit statements that follow within the range of large extent. Enhanced speed of transfers (5.00) was singled as the most benefit derived from the technology followed by Increased penetration of money transfers, Increased frequency of transfers, Made it reliable (at 4.94 each). The only aspect that scored relatively low was the start up of small businesses that were arrested at 3.93 out 5.

### **5.2.6 Challenges in transferring money to N/Eastern**

The other objective of this study was to establish the challenges that organisation face in effecting international money transfers.

Overall, it can be observed that all the aspects pose a challenge to a greater extent in the transfer of money services. Education /literacy levels posed the highest challenge (4.92) followed by inadequate, supportive utilities (power) (4.77), inadequate infrastructural facilities like telephones (4.54), acceptability of technology by merchants (4.15), technology compatibility (4.08). In this category, high transaction costs posed the lowest challenge comparatively.

### **Conclusion**

It can be concluded that overall, telecommunications technology has to a large extent played a significant role in the transfer of money especially to the North Eastern Province of Kenya. This is because it has made it easier, faster, and secure to transfer the funds. However despite this significant milestone, there are a number of challenges that the money transfer services to North Eastern province faces.

### **5.3 Limitations of the Study**

The limitations of this study is the exclusion of some players especially those who provide technology who would share their experiences in the development of solutions that would target that region.

### **5.4 Recommendations for further Research**

Despite that technology has contributed positively to the improvement and increase in the transfer of money to the North Eastern Kenya, still there are significant challenges that are faced. I therefore recommend that further research be done to establish how the challenges encountered can be handled.



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## APPENDICES

### APPENDIX 1 – INTRODUCTORY LETTER

University of Nairobi,  
School of Business  
P.O. Box 30197,  
Nairobi

20 August 2009

Dear Respondent,

#### **RE: COLLECTION OF SURVEY DATA**

I am a postgraduate student undertaking a Master of Business Administration Degree at the School of Business, University of Nairobi. I am currently undertaking a management research project on International Money Transfer Services.

The study is titled

*“Role of Telecommunications Technology in providing International Money Transfer Services to the Rural Poor in Northern Kenya”*

Your organisation has been identified as one that plays a role either directly or indirectly in carrying out international money transfer services in Northern Kenya the transfer and hence the reason of your selection for inclusion in this study. This is to kindly request you to assist me collect the data by filling out the enclosed questionnaire.

The information data you provide will be used exclusively for academic purposes. My supervisor and I assure you that the information you give will be treated with strict confidence.

Thank you in advance.

Yours faithfully,

**Apphia Ndungu**  
**Student**

**Dr. John Yabs**  
**Supervisor**

## APPENDIX 2 – QUESTIONNAIRE

### SECTION A – RESPONDENT PROFILE

- 1) Name of your Company/Organization (Optional) \_\_\_\_\_
- 2) Where registered/incorporated
- a) Local (Kenyan)
  - b) Foreign (Outside Kenya)
  - c) Other - specify \_\_\_\_\_
- 3) Where does your organization fall in the following category?
- a) Bank/ Financial institution
  - b) Local NGO
  - c) International NGO
  - d) Government agency (Ministry/Department)
  - e) Other - specify \_\_\_\_\_
- 4) Which of the following best describes your position in the Organisation?
- a) Top Management
  - b) Middle Management/ supervisory
- 5) Department in which you work.
- a) Finance
  - b) Marketing
  - c) Planning
  - d) Any other (specify) \_\_\_\_\_
- 6) Your gender? (Please tick that applies to you)
- a) Female
  - b) Male
- 7) What is your age bracket? (Tick as applicable)
- a) Under 20 years
  - b) 21 – 30 years
  - c) 31 – 40 years

d) 41 – 50 years [ ]

e) Over 50 years [ ]

8) Marital Status? (tick as appropriate)

a) Single [ ] b) Married [ ]

c) Other (specify) \_\_\_\_\_

9) What is your highest level of education?

a) Secondary [ ] b) Diploma [ ]

c) Undergraduate Degree [ ] d) Postgraduate Degree [ ]

e) Others (specify) \_\_\_\_\_

10) Length of time that you have worked in the organization.

a) Less than 1 year [ ] b) 1-2 years [ ]

c) 3-5 years [ ] d) 6-10 years [ ]

e) Over 10 years [ ]

### **SECTION B – MONEY TRANSFER PATTERNS**

11) Have you transferred money (sent/received) money meant for Northern Kenya in the last 12 months?

a) Yes [ ]

b) No [ ]

12) If yes, what has been the transfer location for this money?

a) Within Kenya [ ]

b) Within East Africa (Tanzania, Uganda & Rwanda) [ ]

c) Within Africa [ ]

d) Europe [ ]

e) America [ ]

f) Any other place [ ]

13) Which methods have you used to transfer money in the last 12 months?

- a) Courier (e.g. Nation, Securicor, Speedpost) [ ]
- b) Money Transfer Service (e.g. Western Union, MoneyGram, Postapay) [ ]
- c) By Cheques [ ]
- d) Direct into bank or other accounts [ ]
- e) Use of Post office [ ]
- f) Hawala Community-based system [ ]
- g) Mobile phone money transfer service M-PESA, Zain, etc) [ ]

14) If your answer to Question 13 above is (g), which one among the following mobile phone money transfer service have you used in the last 12 months?

- a) Safaricom's MPESA [ ]
- b) Zain's Zap service [ ]
- c) Yu's Obabay [ ]
- d) Any other- please specify \_\_\_\_\_ [ ]

**SECTION C – VARIOUS ISSUES ON MONEY TRANSFER SERVICES**

15) As an organisation, you have used different methods of transferring money to N. Eastern Province. In a scale of 1 -5 how can you rate the following methods used in transferring money based on the various aspects indicated. 1 Being **LEAST** and 5 being **MOST**. Please assign a score of between 1 and 5 for each.

	<b>Aspect</b>	<i>Courier (e.g. Nation, Securicor, Speedpost)</i>	<i>Money Transfer Service (e.g. Western Union, MoneyGram)</i>	<i>Cheques</i>	<i>Direct into bank or other accounts</i>	<i>Use of Post Office</i>	<i>Hawala Community- based system</i>	<i>Mobile phone transfer</i>
a)	The MOST risky							
b)	The LEAST risky							
c)	The MOST expensive							
d)	The LEAST expensive							
e)	The FASTEST							
f)	The SLOWEST							
g)	The EASIEST to get							
h)	The HARDEST to get							

16) Telecommunication technology has played a great role in influencing how international money transfers especially to North Eastern Province are done. In a scale of 1 -5 how can you rate how technology has enhanced transferring money to and from North Eastern Province?

**5 - Very Large extent;                      4 - Large extent;                      3 - Moderate extent**  
**2 - Small extent;                              1 - Not at all**

		(5) Very Large extent	(4) Large extent	(3) Moderate extent	(2) Small extent	(1) Not at all
a)	Enhanced speed of transfers					
b)	Increased the penetration of money transfers					
c)	Increased the frequency of transfers					
d)	Made it reliable					
e)	Reduced the risk of the transfers					
f)	Demystified money transfers					
g)	Attracted more players to transfer funds					
h)	Led to start up of more small businesses					
i)	Other (specify)_____					



17) In doing International Money Transfers especially to North Eastern Province, your organisation faces a number of changes. To what extent do you face the following challenges?

Indicate in a scale of 1 -5 how these changes impact on you in offering International Money Transfer Services to and from North Eastern Province?

**5 - Very Large extent;                      4 - Large extent;                      3 - Moderate extent**  
**2 - Small extent;                              1 - Not at all**

		(5) Very Large extent	(4) Large extent	(3) Moderate extent	(2) Small extent	(1) Not at all
a)	Acceptability of the technology by merchants					
b)	High transaction costs					
c)	Acceptability to number of redemption points for customers					
d)	Security issues					
e)	Education/Literacy levels of the target recipients					
f)	Inadequate infrastructural facilities like telephones.					
g)	Inadequate supportive utilities (power)					
h)	Technology phobia of the recipients					
i)	Technology compatibility					
j)	Other (specify)_____					

18) Please share with us any other comments that you may have in regard to transferring of Money to north Eastern Province.

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**Thank you for taking time to complete this questionnaire**

**APPENDIX 3**  
**LIST OF ORGANIZATIONS**

	<b>Category</b>	<b>Institution</b>
1	<b>Financial organizations on the ground</b>	1. Kenya Commercial Bank 2. Equity Bank 3. Central Bank 4. First Community Bank 5. Postal Corporation of Kenya
2	<b>Financial organizations not on the ground</b>	6. Co-op bank 7. National Bank of Kenya 8. Barclays 9. Postbank
3	<b>International Organizations</b>	10. Department for International Development / Financial Sector Deepening (DFID/FSD). 11. Plan International 12. World Vision 13. Oxfam 14. Save the Children (UK) 15. Care International 16. World Food Programme (WFP) 17. United Nations Development Programme (UNDP) 18. United Nations Humanitarian Commission for Refugees (UNHCR).
4	<b>Regulatory agencies</b>	19. Ministry of Finance 20. Ministry of Planning and Vision 2030 21. Ministry of Arid areas and Northern Kenya Development 22. Ministry of Regional Development 23. Ministry of Special Programmes

**Source:**

*Central Bank of Kenya*

*Ministry of Provincial Administration*