

WOMEN'S ACCESS TO AND USE OF THE MOBILE TELEPHONE IN WESTERN KENYA

BY

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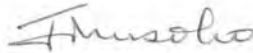
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DECLARATION

I declare that this project paper is my original work and has not been presented anywhere else for a degree.

Joyce Nasambu Musoko



04-11-2010

Signature

Date

This project paper has been submitted with our approval as University supervisors.

Professor Simiyu Wandibba



4/11/10

Signature

Date

DEDICATION

I dedicate this study to my grandchildren, Noah, Myra and Myles as I challenge them that, age is but a number and the sky is the limit for self actualization.

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Acronyms:

AISI	-	African Information Society Initiative
BTS	-	Base Trans-receiver Station
CEDAW	-	Convention on the Elimination of all forms of Discrimination Against Women
DAW	-	Division for the Advancement of Women
FICOM-		Farmers Information Communication Management
GAD	-	Gender and Development
GDS	-	Global Positioning Satellite
GSM	-	Global System for Mobile communication
ICT	-	Information Communication Technology
ITU	-	International Telecommunications Union
KACE	-	Kenya Agricultural Commodity Exchange
MMS	-	Multimedia Messaging Service
MRCs	-	Market Resource Centres
NMT	-	Nordic Mobile Telephone
PCM	-	Please Call Me
SMS	-	Short Message Services
TDMA-		Time Division Multiple Access
UNICEF	-	United Nation's Children's Fund
UNIFEM	-	United Nation's Female Fund
VOIP	-	Voice Over Internet Protocol

- VSAT - 'Very Short Aperture Terminal'
- WID - Women in Development
- UNIFEM United Nations Female Fund.
- 3G - 3rd generation mobile phones
- M-PESA – A money transfer service operated by mobile service provider Safaricom in Kenya
- Wi-Fi - Networks that employ wireless technology for high fidelity transmissions
- WIZZIT - A money transfer service in operation South Africa
- ZAP – A money transfer service operated by mobile phone service provider ZAIN-Kenya

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ABSTRACT

The purpose of this study was to establish the levels of access and use of mobile phones by women living and carrying out business on Mayanja market in Bungoma South district. By examining the benefits and challenges that these women face in access and use of the mobile phone, the study was able to come out with recommendations on what steps should be put in place to enhance these benefits.

The study adopted an exploratory survey using in-depth interviews, focus group discussions with the women and one key informant interview with the area chief. The data was analysed using the Ms-Excel computer software application package and the results presented in tables of frequencies as well as graphs.

The study showed that women have lower basic literacy levels and more so in technical literacy and that the use of the mobile phone by women is principally hampered by lack of fiscal resources and the low literacy levels. The cost of handsets is a challenge to some of the users and that to many women in the rural areas the cost of phone airtime is way above their capacity due to lack of disposable incomes.

The study results show that attempts at disseminating information using the mobile phone services need more awareness creation and training, and instituting measures to make the phones more accessible and easy to use by the rural women.

It is evident from the study that increased access and informed use of the mobile phone will lead to empowerment of women. Subsequently, this will lead to increased participation of women in sustainable development and overall improvement of livelihoods. It is only then that the mobile phone can be embraced as a developmental resource.

CHAPTER ONE

Background to the Study

1.1 Introduction

The mobile phone, also referred to as a wireless or cellular mobile or cell phone, is a portable telephone which receives and sends messages through a cell site or transmitting tower using radio waves. It is a hand-held communication device designed not just for telephony, but as a platform for many other services, having been adapted as a narrow band Time Division Multiple Access (TDMA) in May 1987. It is part of a wider range of information communication technologies or ICTs.

ICTs are the hardware, software, networks and media used to collect, store, process, transmit and present information in the form of voice, data, text and images. ICTs fall into three major categories:

- i) Computers for processing information in the form of data, text, numerical, and graphics;
- ii) Telecommunication technology which includes telephones (and faxes) and radio broadcasting and television, often via satellites; and
- iii) Networking technologies such as the internet, which have been extended to the mobile phone technology, Voice-Over Internet Protocol (VOIP) and related satellite communication.

The idea of cell-based mobile radio service was formulated in the United States Bell Labs in 1978 in Chicago and first introduced for commercial services in the Nordic countries as Nordic Mobile Telephone (NMT) in 1981 (Librero Felix and Arinto Patricia B. (Eds.) (2007) *Digital Review of Asia Pacific 2007-2008*). The development of the mobile phone dates back to 1982 with the adoption of the Global System for Mobile (GSM) Communication standards for specifications of mobile cellular radio systems in Europe.

Two basic types of services offered through GSM are telephony or tele-services and data or bearer services, besides other functions. Telephony refers to mainly voice services for users to communicate with other subscribers. On the other hand, data services provide the capacity to transmit data signals between two access points. Among the other very significant services

offered through GSM are ‘short message services’ (SMS), cell broadcasts, voice mail and fax mail.

The GSM network elements are:

1. the Switching System,
2. the Operation and Support System, and
3. the Base Station System from which the signals are fed into the Mobile Station or phone (Fig: 1.1)

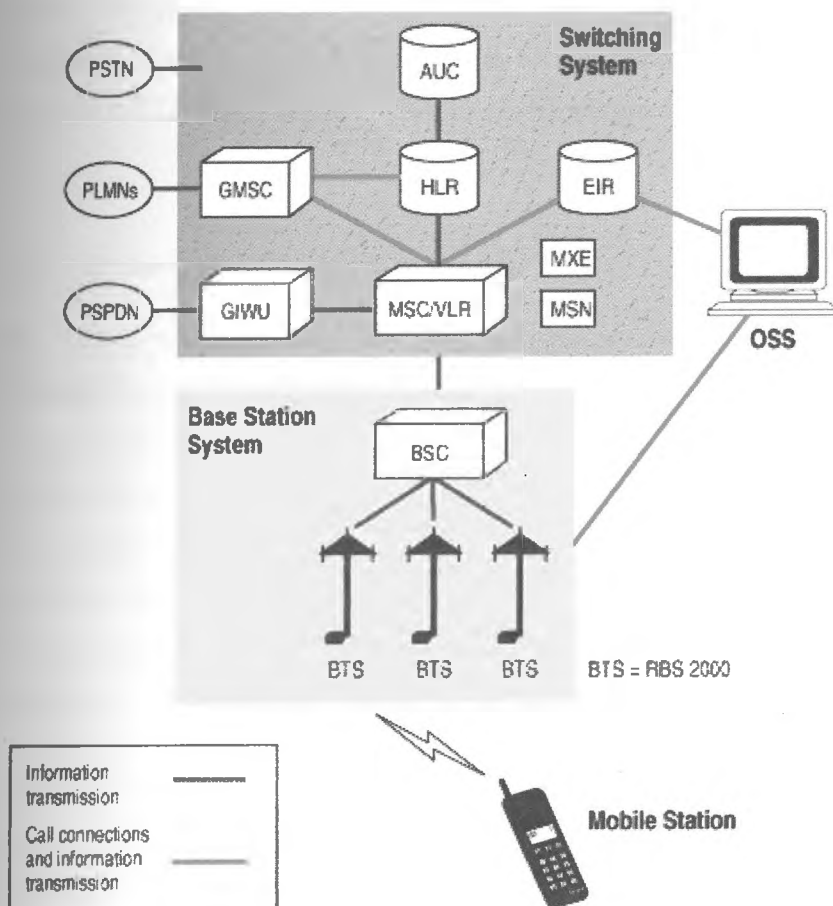


Fig.1.1: The basic GSM network elements (Source: *The Evolution of the Mobile – The GSM Network* (IEC) On-Line White Papers; www.iec.org (2007))

The mobile phone lends itself easily to successful ICT-based services for the rural and urban poor communities, especially in developing countries, because evolving technology has made

it more accessible in terms of cost and use. This research sought to examine the two issues of **access** and **use** of the mobile phone in so far as it applies to women in a rural setting, in this case Mayanja Market of Bungoma South District in Western Kenya.

The term *access* was used both in the noun form which, according to Webster's Dictionary, refers to the right to obtain or make use of or take advantage of something, and as a verb, meaning obtaining the use of a resource. In this case an individual may not have access if the proper authority or physical, technical or procedural measure prevents him or her from obtaining knowledge or having an opportunity to alter information, material, resources or components. On the other hand, the term *use* was taken to mean put into service, make work, employ, utilize or to apply, including manipulation and purpose. Mobile phones have a variety of uses and benefits to the user, and yet in so far as women in the rural areas are concerned, they are not easily accessible to them and their use is limited by a variety of reasons (ICT Update, *The Many Uses of Mobiles* Issue 50 August 2009).

1.2 Problem Statement

The mobile phone has many uses and advantages to the user. The extent to which mobile phones are accessible and utilized by women in rural Kenya is yet to be established. Mayanja is a typical rural market place. There are many women traders on this market mostly engaged in a variety of petty trades of buying and selling of agricultural produce as well as the running of small provision stores. These women need to communicate with their suppliers, customers as well as communicate with their relatives in various places within Kenya and out of Kenya. To this end they require the services of mobile phones, and thus need to own and know how to utilize these devices.

Mobile phones are small, simple to operate devices that serve the basic human need to communicate. They help people to stay in touch for information exchange and sharing especially in agricultural and rural development. The technology has proved so useful and convenient that it is likely to remain a popular method of information delivery for some time to come. The question is how true is this for rural market women on a market like Mayanja?

Kenyan women continue to be marginalized in many social and economic aspects, more so in access to information, because they do not have access to information outlets and gadgets

such as phones, radios, television sets and appropriate ICT outlets such as computers and internet facilities. Information is power and the absence of information means that women lack the capacity to influence and exercise control over their lives and resources for productivity and economic development.

1.2.1 Research Questions

1. What are the levels of access and use of mobile phones by women on Mayanja market?
2. What factors influence access and use of mobile phone services by these women?
3. What benefits do the women derive from accessing and using mobile phones?

1.3 Research Objectives

1.3.1 General Objective

To examine the socio-cultural and economic factors and practices that determine women's access and use of the varied mobile telephone services, and how they influence the ability of women to realize social development.

1.3.2 Specific Objectives

- a. Establish the levels of access to and the use of mobile phones by market women at Mayanja market.
- b. Determine the factors influencing the levels of access and use of mobile phones.
- c. Describe the services that women get and the benefits they derive from the use of mobile phones.

1.4 Justification of the Study

The essence of this study is to bring into focus the extent to which the mobile phone has impacted on the rural market woman on Mayanja market and the existing gaps in terms of

access and use. The findings of this research should be useful for understanding the anthropology of technology and gender issues. This information will be useful for planners both in the public sector, non-governmental organizations (NGOs) and community based organizations (CBOs) interested in uplifting of the social and economic status of women in rural areas. This study may also form a basis for the setting up of community information centres in order to facilitate information dissemination and sharing.

The push for the use of mobile telephony for delivery of public services is mainly pegged on the use of short message services (sms) and yet these depend on the literacy levels of the users. Similarly, voice based services require access to the mobile phone, and thus the two issues of access and basic and technical literacy are very important, and so require proper documentation through research such as this proposed one.

Market women are engaged in income generation and the need to improve their productivity lies in the optimal use to which they can put the mobile phone. The issues of access and use are key to the realization of this goal. The study intends to make a case for enhancing basic literacy levels and appropriate technological literacy among women in order to ensure optimal use of the mobile phone. Then and only then, can women derive full benefits from the ever growing technical advances in ICT and more specifically the mobile phone.

1.5 Scope of the Study

The study sought to examine the extent of **access** and **use** of the mobile phone by women on a typical rural market place in Western Kenya. It focused on the impact of mobile telephony on the livelihoods of rural market women on Mayanja market in Bungoma South district. This study sought to address the challenges of access and use of mobile phones that women in a typical rural community face as they embrace the introduction of the mobile phone as a communication device.

1.6 Limitations of the Study

The study was conducted on market days by drawing respondents from clusters of women who sell their wares in specific albeit temporary spots on the market. The study group was identified randomly from these clusters and interviewed in order to collect sufficient information to give valid and reliable results from which deductions were made. This was so,

despite the initial intention to identify the respondents for study, prior to the actual study period. There was no way of cross-checking the information that the respondents gave.

1.7 Definition of Terms

Access as a noun means the right to obtain or make use of or take advantage of something, and as a verb, it means obtaining the use of a resource. In this case an individual may not have access if the proper authority or physical, technical or procedural measure prevents him or her from obtaining knowledge or having an opportunity to alter information, material, resources or components. In computer science access means the operation of reading or writing stored information.

Use means to put into service, make work or employ something for a particular purpose. Use may also refer to utilization and manipulation of a device such as a mobile phone, requiring an understanding of its functions.

Mobile Telephone is a handheld communication device designed not only for telephone service, but also as a platform for a variety of other services such as to send and receive text messages, pictures, surf the internet and receive e-mails.

CHAPTER TWO

Literature Review

2.1 Introduction

In a paper presented by Chital Sinha at the International Research Foundation for development (IRFD) – Conference on Digital Divide Global Development and the Information Society on Nov.14-16, 2005, titled '*Effect of the Mobile Telephony on empowering rural communities in developing countries*' he quotes Muhammad Yunus, the Nobel Peace Prize Winner and founder and director of the Grameen Bank, Bangladesh, that '*the quickest way to get out of poverty right now is to have one mobile telephone*'. This assertion reinforces the view that possession of a mobile phone and access to the services it offers transforms the lives of the poor.

The August 2009 Issue 50 of ICT Update, a publication of CTA Technical Centre for Agricultural and Rural Cooperation, quotes a World Bank report which states that, "mobile phones were 'the single most powerful way to extend economic opportunities and key services to millions of people'". This issue also states that 3 billion people in the South use a mobile phone and the numbers keep increasing. In addition, the use of mobile phones has become so diverse that they now appear in mini-computer gadgets that can perform a variety of functions. In addition, an article by Dorianne Rowan-Campbell and Nidhi Tandon titled 'More than Market Info' in ICT Update Issue 47 (April, 2009) states that, there is increasing evidence of mobile phones being used to promote agricultural and rural development.

2.2 Literature Review

2.2.1 Perspectives of the Mobile Phone and Emerging ICT Technology

What could not be predicted in the 90s, was that in developing countries mobile phones would eclipse the internet in popularity and as a platform for e-services, thanks to technological developments and market liberalization. This has rendered the mobile phone as a tool to be used by women for realizing social development. It has been proposed (Nancy J. Hafkin, 2000) that in the field of ICT for development, priorities should be placed on the broader goals of achieving gender equality, women's empowerment and promotion of women's rights. This is because women form the bulk of the world's population that is as yet

untouched by the ICT revolution. In order to mainstream women in the ICT revolution, there is need to address the issues of access and use of the mobile phone by women.

It has been acknowledged that mobile phones can deliver information in many different ways, and it is likely to remain a popular method of information delivery for some time to come. Women's access and use of mobile telephony is the key to empowering them to access information in order to realize economic development. It is evident that women's literacy and poverty levels hamper the realization of women's empowerment. Many of the women in the rural areas have had very little interaction and use of the conventional communication methods such as the land line telephones. The technology involved in the modern ICTs and mobile phones in particular, is a big challenge to women who do not have basic literacy of the three Rs of Reading, wRiting and aRithmetic. According to Patricia Stamp (1989), 'most technologies destined for women in Africa have been produced by Western men who do not understand the social, economic or cultural contexts for use of these technologies'. Technology transfers have necessitated the reconfiguring of women's organizations and the social structures to meet the requirements of the new technologies. This is due to the fact that as much as women need to be integrated into the development process, they are ill-equipped to do so, because of lack of the technological know-how.

In 1996 the African Information Society Initiative (AISI), recognized that women were both users and providers of information and that gender cuts across all of AISI's major themes of policy, infrastructure, connectivity, human resource development and content creation. Among the main postulates was the need for information facilitators who are required to interface with communities to help them meet their information needs in view of the emerging complexities of technology. In addition AISI laid emphasis on the use of ICT in education, agriculture and natural resource management, among other spheres of development, is key to sustainable development.

According to Rhett Butler (2005), Africa became the first region where the number of mobile subscribers exceeded those using fixed lines. Further, Butler asserts that a developing country with 10 or more phones per 100 people between 1996 and 2003 would enjoy a per capita GDP growth of 0.59 higher than an otherwise identical country. Since then, and quoting sources from the International Telecommunication Union in the Economist, Butler (July

2005) states that the world subscriber growth has become phenomenal as indicated in table 1:1 below.

Year	Subscriber population
1998	2million
2002	28million
2003	51million
2004	82million

Table 1:1 World Mobile Subscriber Growth (*Source: ITU – The Economist 2000*)

For a long time the major productive resources of the world and especially in Africa have been land, labour, credit, capital, education and training. However, since the early 90s ICTs have become an important productive resource world-wide. ICTs have been viewed as instruments for advancing economic and social development as they create new types of economic activities and employment opportunities as well as improvement of health care delivery, among other services. In addition, ICTs have also shown the potential to improve interactions between governments and their citizens through on-line access to government services.

For some time, ICT and the internet or computer, have been used interchangeably, but in developing countries, the emergent use of the mobile phone has overtaken the popularity of the internet, due to its easy access and improved technological advancements. This is because mobile telephony has advanced to the level of micro-computers, performing functions such as making calls, internet connectivity and sending of e-mails, taking photos, making videos, calculations, mobile banking and cash transfers, and bill payments. For the rural woman, however, all she knows is to use the mobile phone for making and receiving calls! Their knowledge of the use of other ICTs is equally limited as many are yet to know what ICTs can accomplish. According to Rathgeber, Eve M. (2000), this is because Africa has continued to lag behind in ICT development and use.

2.2.2 Mobile Phone Technology and Communication

Mobile technology has changed the way we communicate, but its effects are not evenly distributed. In societies that are divided by social and gender roles, women, especially rural ones, are often left out of the benefits that accrue from mobile use. Gender disparities are evident in mobile usage, as technology allows some women greater social and economic freedom while in other cases, it simply upholds previously held social constructs. On the other hand, however, the advances in mobile technology tend to discriminate against women as women tend to be less technically literate. Women can demystify the technical field and discover how to turn new technologies into people-centred development. While addressing the Division for the Advancement of Women (DAW) Expert Group Meeting on “*Information and Communication Technologies and their impact on and use as an instrument for the advancement and empowerment of women*” 11 to 14 November 2002, Nancy Hafkin (2003) states that ‘in order to achieve the right to communicate as a basic human right for women in developing countries, women have to take on themselves the difficult task of the social analysis of technology’. In the areas of social interactions, education, and economics, mobile phones have a distinctly gendered impact on its users.

Mobile phones have overtaken the national phone companies by their use of pre-paid charge cards and lower costs that lend them for use by even the poor. The accruing benefits of mobile telephony are shared equally between the ‘haves’ and ‘have-nots’, thus rendering a non-digital exclusion. This is because mobile phones have the basic advantages of being:

1. ‘Unpack’ and ‘use’, without the necessity of training manuals,
2. User-friendly inter-faces, and
3. Cheap and therefore easily accessible to the poor.

Despite these advantages, the major factors that determine women’s access to and use of mobile phones and ICTs in general are:

- **Cost:** The variety of phones on the Kenyan market, range in cost from about Kshs. 1,500.00 to over Kshs. 75,000.00, depending on the make. Many rural women do not have the purchasing power to acquire a phone for themselves.
- **Literacy:** Women constitute more than 50% of the world’s population, the majority of the world’s poor and have the lowest literacy levels world-wide. According to the

United Nations (2000), two-thirds of the world's 876 million illiterates are women, and the number of illiterates is not expected to decrease significantly in the next twenty years (UNIFEM). To be able to use mobile phones, women need to acquire skills of literacy, language, computer skills and information literacy.

The ability to read and write, comprehend the functions of the processors and hence to effectively operate and utilize the varied functions of the phones is lacking. The processing language is mainly English, and/or other foreign languages. This excludes users who cannot read or write English. Many women use the phones almost exclusively for calling or for voice transmission, and may not be aware of other services such as mobile banking. Services of 'sambaza' or sharing of airtime credit, topping up of the phones and money transfer services such as M-PESA and ZAP are barely utilized by the majority of women due to literacy constraints. In addition, the cost of access and limitations of time, bandwidth and technical skills have made it impossible for women to use phones and ICT in general for business and entertainment, which are the predominant use in the developed world or for education, including education in matters related to the livelihood and well-being of themselves and their families, for example, health and nutrition education. Cameras, the internet and web hosting services are similarly under-utilized. This is mainly because women are not technically literate.

- **Maintenance Costs:** The majority of women have limited resources, and however low the pricing of the mobile sets and air time costs, many are hard pressed to afford the sustained use of mobile phones. This is because women are less likely to have the disposable income to do so. Services such as please-call-me (PCM), a service where a subscriber prompts a fellow subscriber to call them mainly because the former is not able to pay for the call, though not popular with the subject being addressed, have been exploited to a large extent. For the YU network, this service is called 'talk2me'. Introduction of the Bamba 5/- and Bamba 10/- and other low denomination call/credit cards for Safaricom and Zain have been deliberate so as to address the economic constraints of the users.

2.2.2.1 The many uses of mobiles

According to an article in *ICT Update* (Issue 50: August 2009) in the next few years, almost all new customers connecting to mobile phone networks will come from the rural

areas of developing countries. This is because due to the global spread, and the falling costs of the mobile phones, it has now become affordable to even the poor people in the rural areas. So far 3 billion people in the South already use mobile phones.

According to Ester Boserup (1970) new technologies introduced in Africa and elsewhere were displacing the labour of women. Women in developing countries have the lowest literacy levels and they comprise the bulk of the poor. Exploitation of the mobile phone will thus depend largely on whether women are sufficiently equipped to utilize the advanced technology involved. Technology is also continually evolving and there is a tendency for obsolete technology being dumped in the developing countries. A case in point is the importation of re-furbished computers and mobile phones into the Kenyan market. A number of women accessing mobile phones have not even handled a land line phone and they do not understand the technology involved in each of these communication devices.

The main uses of mobile phones include:

1. Making of calls.
2. Short Message Services (sms).
3. Mobile banking, also known as e-banking including the paying of utility bills.
4. Information access, exchange and sharing, including advertising and public services.
5. Entertainment in the form of games, music and video.
6. Internet services including web surfing and e-mail services.
7. Information capture and storage in the form of photos, audio and video.
8. Money transfer services such as M-PESA and ZAP.
9. Radio and television reception and use as two-way radio.
10. Global positioning satellite services for tracking and positioning.

2.2.2.2 Challenges in the Use of Mobile Telephones

2.2.2.2.1 Operating Languages and Literacy Levels

Use of SMS requires that users have basic levels of literacy, to read and write the operating languages of the mobile sets, in most cases a language that is not their mother tongue.

2.2.2.2.2 Technical Growth in the ICT Industry

The advances made so far in ICT and the evolving technologies have tended to place mobile phones in a class of mini-computers which can perform advanced functions similar to those of the conventional computer. It is now possible to access internet, read and receive e-mails and surf the web for information using a mobile phone. In rural areas of sub-Saharan Africa, mobile phones have often represented the first modern infrastructure of any kind. In as much as the mobile phone may be seen as an agent of economic empowerment for rural women, are the women sufficiently prepared to cope with the accompanying technological challenges associated with mobile telephony?

2.2.2.3 Mobile Phone Use and Gender Disparities: Case Studies

According to the results of an IDRC national household survey on mobile telephony conducted in Jamaica by the UWI's Telecommunications Policy and Management Programme (TPM), women enjoy a 2% higher level of mobile phone usage than men. Women appeared to be earlier adopters of mobile telephony and almost 4% more women than men reported consistent use of the mobile phone over the preceding four years. In addition, the September 2007 Jamaica study reported that 94.9 % of women and 93.1% of men had used a cell phone in the previous three months. On the other hand, 69% of the respondents reported that they had used the mobile phone for a period of four years or more, which is consistent across both genders: 67.5% and 71.6% of male and female users respectively (Dunn and Dunn 2007).

A case study conducted in Uganda by Kathleen Diga (2008) on "*Mobile Cell Phones and Poverty Reduction: Technology Spending Patterns and Poverty Level Change among Households in Uganda*", showed a continuous gender imbalance of mobile phone usage and spending through unequal partner control of the mobile phone and reduced well-being from unprofitable phone calls. Where the balance of power in a typical household rests with the head household, who in most cases is the man, the woman does not realize the increased benefits of the mobile phone.

A study by Dayoung Lee (2009) on the "*The Impact of Mobile Phones on the Status of Women in India*," found that there is a positive correlation between cell phone ownership and greater female autonomy where female mobile users were deemed to have greater intolerance for domestic abuse. The study emphasized the need to understand that household ownership of the mobile phone does not necessarily translate into women ownership. In most cases men may have undue control over the use of the mobile phone, thus denying women access to the technology.

In a study carried out in Kakamega and Makueni by Shanyisa Anotu Khasiani (200) on 'Enhancing Women's Participation in Governance', it was found that women still depend on traditional sources of information and lack control over the most effective and technologically advanced sources. In as much as women have opportunity to listen to radio, watch TV, and use a mobile phone, they are not in control of most of these services. In addition, they are barely equipped to use the more technically advanced ICTs like computers and advanced mobile services.

In a report by John Dada titled "*VoIP in the Wilderness*" (ICT Update Issue 45: October 2008), an initiative in Nigeria, a not-for-profit NGO started to provide small loans to women farmers in Kafanchan in north central Nigeria, ventured into providing phone services using the Voice over Internet Protocol (VoIP). This enabled people to just go to the nearest business or home with a connection to the network to make a call. A recent UNICEF report (ICT Update Issue 50, August 2009) showed that more than 7 million Nigerians are now browsing the web on their mobile phones.

An article in The People Daily, Tuesday 15, 2009, "*IT Does it for Farmers*", by Mwangi Mumbo, showed that in semi-arid Laikipia, where most of the agricultural activity is the keeping of livestock, Laikipia Centre for Knowledge and Information runs the Ng'arua IT Centre, where farmers access market information on prices of livestock and cereals online. The farmers tap into the Arid Land Information Network which provides Very Short Aperture Terminal (VSAT) for fast satellite communication. The information centre also provides reference material for farmers and other members of the community, services which can also be relayed using the mobile phone through SMS.

In '*Expanding Women's Access to ICTs in Africa*', Rachel Solange Mienje Momo (2000) asserts that people should have appropriate, adaptable and widely available ICTs at their

disposal, especially ICTs related to women's information needs. Momo further argues for training of women within their environment and in accordance with a convenient schedule to them. This will ensure that women acquire the skill and know-how necessary to tap into the technical resource and information bank that comes with the use of mobile telephony.

The mobile phone is now a multipurpose tool as a texting device, a camera, a music player, a calculator and a web browser. With a growing range of applications, mobile phones will become even more versatile and multi-faceted. Apart from market information systems one of the key uses of the mobile phone is the wireless banking and money transfer services. In Kenya these services are provided as M-PESA by Safaricom and ZAP by ZAIN. A corresponding service, WIZZIT, is in operation in South Africa where mobile banking customers can now open an account, start saving and secure a loan or an insurance policy without going to a conventional bank (Pickens Mark and Richardson Brian (April 2007) *Mobile Wallets and Virtual Currencies: ICT Update Issue 36 April 2007*).

2.2.2.4 A Case Study of the M-PESA in Kenya

A study by Olga Morawczynski (2007) titled "*Exploring the Usage and Impact of 'transformational' mobile financial services: the case of M-PESA in Kenya,*" (July 2007) set out to show that the M-PESA application was utilized for cultivation of livelihood strategies. Introduced in March 2007 by Safaricom, the M-PESA service facilitates a variety of financial services. Through the M-PESA clients can:

- make deposits at designated M-PESA outlets;
- withdraw cash from their accounts;
- check their account balances on their phones;
- send/remit money to their friends or families;
- pay bills such as electricity bills;
- purchase goods from designated outlets;
- purchase mobile phone credit; and
- transact monetary transfers, with designated banks such as Kenya Commercial Bank and Equity Bank.

In this particular case the mobile phone has been extensively used to access financial services to the unbanked population, much to the displeasure of the banking industry in Kenya. The study of M-PESA in Kenya, however, raised questions on the impact of the mobile phone financial services and whether it can foster sustainable development. The study carried out concurrently in Kibera and Western Kenya, investigated the concept of 'rural-urban money trails' where through the M-PESA service, was conceived as a 'send-money-home' service mainly by lowly paid urban workers to their families, spouses and extended families for livelihood support. Quoting Safaricom '*Results for the six month period ended September 2008*', Morawczynski states that in order to facilitate this service, there are over 10,000 M-PESA retail outlets, handling deposits and withdrawals of over KShs. 118 billion nationally.

This study, however, does not provide statistical information on whether the M-PESA services are more popular and more beneficial to women or men. The extent of uptake of this service is also not documented in the study. The study, however, does show that use of the M-PESA for money transfer has weakened links between the urban migrants and their rural relatives or families, as the migrants now visit home less often than before. Judging by the number of retail M-PESA outlets, the service has also provided avenues for employment, although gender disaggregated data are not available. What is evident, however, is that the initial capital input makes it impossible for the average rural poor person to set up such a facility, and to provide the necessary security and service needed. A report by Janet C. Achora and Berna Ngolobe (2009) of Women of Uganda Network, titled '*Digital opportunities for change- A Ugandan organization improves women's access to information*', shows that few women own or manage any of these private ICT business centres. The question remains, therefore, as to whether women have been major beneficiaries of the growth and extent of the M-PESA network. Similarly, given the levels of basic functional and technical literacy among women, especially in the rural populations and the urban poor, the levels of access and the use of the services need to be examined and efforts made to enhance them.

Gender gaps exist in access to communication facilities, as infrastructure is concentrated in urban areas, whereas the bulk of women live in rural areas. According to UNIFEM and UNU/TECH (2000) the urban bias in connectivity thus deprives women more than men the universal right to communicate.

2.3 Theoretical Framework

2.3.1 Gender Equality and the Empowerment Theory

Empowerment theory is one of the approaches that challenge the patriarchal structures that have continually subordinated women. Empowerment is about change in favour of those who exercised little or no control over their lives in terms of physical, fiscal and human resources, and ideology in terms of beliefs, values and attitudes. The empowerment approach aims at supporting women at community level to further their own strategic gender interests as well *as furthering their practical* by obtaining sufficient resources to operationalize their ideas and choices.

Women empowerment is a process whereby women, individually or collectively, become aware of how power relations operate in their lives, and gain the self confidence and strength to challenge gender inequalities. Women empowerment is meant to lead to gender equality where both men and women share equally in the distribution of power and influence, by having equal opportunities for financial independence through work and the setting up of businesses, enjoying equal access to education and the opportunity to develop self ambitions. *Despite a number of international agreements and protocols affirming human rights for women, in particular the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW 1981), women are more likely to be poor and illiterate, thus limiting their ability to participate fully and equally in society.*

Caroline Moser, in her book “*Gender Planning and Development: Theory, Practice and Training*” (1993), emphasizes the need for gender planning in order to realize women empowerment. A key component of women empowerment is gender mainstreaming, where the needs and concerns of both women and men are taken into consideration in the design and implementation, monitoring and evaluation of all policies and programmes in all political, economic and social spheres for equality and equitable realization of benefits. This is because gender mainstreaming is a strategy whose aim is to bring about gender equality. Mainstreaming gender issues of access to resources will ensure that the access translates into women empowerment and improved well-being of the society.

2.3.2 Relevance of the Theory to the Research

A study of mobile phone use by women in a rural setting like Mayanja market was mainly an exploratory research to ascertain the inherent capacities of market women to cope with an

innovative tool like the mobile phone. It highlighted the disparities that exist as a result of cultural gender roles despite the emerging trends of technology and labour, and the perception of the mobile phone as a productive resource. In addition it brought to the fore existing gaps that lead to the inability of women in Mayanja to utilize a resource as 'simple' and versatile as the mobile phone as a tool for development.

As stated elsewhere in this paper, ICT and in particular mobile phones have also become a special category of productive resource. Access and use, as well as realization of the benefits accruing from this resource are key to realizing development that is all inclusive. Gender disparity in society is often echoed in mobile usage. This is because, while technology allows some women greater social and economic freedom, in other cases it simply upholds previously held social constructs. In the areas of social interactions, education, and economics, mobile phones have a distinctly gendered impact on its users. This is coupled with the effects of globalization in overcoming the ICT challenge and effects on vulnerable groups, mainly women due to the widening digital divide.

CHAPTER THREE

Methodology

3.1 Research Site

Mayanja Market is part of Mayanja village of Kibabii Location in Bungoma South district and it hosts the headquarters for the location. Kibabii location is made up of two sub-locations, Marakaru and Tuti. According to the 2009 Kenya Population and Housing Census, Mayanja village, with an area of 9.6 square kilometres, had a total population of 4,891 comprising 2,333 males and 2,558 females and a total of 912 households (Source: Kenya National Bureau of Statistics: *2009 Kenya Population and Housing Census*. August 2010). Mayanja is one of the four sub-locations of West Bukusu location, others being Kibuke, Lwanja and Ng'oli. The population is predominantly of the Bukusu community, a sub-tribe of the Luyia. The Bukusu are largely a patrilineal society, where power, ownership and control of resources is vested in the male of the family. Of particular note also is the practice of polygynous marriages and the cultural initiation rites of circumcising their boys in August of every even year, practices that affirm the patriarchal structures in the community.

The female to male ratio was 52.3% in favour of women compared to 47.7% of men. Information regarding what proportion of the households are headed by women does not exist, but taking into consideration the rural-urban migration which is mostly of males, a good proportion of the households must be headed by women. The proportion of women found on the market place may also be from these female-headed homes, hence the need to seek livelihoods on the market.

Mayanja market is at the confluence of a rich agricultural area of the present Bungoma South District. The market was originally known as "Mayanja Mailo" to distinguish it from "Mayanja Kibuke" another market centre on the main Eldoret –Malaba highway. The proliferation of onions on this market has earned the market a nickname "Mayanja Bitunguu". Mayanja lies on the main tarmac road linking Kitale Kimilili, Chwele and Bungoma. Roads to Malakisi through Netima, to Bukokholo, Bisunu and Sirisia are all-weather murrum. The market centre boasts of an adequate transport system comprising mini buses and Nissan 'matatus' plying the Bungoma- Chwele- Kimilili –Kitale route and motor bike 'boda boda' as well as bicycle 'boda boda' to the interior areas like Miluki on the Malakisi route and Bukokholo – Bisunu areas.

The area receives adequate rainfall yearly once in the March-May-June season of the long rains and in the September –October- November season of the short rains. Most families practise subsistence agriculture, growing maize, beans and a variety of vegetables for family consumption. In addition, a limited amount of bananas and sweet potatoes are grown. Onions are the choice cash crop in this area, hence the name. On a typical market day, the market draws women from Chwele, Malakisi, and Lwakhakha on the Kenya-Uganda border, Webuye and Bungoma the headquarters of the larger Bungoma District. On offer on this market are agricultural produce, including onions, maize and beans, as well as livestock on designated ‘market’ days twice a week. In general, there is a sizeable population of women on this market that are involved in income generation, for sustaining their families.

In addition to what they earn from their petty trade, the women and their respective families depend on remittances from spouses and relatives working in other Kenyan towns (Morawczynski 2009).

3.2 Research Design

This study adopted an exploratory survey using an in-depth interview research design, also referred to as a schedule-structured interview. Data was collected using a semi-structured interview questionnaire, a key informant interview guide, and a focus group discussion guide.

3.3 Study Population

The study population consisted of women living and carrying out businesses on Mayanja market. These are women who are engaged in small businesses for their livelihoods, and they have the capacity to own and use a mobile phone, even though some of them did not. In addition to what they earn from their petty trade, the women and their respective families depend on remittances from spouses and relatives working in other Kenyan towns (Morawczynski 2009). On a typical market day many women bring their produce for sale and they tend to cluster themselves in groups which they usually maintain over a period of time.

3.4 Sample Population

The sample population was a group of 22 women who constituted the primary research cohort and were selected using the non-probability quota sampling from among the clusters of market women forming the population under study.

3.5 Sampling Procedure

The various clusters of women doing business on the market were approached and familiarized with the objectives of the research, that is:

- a) Levels of access and use of the mobile phones by women,
- b) Factors influencing access and use of the mobile phones by women and
- c) Services and benefits that the women derive from the use of the mobile phone

In addition the KWFT-Joy Kanduyi group members and the local Chief were separately familiarized with the above research objectives.

The women were informed that they could volunteer to be interviewed for this research. The twenty-two (22) women, whose ages ranged from 16 to 63 years, volunteered and were interviewed using the In-depth/Semi-structured interview questionnaire (Appendix 1).

The KWFT-Joy Kanduyi group was selected through snowball sampling, through reference from some of the cluster members on the market. Kenya Women Finance Trust (KWFT) – Joy Kanduyi is a women-only investment group who are affiliated with KWFT for purposes of accessing credit for supporting their businesses.

The local Chief was selected for the Key Informant interview by virtue of his position as the local administrator and government representative.

3.6 Methods of Data Collection

3.6.1 Secondary Sources

Secondary sources comprising of e-journals, books and research papers cited in the literature review above provided background information for the study. The researcher also continued to refer to them throughout the study.

3.6.2 Semi-structured Interview schedule

A semi-structured interview schedule (Appendix 1) was administered by the researcher to the study sample. In-depth interviews with the volunteer respondents were conducted individually after the familiarization with the research objectives and their responses recorded by the researcher. Further probing was also employed to solicit for opinions from the respondents using the open-ended questions on selected aspects of the research item(s).

3.6.3 Focus Group Discussions

A focus group discussion was held with the KWFT-Joy Kanduyi group using the focus group interview schedule (Appendix 3) and their responses and observations both verbal and non-verbal were recorded for analysis.

3.6.4 Key Informant Interviews

The local Chief, was interviewed as a key informant on the attendant issues of access and use of the mobile phone among women on Mayanja market using the interview schedule in Appendix 2.

3.7 Data Processing, Analysis and Presentation

A thematic approach based on the research questions was used in the processing and analysis of the data collected. The Data from the in-depth interviews was analysed at the end of each interview. Similarly, information from the key informant interview and focus group discussion was collected and recorded for analysis.

The responses collected from the in-depth interviews were edited for errors and coded by frequency distributions to facilitate ease of analysis. In terms of the open-ended questions, a record of the responses was made for further analysis.

Analysis of the results was done manually with the assistance of Ms-Excel for plotting the results and drawing the charts. Tallying of the data obtained, presentation of the resultant findings in terms of frequency distributions and charts provided the key to the drawing of generalizations employed in drawing inferences and conclusions.

3.8 Ethical Considerations

This study adhered to the code of ethics for anthropological research, by taking into consideration the confidentiality of the respondents as well as disclosing to them that they were under study. The initial interaction with the respondents' clusters and groups, as well as the key informant was meant to sensitize them as to the nature and purpose of the study. In the case of the primary study sample, the respondents were given the option to volunteer for the research. All the informants in the research were informed that their responses will be used for the purposes of the study only and they were given the option of taking part in the

research willingly as it was not to be used in a manner that would be detrimental or prejudicial to them.

The information so gathered was according to the ethical standards regarding the image of the agent, the Institute of Anthropology, Gender and African Studies, by reporting accurately the results of the study without bias.

CHAPTER FOUR

Women's Access to and Use of the Mobile Phones on Mayanja Market

4.1 Baseline Information on the Study Sample

Baseline information on the respondents, that is, age, marital status, educational levels, language competency and involvement in economic activities was collected using the in-depth interview questionnaire (Appendix 1). A total of twenty-two (22) women were interviewed whose ages ranged from 16 to 63 years. The modal age of the respondents fell within the 20 to 29 years. Fifty-nine percent (59%) of the study group were below 30 years of age.

4.1.1 Age of Respondents

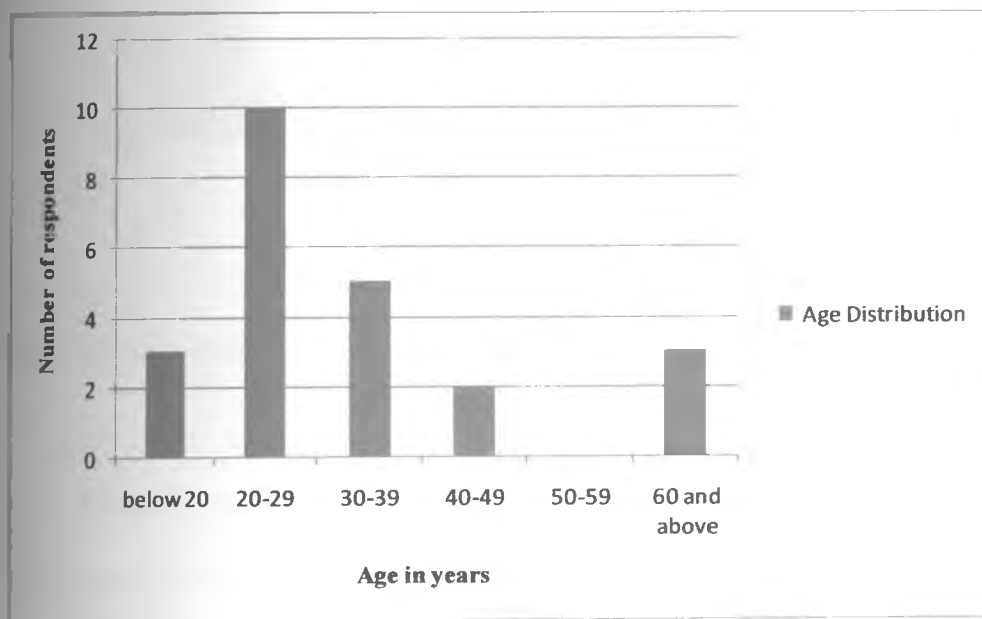


Figure 4.1: Age Distribution of respondents

4.1.2 Marital Status

Out of this population of respondents, 15 women were married, 6 single and 1 widow.

4.1.3 Level of Education

The respondents' level of education ranged from those who did not complete primary school to college education as shown in Figure 4.2 below.

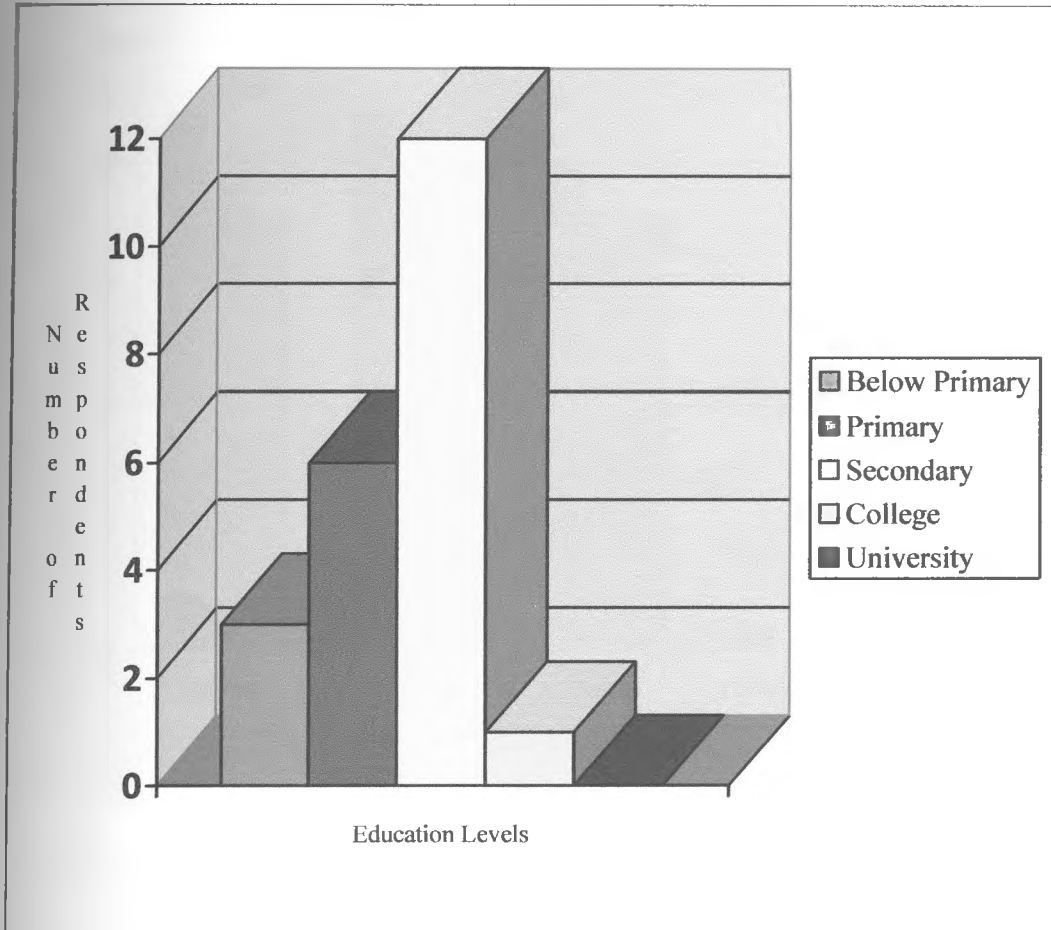


Figure 4.2: Respondents' Education Level

4.1.4 Language Competencies

The language competencies of these women in the languages of their mother tongue, Lubukusu, Kiswahili and English was found as shown in table 4.1 below.

Table 4:1 Language Competencies

Language Competency	Lubukusu	Kiswahili	English	Other/ Gikuyu
Understand	22	22	20	1
Read	19	20	18	
Write	18	18	18	

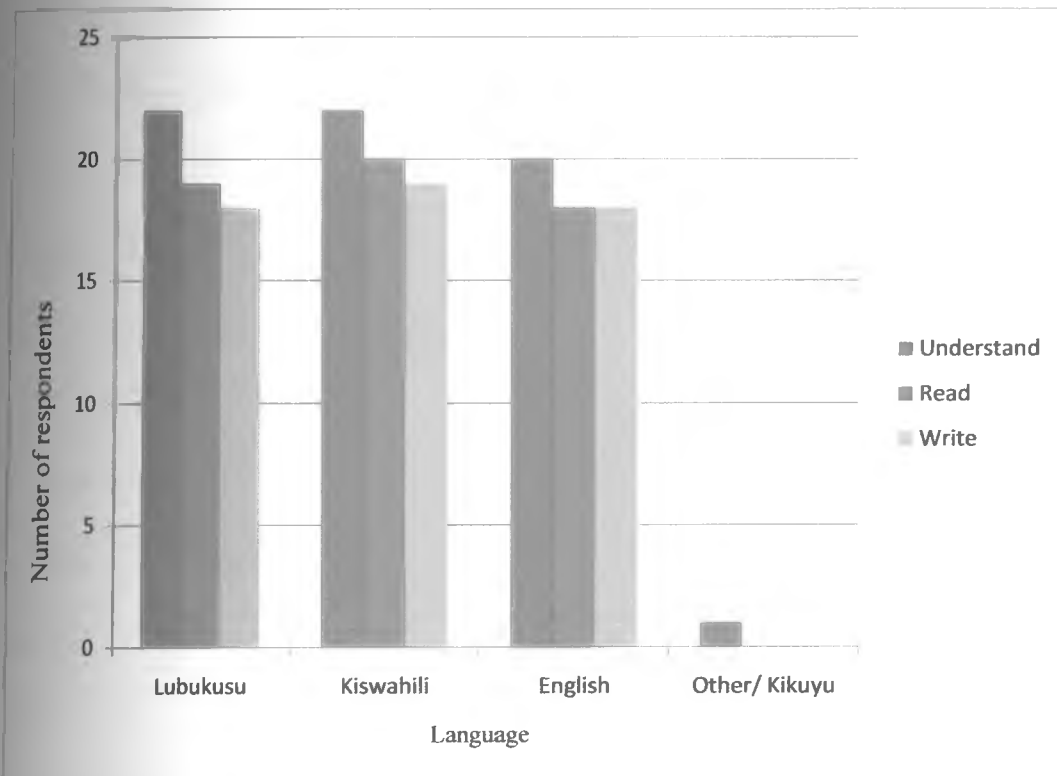


Figure 4: 3 Language Competencies of respondents

4.1.5 Involvement in Economic Activities

Out of the 22 respondents, 20 are engaged in one type of business or another. Two of them reported that they are home-makers engaged in small-scale farming and house-hold chores. Apart from business, all the women have families and have to still do their housework and child minding. Table 4.2 below shows the variety of economic activities undertaken by these women.

Table 4:2 Varieties of Economic Activities

Type of Business / Occupation	Frequency	Percentages
		%
Selling tomatoes and Onions	2	9
Shop keeping, provisions and groceries	3	13.6
Fish monger	1	4.5
Vegetable vendor/seller	4	18
Tailoring/ selling clothes	3	13.6
Agrovet	1	4.5
Salon	1	4.5
Farming and Housewife	2	9
Dairy Farming	1	4.5
Unspecified	4	18

4.2 Levels of Access and use of the mobile phones

The levels of access and use were measured by whether or not the respondents own mobile phones or not, the time for which they have used the phones and the expenditure they incur on phone use.

4.2.1 Phone Ownership and Use

The total sample reported that they all use mobile phones. Six (6) of the respondents, however, reported that they do not own the phones they use. Out of those who do not own mobile phones, they reported that they use friends' phones while others use phones for their spouses and on occasion the public phone or 'simu ya jamii'.

The respondents reported phone use spanning a minimum of 8 months to a maximum of 5 years, with 8 out of the 22 having used the mobile phone for one year and less. Figure 4.4 below show duration of phone use by the respondents.

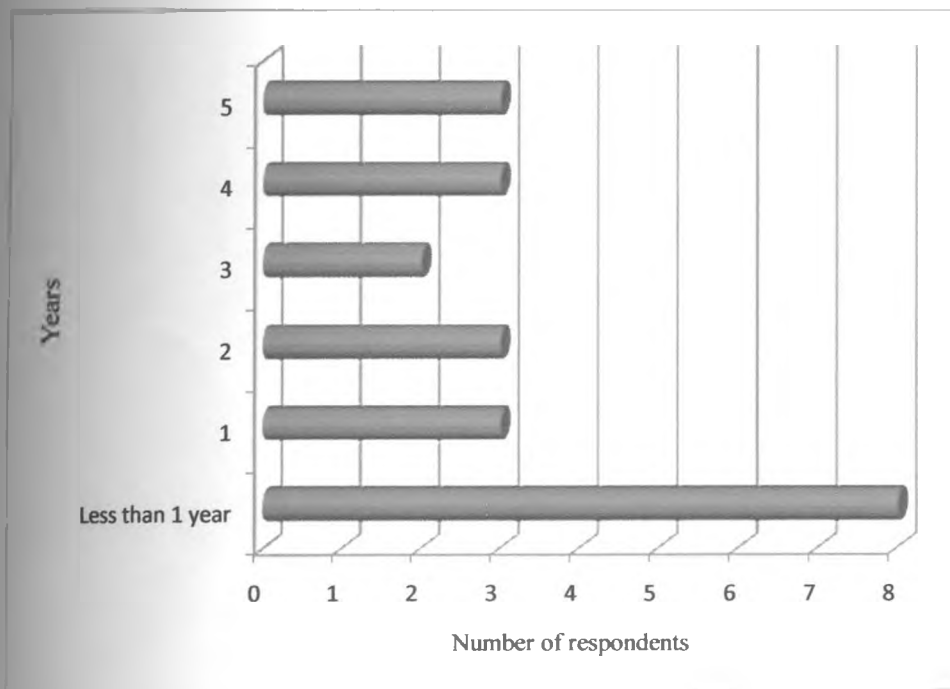


Figure 4.4 Duration of phone use in years

4.2.2 Expenditure on Mobile phone use

Two respondents reported that they do not personally spend money on supporting their phone use as they rely on either family or friends for this. The rest of the respondents support their phone use by buying top-up credit cards from proceeds of their business.

The levels of monthly expenditure on mobile phone use ranged from as low as Kshs. 50.00 to a maximum of Kshs. 1,000.00. Figure 4.5 below shows the levels of monthly expenditure on phone use, by the study sample. 14 out of the 22 respondents, that is, 63.6%, spend less than Kshs. 500.00 on mobile phone use monthly.

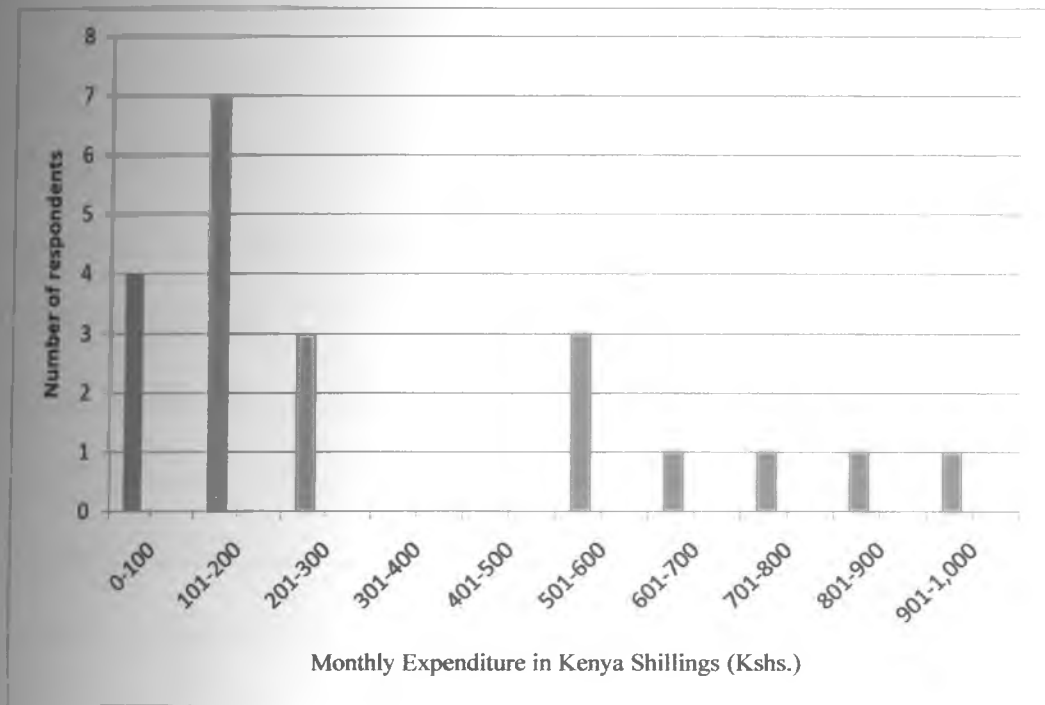


Figure 4.5: Monthly expenditure on phone use in Kenya shillings

4.3 Factors Influencing Access to and the Use of the Mobile phone

The main factors that influence access and use of the mobile phone by the women are principally the cost of phone sets, the cost of making phone calls, the low network coverage and lack of electricity to recharge the phones. Other factors that influence access and the use of mobile phones in the study sample are as shown in table 4.3 below.

Table 4.3 Factors influencing Access to and Use of the Mobile phone

Factor	Yes	No
The cost of the phones	18	4
Cost of calls/ can not afford the calls	18	4
Low Network coverage	18	4
Inability to understand the working of phones	10	12
Lack of electricity to re-charge the phones	16	6
Very few phone kiosks/simu ya jamii	3	19
Inability to get time to get to phone kiosk	4	18

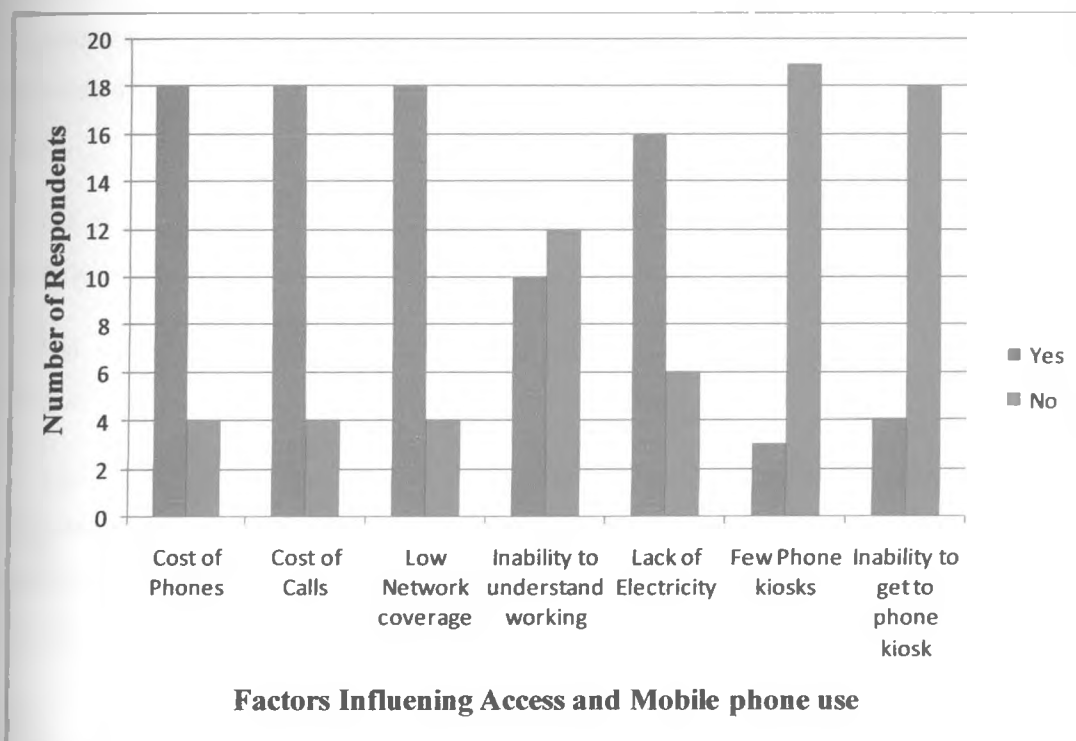


Figure 4.6 Factors influencing Access and use of mobile phone

When asked who assists the respondents in addressing the difficulties and challenges they encounter when using the mobile phone, such inability to access a phone, or to understand its use, many of them said friends and family provided this support. A case in point was that of one of the respondents, Juliana Nabwoba Wepukhulu.

Juliana Nabwoba Wepukhulu from Nambwa village is aged 63 years old. She reportedly was able to attend school only up to Class three. She sells onions and tomatoes on the market. She communicates in Lubukusu and Kiswahili fluently, but can not read or write either language. She can however speak a few words of English with a very high sense of humour. Juliana uses a mobile phone to make calls and yet does not own a mobile phone nor does she spend any money on making phone calls. Asked how she manages to do this, she says her friends and members of her family, her daughters and sons, including members of the extended family allow her to use their phones without paying for the service. She however enjoys the use of the mobile phone as it enables her communicate with her children and relatives working away from home and regrets that she is not able to buy a mobile phone of her own, because of the cost of the phone set.

4.4 Benefits derived from the use of the mobile phone

All the twenty-two respondents reported the use of the mobile phone for social communication, in particular making and receiving calls. Notably three of the twenty-two respondents reported that they do not use mobile phones to send or receive short messages, sms's.

19 out of 22 (86.4%) respondents acknowledged the use of the mobile phone for mobile banking, while the use of MPESA services was reported by 15 (68%) of the respondents.

2 (9%), of them reported internet use, such as e-mail and web surfing, using their mobile phones.

7 out of 22 (32%) of the women use their mobile phones to record conversations, 6 (27%) use them to take pictures and 5 (23%) download pictures using their phones. These figures indicate that less than half the respondents use their mobile phones as documentation devices, for capturing and storing of information.

10 (45.5%) out of the 22 respondents reported use of their mobile phones to listen to radio, whereas only 1 reported watching television TV using her husband's phone. A total of 18 (82%) use the mobile phone to play games. Table 4.4 below summarizes the uses that members of the study group enjoy using their mobile phones.

Table 4.4 The use of the mobile phone among the respondents

Type of Information	Yes responses	No responses
Farm to retail marketing	11	11
Soko hewani	0	22
Public health information	5	17
Education Information: Examination Results	8	14
Examination Tests	6	16
Government Information:		
• PIN Number Information	4	18
• Identification Card Information	6	16

These observations may also be due to the fact that the type of mobile phones in use by the respondents was not investigated since older models do not have radio and TV receiver capabilities.

Many of the respondents were not aware of interactive services such as Facebook, Twitter which are available via the internet.

When responding to what they enjoyed most in using the mobile phone the respondents had a variety of answers, key amongst which were:

- Listening to music, including the listening to ringtones,
- Communication or conversation with family and friends,
- Sending and receiving short messages,
- Money transactions, popularly MPESA and to some extent e-banking,
- Use of the camera to take pictures of events as they occur,
- Playing games that come with the hand sets,
- Listening to radio,
- Browsing the internet and
- Watching of films.

4.5 Report of the Focus Group Discussions

4.5.1 Background information on KWFT-Joy Kanduyi

KWFT-Joy Kanduyi is one of the many women investment groups affiliated to Kenya Women Finance Trust in Mayanja market. KWFT-Joy Kanduyi has a total membership of 19 members aged between 27-43 years. KWFT-Joy Kanduyi was incorporated in 2007.

The core activities of the group are to save money with KWFT and to borrow from the same for growing and sustaining their businesses, through a system where they act as guarantors to each other.

4.5.2 Access and Use of Mobile phones

17 out of 19 women (90%) reported they own and use mobile phones. They use their phones to support their businesses by making orders from their suppliers and for arranging deliveries to their clients.

As a group, notices for group meetings, though routinely set at specific times of once per month, any changes in scheduling and agenda setting is obtained through phone calls and short message service (sms) between the members and the chairlady.

Typical of this group, like others operating in the area, they are supposed to make monthly payments/remittances as their shares and loan repayments to KWFT. In the event that a member fails to attend the meetings, they have the option of remitting their payments using MPESA to the chairlady.

With emerging trends of mobile banking and saving initiatives, the KWFT-Joy group is being trained by an officer from Cooperative Bank in Bungoma to embrace the concept of mobile banking.

4.5.3 Factors influencing Access and Use of the Mobile phone

The major challenges facing these women in accessing and use of the mobile phone are;

- Weak signals/network coverage, especially as some of their suppliers are in the hinterland where the reception is very poor,

- Some networks such as Safaricom occasionally have congestion at peak hours of the day, rendering difficulties in communication,
- Lack of electricity, and power interruptions occasion non-availability of power to re-charge their phones,
- The cost of making calls or sending sms's limits the use of the mobile, hence resorting to the use of the notorious 'please call me' and 'flushing', especially when the recipient does not have sufficient credit to call back. This is mainly because of lack of disposable income and given that many of them are also servicing loans advanced by KWFT for their businesses.
- 2 of the members of the group can neither read nor write in any language, and have to rely on other members of the group and their spouses to make calls for them and also transact MPESA services on their behalf.
- For some of the members, the types of phones they have do not have facilities like cameras and audio recorders nor do they support services such as internet browsing and hence they don't know that such services exist.

4.5.4 Benefits derived from mobile phone use and attendant challenges

The group members were asked to comment on their experiences and expectations on how useful the mobile phone is to the women and especially the members of the group.

- The group members singled out the basic use of the mobile phone as a communication device, which is used in passing information from one person to another, mostly orally. The mobile phone thus satisfies their basic need for social communication.
- A few of the women however demonstrated the use of mobile phones for sending short messages. Many of them, however, rarely use this service.
- Many are familiar with the cash transfer services such as MPESA, including the two who are illiterate and have to be assisted to use these facilities.
- It was evident that some of the women own phones but they have limited use of the same because they do not know what else they can do with the phone. They lack the

basic literacy in some cases and technical know-how on the operations of the mobile phones.

- Lack of disposable income limits the enhancement of mobile phone use even though it may be a useful tool.
- The group members expressed a desire to be taught how to utilize their phones fully, by either by the mobile service providers or NGOs or other benefactors.
- The members expressed a desire for further training and support materials to be availed in order to enhance their use of mobile banking facilities which are now on offer in most commercial banks.

4.6 Key informant Interview with the local Chief

The Chief was interviewed on the following aspects in regard to factors that influence women's access to and use of mobile phones and the benefits that women derive from the use of mobile phones. Below is a record of the chief's responses and comments;

4.6.1 Women Representation in the Decision Making processes locally:

Mayanja market has a large number of development and investment groups where women are active and well represented, such as a number of Kenya Women Finance Trust groups, and Arise and Shine Investment group. Women representation was also evident in local educational boards and in local development initiatives. Of note, there were women heading several institutions, such as the Senior Principal of Kibabii Diploma Teacher Training College and even the Headmistress of the local Mungeti Primary School on Mayanja market.

4.6.2 The Impact of traditional cultural practices on access and use of mobile phones

Mobile phone ownership among the market women was quite substantive, but not so among the rest of the women in the locality. In many families, where there was one mobile phone, it was owned by the husband and women had very limited, if any use of this facility. Locally, resource ownership is the preserve of the male of the family, but this is gradually changing as women now have control of resources such as land,

courtesy of the Law of Succession (2008), Cap160. There have been no cases reported to his office regarding women being denied ownership and use of mobile phones.

4.6.3 Efforts made to ensure that women can access government information through the use of the mobile phone

There have not been any initiatives through sensitization nor through the chief's barazas to encourage people and specifically women to access government information using the mobile. This was an area that the chief felt he needed assistance from NGOs, service providers such as Safaricom and Zain and other government agencies to facilitate. Key constraints pointed out were low levels of basic literacy and technical literacy, especially among women.

4.6.4 The impact of the mobile phone on women's access to development information in agriculture, marketing, health and resource management

For women doing business, the chief had noted an increased awareness in the use of the mobile phone for sourcing of supplies, but there was no evidence on information access via the phone as such. Most of the time, information in health, for instance immunization, is disseminated by use of chief's barazas. The chief agreed that this may also have to be included in the training and sensitization by NGOs, mobile service providers and other government agencies.

CHAPTER FIVE

Conclusions and Recommendations

5.1 Introduction

The general objective of this research was to examine the socio-cultural factors and practices that determine women's access and use of varied mobile phone services and their influence on women's realization of social development. The study started from the premise that the mobile phone has many uses and it was meant to find out to what extent women on Mayanja market are able to access and utilize this device. This was to be achieved by investigating the levels of access and use, the variety of uses and the benefits and challenges of the mobile phone use among the women.

5.2 Conclusions

5.2.1 Levels of Access and Use of the Mobile Phone by Women

From the above observations in chapter 4, it was evident that many of the market women have access to mobile phones either in the form of individual ownership or as a shared facility with family and friends.

It was evident, however, that a majority of the women used their phones mostly for social communication despite the variety of services available on the mobile phone. This is mainly because many of the women are unaware of the type of services available in mobile phone use.

A very interesting trend emerged here, as 82% of the respondents used the mobile phones to play games, which could be due to the fact that more than half of the respondents are below thirty (30) years of age and have completed secondary level education. This is a pointer to the relationship between the level of education and increased ability to utilize the mobile phone for communication and other available services.

5.2.2 Factors influencing Access and Use of the Mobile Phone by Women

The main factors influencing access and the use of mobile phones women among the women on Mayanja market were found to be:

- The cost of the phones and the cost of phone use in making calls and sending messages. Many of the women lack sufficient disposable income to buy phones and credit to sustain phone use.

- Those who have to rely on friends or family members for access and use experience reduced availability, hence, they do not enjoy full use of the mobile phones.
- Low network coverage or inability to access signals reduces women's use of mobile phones. In particular, congestion at peak hours, reported in some of the networks leads to reduced use.
- Low levels of basic literacy or the ability to read and write lead to inability to communicate using a service like short message service (sms). This shortcoming was especially evident in the use of the money transfer services such as MPESA, where the client is supposed to use a personal pin code to access the service.
- Low levels of technical literacy lead to inability to operate the mobile phones, for instance use of pin codes for mobile banking, accessing the internet and associated services such as surfing and chatting, information capture and transmission.
- Lack of electricity also renders reduced use of mobile phones as there is need to recharge the phones often with sustained use.

5.2.3 Services and Benefits that the Women Derive from the Use of the Mobile Phone

From the results of the interviews using the in-depth interview schedule, the focus group discussions with KWFT- Joy Kanduyi and the key informant interview with the area chief, the following benefits that women derive from the mobile phone were noted;

- 1) Social communication between family members and friends appeared to be the most popular benefit among the women users.
- 2) Being business women, commercial communication with suppliers and clients for business enhancement was reported to be quite significant among the respondents,
- 3) To some extent, data and information transmission using short message services was not very common, as this was subject to the levels of both basic and technical literacy.
- 4) Financial transfer and transactions by way of mobile banking and cash remittances though MPESA and ZAP was also found to be hampered by lack of basic literacy among some of the participants,

- 5) To a large extent, information conveyance from the government agencies, commercial information and other developmental agencies was not common among many of the participants and
- 6) The mobile phone has to some extent emerged as a form of entertainment device as it is used in listening to radio and music. However, apart from the playing of games, many of the respondents reported little use of the mobile phone for entertainment and documentation services.

These benefits have been derived to varying degrees as stated in the results above, but non-the-less many of the participants expressed satisfaction with the services they are most familiar with..

5.3 Recommendations

For the full potential of the mobile phone as a development resource for women there is need to increase access and use of mobile phones by putting in place the following the following measures:

- a) Enhance women's access to and the use of mobile phone by the government reducing tax on air time.
- b) Mobile phone service providers need to develop mobile phone technology that uses local languages such as Kiswahili in order to reach women who do not understand English.
- c) There is need to set up community information resource and training centres in order to enhance the capacities of women and give them opportunities to exploit the mobile phone as a development resource.

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APPENDIX 1: IN-DEPTH INTERVIEW QUESTIONNAIRE

A: Basic Information:

1. Name: _____

2. Age: _____

3. Village:.....

4. Marital Status: *(Tick where applicable)* –

Single Married Widowed Divorced

B. What is the highest level of education you completed? _____

(None, primary school, secondary, college, university)

C. State whether you can *understand* and/or *read* and/or *write* the following languages:

(Tick where appropriate)

	Understand	Read	Write
Mother tongue			
Kiswahili			
English			
Other language			
.....			

D. Are you involved in any economic activity? _____

If so, state what you do for a living? _____

E. 1. Do you use a mobile phone? Yes No

2. Do you own a mobile phone? Yes No

If 'No' whose phone do you use? _____

3. For how long have you been using the mobile phone? _____
4. How do you pay for your phone use? _____
- _____
5. How much money, on average you spend per month on the use of the mobile phone?
- _____
5. Indicate in the table below the functions for which you use your mobile phone:

Function	Details	Yes	No
I. Social Communication	i) Making / receiving calls		
	ii) sending/receiving short message services		
II. Wireless banking and Payment systems	i) Mobile banking ii) Cash remittances a) MPESA b) ZAP c) Payment of Bills d) Other		
III. Convergence Technology	Accessing the internet: a) Face book b) Twitter		
IV. Information conveyance/ Accessing information	i) Commerce: a) Farm to retail marketing/e-soko b) soko hewani with West FM ii) Public health and medical care e.g. child immunization. iii) Education information; a) Examination results b) Examination papers/tests iv) Government information: a) Tax information / PIN cards b) Identity cards information		

V. Documentation	i) Recording people as they talk ii) Taking photos and videos iii) Receiving /downloading pictures		
VI. Entertainment	i) Listening to Radio ii) Watching Television iii) Playing Games		

6. What do you enjoy most in using your/the mobile phone? _____

7. What factors limit your access to and use of the mobile phone?

Factor	Yes	No
i) The cost of the phone		
ii) The cost of making calls / can not afford to buy air time		
iii) Low network coverage		
iv) Inability to understand the working of the phone(s)		
v) Lack of electricity to re-charge the phone locally		
vi) Very few phone kiosks /simu ya jamii in the locality		
vii) Inability to get to the phone kiosk/simu ya jamii, due to time and other household chores		

viii) Who assists in addressing the difficulties you encounter in using the mobile phone? _____

APPENDIX 2: KEY INFORMANT INTERVIEW GUIDE

SCHEDULE A: Area Chief

1. What are the levels of women representation in decision making processes at the local level?

(Local representation in political, social, school and development activities ...)

2. What is the impact of traditional cultural practices on issues of access to mobile phones and their use by women in Mayanja? (*Women's property rights, gender roles and entrepreneurship*)

3. How do women use mobile phones to access government information, for example registration of persons, online VAT registration and related services?

4. The impact of mobile phones on women's access to information dissemination relating to development issues in agriculture, marketing, health, politics and resource management.

APPENDIX 3: FOCUSED GROUP DISCUSSIONS

1 Name of the group: _____

Type of Group: _____

(e.g. merry-go-round, investment group, educational, tree-planting or other..)

Year of registration _____

Number of Members: _____ Average age/Age Range of the group: _____

Core Activities of the group: _____

2. How many of the members own mobile phones? _____

How many of them use mobile phones? _____

What do they use their mobile phones for? _____

(For example, making and receiving calls, sending messages, money transfer and other related services)

3. What challenges/difficulties do individual members of the group experience in;

a) Accessing a mobile phone? _____

b) Using a mobile phone? _____

(Cost, literacy and language, technology challenges, electric power, network and connectivity problems)

4. General comments on the expectations of the group members on personal enhancement and improvement of livelihoods and how the mobile phone can be useful to the women. *(Basic literacy and technical literacy, mobile phone as a productive resource)*
