['] The Role Of Mobile Telephony In Gratifying Business Information Needs Among Women Entrepreneurs In Kenya: The Case Of Selected Women Entities In Butere, Kenya.

Emmanuel Joseph Odemba

K50/70773/2007

University of NAIROBI Library

A project submitted in partial fulfillment of the requirement for the Master of Arts degree in Communication Studies at the School of Journalism and Mass Communication of the University of Nairobi.

November, 2011

DECLARATION

This project report is my original work and has not been presented for an award of a degree, diploma or certificate in any university.

Odemba, Emmanuel Joseph

SIGN:

Date

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

Supervisor

Kamau Mubuu (Lecturer - SOJ & MC)

SIGN: Hund Leur

2011 21

Date

Dedication

This work is dedicated to all those who believe that 'a problem cannot be solved at the same level of consciousness that created it'.

Acknowledgement

Various people have been involved in the success of this academic journey at different levels. The spark to go back to class was ignited through valuable pieces of advice, guidance and material support from my sister Janet Ombwayo. I will forever be grateful to you.

My heartfelt thanks go to Mr. Kamau Mubuu, my supervisor, for his expert assistance, assessment and constant evaluation of my work, as well as the time put into my research. Your invaluable comments and guidance helped to shape the study in all aspects of research. You pushed me when I faltered, all for the good of this noble course.

I also wish to extend my gratitude to my brother Nelson for his moral and material support, my classmates Michael Ochula and Elizabeth Ngari for their camaraderie and tireless reminders to do assignments, and Wycliffe Auma, my colleague at Cisco for his encouragement. May your warm generosity live forever.

Lastly, I salute Nazon Hani, for being my inspiration. I hope this dissertation will encourage you always to aspire for the best in life.

Abstract

This study explores the ways in which women entrepreneurs in Kenya can harness the competitive advantages of ICTs to grow and sustain their businesses. The study focuses on the extent to which women entrepreneurs in Butere Constituency in Kakamega County utilize the information services provided through the mobile phone to transact their business activities. The findings in this study are therefore crucial to the body of knowledge on programmes that seek to uplift women's lives through the deployment of appropriate ICTs. This is informed by the realization that the current policies and ICT sector practices have not been significantly oriented towards the use of mobile phones in women entrepreneurship.

Literature from various sources (both print and electronic) was reviewed to provide the requisite background information and entering behavior into the actual aspects of the study. The scrutiny of the literature and analysis of the quantitative and qualitative data obtained during the study arrived at answers to the following research questions:

- What are the information needs of women entrepreneurs in rural Kenya?
- How are women entrepreneurs and women self-help groups using mobile phones in their micro enterprises?
- How has this changed the way women do business and what are the implications of the changes?

- What are the challenges and barriers facing women's access to/use of the mobile phone in their quest to achieve sustainable micro enterprises?
- How can the mobile phone be enhanced as a tool to meet the information needs of the women entrepreneurs and women self-help groups?

Questionnaires were administered to 36 women entrepreneurs sampled and a multi-stage sampling technique was used to draw samples from each of the 8 Locations in Butere Constituency. The population was divided into clusters at the Location administrative level and in each cluster, samples were drawn using both probability and non-probability sampling. Women entrepreneurs were identified and selected through a combination of both purposive and snow ball technique.

The findings of the investigation revealed that mobile phones have the potential to increase the participation of women in mainstream economic activities by providing timely and relevant information services that meet the information needs of the women entrepreneurs. The mobile phone provides a useful means of communication that allows women from diverse backgrounds to communicate easily for both business and social purposes. Accordingly, policy makers at the local and national levels in Kenya need to probe further the potential of using the mobile phone and other similar ICTs to empower small scale business women at the grassroots levels.

vi

The results of this study further demonstrate that, in spite the envisaged potential of the mobile phone in business growth, the communication needs of the women are not currently adequately met. The main challenges identified are high costs of the mobile phone handsets, inadequate mobile network coverage and a dearth of local content as part of the service provided through the mobile phones.

Information strategies specifically recommended by this study for business women include providing a collection of materials on a wide range of information, specifically in their local language and at a neo-literate reading level, a manual directory of local services made easily available to them, and a female manager for the information center. The mobile phone platform can then be integrated in the centre activities to provide these information services to the women in the communities on their mobile phones without necessarily having them to travel to the information centers.

Those promoting and making policies for mobile phones must understand that these new technologies create problems as well as solutions. These problems must be recognized if they are to be addressed and one of the recommended approaches is to involve the women, through their leaders, in all decision making processes especially on issues affecting them in the communities Among other things, this will require much greater gender

vii

awareness in policies and projects which, fortunately, the newly promulgated Constitution of Kenya has given adequate gender considerations.

There are a number of organizations and consortia in various countries that focus on open source mobile applications for social development. The Kenya government, in partnership with mobile phone operators and other ICT stakeholders, should introduce a program that will foster the development of open source mobile applications concomitant to the diverse socio-economic information needs of rural communities. The applications should also be tailored to meet the business information needs of women entrepreneurs in rural communities.

The ICT sector is recognized as one of the flagship projects in the foundations of the socio-economic transformation necessary for the realization of the vision 2030 in Kenya. The mobile phone has emerged as a powerful tool for women empowered as evidenced in this study. It is therefore recommended that, when implementing the ICT strategy in the Vision 2030, due consideration should be given to the role of the mobile phone as an ICT platform for intermediate and long term development of women enterprises. This is the surest way to alleviate poverty because women represent the family unit and empowering a woman is developing the society since the woman has traditionally epitomized the family welfare.

viii

Contents

DECLA	RATION	i
	ion	
	vledgement	
	t	
	S	
	cronyms	
Chapte		
1.1	Background	
1.2	Statement of the problem.	
1.3:	Research objectives.	
1.4	Research Questions	
1.5	Justification and significance of the study	
1.6	Scope of the Study	
Chanta	r Two: Literature Review	10
2.1:	The socio ₇ economic situation of women in rural communities	
2.1.	Use of mobile phones to enhance entrepreneurial success	
2.2.	Empowerment of women entrepreneurs through the mobile phone	
2.3.	information service	14
2.4:	Women's empowerment and livelihood enhancement through ICTs	
2.4.	Barriers and challenges to access to/use of mobile phones	
2.5.	Contextual framework	
2.0.	Clarification of concepts	
-	r Three: Study Methodology and Design	
4.1	Site selection and description	
4.2	Sample design and sampling procedure	
4.3	Data sources and data collection methods	
4.4	Data processing, analysis and presentation	
4.5	Problems, constraints and limitations of the study	
Chapte	er Four: Data Presentation and analysis	40
4.1:	Introduction	40
.4.2	QUESTIONNAIRE DATA	
4.3:	QUALITATIVE DATA FROM INTERVIEW DISCUSSIONS	
Chapte	er Five: Study Conclusion and Recommendations	66
5.1:	Study Conclusions	
5.2:	Recommendations	69
Refe	rences	72
Append	lices	

List of acronyms

- CBS Central Bureau of Statistics
- CCK Communication Commission of Kenya
- F2F Face-to-face communication
- ICTs Information communication Technologies
- ILO International Labour organization
- IDRC International Development Research Centre
- MWK Mpango wa Kando
- NGO Non-Governmental Organisation
- PIN Personal Identification Number
- SMEs Small and Medium Enterprises
- SMS Short Message Service
- UN United Nations
- UNDAW- United Nations Division for the Advancement of Women

Chapter One: Introduction

1.1 Background

This study seeks to examine role of mobile telephony in improving the socioeconomic status of rural womenfolk in Butere constituency. It is important to appreciate that although poverty and poor access of information are a common feature in rural Africa, women are much more affected by these phenomena more, than men.

Empowerment of women requires transformation of the division of labour and of society, as well as changes in prevalent ideologies about the roles and responsibilities of men and women. Empowerment helps achieve practical as well as strategic gender needs through promoting women's self reliance and acknowledging power dynamics rooted in class, gender, age and ethnicity. For women to gain economic empowerment they have to compete in a male dominated world.

While affirmative action can be enforced in access to and provision of certain services/amenities, it cannot be extended to enhance capacity to increase sales. Women need to exploit available tools to gain business' competitiveness. Anecdotal evidence suggests that cellular phones could be

an important business tool for increasing competitiveness and therefore generating greater income, resulting in economic empowerment.

Porter and Millar (1995) proposed that activities in business have a physical component as well as an information component. Competitiveness in business is directly affected by the capacity of the owners to access and use information. The Central Bureau of Statistics Baseline Survey (1999) indicated parity in access to fixed line telephones, with 33.2% of men-owned businesses having a telephone and 30.7% of those owned by women. Today the mobile phone is the most pervasive tool of information access, sharing and dissemination among micro enterprises in Kenya, with Mureithi (2005) finding a 93.8% penetration among micro enterprises in Nairobi. This study investigated how women entrepreneurs could exploit the mobile phone to improve their micro-enterprises.

Poverty, lack of knowledge and resources, social systems, religious beliefs and a variety of socio-economic and political dimensions impact on women in developing countries and impede their ability to access information on health, economics, politics and on other relevant issues affecting their daily lives. Poverty is rampant in Kenya with the worst hit being the rural areas. This notwithstanding, the rural families are struggling to make ends meet. Women play a crucial role in the socio-economic and political development of a society; they are the backbone of rural economies. They are busy breaking

their backs to eke a living for their families and perform their roles diligently in spite of their disadvantaged positions against men.

Ironically, women in rural Kenya rarely have access to education, land rights or rights of inheritance (Khasiani 2003). They rarely have their own independence or secure fixed incomes, and yet it is who bear the burden of caring for their families. Being the majority of the rural population, their role is crucial in bringing about change in their communities. Most are engaged in providing for their families through subsistence farming and other agricultural activities supplemented by micro enterprises. Majority of these women are engaged in these activities out of necessity given that they have limited choices outside their traditional roles.

Enterprises owned and run by women face enormous challenges ranging from poor entrepreneurial skills to lack of proper markets. Perhaps the greatest challenge has been access to financial resources for growth and sustainability of the small scale businesses. The Government, after realizing the significant role women can play in alleviation of poverty, developed policies and programmes aimed at increasing access to credit and developing entrepreneurial skills especially for rural-based women. The Women Enterprise Fund is a Semi-Autonomous Government Agency that was established through the promulgation of (The Women Enterprise Fund Regulations) and gazetted on 3rd August 2007. The Fund is a flagship project

under the social pillar in Vision 2030 and its mission is to mobilize resources and offer access to affordable credit and business support services to women entrepreneurs. There are numerous integrated initiatives at the macro and local levels and in partnerships with private sector, to socially and economically empower Kenyan women entrepreneurs for economic development. However, as observed by Khasiani(2003), access to credit information and other services geared towards business sustainability is a major challenge faced by rural women entrepreneurs. She further suggests that developments in ICTs including the mobile phone services could be harnessed to meet the information gaps.

According to Kalundo (2004), the full participation of women in development continues to be hampered by a number of obstacles essentially putting them at a disadvantaged position in so far as realizing their full potential and freedoms. The million dollar question at this point is; how do women break away from this cycle of poverty? This can be done by ensuring gender equality and empowering women in all aspects to combat poverty, hunger and disease and to ensure sustainability. In the present day information age, perhaps the most valuable of all the resources is information.

It therefore follows that access to the relevant information is a fundamental step towards economic redemption. Advances in communication technologies have increased access to information especially to parts of the society that

were previously faced with communication problems. The advent of the mobile phone is one of the greatest developments in communication technologies. Statistics show that Kenya had over 20 million mobile phone subscribers (CCK, 2010). The mobile phone has integrated a variety of communication services previously provided on separate platforms. Many women in rural Kenya now own mobile phones and utilize the services offered through the phones. A notable aspect of the mobile phone is the impact it has on the socio-economic characteristics of the rural populace.

Rather than acknowledging that a society or culture interacts with and even shapes the technologies that are used, a technological determinist view holds that "the uses made of technology are largely determined by the structure of the technology itself, that is, its function follow from its form" (Postman, 1993). This view informed Daniel Chandler's (1995) inevitability thesis which states that once a technology is introduced into a culture, what follows is the inevitable development of that technology.

There is an undisputed notion (Wakunuma 2008) that the invention of the mobile phone and the ever increasing communication capabilities inherent in the mobile phone technology has brought about a paradigm shift in our socioeconomic and political fabric. Whereas the mobile phone has become an indispensible communication tool today, the perceived negative influence the mobile phone has had on the society is significant (Media Sector Analysis,

2008). The mobile phone provides an integrated communication outfit where one can send verbal, textual and visual data to anybody anywhere in the world. One can thus potentially reduce the world into a global village through the mobile phone. Other emergent services on the phone include mobile banking (e.g. M-Pesa by Safaricom Zap by Zain), religious sermons commonly known as home cell-fellowships, social networks and Internetbased services such as online radio and televisions (BBC Focus on Africa Magazine, January-March Issue, 2009).

1.2 Statement of the problem

Self employment through establishment of micro enterprises provides a great opportunity for economic empowerment through increased income. However, as illustrated above, women face obstacles in operating businesses with high profitability and sustainability. This study investigates how women in rural set up can use the mobile phone as a tool to access and use information in micro enterprise operations to improve their businesses and their lives.

The cost of mobile handsets has gone down and many Kenyans in the lower economic cadres can now afford to buy the phones. Also, it is much cheaper to communicate using the mobile phone. This, supplemented by the convergence of communication technologies inherent on the mobile phone, makes it a versatile communication tool and a potential driver of socioeconomic growth especially in materially poor societies.

As mentioned in the introduction, women are the majority poor in Kenya and they are faced with many socio-economic challenges. A reliable and economically useful communication tool will go a long way in improving their standards of living and consequently the general welfare of the society. This is based on the premise that empowering a woman is empowering a family because women play a significant role of taking care of the families. The mobile phone platform has the potential to enhance access to information, thus helping to meet the diverse information needs of women in the rural communities. Predictably, the greatest potential lies in the women led enterprises.

1.3: Research objectives

The main object of this study was to evaluate the extent to which the adoption of the mobile phone information service among women has facilitated growth and sustainability of micro enterprises and its implications on empowerment in Butere Constituency.

Specific Research Objectives were:

1 to discuss the various information needs of women entrepreneurs and women self help groups in Butere Constituency

- to evaluate the extent to which the mobile phone information service has been used to enhance entrepreneurial success among enterprises run by rural women and women self help groups in Butere Constituency
- to recommend ways through which the mobile phone information services can be utilized effectively to facilitate growth and sustainability of womenrun micro enterprises in Butere Constituency

1.4 Research Questions

The study sort to address the following specific questions:

- 1. What are the information needs of women entrepreneurs in rural Kenya?
- 2. How are women entrepreneurs and women self-help groups using mobile phones in their micro enterprises?
- 3. How has this changed the way women do business and what are the implications of the changes?
- 4. What are the challenges and barriers facing women's access to/use of the mobile phone in their quest to achieve sustainable micro enterprises?
- 5. How can the mobile phone be enhanced as a tool to meet the information needs of the women entrepreneurs and women self-help groups?

1-5 Justification and significance of the study

The outputs of this study will address perceptions, beliefs, and opinions and lived experiences of the use of mobile phones by women entrepreneurs as a business tool in micro enterprises. This information will be useful to ICT policy makers, regulators and development partners, helping to understand challenges to use by women entrepreneurs and helping to define an entry point for support. The study will also provide a perspective for cellular operators on market segmentation and targeting to serve these women better.

The study will add to the body of knowledge on women entrepreneurs' use of mobile phones and provide a framework for researchers in gender to carry out further research. Through the process of interviews and validation workshops as well as dissemination of the final report, the study will sensitize women entrepreneurs to viewing the mobile phone as a tool for information sourcing and empowerment.

1.6 Scope of the Study

This study will focus on women self help groups and owners of micro enterprises (enterprises with 10 or less employees) within Butere Constituency in Kakamega County.

Chapter Two: Literature Review

This chapter reviews various pieces of literature on women empowerment, the role of ICT and specifically the mobile phone as a tool to grow and sustain business enterprises run by women in rural areas. The literature provides insights that informed and shaped the study in terms of the study focus areas and inherent themes. This chapter also highlighted the contextual framework of the study, clearly outlining and clarifying various concepts pertinent to the study.

2.1: The socio-economic situation of women in rural communities

The status of women in the developing world is-far from ideal. More than two thirds of the world's 876 million illiterates are women, most of whom live in rural areas of developing countries (Odame et al., 2002). On average, women represent 50% of a given nation's populace, yet in most developing countries they represent far less than 50% of a nation's intellectual capital, skilled labour pool and economic contribution (Leahy et al., 2002).

The ultimate solution to improving the status of women in the world involves a holistic approach, including economic, educational and political empowerment. The focus of this study is on how use of cellular phones' among women facilitates their pursuit of sustainable micro enterprises, and its '^plications on women's empowerment. The reviewed literature covers the

following sub-sections: application and use of mobile phones to enhance entrepreneurial success, women's empowerment and livelihood enhancement through information and communication technologies (ICTs), the context of empowerment, and barriers and challenges to access to/use of mobile phones.

2.2: Use of mobile phones to enhance entrepreneurial success

The use of the mobile phone among women in business is influenced by a number of factors that also appear to influence the benefits from and possibility of empowerment (or lack of it) of women in business. Thus, the type of the business that women decide to undertake is gendered. Kalundo (2004) found that women's productive activities were concentrated in microenterprises such as hawking, retail, manufacturing, and periodic market trade. In this regard women were concentrated in enterprises that conformed to their traditional gender roles, e.g. food processing and garment making.

This situation is evident in Kenya. The 1999 Central Bureau of Statistics survey found that while the numbers of enterprises owned by women and men were are almost equal, women outnumbered men in services (55.7%), while men outnumbered women in manufacturing, (65.7%) and construction (91.2%). This choice also defined profitability of the enterprises. Women-owned businesses generated less revenue than those owned by men (which earned 74% more; Central Bureau of Statistics, 1999).

Skills base determines choice of business. Gakure (2004) notes that when women want or need to earn money they turn to their domestic skills to exploit in the micro-enterprises. Thus, the choice of business entered into was largely gendered in the first place. This is cognisant of the cultural bias in education and training and subsequent career choices defined by cultural setting. The choice of the business defines the information needs, which in turn define the ICT tools (Kalundo 2004).

The legal status Of the business also determines information needs and ICT tools. According to Tandon (2002), small businesses usually have no option but to remain informal to avoid the challenges of the formalities of taxation, reporting and licensing, noting this during training activities in Tanzania, Lithuania, Cameroon and Mozambique. It is only when the business becomes larger that entrepreneurs consider other forms of ICTs. Thus, legal status influenced the type of business tools they needed to access information and the mobile phone was often the beginning and end of ICT investment for information access, with resulting high penetration among small businesses.

Penetration of the mobile phone is high among the small and medium enterprises(SMEs) in Kenya. According to a study by Maru (2004) among 50 entrepreneurs in Eldoret, there was a significant penetration of mobile Phones, that is, 88% of the total ICT tools used were mobile phones. The respondents indicated that, mobile phones made their communication faster and easier, cheaper and this translated into higher sales. The most important information needed was on the market and suppliers. Similarly, Mureithi (2005), reported high penetration of the mobile phone among SMEs in an industrial cluster in Nairobi known as Kariobangi Light Industries with 450 plots, at 93.8% against penetration of the fixed line of 29.7%. Of those without a landline, 22.0% said they did not need one.

The support groups of women influence the tools used to access information. Women used close, informal support groups for their businesses their spouses, relatives and women's groups. Hisrich and Peters (2002) noted that women consulted their spouse first on major decisions for their businesses the opposite of men, who consulted their' spouse last. By consulting informally, information flow followed this pattern, with the mobile phone being defined as the most effective tool.

The needs of business and use of the information were further informed by the motivation for establishing the business in the first place. The study by Imbaya (2004) based in Eldoret, Kenya, sought to determine the extent of entrepreneurial disposition and its effect on performance among women, with a search of social factors influencing growth and development of female operated enterprises. In this study of 175 female operated enterprises, Imbaya (2004) found that most performed poorly, and the reason proposed

for this was lack of locus of control. For most of the women (68.6%) the decision to go into business was determined by people other than themselves, including husband (24.6%), parents (27.4%) and friends (13.1%). The decision to go into business was a self determined act preceded by a clear definition of their own situation by only 31.4% of the women. Business was therefore a necessity rather than an opportunity. In order to achieve growth they need to redefine their situation so that they see the business as a means to greater prosperity for themselves and their families.

In a study of 24 successful SMEs with over 5 years' operation in Kenya, Kibas and K'Aol (2004) noted that most of the business people (comprising 29.2% women) entered business because they saw an opportunity. Consequently, owning the decision to go to business is critical for success and defines the use and investment in information access tools.

2.3: Empowerment of women entrepreneurs through the mobile

phone information service

Women in developing countries are isolated by their family and work situations, as well as the lack of infrastructure for contact with urban-based information resources, (Nath, 2001), Illiteracy, lack of job skills, and lack of time to access information from urban areas because of childcare responsibilities all obstruct these women from accessing information and economic opportunities, limiting their abilities to make informed decisions and

increase their welfare, (WCW, 1995). This lack of equality in privilege and employment only reinforces poverty for them and their children, (Jiyane & Ocholla, 2004).

Many rural women are not able to meet their family's needs through their produce yields and must supplement their income to survive, which they do by creating small businesses, or services, and by trading. These small businesses run by women (Khasiani, 2003) abound in rural and urban areas alike, creating a large informal market economy in many countries that contributes significantly to developing the national economy. The flexibility of their businesses, which are very diverse in nature, allows them to continue household, childcare and agricultural work. It also creates a cash flow between urban and rural areas from the work' of female traders who travel between the two.

Women in rural areas rely heavily on them for their commodity needs. This helps rural areas develop economically. However, access to relevant information to meet their information needs for growth and sustainability of the small businesses they run has been a major challenge. In Chennai, India, a network of women's groups established since 2001 to expand opportunities to market products using mobile phones for communication reported a correlation (Joseph 2005). Through the network, the women have increased' their income, built confidence for the betterment of their families, and are

increasingly more motivated. Consequently the project has learned that the mobile phone was an empowerment tool among women (Joseph 2005). This study, however, did not focus on gender relations, domestic impacts and power relations, and hence leaves a knowledge gap which this study will seek to address.

Other work in Africa tends to portray a different perspective. A study by the United Nations Development Fund for Women UNIFEM) cited in Huyer et al. (2005) notes that in four Southern African countries women were losing out on expanding business networks by relying on mobile phones rather than the Internet. By relying on the phone (fixed and mobile phone), they limited their contacts to informal family networks - and thus limiting their potential for business growth. At the personal level Huyer et al. (2005) cited a study sponsored by the International Development and Research Centre conducted in the fourth quarter of 2004 among 6750 individuals and 380 institutions in six countries of Francophone West Africa. This found that men frequently felt that the new freedom of women to have mobile phones was destabilising their marital relationship. In many cases, men monitored the mobile phone and Internet use of their spouses. While the mobile phone demonstrated a gain in Chennai (Joseph 2005), reliance upon it is not seen as useful in Southern Africa and indeed it is even a cause of distress in women's relationships with men (Huyer etal. 2005).

Porter and Millar's model (1985) defines value chain analysis in an enterprise and helps us understand the dynamics of women's enterprises. The production of a product/service comprises a set of generic activities which progressively add value. Competitiveness or lack of it is determined at the activity level, which does not add more value compared to competitors and hence the lack of competitiveness. Since the inputs are similar, this tool will help us understand how women use information (using the mobile phone) at each valuing adding point in the chain. (This model does not address the issue of women not choosing to enter into an enterprise.)

Porter and Millar identify primary activities as those directly related to the production of goods/services (inbound and outbound logistics, operations, marketing and sales, after sales support) and secondary activities that support the production process (human resources management, administration. technology, procurement. This model helps us to systematically understand the dynamics in the women owned businesses, and how the mobile phone is applied in those areas.

2.4: Women's empowerment and livelihood enhancement

through ICTs

Access to the mobile phone among women has not been widely studied to Provide disaggregated indicators of use in developing countries. Most of the research in Africa focuses on broad access to ICTs and its impact on

improvement of the lives of women. Hafkin (2003), for example, found that indicators in the areas of access and usage and content and impact of ICTs on men or women are currently very limited.

Batchelor and Nigel (2005) acknowledges this lack of data in a report to the Development Assistant Committee at the World Summit on the Information Society, which comments on the lack of substantial literature/research on the role of ICTs in development and poverty reduction and recommends collection of data on the impact and effectiveness of using ICTs to support pro-poor growth arid delivery of pro-poor services. Understanding of the effect of the mobile phone use can therefore only be deduced from the studies on ICTs in developing countries. These acknowledge the positive effect on livelihood enhancement among women, as well as advising caution.

Kutoma J. Wakunuma, in a study on mobile phones and women in Zambia, notes that "mobiles can reinforce existing gender relationships, further strengthening male-dominated societies and power structures" for example, when some husbands feel the need to determine how wives use their phones. While the advantages of using the phones seem to outweigh the disadvantages, mobile phones do not necessarily empower women but rather continue to subject women into already gendered categories of thought and action. This reinforces the notion that technological innovation alone does not

guarantee empowerment for women; neither do they address the substantial obstacles to women's social, political, and economic development.

In a study examining the current and potential impact of ICTs in Africa, focusing specifically on gender issues, Rathgeber and Ofwona (2000) underscored the need for information to be made relevant to the needs of women in the areas of health, micro-enterprise and education. The authors see ICTs as having potential to redress information imbalance and gender inequalities, but stress the importance of making information relevant to the needs of addressing the gender digital divide. According to Huyer et al. (2003), the 'gender digital divide' describes the existing inequalities and biases in access to and use of ICTs by women and men. When appropriately harnessed, ICTs hold great potential for women's access to information at an individual level, to better their self esteem, increase confidence and expose them to more career opportunities, as well as improving their advocacy, lobbying and networking activities.

Natasha (2003) is more cautious on the potential of ICTs and asserts that, whereas ICTs have the potential to give a major boost to the social, political and economic empowerment of women and the promotion of gender equality, this potential can only be realised if the gender dimensions of the information society are properly understood and adequately addressed by all

stakeholders. This assertion is given credence in a study by Sylla (2000) on 'WAP' systems in 100 Senegalese Agriculture Networks. Rural farmers were provided with mobile phones with coded access to the Internet to get information about the daily market prices of their crops. Rural women involved in this project were mainly specialised in traditional food processing crops. The cellular phones allowed them to be in contact with a rural business people's network to get information about crops provision. These women used the information collected from the website to select the most interesting markets at which to buy the products they needed. They also used the phone for other personal purposes. The rural women farmers found the mobile phone very appropriate because it could be carried around, and therefore preferred it to the computer.

With such potential, Marcelle (2002), in a report of several case studies among women, concludes that when used effectively ICTs can be a powerful tool for women's empowerment. They can create better opportunities for women to exchange information, gain access to online education and engage in ecommerce activities. As a tool for women's empowerment, Huyer et al. (2003) identified two approaches through ICTs, one based on individual empowerment and the other on empowerment of organised groups of women. Although these can be perceived as different, the approaches are not mutually exclusive but rather are complementary.

2.5: Barriers and challenges to access to/use of mobile phones

Review of existing literature indicates that access (or lack of it) to the mobile phones and ICTs is due to a number of differing factors. Fundamentally, access to ICT tools is general low in society especially in Africa. Marcelle (2002) acknowledges that many women worldwide are still not fully able to benefit from using these tools due to lack of connectivity, inadequate access, illiteracy, and language and behavioural barriers, among others. A deeper understanding of these obstacles was provided by the UNDAW Expert Group Meeting (2002) held in Korea to explore ways in which the rapid diffusion of ICTs and associated growth of the ICT sector offered both opportunities and risks to women's empowerment.

The analysis identified six generic challenges (awareness, politics, access, relevancy, sustainability, and coordination) that can critically affect any ICTs for development initiative, whether at global, national, regional or local level. These challenges have to be taken into account in any effort to increase benefits from ICTs. Such benefits are, according to Jorge (2002), affected by access to information and the existence of communication networks serving women's needs. Women's networks have considerable potential for the effective transfer of information, and husbands and other male kin are also identified as important sources of information. Natasha (2003) identifies social and cultural constructions of gender, illiteracy, poverty, lack of access and

language barriers among the factors hindering women's access to ICTs in developing countries.

The barriers and challenges can be overcome through a number of strategies. Huyer et al. (2003) propose strategies including the need for women's groups to share experiences and knowledge to strengthen their lobbying skills, and to gain expertise in engendering the ICT policy-making and regulation process. In the area of ICT policy, Marcelle (2002) provides a comprehensive list of specific measures that can be incorporated in developing countries to facilitate gender equality (e.g. sector liberalization, tariff policy, regulation, licensing, e-governance).

The following are therefore some of the key challenges that need to be addressed according to the reviewed literature:

- If indeed women's choice of craft businesses is already culturally gendered, are the advantages brought about by mobile likely to reinforce the gender divide? Will it be a tool to entrench and reinforce the disparity by empowering women to do more of what the gendered society ascribes?
- Can the mobile phone help women to cross over the gender divide to the areas that are currently male-dominated? How can women use the phone to cross over the gender divide (instead of reinforcing it)

- Can the mobile phone help to improve efficiency and effectiveness in their enterprises and increase revenue generation while the motivation for starting the business was determined by other persons and was not a personal decision?
- What does empowerment mean for women in business in Kenya? In the literature review "empowerment" has been used to define a wide range of concepts and describe many outcomes, but it has different meanings within various contexts. Does an action such as exercising control over decisions or resources really amount to empowerment in our particular context?
- Will it be possible to identify empowerment indicators that can be applied in our own context?
- While resources like ICTs are often considered by women as critical in ensuring that they are empowered, are they sufficient? This study will look at mobile phones as catalysts for empowerment or encouraging conditions under which empowerment are likely to occur.
- It is important to ensure that men are also factored in this study as a control measure.

2.6: Contextual framework

The context of empowerment and whether the mobile phone is an empowering tool is an issue of interest for this study. Discourses among experts give differing perspectives. Kabeer (1999) posits that women's

empowerment is about the process by which those who have been denied the ability to make strategic life choices acquire such ability. This ability to exercise choice incorporates three inter related dimensions: resources (defined broadly to include not only access, but also future claims, to both material, human and social resources); agency (including processes of decision making, as well as less measurable manifestations of agency such as negotiation, deception and manipulation); and achievements (well-being outcomes).

Kabeer (1999) argues that these three dimensions of choice are indivisible in determining the meaning of an indicator and hence its validity as a measure of empowerment. For mobile phones to contribute to empowerment they have to fit within the three dimensions. He cautions that an analyst from the outside may use a set of value judgments to define and measure empowerment, using values which may not hold any relevance at all for the women involved. He advises that political, cultural and socio-economic factors must all be examined because they influence the

notions of empowerment and they way it is defined (Kabeer 1999). Malhotra et al. (2002) view empowerment differently. They argue that "empowerment" has been used more often to advocate for certain types of policies and intervention strategies than to analyze them, as demonstrated by a number of documents from the United Nations (United Nations Division for the Advancement of Women (UNDAW) 2001; United Nations Children's Fund

1999), UK Department For International Development (2000), and other organizations.

The authors also note that feminist activist writings often promote empowerment of individuals and organizations of women, but vary in the extent to which they conceptualize or discuss how to identify it, reinforcing the feeling that empowerment is a notoriously contentious concept. One theory in development studies supports social inclusion in institutions as the key pathway to empowerment of individuals. Capitalism, top-down approaches to development and/or poverty itself are seen as sources of disempowerment that must be challenged by bringing the marginalized into the management of community and development processes. Bennett (2002) developed a framework in which "empowerment" and "social inclusion" are closely related but separate concepts.

Bennett describes empowerment as "the enhancement of assets and capabilities of diverse individuals and groups to engage, influence and hold accountable the institutions, which affect them." Social inclusion is defined as "the removal of institutional barriers and the enhancement of incentives to increase the access of diverse individuals and groups to assets and development opportunities." Bennett notes that both of these definitions are intended to be operational, and describe processes rather than end-points.

In the World Bank's Sourcebook on Empowerment and Poverty Reduction, Narayan (2002) acknowledges that women's empowerment encompasses unique elements. First, women are not just one group among several disempowered subsets of society (the poor, ethnic minorities, etc.) they are a crosscutting category of individuals overlapping with all these other groups. Second, the household and interfamilial relations are a central locus of women's disempowerment in a way that is not true for other disadvantaged groups. This means that efforts at empowering women must be especially cognizant of the implications of broader policy action at household level.

Third, women's empowerment requires systemic transformation in not just any institutions, but fundamentally in those supporting patriarchal structures. In defining empowerment, options, choice, control, and power are most often referred to as important to women's ability to make decisions and affect outcomes of importance to themselves and their families. Control over one's own life and over resources is also often stressed. Thus, there is frequent reference to some variant of the ability to "affect one's own well being," and "make strategic life choices."

2.7; Clarification of concepts

The following terms have a contextual reference in this study on women " entrepreneurs and the use of the mobile phone to grow and sustain their businesses.

ICTs

This is an acronym for Information, Communication Technologies. ICTs can be defined as the means by which information is captured, processed, stored and retrieved or disseminated electronically. This concept became popular with the widespread adoption and use of the digital content accessed through the computer. Therefore, a computer (both hardware and software) comprises a basic ICT tool and other aspects of communication associated with ICT include: telephones (both landlines and mobile phones) and computer networks (such as the Internet and local area networks). ICTs, from socioeconomic development, are considered as tools or enablers to foster growth and positive impact in most sectors such as health, education and

businesses. There is a viewpoint that ICTs are imperative in the empowerment of women and therefore access to various ICTs such as mobile phones and the Internet is critical.

Cellular or mobile phone

Cell phone and mobile phone are used interchangeably in this study to refer to communication facilitated through wireless communication technology. The cellular phone is a 'mobile' phone that provides users with the ability to communicate (through voice, data or video) to one another almost anywhere and anytime, thereby creating greater accessibility (Levinson, 2004: 1, 178 -179).

In this study on the use of the mobile phone to grow women enterprises, the issues that are dealt with include:

- Affordability and Accessibility the cost of buying a mobile phone handset and ability to use it in terms of the airtime and other associated bills
- Satisfaction levels the extent to which the women entrepreneurs are satisfied with the information services they receive on their mobile phones
- Service improvement to establish whether the business women think the services provided through the mobile phone can be improved and in which specific ways.

Women entrepreneurs

This refers to a woman who is engaged in commercial activities such as trading, manufacturing, selling, dealing or operating a company that is engaged in one or more activities (ILO 2002:4). In her study, Jalbert (2000: 9-10) asserts that 'economic development is closely related to the advancement of women, sine in countries where women entrepreneurship has been highly advanced, economic growth has also been steady, and vice versa.'

In this study, the term 'women entrepreneurs' and its implied variations will be restricted to refer to those women who operate their own businesses irrespective of the nature of business.

The women and their businesses should be located physically within the legal boundaries that define Butere Constituency during the research period. The typical rural-based women enterprises comprise a small retail shop although

there are a few wholesale traders. Instructively for many women, owning a small business is an essential and often expected part of their lives as they cannot make ends meet by solely relying on their spouses. Also, there is a significant proportion of rural women in the Constituency who are single parents, having lost their spouses mainly through the ravages of the HIV/AIDS scourge and consumption of illicit brews such as Chang'a.

Chapter Three: Study Methodology and Design

This chapter covers various aspects of the study design including site selection and description, sample design and sampling procedure, data sources and data collection methods, data processing, analysis and presentation, and anticipated study problems, constraints and limitations.

4.1 Site selection and description

This study was based in Butere Constituency of Kakamega County in Western Kenya. The Constituency borders Mumias, Kwisero, Ikolomani, Ugunja and Gem Constituencies (see appendix i of this report). Prof. Ruth Oniango undertook a survey in 2003 in one of the poorest districts of Kenya; Butere-Mumias. Her findings revealed that many people in this part of the country live below poverty line despite the region having rich soils, good amount of rainfall every year and the immense human resource. According to the Kenya economic survey of 2003, the per capita income in Butere Constituency was Ksh. 50 per person per day (below the UN level of US \$ 1/d). 60 % of the population therefore lives below poverty line and adult dependency which is characterized by communal way of living is very high as a result of high levels of unemployment.

The major cash crop in the area is sugar cane which is milled at the nearby Mumias Sugar Company. Most of the inhabitants of the project area have turned their farms into small plantations of sugar cane with the average size of plot holdings of 4 acres in an effort to earn cash from the company. The sugar cane is harvested after 18-24 months; in the meantime therefore, farmers are left without a viable source of income till the next harvesting season. The most affected are women who ironically are expected to take care of their families (both their husbands and children). As a result, majority of the married women in Butere Constituency have formed self help groups where they mobilize their meager resources to finance income generating projects. Some opt to start their own small businesses while others prefer to have joint businesses. The groups face challenges ranging from low financial literacy levels, poor entrepreneurial skills to lack of access to funds.

The Constituency was selected for study because it has the necessary socio economic trends found in most rural populations in Kenya. Butere Constituency has significant presence of women self help groups and women run small scale enterprises. The researcher has worked previously in the Constituency on projects to support and empower women. The mobile phone is a fairly recent phenomenon which has exponentially become popular with the rural populations. Women in particular own and use phones in their socioeconomic activities. A survey carried out by the Rural Outreach Program, an NGO based in Butere in 2009 shows that over 95% of adult women in the households found in Butere own a mobile phone. It also found out that more than 70% of adult women in the Constituency belong to a self help group (in ordinary parlance called merry-go-round). These statistics present an ideal target population for this study.

4.2 Sample design and sampling procedure

The study adopted a phenomenological and exploratory design, with a quantitative mode of inquiry complimented by qualitative data. According to Hancock (2002: 6), a qualitative research approach involves in-depth analysis of a single or small number of units. The target population encompassed women self help groups and women entrepreneurs in Butere Constituency, Government representatives through the Ministry of youth and women office in Butere, representatives from Non-Governmental Organizations working to empower women in Butere. Currently Butere Constituency has 8 Locations namely: Marama South, Manyala, Shianda, Marenyo, Township, Lunza, Marama North and Marama Central Location.

Sampling

A multi-stage sampling technique was used to draw samples from each of the 8 Locations in Butere Constituency. The population was divided into clusters at the Location administrative level, i.e. the 8 Locations in Butere Constituency will comprise the clusters.

In each cluster, samples were drawn using both probability and nonprobability sampling. A sampling frame comprising a list of all the women self help groups in Butere Constituency will be used. One women group from each Location was selected through simple random sampling for inclusion in the sample. Women entrepreneurs were identified and selected through a combination of both purposive and snow ball technique. Through the input of a key informant, women entrepreneurs from each Location were identified. The identified women then helped in the access of women entrepreneurs in their Locations. The total sample constituted the following:

- 24 representatives from 8 women self help groups in Butere Constituency
- 36 women entrepreneurs/business owners
- 2 representatives from Butere District Social Development Office under the Ministry of youth and women.
- 2 representatives from NGOs dealing with women empowerment in Butere

4.3 Data sources and data collection methods

This study, as discussed earlier, was quantitative in nature with complimentary qualitative data. A variety of sources and tools were used to collect the required data depending on whether the data was qualitative or quantitative.

Qualitative data

Various documents (as reviewed in chapter two) provided useful data to form the basis of the study and help in the identification of information gaps which the study aims to address. The documents have synthesized results of various studies on the role of the mobile phone communication technologies in the growth and sustainability of women led enterprises in Butere Constituency.

In-depth interviews were used to collect qualitative data. Representatives (group members) from the selected women self help groups in the study sample were engaged in structured interviews based on a pre-determined interview schedule or list of questions prepared according to the study objectives. Leaders from the groups (chairpersons and secretaries) and representatives from an NGO dealing with women development were mobilized into focus groups forums based on the interview schedule where the various issues pertinent to the study objectives will be discussed. Particularly, the discussions focused on the ways in which the mobile phone services can be enhanced to promote the women enterprises in specific areas such as access to financial resources and markets for their goods and services.

Representatives from the Ministry of youth and women were interviewed at their offices in the Constituency and the desired outcome were

recommendations for an ICT policy-based solution(s) targeting the mobile phone as a tool for women empowerment and development.

Quantitative data

The relatively large number of women entrepreneurs expected to participate in the study were accessed through questionnaires. The main objective was to collect data that will provide insights into how the mobile phone has or has not promoted effective and efficient access to information useful in the growth and sustainability of the women led enterprises. A basic assumption was that, most of the women entrepreneurs were busy thus it was not going to be possible to mobilize them to attend an interview or focus group discussion. Also, most of the small scale entrepreneurs tended to share common communication and information service challenges. This made it easier to make user level comparisons on the various services during analysis.

The questionnaire prepared comprised questions on the various sub-themes of the study as implied in the study objectives. The questions were structured in a clear and easy to understand language level. Two research assistant were recruited and trained to assist in data collection. The data collection tools (see attached interview schedule and questionnaire) were pre-tested for validity using a group from the population that will not be included in the actual study sample.

4.4 Data processing, analysis and presentation

Data collected through the interviews, group discussions and questionnaires was collated with the help of the research assistants. The data was then coded according to the study thematic areas. The questionnaires were numbered and checked for completeness. Responses for each question were collated under the various subthemes of the study. The Statistical Program for Social Sciences (SPSS) was used to generate tables of percentages to present the study responses in a statistically meaningful manner.

For each theme, data obtained through the interview discussions was analyzed in prose form, making a comparison to the data obtained on the same thematic areas from the questionnaires. Inferences were drawn from the general trends espoused through the quantitative data presented in the tables and the interview feedback. A concomitance of analysis from both qualitative and quantitative data formed the basis of the study conclusions and recommendations.

4.5 Problems, constraints and limitations of the study

A number of problems, constraints and limitations had been forecasted in this study. A relevant background study on the role of the mobile phone in women empowerment was scant. Most of the reviewed literature focused on the broad area of ICT for women empowerment.

A characteristic of small scale and rural based enterprises is lack of adequate time. Most of the women entrepreneurs use ineffective and time wasting communication and logistical tools for their trade. For example, women entrepreneurs in rural areas start with house chores, have to travel long distances in search of raw materials and spend long hours using rudimentary production methods in their businesses. Since the target respondents for this study were enterprise women, it was difficult to get the women participate in the study for more than an hour due to the unstructured and busy nature of their business activities. However, the interviewees had been adequately oriented to the study objectives and the interview topics. Thus they prepared in advance for the interviews which took less time.

Financial constraints are inherent in any study. Due to the limited financial resources, only two research assistants were recruited. Funds also limited the study population to Butere Constituency and the sample to representatives rather than all the members in the selected women self help groups.

Literacy levels of the respondents comprised another constraint of the study. Generally, low literacy levels are a characteristic of rural communities and the situation is worse among the rural women who drop out of school at an early age due to poverty and cultural manifestations. Most women in Butere constituency (both youth and adult) do not know how to read and write. Even' though the women in the self help groups and women entrepreneurs were

predisposed to some level of literacy (can read and write in Kiswahili and mother tongue), they were likely to encounter interpretation challenges especially for questions in the questionnaire.

Despite the envisaged problems and limitations, the researcher used certain measures to minimize the negative impact of the problems and constraints to the validity of the study results. The study population was carefully selected to ensure it had the study fundamental socio-economic characteristics that allowed for replication of the results to other similar populations in the country. The challenges and opportunities faced by women in Butere are similar to those faced by women in other rural parts of the country.

To mitigate on time, questionnaires were admihistered to the largest portion of the respondents (women entrepreneurs). Interview discussions were limited to one forum. A common venue, easily accessible, was identified within the Locations in the study area.

The background information of the respondents included their levels of education to identify those respondents who needed special attention and assistance to decipher the questions. The research assistants were well trained on how to identify and assist respondents understand the questions, without subjectively influencing their responses. The research assistants had a good command and understanding of the local languages (Luhya and Luo),

thus they were able to translate the questions into the local languages where necessary and appropriate.

Chapter Four: Data Presentation and analysis

4.1: Introduction

This chapter seeks to present the data collected during the research study. Both quantitative and qualitative data were collected using the questionnaires and interviews respectively. A total of 64 respondents participated in the questionnaire data collection process the interview discussions. The data was presented and analyzed thematically based on the objectives of the study as reflected through the research questions.

4.2 QUESTIONNAIRE DATA

A total of 36 respondents took part in the questionnaire data collection methodology and comprised women entrepreneurs and traders in the study catchment area. Out of the 36 questionnaires that were administered, all the 36 were duly filled and returned. The traders were divided in to two main categories, that is, wholesalers and retailers. The study had 20 retailers and 16 wholesalers.

The wholesalers were traders who bought various goods (mainly household goods such as foodstuff) in relatively larger quantities for resale to other traders. They got their supplies from superstores such as supermarkets located in neighboring major towns of Kisumu, Kakamega and Bungoma. The

towns are approximately 50 kilometers away from Butere and the traders rely on public transport to get their supplies. There are few wholesalers in Butere District and they deal in almost homogeneous goods.

The retailers are small scale traders who buy goods from the wholesalers and sell to the people in the communities. Their shops are situated deep inside the communities and closer to the traders' houses, sometimes inside their compounds for security reasons. Just like wholesalers, the retailers stock foodstuff such as sugar, cooking oils, soaps and soft drinks among other commonly used items at the household level. One unique feature of women retailers is that they diversify their range of products and services. For example, some of the retailers in Butere sell fish, grains (mainly maize and te beans) and offer tailoring services.

4.2.1. Business Information services needed by the women entrepreneurs

This research sort to establish the various information services the women traders needed in the course of their business transactions. This information relates to: who supplies what goods, the prices and any after sales services offered, information about the market days, venues, tastes and trends for particular goods.

4.2.2: Sources of goods sold by the women traders

The women traders who respondent to the questionnaire obtain their goods from different suppliers mainly located in Kakamega, Bungoma and Kisumu towns. The respondents were asked to state the source of their goods and the table below gives a summary of the results from the respondents on the various sources of their goods:

Sources of goods sold	No. Of respondents	% responses
Wholesalers within.	14	38.9
Butere town		
Suppliers from Kisumu	32	88.9
Suppliers from	18	50.0
Kakamega		
Suppliers from	25	69.4
Bungoma		

 Table 4.1: Distribution of respondents by sources of goods sold by the women traders

From the table above, majority of the traders (88.9 %) said they buy their goods from Kisumu. This can be attributed to the fact that Kisumu has a more developed industrial area with a wide range of manufacturing firms compared to Kakamega and Bungoma. A significant proportion of the respondents get their goods from Bungoma and this is mainly due to the shorter distance between Bungoma and Butere and the presence of a mega shop called 'Khatia' which stocks a wide variety of goods.

To this end, it can be concluded that women are engaged in various small businesses that present specific information needs. This is more so given that the sources of their goods and sen/ices are neighbouring towns which require one to travel or use some form of communication channel such as the mobile phone to transact business activities.

4.2.3: Business Communication channels

Communication plays a central role in business transactions. Inevitably, traders and suppliers of goods and services engage in communication at various stages of their businesses. For instance, traders need information on the availability and prices of specific goods. They need market information, that is, which market days are hosted where and what goods and services they deal with.

The traders also need information on the various customer tastes and preferences and how these change with time. In this study, respondents (who represented the business women in Butere Constituency) were asked to state the various ways through which they communicated to and with their suppliers, customers and other agents along the trade chain. Their responses are as shown in table 4.2.

Mode of communication	No. of respondents	% response
Face-to-face	36	100.0
Mobile phone	36	100.0
Other (e.g., middlemen,	6	16.7
snail mail)		

Table 4.2: Distribution of respondents by business Communication channels

From the table, all the respondents use the mobile phone and face-to-face communication channels to communicate with their suppliers, customers, transporters and other persons along the trade channel. A paltry 16.7% said they use other means such as written letters and middlemen. Whereas this can be attributed to the loss of time and lack of trust for middlemen, the paradox of preference for the face-to-face communication persists.

When asked to explain their preferences, majority of the respondents (85.0%) noted the mobile phone saves time and one can also use it to send money to the suppliers without necessarily having to travel and meet the suppliers. Also, the mobile phone keeps a record of the transaction, thus making it easier to mitigate any disputes of payments.

The choice for face-to-face was explained in the context of non-verbal communication where the respondents said is easy to know whether the traders are sincere with their price offers simply by assessing their non-

verbal expressions. One respondent observed that, when they meet the suppliers physically, they have a chance to get a satisfactory bargain leading to price reductions on certain goods, as opposed to if they used the mobile phone alone. They thus concurred that a blend of both the face-to-face and the mobile phone communication is preferred as the two are complimentary in nature. This is in tandem with the study objective that seeks to establish the extent to which the mobile phone is utilized as a communication tool in transacting business among women enterprises in Butere.

4.2.4: Communication challenges faced by women traders

Effective and efficient communication requires a certain minimum threshold of both the communication channels (equipment) and the characteristics of both the sender and receiver of communication messages. Business communication normally involves the buyer and the seller engaged in a transactional exchange of information where the seller's ultimate goal is to convince the buyer that she/he has a need, that the seller has the solution and it is affordable. During the study, the researcher inquired from the respondents whether they faced any challenges communicating to and with the various agents involved in the business channel such as suppliers, buyers, transporters and credit providers. Table 4.3 highlights the main challenges as stated by the respondents.

Table 4.3: Distribution of respondents by communication challenges faced by

Challenge	No. of respondents	% responses
Low literacy levels	15	41.7
Long distances to suppliers	12	33.3
and markets		
Poor infrastructure (e.g. poor	34	94.4
road networks)		
The mobile phone limitations	36	100.0

women traders

The mobile phone limitations

All the respondents had identified the mobile phone as a key communication tool. However, when asked to name the challenges faced during business communication processes, they again noted (overwhelmingly at 100.0%) as shown in table 4.3 above that the mobile phone has limitations which hindered effective communication

Poor communication infrastructure

A significant proportion of the respondents (94.0%) identified poor transport and communication networks in Butere as one of the main challenges they face in their business transactions. There are no tarmac roads in Butere Constituency (apart from the section covered by the Buyangu - Mumias road). The earth roads become impassible during rainy seasons, making it difficult to transport goods from the suppliers who, as noted earlier, are situated several kilometers away from Butere.

It is also expensive because goods get spoiled on the way by the rains and delays especially for the perishables. Business transactions that are ideal for face-to-face communication suffer because of the transport difficulties. The respondents also noted that, at times, they are compelled to seek for paid for accommodation in the towns where they get supplies for their goods because of lack of transport back to their business premises.

Long distances to suppliers and markets

Women traders who responded to the study said they mainly get their supplies from the neighboring towns of Kakamega, Kisumu and Bungoma, which are about 50 kilometers from Butere. Relatively few respondents (33.3%) were of the opinion this distance was a challenge in their business transactions. Markets are well distributed within the villages at the Locational level. Thus, the traders do not have a problem accessing these markets. However, the other markets are situated at the border with other towns and this may present a challenge especially when the traders have to move from one market to another within a tight market days' schedule.

Low literacy levels

Business transactions require the parties involved to read and or write at some stage. For example, the women traders read and sign contractual

agreements with suppliers, send and receive written communication from suppliers and customers. Given their low literacy levels, some of the traders use intermediaries to facilitate this communication, thus exposing them to business risks. From the study responses, 41.7% of the respondents acknowledged this is a challenge.

In conclusion, traders, especially women in rural communities, face many challenges related to poor communication for business. Whereas they have integrated technology in their communication options, there is a glaring gap in the attainment of effective and efficient business information services that promotes the growth and sustainability of their business enterprises.

4.2.5. The mobile phone information services for business

As demonstrated in the data presented in table 4.3 above, all the respondents acknowledged the use of the mobile phone information services in their business transactions.

The mobile phone converges various communication services and during the study, respondents identified services such as: making audio calls, sending short messages (popularly known as SMS), sending and receiving money (e.g. M-Pesa service), and to a small extent receiving news alerts. Table 4.4. shows the frequency of their responses for particular information services:

Service	No. of respondents	% responses
Voice(audio) calls	36	100
Short message Service(sms)	30	84
Money transfer service(Mpesa, Zap etc)	36	100
Other (news updates, alerts, etc)	5	14

Table 4.4: Distribution of respondents by mobile phone information services

From the table above, all the respondents use voice calls and money transfer services provided through the mobile telephone platform. Today, most people own and use the mobile phone for voice communication. The mobile phone replaced the landline phones in Kenya due to the many challenges inherent with the use of the landlines. For example, it used to take long for one to be connected to a landline telephone network, the network was very unreliable

due to vandalism of the physical cables.

Another notable service which all the respondents use is the money transfer service. They specifically singled out Mpesa service provided through Safaricom mobile company as the most used service to transfer and receive money. This service is popular because it is convenient, faster and safer, and transcends geographical boundaries. Also, through M-Pesa, the traders can buy airtime which few shops in Butere stock. However, none of the

respondents indicated they use the M-Pesa service to pay their bills a part from making and receiving to the suppliers and from customers respectively. Therefore, it can be inferred that the mobile phone plays a significant role in facilitating business communication for the women entrepreneurs.

4.2.6: Alternative sources of information for women **entrepreneurs** The mobile phone is a fairly recent phenomenon in Kenya and more so in the rural communities. This was compounded by the exorbitant costs of the mobile handsets when they were first introduced in Kenya, only the materially rich could afford to own a mobile phone. Nonetheless, people had alternative means of communication and the services named above were obtained through these alternate means of communication. At the community level, including the women entrepreneurs, a number of communication channels were utilized. The following table lists some of the main channels and means of communication identified by the respondents as the alternatives used to communicate before the adoption and integration of the mobile phone service:

Means of communication	No. of respondents	% responses
Face-to-face	36	100
Postal services	10	28
Agents and emissaries	14	39

phone in Kenya

From the table above, face-to-face communication was widely used to transact business. This entailed the traders physically travelling to meet the suppliers and customers to buy and sell their goods. For example, on market days, the traders would visit all the markets and physically interact with the customers to sell their goods. Whenever they needed some stock, they would visit points of manufacture or supplies. This approach was inevitably both costly and time consuming.

The postal services have been in existence for many years and at one time the services were the fastest and reliable. However, with advances in information and communication technologies, the postal services were relegated to 'snail mail' as the ICTs provided more speed and reliability. As a result, only 28% of the respondents said they use the postal services in their businesses.

Certain goods are seasonal and their prices vary from one season to another. These goods include food stuff such as vegetables and grains such as maize and beans. As a result, the traders tend to use agents or emissaries to scan the markets and identify suppliers and buyers who will give them a good profit margin. Thus, some of the respondents (39%) said they use agents in specific instances.

It can therefore be concluded that, before the mobile phone service, the available communication alternatives were less efficient in term of speed and

ineffective in business communication. Hence, the mobile phone has accelerated growth and sustainability of women businesses in Butere and generally the rural areas.

4.2.7: Impact of the mobile phone service

This study sort to establish the impact of the mobile phone information services on the businesses run by women in Butere constituency. It also set out to identify any other relevant additional information services that can be provided through the mobile phone to steer business growth. All the respondents noted the mobile phone information services have had a positive impact on the growth of their businesses. They identified the following as the differentiators between the mobile phone services compared to other means of communication:

• Calls (talking through phone)

All the respondents acknowledged making calls through the mobile phone has made communication cheaper and faster. Presently, most of the mobile sen/ice providers charge as low as one Kenya shilling for making a call. If one was to move from one center to another about 5 kilometers a part, he/she would spend Ksh. 40 to and fro, and would take longer to travel, meet the supplier and back. When using the mobile phone, one would spend about Ksh. 15 to speak to place an order with the supplier and this would take less than Five minutes to communicate compared to the time spend travelling.

• Money transfer service

One of the major challenges faced by traders in rural areas is how to transfer money. From the responses, before the mobile phone money transfer service, traders used to physically carry money to buy their goods. Customers used to pay the traders cash money irrespective of the amount involved. This posed a security risk, traders were frequently attacked on the way and in their shops. However, with the mobile phone money service, cases of theft have been minimized. The respondents named the following as additional information and communication services they would like to get through the mobile phone:

• Credit facilities

It should be possible for one to access credit information from local (ruralbased) financial institutions so that the traders can borrow money to grow t their businesses.

• Market information

Since the traders serve various markets in their communities, the mobile phone should have local content on the various markets, market trend and consumer tastes, prices of various goods and services available and advice on the most profitable approaches to access markets for their goods.

• Weather information

Most traders move from place to place either to sell their goods or search for stock to sell. Due to the poor transport networks and bad roads, they often get rained on in the process their goods get spoiled. Two respondents suggested

the mobile phone should have local information and issue weather alerts so that the traders can prepare for any adverse weather conditions.

• Administration information

The local administration has by-laws and statutory regulations which are specific to business activities such as licenses. Traders need to be updated on any new legislation so as to comply and avoid penalties or closure of their businesses. A case cited by one of the respondents was implementation of the alcoholic Act popularly known as 'Mututho laws'. She noted that several women who used to sell alcohol in their premises had their businesses closed because they did not comply with the laws as interpreted by the local administration. The mobile phone should give audio and text interpretations of the aspects of the legislation that affect such businesses.

4.2.8: Challenges faced when using the mobile phone for business information services

While noting the importance of the mobile phone as a source of valuable information and communication services, the respondents highlighted several challenges they faced when using the mobile phone. The challenges are as outlined below:

- The mobile phone handsets are still expensive to purchase and the cheaper ones are fake models that get spoiled quickly. Therefore they become expensive in the long run as maintenance costs are high.
- Mobile phones use batteries that require charging using electric power.
 However, most parts of Butere Constituency do not have access to the

main electricity supply. The traders have to travel to Butere town to charge the phones; this is both expensive and time wasting.

Other mobile phone services a part from the voice service require a certain level of literacy, that is, ability to read and write. Majority of the respondents are school drop outs who did not attain sufficient levels of writing and reading. They thus engage their children, relatives or friends to read and write messages for them. This approach does not only impair their self esteem but also potentially compromises the effectiveness and confidentiality of the communication.

Due to poverty and high youth unemployment, most youths in Butere engage in socially unacceptable and illegal behavior such as robbery. Mobile phones are a great attraction for stealing and majority of the respondents (95%) cited theft of phones as a great challenge. One respondent said she losses an average of 4 phones per year and this is very expensive for her.

Most mobile service providers do not have adequate network coverage in most parts of Butere Constituency. Only airtel mobile service has good network connectivity, ironically, most of the traders use the Safaricom Mpesa money transfer service. To access the Safaricom service, most respondents (70.0%) said they have to move to higher grounds, some climb trees.

4.3: QUALITA TIVE DA TA FROM INTERVIEW DISCUSSIONS

Interviews were conducted to collect qualitative data from the respondents during the study. This data complimented the data obtained through the questionnaires. Whereas the questionnaire data was structured and respondents had a guided approach designed to generalize their responses, the interviews gave participants a more in-depth and probing approach on various issues as outlined in the interview schedule. The interviews conducted comprised the following participants as outlined in the study methodology:

- 24 representatives from 8 women self help groups in Butere Constituency
- 2 representatives from Butere District Social Development Office under the Ministry of youth and women.
- 2 representatives from NGOs dealing with women empowerment in Butere

The interview discussions coalesced around the following main areas:

- a) Information needs of women self-help groups in Butere Constituency.
- b) Mobile phone information services for micro enterprises. Opportunities and prospects for women entrepreneurs in rural areas
- c) Challenges and barriers facing women's access to/use of the mobile phone in their quest to achieve sustainable micro enterprises
- d) Recommendations to improve the mobile phone information services to enhance business growth for women entrepreneurs in rural areas

4.3.1: Information needs of women self-help groups in Butere Constituency

Women self help groups are a common feature among women in rural communities. Given their relatively low material and economic endowment compared to men, and the gender roles they are expected to play (feed the family), the women have come together to form groups. These groups are based on common geographical reference and economic needs. For example, the women groups in Butere Constituency are formed per Location (an administrative unit headed by a Chief according to the provincial administration hierarchy in Kenya).

During the discussions on the information needs of women self help groups, the interviewees first identified the various objectives of their groups. The following were the main objectives highlighted across the groups:

- a) To help members save their incomes from various sources on a regular basis, e.g. weekly and monthly
- b) To provide members with an opportunity to borrow funds to meet their immediate and intermediate needs such as paying school fees, settling hospital bills and funding business activities e.g. buying new stock for a shop
- c) Form an entity(group) that will have access to financial and other resources, e.g. bank loans and community development grants for the benefit of the members and the communities at large

 d) Provide a forum where members can discuss issues affecting them at home and in society

The above objectives relate mainly to access and management of financial resources; this is anchored on the belief by members that they lack adequate skills to mobilize and manage the often meager monies they accrue from various activities. The self help groups have appointed officials led by a chair person to coordinate and provide guidance and leadership to the group members and the group activities. Therefore, communication plays a key role in managing the affairs of women groups.

Members need a wide range of information including: meeting dates and venues, investment opportunities and any opportunities through affirmative action initiatives. For example, during harvest time, members get information on the markets and prices for their farm produce and are get a breast of the changes on a regular basis. All these pieces of information require a reliable, effective and affordable means of communication to ensure the right information reaches the right people at the right time for it to be of value to the recipient.

The mobile phone has made it easier to simultaneously communicate with a large group of people. For example, it is possible to compose one message and send it to various group members for action. Before this service was

available, one was required to physically meet all the members and deliver the message.

4.3.2: Mobile phone information services for micro enterprises

All the group members who were interviewed confirmed they are engaged in small businesses as their main source of livelihood. During the discussions, it emerged that businesses run by women in rural areas rely on the communication and human networks the proprietor has for sustainability. This is the differentiator because the businesses are homogenous in nature and they target more or less the same customers. Before the introduction of the mobile phone service, the businesses used to rely on the conventional faceto-face communication with customers and suppliers.

The inherent challenges of time and costs associated with this means of communication as identified by respondents to the questionnaires were also corroborated by the interviewees. They further opined that often businesses failed to meet demand for certain goods due to the delays in communication with suppliers.

The introduction and eventual widespread adoption of the mobile phone service has helped to alleviate these challenges. The interviewees noted that the mobile phone was rapidly adopted in rural areas as a cheaper and - convenient means of communication with relatives and friends residing in towns and peri-urban areas. It was only in the last 3 to 5 years that ...

businesses began to use the mobile phone information services. Group members interviewed acknowledged the mobile phone has to a significant extent been utilized as the main communication platform in business transactions. All communications, including face-to-face are initiated through the mobile phone. For example, a trader would call a supplier to request for a meeting before hand. This way, the trader will be sure he or she will get the supplier at the agreed time, thus saving on time wastage and having to travel only to find the supplier is not available.

The mobile phone money transfer service was hailed by the interviewees as a 'God' send gift to the rural based business enterprises. They observed that most rural enterprises do not have access to the traditional financial services such as banking service. In fact, at the time of the study, there was no single commercial bank in the whole of Butere Constituency. Whenever business people wanted to send or receive money, the only options were to physically meet the customers and suppliers or visit a bank in the neighbouring towns of Mumias, Kakamega and Kisumu. In the process, the traders became easy targets for robbery while travelling to these towns. One group member recalled how she was conned in Kakamega town after withdrawing money in one of the commercial banks. Since she had spent time on the way travelling, she felt hungry and decided to have a meal in one of the hotels in Kakamega. Two young men apparently had been trailing her all the way from the bank. They drugged her food as she went to wash her hands and on return she

became unconscious after eating part of the meal. When she recovered, it was not only late for her to get a vehicle back to Butere but all her money had also been stolen.

Cases similar to this have been minimized with the enhanced use of the mobile phone money transfer service. The Safaricom Mpesa service was singled out as the main service used by business people to send and receive money. Through Mpesa, they explained, one can securely deposit money for supply of goods and also receive payments for goods sold from customers. The service is easy to use and documents the money transfer transaction by stating how much money was sent, when and the recipient. Registration of the mobile phone subscribers ensures one cannot deny receipt of the money and in the event money is send to the wrong person, there is a mechanism that allows the sender to block or retrieve the money.

4.3.3: Challenges and barriers facing women's access to and use of the mobile phone to achieve sustainable micro enterprises

Despite the obvious benefits of using the mobile phone as identified in the preceding sections of the this report, the interview discussions pointed out various challenges women entrepreneurs especially those in rural areas face that impede effective harnessing of these benefits.

Fraudsters have taken advantage of the Mpesa money transfer service to con " people money. Women groups in Butere have not spared by these con people. One women group reported a fraudster accessed the telephone numbers of the members and sent a message requesting them to send Ksh. 100 each to a particular number in the pretext that the number was from a credit firm that wanted to advance money to the group. By the time it was discovered this was a lie, 14 group members had send money. Nonetheless, the representative from the Ministry of women and gender informed the meeting that the Government was implementing legislation to ensure all the mobile phone numbers are duly registered with the owner's details. The President in the month of August 2011 asked all mobile phone operators to switch off all the lines on handsets that are not registered, majority of which are counterfeit handsets.

It was unanimously agreed that the most of the mobile phones handsets owned by women were bought by their spouses. As a result, the husbands tend to share the handsets with the spouses, meaning the husbands have the phones most of the time. Businesses run by women, just like any other business, require a certain degree of control over use of the revenues generated and confidentiality of business competitive niches. Interviewees reported that men always assume control of the finances and will check the phones to establish how much money was received from customers. Sadly, they end up withdrawing the money and spend on their leisure and other self directed activities. One interviewee cited a case where a husband brutally murdered his wife simply because she had declined to disclose the Mpesa PIN number to him. The mobile phone has turned out to be a curse in disguise at the family level. Many families and relationships that took long to establish have been disintegrated due to suspected cheating and double-dealing (mpango wa kando) among spouses. Most husbands always suspect their spouses to be using the mobile phone to communicate with their male friends or execute under hand dealings. As a result, women switch off their phones once they reach home in the evening to ensure they do not receive suspicious calls at night. This impacts negatively on the envisaged advantage of the mobile phone as implied through its name- ability to seamlessly communicate anywhere, anytime and to anyone.

4.3.4: Recommendations to improve the mobile phone information services to enhance business growth for women entrepreneurs in rural areas

Technologies change from time to time to accommodate emerging consumer trends and preferences. For example, the mobile phone was initially designed for voice communication. With time however, the phone has converged various services to provide a single communication platform for voice, data and video. This gives the phone immense capabilities that can be harnessed to meet the ever changing and increasing information needs of women business entrepreneurs.

Data and video services are underutilized for business communication in rural areas. The mobile phone operators should come up with innovative products

and approaches to facilitate the use of data and video provided through the mobile phones. For example, local content on weather, road conditions, market situations and legislative updates can be provided on a regular basis through the data and video service on mobile phones.

Social media such as Facebook and Twitter has become an imperative to society. It provides a forum for sharing ideas, discussing issues of common interest and meeting new people and new insights into business. Most rural women and women entrepreneurs seldom interact on social media; they do not even know such a service exists. Mobile phone operators should enhance the use of social media on phones through targeted sensitization of the rural communities, developing a user friendly interface on the phones that will make it easier for the largely semi illiterate 'women population in rural areas to use the service. A good starting point would be to build capacities of the women through seminars and workshops on the role of social media and how it can be used to foster business growth.

Local content can be developed through partnerships with community based organizations that will involve the people in collating and composing the content based on the expressed information needs of the various segments in the communities including business women. Mobile phone handsets are still expensive to buy and most women in the rural communities have been easy prey to cheap counterfeit handsets which are expensive in the long run due to high maintenance costs. Mobile phone operators should come up with a program to provide access to quality handsets to the rural populations whose marginal propensity to consume is weak. One interviewee noted that, in some developing countries, the Government, in liaison with mobile phone operators and dealers, run promotions that encourage people to lease handsets for a period (say two years) as long as their lines are actively deployed.

Chapter Five: Study Conclusion and Recommendations

This chapter highlights some of the key conclusions derived from the study findings as presented in the preceding chapter. The conclusions and recommendations will provide valuable feedback that will assist stakeholders in making informed decisions on the way forward to enhance the role of the mobile phone as a source of business information services that will foster the growth and sustainability of women entrepreneurs and their businesses.

5.1: study Conclusions

Many rural women are not able to meet their family's needs through their *t* produce yields and must supplement their income to survive, which they do by creating small businesses, or services, and by trading. These small businesses run by women abound in rural and urban areas alike, creating a large informal market economy in many countries that contributes significantly to developing the national economy. The flexibility of their businesses, which are very diverse in nature, allows them to continue household, childcare and agricultural work.

It also creates a cash flow between urban and rural areas from the work of female traders who travel between the two. Women in rural areas rely heavily on them for their commodity needs. This helps rural areas develop

economically. Many women in Butere Constituency in Western Kenya work as traders and entrepreneurs for lack of formal job opportunities elsewhere. Unfortunately, their economic importance to society and their business development needs have been largely ignored by policy makers and researchers. Women who work as market traders divide their time between farming, caring for livestock, shipping in farm products from urban and rural areas, selling, and processing food for sale. Women traders move products between urban and rural areas, providing rural women with access to food commodities and consumer goods that they would otherwise have to sacrifice their time to travel for or not be able to access at all. These entrepreneurs combine trading with home-based businesses to maintain their income yearround, selling processed food or alcohol during slow seasons.

The fact that they dominate the informal economy in many countries is a testament to their ingenuity and determination, considering their lack of access to literacy and business skill training. The work involved fluctuates with the activities of other traders who make their decisions according to the seasons, which determine the weather for travel and the availability of certain foods. For example, in the rainy season the unpaved roads and public transportation to town can be completely shut down by mud and rivers, preventing market women from trading. These women need information on the seasons and weather, sources of raw materials and their availability, commodity prices, the security of the market, new markets, marketing ideas,

training in business creation, sources of credit, sources of equipment for food processing inter alia. In different studies of women entrepreneurs and traders in other countries, the needs business owners all held in common were for information on business management, technical skill training, sources for raw materials and their compared prices, ideas on business expansion, marketing, where to get financing and grants, the law and their rights, and the feasibility of certain trades in a given market.

The women self help groups in Butere have greatly benefited from improved communications, both in terms of their farming activities and the reduced time and cost of staying in touch with each other. Furthermore, through selling airtime by SMS they have used them as effective income-generating tools. The results show that, contrary to the arguments against using cell phones to deliver cash transfers, even illiterate vulnerable people are able to actively embrace the technology, and their vulnerability is not increased by providing them with a valuable asset.

There is no doubt, according to the study findings, that the mobile phone information service has the potential to play a major role as an effective and efficient communication platform. This role can be enhanced to attain growth and sustainability of women owned business enterprises in the rural communities.

5.2: Recommendations

In light of the foregoing and based on the conclusions drawn from the study findings, the following recommendations are advanced to leverage on the power of ICT and specifically the mobile phone to grow and sustain women run enterprises:

Information strategies specifically recommended by this study for business women include providing a collection of materials on a wide range of information, specifically in their local language and at a neo-literate reading level, a manual directory of local services made easily available to them, and a female manager for the information center. The mobile phone platform can then be integrated in the centre activities to provide these information *t* services to the women in the communities on their mobile phones without necessarily having them to travel to the information centers.

For women, the social and economic advantages of accessing and using a mobile phone far outweigh the disadvantages as highlighted in this study. However, those promoting and making policies for mobile phones must understand that these new technologies create problems as well as solutions. These problems must be recognized if they are to be addressed and one of the recommended approaches is to involve the women, through their leaders, in all decision making processes especially on issues affecting them in the communities Among other things, this will require much greater gender

awareness in policies and projects which, fortunately, the newly promulgated Constitution of Kenya has given adequate gender considerations.

There are a number of organizations and consortia in various countries that focus on open source mobile applications for social development. The Kenya government, in partnership with mobile phone operators and other ICT stakeholders, should introduce a program that will foster the development of open source mobile applications concomitant to the diverse socio-economic information needs of rural communities. The applications should also be tailored to meet the business information needs of women entrepreneurs in rural communities.

The ICT sector is recognized as one of the flagship projects in the foundations of the socio-economic transformation necessary for the realization of the vision 2030 in Kenya. Research has also shown that, whereas women comprise the majority of the poor in Kenya more so in the rural communities, there exists tremendous opportunities to alleviate women from poverty through ICT integration in socio-economic development.

The mobile phone has emerged as a powerful tool for women empowered as evidenced in this study. It is therefore recommended that, when implementing the ICT strategy in the Vision 2030, due consideration should be given to the role of the mobile phone as an ICT platform for intermediate and long term

development of women enterprises. This is the surest way to alleviate poverty because women represent the family unit and empowering a woman is developing the society since the woman has traditionally epitomized the family welfare.

This study is not exhaustive in itself and cannot claim to have adequately addressed strategic and implementation issues pertaining the integration of ICTs in women entrepreneurship at the community level in Kenya. It is hoped that the findings of the study will serve as a launching pad to rejuvenate the formulation and implementation of ICT policies friendly to the use of the mobile phone service and other ICTs to nurture and grow small scale enterprises run by women in the rural and informal communities. This therefore calls for more researches to shape the facts and opinions from this study, and provide a framework for sound ICT policy making.

References

Africa Development Bank Group. Africa women in business Available: http://www.afdb.org Accessed: on 13/02/2011

Arunachalam, S. 1999. Information and knowledge in the age of electronic communication: a developing country perspective. *Journal of information science* 25(6): 465 - 476.

Babbie, E. 1998. The practice of social research. Belmont, CA. Wadsworth.

BBC Focus on Africa Magazine, January - March, 2009

Burger, A & Silima, T. 2006. Sampling and sampling design. *Journal of public administration* 41(3.1): 86-98.

Chandler, D. 1995. *Technological or Media Determinism.* New York: Routledge.

Central Bureau of Statistics, International center for Economic growth, and Kenya Rural Entrepreneurial programme. 1999. National micro and small enterprise baseline survey. Nairobi: central Bureau of Statistics.

Communication Commission of Kenya. 2011. Mobile phone subscribers in Kenya. Nairobi.

Gakure, R. 2004. Women's enterprises: issues impacting growth of women enterprises in Kenya. Jomo Kenyatta University of Agriculture & Technology.

Hisrich, RD., Peters, MP. 2002. Entrepreneurship: starting, developing and managing a new enterprise. New York, USA.

Huyer, s., Tatjana, s. 2003. Overcoming the gender digital divide: understanding ICTs and their potential for the empowerment of women. Synthesis paper presented to the United Nations International Research and Training Institute for the Advancement of women.

Imbaya, M. 2004. Entrepreneurial disposition and development of femaleoperated enterprises in Mureithi 2005 'factors affecting Internet use among micro-enterprises: an empirical study in Kariobangi light industries in Nairobi Kenya. International Labour organization. 2002. *Major findings of the study on women entrepreneurs in Zambia*. Lusaka: Jule Development Associates International.

Jalbert, S. 2000. *Women entrepreneurs in the global economy.* Centre for International Private Enterprise, Washington, DC.

Joseph, L. 2005. Inter-city marketing network for women micro-entrepreneurs using cell phone: social capital brings economic Development, Chennai. Centre for Science, development and Media Studies.

Kabeer, N. 1999. Resources, agency, achievements: Reflections on the measurement of women's empowerment. Development and change, volume 30, no. 3: 435-464.

Kalundo, M. 2004. Use of information and communication technologies by women entrepreneurs in small and micro enterprises, Kenya Rural Enterpreneurial programme, Nairobi, Kenya.

Kibas, P.B., K'Aol, G.O. 2004. The Kenyan entrepreneur: typologies and characteristics. United States International university, Nairobi.

Kupier, M. 1991. *Discussion paper no. 68: women entrepreneurs in Africa.* Geneva: International Labour Office.

Leahy, K., Yermish, I. 2002. Information and communication technology: gender issues in developing nations. St. Joseph's University, Philadelphia, USA. Paper for IS2002, Information science, IT Education Conference, Cork, Ireland.

Levinson, P. 2004. *Cellphone: the story of the world's most mobile medium and how it has transformed everything!* New York: Palgrave Macmillan.

Malhotra, A et al. 2002. Measuring women's empowerment as a variable in[^] international development. Background paper prepared for the World Bank workshop on poverty and gender: new perspectives, 28th June 2002.

Mansell, N & When, U. 1998. *Knowledge societies: information technology for sustainable development.* New York: Oxford University Press.

Marcelle, G. 2002. Information and communication technologies (ICT) and their impact on and use as an instrument for the advancement and empowerment of women. Report from the online conference conducted by the UNDAW, ITU and UN task force secretariat, 2002 Available: http://www.un.org/womenwatch

Mazrui, A. 1992. The black woman and the problem of gender: an African experience. Research in African literature 23(4): 87-104.

Ministry of State for Planning, National Development and Vision 2030. *Kenya vision 2030 popular version*. Nairobi: Government Printers.

Mureithi, M. 2005. Factors affecting Internet use among micro-enterprises: an empirical study in Kariobangi light industries in Nairobi Kenya.

Naraya, D. et al. 2000. Voices of the poor: crying out for change. World bank series. Oxford: Oxford University Press.

Odame, H. et al. 2002. Gender and Agriculture in the information society. International Service for National Agriculture Research briefing paper 55.

Oniang'o, R. Trends in women's contributions to agricultural productivity' in a Paper Presented at the Conference on the Roles, Constraints and Potentials of Women in Agricultural Development, Held at the Centre for Social Development, Bonn, Germany, August 26 - 27, 1999.

Porter, M.E., Millar, V.E. *How information gives a competitive advantage.* Harvard Business Review, July-august 1985.

Postman, N. 1993. Technopoly: *The surrender of culture to technology*. New York: Vintage Books.

Rakow, LF & Navarro, N.1993. Remote mothering and the parallel shift: women meet the cellular telephone. *Critical studies in Mass communication* 10:44-157.

Rathgeber, E.M., Ofwona, A.E. 2000. Gender and the information revolution in Africa. Ottawa: International Development and Research Centre.

Servaes, J.(ed.) 2000. Communication for development in a global perspective: the role of government and non-governmental agencies in walking on the other side of the information highway: communication, culture and development in the 21st Century. Penang: Southbound: 47-60.

Sylla, F. 2002. ICT as an instrument for participation: the regional perspective from Africa, examples of the Internet use at the grassroots level. Paper presented at the UNDAW (United Nations Division for the Advancement of Women) Expert group meeting on information and communication technologies and their impact on and use as an instrument for the advancement and empowerment of women, November 2002, Seoul, South Korea.

Tandon, N. 2002. E-commerce training with small-scale entrepreneurs in developing countries: some findings, in *'poverty elimination and the empowerment of women: strategies for achieving the international development targets.* London: Department for International Development.

United Nations Development Fund for Women. 2005. Study on women development and the mobile phone.

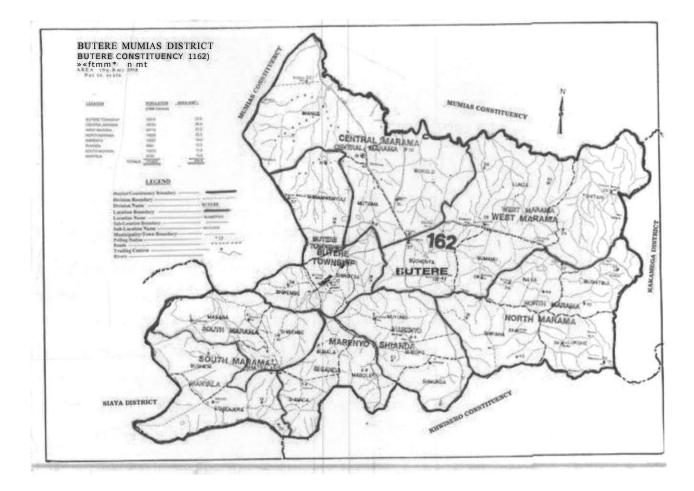
Urbach, J. 2007. *The ubiquitous power of the cellphone.* Available: <u>http://wwwmoneyweb.co.za/mw/view/mw/en/page662?oid=148764&sn=detail</u> Accessed: 20/02/2011

Wakunuma, J.K. 2008. The Internet and Mobile telephony: Implications for women's development and empowerment in Zambia, *Gender and Development workshop paper, 2006.* Sheffield: Sheffield Hallam University, United Kingdom.

Wimmer, RD & Dominick, JR. 2006. Mass media research: an introduction. 8th edition. Belmont, CA: Wadsworth.

Appendices

Appendix A: Map of Butere Constituency



Appendix B: Data collection Tools

Questionnaire - women entrepreneurs/traders

Cover letter

P.O. Box 158707-00100

Nairobi, Kenya

March, 2011

Dear Respondent,

RE: The role of mobile phone information services in business

I am a student in my final year of study at the University of Nairobi school of Journalism. I am studying for a Master's degree in communication studies. In order to meet the requirements of my degree, I need to complete a project and I have chosen a topic called, "The role of the mobile phone in meeting information needs of women entrepreneurs inf Kenya: A study of selected women self-help groups and women entrepreneurs in Butere Constituency, Kakamega County".

The purpose of the study is to explore the extent to which business women in the Constituency use mobile phones to communicate in their business transactions and recommend any additional services the mobile phone can provide to empower the women run businesses. I chose you as one of the women traders within Butere Constituency and was referred to you by your women leaders.

It is my hope that once you receive this questionnaire, you will complete it as soon as possible (within a week at least) ready for collection by my research' assistants. Your completion of the attached questionnaire will go along away in helping me to complete my studies. The study findings will also be shared for purposes of empowering women through the use of mobile phone services.

Should you have any queries, please do not hesitate to contact me and thank you in advance for your cooperation.

Sincerely,

Mr. Emmanuel Odemba 0713-506283

Questionnaire

Section A. Background information		
1.	Name of respondent	
2.	Location (administrative)	
3.	Education Level	
4.	Type of Business	
	(Tick as appropriate)	Wholesale
		Retail
		Other(specify)
Section B. Business Information services		

1.	What goods and services do you sell? Tick all that apply Where do you get your supplies from	 o General household goods o Specific household goods o Dairy products o Farm produce o Other (specify)
2.	(the goods and services you sell)?	
3.	How do you communicate to your suppliers?	
4.	What are some of the information you need and/or give to your suppliers?	
5.	How do you get information about your market, e.g. who needs what goods and where?	
6.	Who else do you talk to in the course of transacting your business, e.g.	

	1	1
	transporters?	
7.	What are some of the challenges you	
	face when seeking for information	
	from your buyers and suppliers?	
		l l
Sectio	on C. The mobile phone informatio	n services for business
1.	Do you use your mobile phone in the	
	process of carrying out your	Yes
	business(es)?	1 05
		No
2.	Name some of the services you use in	
۷.		
	your business that are provided	
	through the mobile phone	

3.	Before you started using the mobile	
	phone, how were you getting the	
	information services named in (2)	
	above?	
4	In which were here the makile where	
4.	In which ways has the mobile phone	
	service improved your business?	
5	Are there any other corriges you	
5.	Are there any other services you	
	would like to get through the mobile	
	phone for your business? If yes, name	
	them.	
6.	What are some of the challenges you	
	face when using the mobile phone to	

	get information for your business?	
7.	What else would you recommend should be done to improve the use of mobile phone services for your business?	

Interview Schedule (thematic areas)

- 1. Information needs of women self help groups in Butere Constituency.
- 2. Mobile phone information services for micro enterprises. Opportunities and prospects for women entrepreneurs in rural areas
- 3. Challenges and barriers facing women's access to/use of the mobile phone in their quest to achieve sustainable micro enterprises
- 4. Recommendations to improve the mobile phone information services to enhance business growth for women entrepreneurs in rural areas

Study reconnaissance visit 26th-27th March 2011

26/03/2011 - Women

Location	Group	Time	Contact person
Marenyo	Usife moyo women	11.00-11.30	Sellah Omusakalia
	group	am	0711 -966712
Marama South	Ebukara	12.00-12.30	Gladys Were
	development women	pm	0731 -982481
	group		
Manyala	Manyala Pamoja	1.00- 1.30 pm	Sarah Ashiaga
	women group		0717 -393410
Shianda	Tuokoane Women	2.00-2.30 pm	Jane Atingo
	group		0720 - 687044
Lunza	Upendo na umoja	3.00-3.00 pm	Damaris Bosibori
	women group		0723 - 804871
Marama North	Eliandechesa women	3.30-4.00 pm	Jane Otsola
	group		0710-251647
Marama Central	Ushirika women	4.30-5.00 pm	Mary Mola
	group		0712-425059
Township	Obusubiri women	5.30-6.00 pm	Judith Aswani
	group		0710-328319

27/03/2011

Key informants for women traders/entrepreneurs

Location	Contact person	Cell phone
Marenyo	Sellah Ochango	0711 -966712
	Lidya Ocholi	0715 - 155689
Marama South	Truphena Otieno	0735-785723
	Margaret Mashere	0716-665817
Manyala	Brenda Mutuli	0712- 102466
	Benta Agusmmoa	0728 -615698
Shianda	Florence Olunyu	0727-742127
	Milka Alekana	0713 - 530970
Lunza	Roselyn Aura	0717-484169
	Damary Ondori	0723 - 804871
Marama North	Judith Aswani	0710-328319
	Merceline Ashuma	0701 -065491
Marama Central	Truphena Omukana	0725 - 984420
	Agnes Fwaya	0710-744839
Township	Jedidah Ashuma	0716-793145
	Sophia Eyinda	0723 -293481