

**THE ROLE OF ICT IN THE PROVISION OF BUSINESS  
INFORMATION TO WOMEN TRADERS IN THE  
INFORMAL SECTOR IN KENYA – A CASE STUDY OF  
THE WESTLANDS MAASAI MARKET**

**BY**

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EAST AFRICANA COLLECTION**

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## DECLARATION

This research project is my original work and has not been presented to any university for any award or anywhere else for academic purposes.


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## DEDICATION

This project is dedicated to Mr. and Dr (Mrs.) S.R. J. Ndeda

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## ABSTRACT

This study aimed at investigating the role of Information and Communication Technology (ICT) in the provision of business information to women traders at the Westlands Maasai Market in Nairobi; guided by two theories: Diffusion of Innovation and Technology Acceptance Model. ICTs are viewed as sources of information that can improve trade in the informal sector by increasing profitability and speed of operation, yet they have not been fully used by many women traders in the informal sector in Kenya. This sector has more women than men and thus the choice of women for this study; women have also been marginalized on issues concerning ICT which necessitated a study limited to them. The study focused on the radio, television, mobile telephone and the internet as the major ICTs available to the women traders. The objectives of the study were: to determine the demographic characteristics and business information needs of women traders in the informal sector; to find out the different ICTs used for providing business information to women traders in the informal sector in Kenya; and to investigate the challenges faced by women traders in accessing business information provided by the available ICTs.

The research adopted a case study of the Westlands Maasai Market which was solely established for women traders, but has since seen the influx of men. Stratified and simple random sampling techniques facilitated the choice of 100 women traders from whom data was collected using self-administered and researcher administered questionnaires. Data was analyzed and presented using descriptive statistics, cross tabulations, graphs and pie charts, by the use of Statistical Package for Social Sciences (SPSS) version 12. The study found out that most of the women traders were between the ages of 18-40 years and had completed secondary school education. Amongst the most sought after business information needs by women traders are: customer needs, mobile telephone money transfer, market, raw materials and record keeping. Radio and mobile telephone were the most used ICTs among the women traders. Inability to identify specific ICTs for business information, cost, difficult language in ICTs and limited amount of time are some of the challenges identified by the women traders. The study concluded that it is necessary to relate the identified business information needs to the appropriate ICTs and further sensitize the women traders on the importance of ICTs like the internet.



## LIST OF ABBREVIATIONS AND ACRONYMS

ASK	Anomalous State of Knowledge
CCK	Communications Commission of Kenya
CCN	City Council of Nairobi
EPZA	Export Processing Zone Authority
FM	Frequency Modulation
ICT	Information and Communication Technology
IDRC	International Development Research Centre
ILO	International Labour Organization
IPAR	Institute of Policy Analysis and Research
ISP	Internet Service Provider
IS	Information Systems
IT	Information Technology
KBC	Kenya Broadcasting Corporation
KCB	Kenya Commercial Bank
KEBS	Kenya Bureau of Standards
Kictanet	Kenya ICT Network
KIF	Kenya ICT Foundation
KIPI	Kenya Industrial Property Institute
KP&TC	Kenya Post and Telecommunications
KTN	Kenya Television Network
M-PESA	Mobile Pesa (money)
NTV	Nation Television
SME	Small and Medium Enterprise
TAM	Technology Acceptance Model
TELKOM	Telecom Kenya Limited
TRA	Theory of Reasoned Action
UNCSTD	United Nations Commission on Science and Technology for Development
WHO	World Health Organization
VOIP	Voice Over Internet Protocol

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## LIST OF KEY LOCAL TERMS

- Ciondo* A Kikuyu word used for a sisal bag, popular in East Africa. It is made in many different colours. A strong durable bag for ladies, suitable for carrying personal effects.
- Jua Kali* Used synonymously with the term informal sector, it literally means 'hot sun' and is the local name given to the informal sector in East Africa.
- Kikoi* A wrap or beachwear from Kenya that can also refer to a scarf, or a sarong.
- Maasai* An indigenous East African Nilo-Hamitic ethnic group of semi-nomadic people located in Southern Kenya and Northern Tanzania.
- Uchumi na Biashara* Swahili terms that literally translate to economy and business

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## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background information

Information is a vital part of our survival as human beings both for development and well being. Availability of relevant business information provides the basis for improved effectiveness and efficiency in all aspects of management of a business enterprise. “Information is power” and it is believed that information changes the state of its recipient when appropriately used. The informal sector in Kenya suffers from a serious deficiency of relevant business information. Duncombe and Heeks (2001) say that information gaps exist for all types of small enterprises, especially in relation to markets, to finance, and to skills. These gaps harm enterprises by reducing incomes and increasing costs. To be able to provide the business unit with accurate, reliable and up to date information, the information needs of the business unit or organization need to be known and provided for through an effective and efficient information service and system.

The informal sector in Kenya should have such a service to cater for their business information needs which may include: information on how to get raw materials; markets including international market; licensing; patenting; financiers and customer needs. It is in this light that this research considers Information and Communication Technology (ICT) as one that can help in solving this deficiency. ICTs have developed as the strongest means through which business information can be channeled to the relevant audiences. Jain (2007) says that ICTs are a diverse set of technological tools and resources used to create, disseminate, store, bring value addition and manage information. The ICT sector consists of segments as diverse as telecommunications, television and radio broadcasting, computer hardware, software and services and electronic media, for example the internet and electronic mail. Searchio-Midmarket (2007) further defines ICT as an umbrella term that includes any communication device or application, encompassing; radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning.

The importance of ICTs lies less in the technology itself than in its ability to create greater access to information and communication, in underserved populations. ICTs like mobile telephone can effectively be used to channel business information on matters of financing, market, acquisition of raw material and basically new services like M-PESA and mobile banking. It is for such business information that the research concentrated on ICTs like radio, television, the internet and mobile telephone for dissemination of business information.

ICT is highly a male domain, and therefore women must be enabled to use ICTs effectively within a social, economic and cultural fabric that has consistently disallowed this. ICTs serve as an important tool to address women's basic needs, but more importantly, it also serves as a means for women to lead themselves out of poverty. ICTs play an important role in enhancing the knowledge and skills of women traders in the informal sector by providing them with the relevant business information, first by providing them with information on market shares, financiers like The Kenya Women's Financial Trust, Equity Bank, Kenya Commercial Bank's Grace loans which are specifically geared towards uplifting the status of women in the society. Information on customer needs and patenting will enable women traders protect their innovations.

According to Momo (2000) ICT was first linked to gender in 1995. This was one of the ways by which women were able to catch up technologically and leapfrog over other developments that they had not participated in. The theme of this study concerns the use of ICT among women traders in the informal sector. These include issues of access, the benefits women traders experience and can expect to experience from ICTs, and the role they can and do play in the production and dissemination of business information. Therefore, this study aims at investigating the role of ICTs in the provision of business information to women traders in the informal sector at the Westlands Maasai Market in Nairobi.

### **1.1.1. The Informal sector in Kenya**

Over the course of the 1980's, and a little earlier, the term informal sector was commonly used. Keith Hart first used the term informal sector in Ghana in 1971 when working with the Frafra migrants from Northern Ghana working in Accra (Stanculescu and Ilie, 2001). The concept of the informal sector was introduced into international usage in 1972 by the International Labour Organization (ILO) in its Kenya Mission Report, which defined informality as a "way of doing things characterized by, (a) ease of entry; (b) reliance on indigenous resources; (c) family ownership; (d) small scale operations; (e) labor intensive and adaptive technology; (e) skills acquired outside of the formal sector; (g) unregulated and competitive markets". According to King (1996), two of the essential elements of the pre-history of the informal sector in Kenya are the East Africa Royal Commission of 1953-1955 that noted "the clusters of settlements just outside boundaries of all the main towns were not so much eyesores as they were important centers of African trade". The second important milestone in the prehistory of the informal sector in Kenya came in 1966, just three years after independence, in the Kericho conference, where the challenge was how to utilize the 'traditional sector' in small scale service industries such as automobile and machine repair, maintenance, construction and other activities for which demand is constantly rising in urban areas. Currently the informal sector can be defined as the non-structured sector that has emerged in the urban and rural centres as a result of the incapacity of the modern sector to absorb new entrants, characterized by little capital, low levels of productivity and often operate out of temporary structures.

Surveys have consistently shown that the majority of the traders in this sector are women with a smaller percentage being men. Chen (2000) says that women are over-represented in the informal sector worldwide. This basic fact has several dimensions. First, the informal sector is the primary source of employment for women in most developing countries. Existing data suggest that the majority of economically active women in developing countries are engaged in the informal sector through handicrafts such as tailoring, carving, bead work and weaving and also in the selling of the products. On the contrary women have been viewed as domestic workers, mainly involved in the daily chores at home which include cooking, washing among others. The advancement of

many women in the informal sector is mainly a desire to earn their own money and reduce over reliance on their husbands and low levels of education. The informal sector has also provided a means to supplement the meager earnings by the male folks in the lives of these women.

With the passage of time the term informal sector was used interchangeably with the term *Jua Kali*, mainly referring to artisans such as metal workers and fabricators and car mechanics who were particularly noticeable for working under the hot sun because of the absence of premises. People began to talk of taking their cars to *Jua Kali* mechanics. Gradually the term was extended to refer to anyone in self-employment, whether in the open air or permanent premises.

The Government of Kenya has in recent years put major emphasis on the development of the informal sector as a primary means of strengthening the economy. This is reflected in various policy documents starting with the 1989 Small Enterprise Development Policy Project (King, 1996). Because of the significant contribution by the sector to development, the Government of Kenya has developed new strategies and programme promotion, with more emphasis on creating infrastructural facilities and the economic environment in which entrepreneurs can emerge, develop and grow (Republic Of Kenya Fiscal Year Budget Speech, 2003/2004). This gives an impetus to the study of ICT in the provision of business information in the informal sector considering ICT as one of the infrastructures that will enable development.

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### **1.1.2 Overview of ICT in Kenya**

Kenya is rapidly gaining a reputation as one of Africa's forerunners in the development of ICT. Kenya has always been in the forefront of developments in ICT and is emerging as one of Africa's leaders in this area. Indeed, ICT is one of the fastest growing sectors in the country (EPZA, 2005). From the introduction of telecommunication services in Kenya up to 1977, the services in Kenya were managed as part of a regional network with neighboring Tanzania and Uganda, until 1977 when the East African Community collapsed and as a result, the Government of Kenya established Kenya Posts and Telecommunications Corporation (KP&TC) to run the services.

A telecommunications policy statement was issued in 1997 that set out the government vision on telecommunications development to the year 2015. The challenge at that time was to transform the existing policy structure from one designed for a monopoly to a policy managing a liberalized telecommunication market. This clarified roles for the policy, regulatory and operational responsibilities with the government and specifically the Ministry of Transport and Communications retaining policy guidance.

In recent years, there has been a considerable drop in the cost of hardware and software, and this has further led to the growth of this sector. In the past decade, Kenya's has had one of the largest and fastest growing Internet sectors in Africa. ICT is now in use in various sectors of the economy such as banking, accounting, medical services, transportation, mining, research, defense, agriculture, and communications. Key Kenyan para-statal organizations and some government institutions are also progressively making use of ICT and there is a strategy in place to link all Government departments, agencies and service providers with a view to providing efficient, effective and citizen focused public services on a 24/7 basis (Ministry of Information and Communication, 2006).

The development of radio and television in Kenya dates back to 1928 with an English radio broadcasting targeted at the white settlers. Voice of Kenya (VOK) was established by the British colonial administration in 1959 with the objective of providing radio and television broadcasting. It later changed its name to Kenya Broadcasting Corporation in

1989. Since March 1990, a second television station, the Kenya Television Network (KTN) has been in operation. In 1996, the first FM station, Metro FM was started by KBC. Between 1997 and 2005 the broadcasting industry in Kenya experienced a significant growth in the number of broadcasting channels. From the communications Commission of Kenya (CCK) website – [www.cck.go.ke](http://www.cck.go.ke), there are over 10 licensed television channels and over 100 licensed radio stations operating in Kenya.

Mobile telephone in Kenya dates back to the late 90s and it was a preserve for the rich. Safaricom, being the first mobile telephone service provider was formed in 1997. Kencell, currently Zain rolled out its operation in 2001. Currently the price of mobile telephone handsets and services are affordable amongst many Kenyans. The introduction of Orange mobile telephone service provider has further led to the reduction in service prices. The mobile telephone in Kenya is offering many services including internet, money transfers and mobile banking. Selected mobile telephone handsets have made it possible to listen to radio, watch television, surf the internet and even take photographs.

Internet was introduced in Kenya in early 1990s, largely led by Kenyans returning from overseas studies. Commercial ISPs, led by Africa Online, entered the internet market by the mid-1990s. The notable early adopters included import/export sector, industries which had overseas operations and clients and the academic sector, with most of their users confined to Nairobi. With increasing number of ISPs and internet users, the need for an Internet backbone became evident and KP&TC introduced Jambonet by 1998. The internet is currently spreading countrywide and with the rolling out of the fiber optics, the internet is bound to be widely available and cheap.

EPZA (2005) indicates that while the growth of the ICT sector in Kenya has been significantly influenced by global trends, it can be evaluated in terms of number of fixed and mobile telephone lines; the teledensity; the number of computers and services; Internet Service Providers (ISPs), the number of Internet users; broadcasting stations; and market share of each one of them.

### 1.1.3 The Maasai Market

For decades, the Maasai have been a source of fascination among tourists and cultural advocates who have been struck by their adamant refusal to abandon their culture. This has on the contrary become an attraction that has led many people to want to learn more about these peculiar people. It is for this reason that some of the crafts associated with the Maasai culture have been commercialized by both outsiders and some people in the community. Critics of this trend accuse the proponents of perpetuating certain myths about the community for commercial reasons whose consequences have led to the distortion now evident in popular notions about the community.

The Maasai Market, as it is called, was created to showcase Maasai cultural items for mainly touristic interest. It did that only for a while. With time it became a major attraction also for other Kenyans interested in culture. Meanwhile, the Maasai have been phased out by more aggressive traders dealing in handicraft. What was once a venue to highlight Maasai heritage has become a centre for traders of crafts. There are Maasai cultural ornaments, including the belt, which is decorated with colorful beads widely associated with Maasai regalia. For men, the market offers the spear, shield and sandal while the women adornment on offer is the Maasai necklace with its colorful beads worn with the bright red piece of cloth. An assortment of house decorations is also available. Another item of culture popular with visitors at the Maasai Market is the head rest. The majority of the items are obviously replicas, which unscrupulous traders pass as original artifacts to fetch higher prices.

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The Maasai Market is conducted on Saturday at the Nairobi High Court Parking lot, on Sunday at Yaya Center Parking lot and daily at the Westlands Market which is the case study for this research project. The Westlands Maasai Market was solely established for women traders, but over time, men have found their way too. (*Daily Nation on the web*, 2008)

## **1.2 Statement of the problem**

ICTs are very important for the development of any sector in the society. Through ICTs such as the internet, the world is steadily becoming a global village and therefore its absence in business cannot be overlooked. ICTs have been known to offer business information on markets, patenting, licensing, raw material and financiers for the informal sector. In the recent past, there are banks in Kenya that have announced over the radio the availability of loan facilities specifically for women traders and potential women traders in the informal sector. This underscores the importance of ICTs for women traders in the informal sector.

Unfortunately the informal sector in Kenya is not adequately served by the various ICTs in the provision of business information and information services. As supported by Duncombe and Heeks (2001) the informal sector suffers from weak local information support structures which results in a business environment that is information poor. It is suggested, therefore, that extending ICT-based linkages further a field may overcome the lack of information exchange taking place locally. This is so because the business information needs of this industry are not fully understood.

Limited access to business information is another major constraint to informal enterprise growth in Kenya, coupled with the lack of knowledge of the women in the informal sector's business information needs. This is best illustrated by the fact that most of them do not have information on how to go about patent acquisitions, access to loans, business registration and licensing. In Kenya there is no one-parent government ministry responsible or interested in promoting the business information needs of women specifically in the informal sector. This has left the sector groping for information in the dark with dire consequences emerging as a result most of the times due to lack of business information to enable them run their businesses efficiently. There is also lack of a gendered access to ICTs and ICT training, lack of awareness of women to the benefits of ICTs and language barriers to the use of ICTs for non- English speakers. This is a challenge in the use of ICTs in providing business information to women.

On the other hand, lack of an ICT policy is one big obstacle to the effective use of ICTs. Yet again, where ICT policy is available if any, it does not include the gender dimension, thus giving the men a higher chance to prosper in this sector that seems to be offering more opportunities for men and on the contrary seems to be having more women.

The absence of an effective and efficient information service further compounds the problem coupled with an unevenly scattered information units or organizations that serve single needs and are engaged in duplication of activity, collecting the same material and serving the same need at the cost of other needs. Yet still where the business information needs have been identified, relevant channels (ICTs) have not been identified to disseminate this information. Business information needs can easily be offered to women traders by the use of radios, internet, television and mobile telephones which are all available to them, and thus the impediment only lies in which ICT is the most appropriate for which group of women traders and for what business information.

A study conducted by Opiyo and K'Akumu (2006) on ICT application in the informal sector, concluded that there is a need to prevent further marginalization of the informal sector by availing ICT services which are mixed appropriately and are also properly located. This will help the sector access markets and other business information which can enable, or make their economic activities more vibrant and facilitate availability of information about new opportunities. The study concludes that for one to understand the application of ICT and their locational dynamics in informal sector clusters there is a need to comprehend and acknowledge the drivers and pressures leading to the adoption of new technology such as ICT in the informal sector. However, the study does not focus on women who are the majority in the informal sector in Kenya. Therefore this study aims at investigating the role of ICTs in the provision of business information to women traders in the informal sector at the Westlands Maasai Market.

### **1.3 Objectives of the study**

The specific objectives of the study are:

- (i) To determine the demographic characteristics of women traders in the informal sector.
- (ii) To examine the business information needs of women traders in the informal sector.
- (iii) To find out the different ICTs used for providing business information to women traders in the informal sector in Kenya.
- (iv) To investigate the challenges faced by women traders in accessing business information provided by the available ICTs.

### **1.4 Research questions**

The specific research questions that guided the study are:

- (i) What are the demographic characteristics of women traders in the informal sector and how have they affected the use of ICTs among them?
- (ii) What are the business information needs of women traders in the informal sector?
- (iii) What ICTs are available for providing business information to women traders in the informal sector in Kenya?
- (iv) What are the challenges faced by women traders in accessing business information provided by the available ICTs?

### **1.5 Justification of the study**

The findings of this study are of great significance to women traders in the informal sector in Kenya as it ensures that they are aware of the appropriate ICTs such as radio, television, internet and mobile telephone, which can be used to provide their business information needs. Information on loans and patenting which require immediate dissemination will get to the women traders on time. It is sad that the informal sector has lost many innovative ideas to the Western world due to lack of information on patenting and right protection. The study is also of benefit to the stakeholders and disseminators of business information in the informal sector because the information contained herein will enable them offer the most specific and relevant business information using workable

ICTs. ICT service providers will be made aware of the relevant business information for women traders and thus use the right channels to disseminate the same. The Government of Kenya on the other hand will ensure that the envisaged ICT policy incorporates the gender dimension and further caters for the women traders in the informal sector. It will also come up with the appropriate measures to improve the state of the informal sector in Kenya. As for students and researchers interested in this area, the findings in this report will add on to the knowledge base of ICT and the informal sector in Kenya.

### **1.6 Scope of the study**

The subject area of this study is ICT and its role in the provision of business information. The ICTs that this study looked at include the radio which is believed to have the widest coverage both in terms of language and population; mobile telephones which have become popular and offer the latest means of communication, its pricing and use makes it appropriate for this sector; television has been demystified and is no longer a preserve for the rich, its affordability and availability made it an acceptable choice for the study; finally the internet is the last type of ICT that this research studied due to its international leaning and its increased popularity among the urban Kenyans. The study further narrowed down the subject area to concentrate on the informal sector of the economy and specifically women traders. The study adopted a case study of the Westlands Maasai Market located in Nairobi's Westlands division, whose population is a mixture of both men and women of different academic and demographic backgrounds, but with a bias to women traders only. The choice of this market was quite strategic, because it was initially set up for women traders. The population of the women in the market currently stands at 500.

### **1.7 Limitations of the Study**

This study does not focus on the broader informal sector in Kenya which deals in diverse products and services; it focuses on the Westlands Maasai Market that concentrates on traditional crafts only. The researcher also noticed a major limit in the amount of literature on ICT and women in the informal sector.

## **1.8 Definition of terms**

This study focuses on four key areas and issues namely; ICT, business information, women traders and the informal sector. In the context of this study, ICT is an umbrella term that includes any communication device or application, encompassing: radio, television, mobile telephones and internet, as well as the various services and applications associated with them, such as M-PESA and E-Commerce and the use of such ICTs among women traders in the informal sector specifically for business communication. In the informal sector and among women traders, business information needs refers to the form of knowledge that is appropriate in easing the processes such as those of acquiring raw material, licensing, patenting; maximizing profits and reducing on the expenditures and any form of loss. The term women traders as used in this study refers to the female folks involved in a business that is intended to be of benefit to their livelihood. The informal sector consists of small scale units engaged in the production and distribution of goods and services with the primary objective of creating employment and incomes to those involved. Informal sector enterprises are mainly concerned about return on investment and not so much on profit and business expansion. The informal sector is used in this research to refer to an industry that engages in the production and sell of clothing, artifacts, and traditional furniture.

## **1.9 Theoretical framework**

The study adopted a theoretical framework to show the interrelations that are assumed to exist between the different concepts of the study. This study adopted two theories: diffusion of innovation and Technology Acceptance Model (TAM). Diffusion of innovation theory by Everett Rogers (1995) is a set of generalizations regarding the typical spread of innovations within a social system. Diffusion of innovation centers on the conditions which increase or decrease the likelihood that a new idea, product, or practice will be adopted by members of a given culture. Diffusion of innovation theory predicts that media as well as interpersonal contacts provide information and influence opinion and judgment. Innovation is one of the essential attributes that drive competitiveness in the informal sector and so an ability to effectively diffuse ICT innovation throughout the sector is pivotal for achieving its useful deployment.



Strong interpersonal ties with people who use ICTs for business information would be more effective in the formation and change of strongly held attitudes.

The Technology Acceptance Model (TAM) is a specification of the Theory of Reasoned Action (TRA) by Ajzen and Fishbein's to the case of technology adoption. It is an information systems theory that models how users accept and use technology. Developed by Fred Davis (1986) and Richard Bagozzi (1989) to explain software adoption based on TRA, technology acceptance model has become a widely used version of diffusion of innovation theory. Compared to classic diffusion theory of Rogers and others, TAM places more emphasis on subjective/psychological predispositions and social influences on behavioral intention to adopt an innovation. It was therefore necessary to facilitate the acceptance of ICTs among the women traders in the informal sector. By making the women traders aware of the significance that ICT plays in enhancing their businesses through speedy provision of business information and maximizing of profits, then there is going to be an intention to use the ICTs which will be actualized in the use of ICTs among the women traders in the informal sector.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

In this chapter the researcher examines the relevant literature written in the field of business information needs of women and their information seeking behaviour, Information Communication Technology (ICT), the informal sector and the benefits that information has to a business enterprise as well as the theoretical framework that support the study. It basically covers relevant contributions to this area of study that is, the role of ICTs in the provision of business information to women traders in the informal sector.

#### **2.2 Review of theoretical framework**

This research explores two theories; Diffusion of Innovation and Technology Acceptance Model that have been viewed as appropriate regarding ICTs and the informal sector and how they have been tailored to suit this research project.

##### **2.2.1 Diffusion of Innovation Theory**

Diffusion theory whose proponent is Everett Rogers can be described as a set of generalizations regarding the typical spread of innovations within a social system. Rogers (1995) defines diffusion as the process by which an innovation is communicated through certain channels over time among the members of a social system. Diffusion research centers on the conditions which increase or decrease the likelihood that a new idea, product, or practice will be adopted by members of a given culture. Diffusion of innovation theory predicts that media as well as interpersonal contacts provide information and influence opinion and judgment.

Studying how innovation occurs, Rogers (1995) argues that it consists of four stages: invention, diffusion (or communication) through the social system, time and consequences. The information flows through networks. The nature of networks and the roles opinion leaders play in them determine the likelihood that the innovation will be adopted. Innovation diffusion research has attempted to explain the variables that influence how and why users adopt a new information medium/ICT, such as the Internet.

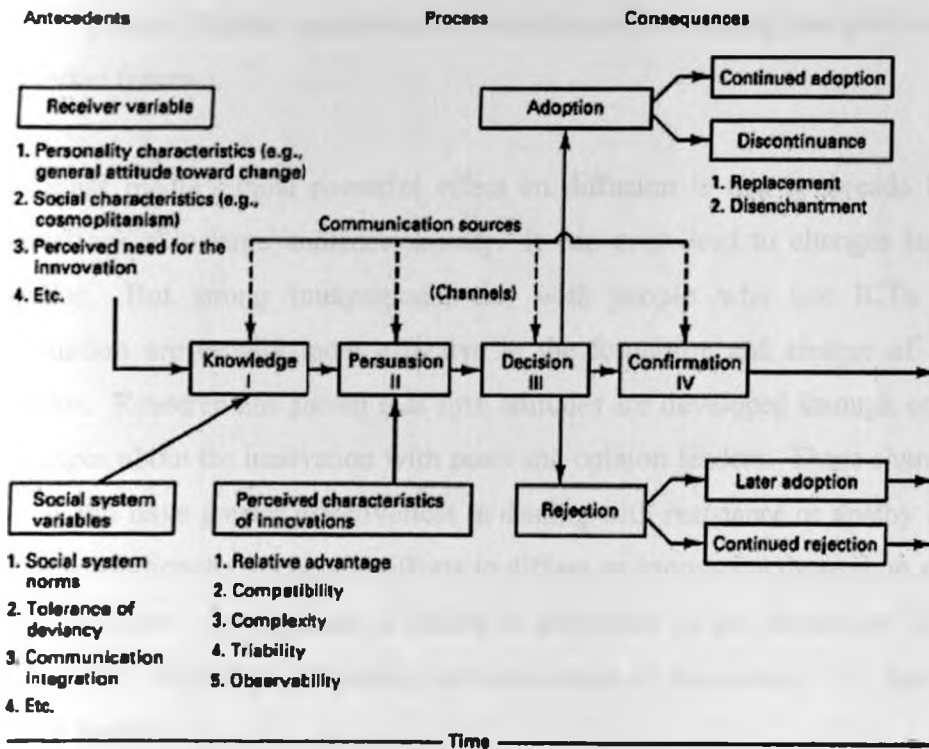
Opinion leaders exert influence on audience behaviour via their personal contact, but additional intermediaries called change agents and gatekeepers are also included in the process of diffusion. Five adopter categories are: Knowledge – person becomes aware of an innovation and has some idea of how it functions; Persuasion – person forms a favorable or unfavorable attitude toward the innovation; Decision – person engages in activities that lead to a choice to adopt or reject the innovation; Implementation – person puts an innovation into use; Confirmation – person evaluates the results of an innovation-decision already made.

The most striking feature of diffusion theory is that, for most members of a social system, the innovation-decision depends heavily on the innovation-decisions of the other members of the system. The innovation-decision is made through a cost-benefit analysis where the major obstacle is uncertainty. People will adopt an innovation if they believe that it will, all things considered, enhance their utility. So they must believe that the innovation may yield some relative advantage to the idea it supersedes. Also, in consideration of costs, people determine to what degree the innovation would disrupt other functioning facets of their daily life. Is it compatible with existing habits and values? Is it hard to use? The newness and unfamiliarity of an innovation infuse the cost-benefit analysis with a large dose of uncertainty. It sounds good, but does it work? Will it break? If I adopt it, will people think I'm weird?

Since people are on average risk-averse, the uncertainty will often result in a postponement of the decision until further evidence can be gathered. But the key is that this is not the case for everyone. Each individual's innovation-decision is largely framed by personal characteristics, and this diversity is what makes diffusion possible. Diffusion scholars divide the bell-shaped curve to characterize five categories of system member innovativeness, where innovativeness is defined as the degree to which an individual is relatively earlier in adopting new ideas than other members of a system. These groups are: 1) innovators, 2) early adopters, 3) early majority, 4) late majority, and 5) laggards. Figure 1, gives a breakdown of how an innovation diffuses and is either adopted or rejected by people in a given society and the influencing factors. The figure 1 focuses on

five elements: (i) the characteristics of an innovation which may influence its adoption; (ii) the decision-making process that occurs when individuals consider adopting a new idea, product or practice; (iii) the characteristics of individuals that make them likely to adopt an innovation; (iv) the consequences for individuals and society of adopting an innovation; and (v) communication channels used in the adoption process (Rogers, 1995).

**Figure 1: Conceptual framework for Diffusion of Innovation Theory**



*Source: Rogers, E.M. (1995). Diffusion of innovations (4th edition). New York: The Free Press. 290-300*

Now that we know the mechanisms of diffusion, we have a basis for considering what efforts are most successful in encouraging the spread of the innovation that is ICTs. It used to be assumed that the mass media had direct, immediate, and powerful effects on the mass audience. But diffusion theory argues that, since opinion leaders directly affect the tipping of an innovation, a powerful way to facilitate the adoption of ICTs among women traders in the informal sector is to affect the diffusion of this innovation (ICTs) which is to affect opinion leader attitudes.

Innovation is one of the essential attributes that drive competitiveness in the informal sector and so an ability to effectively diffuse ICT innovation throughout the sector is pivotal for achieving its useful deployment. According to Peansupap ...et al (2006) diffusion provides the capacity for delivering two types of benefits: process improvement and product development. Process innovation is focused on the 'how to' capacity that leads to improve or change traditional work processes by introducing cleverer or more effective ways to do things—this in turn can lead to management process productivity improvements. Product innovation is focused upon developing new products in response to market forces.

The mass media's most powerful effect on diffusion is that it spreads knowledge of innovations to a large audience rapidly. It can even lead to changes in weakly held attitudes. But strong interpersonal ties with people who use ICTs for business information are usually more effective in the formation and change of strongly held attitudes. Research has shown that firm attitudes are developed through communication exchanges about the innovation with peers and opinion leaders. These channels are more trusted and have greater effectiveness in dealing with resistance or apathy on the part of the target audience. Successful efforts to diffuse an innovation depend on characteristics of the situation. To eliminate a deficit of awareness of an innovation, ICTs are most appropriate. To change prevailing attitudes about an innovation, it is best to persuade opinion leaders.

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### **2.2.2 Technology Acceptance Model**

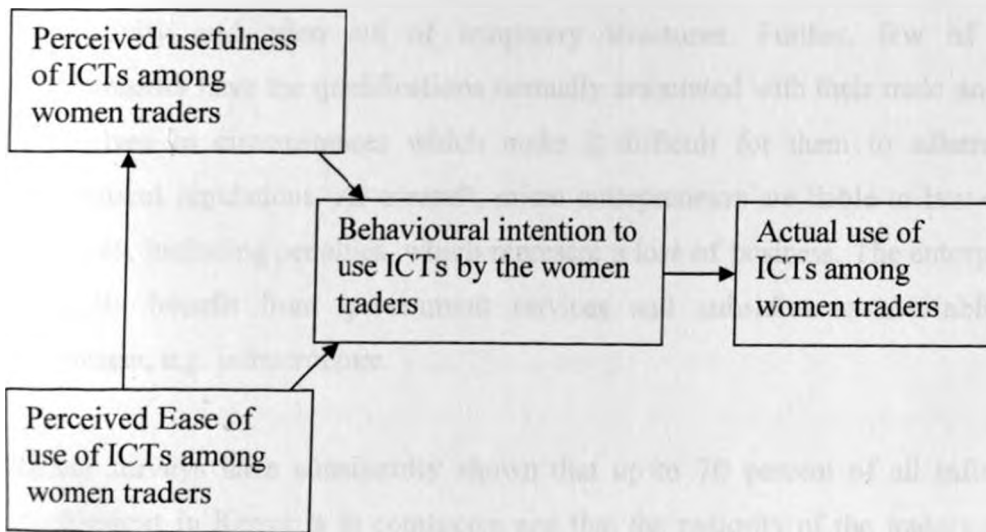
The Technology Acceptance Model (TAM) is a specification of the Theory of Reasoned Action (TRA) by Ajzen and Fishbein's to the case of technology adoption. It is an information systems theory that models how users accept and use technology. Developed by Fred Davis (1986) and Richard Bagozzi (1989) to explain software adoption based on theory of reasoned action, Technology Acceptance Model has become a widely used version of Diffusion of Innovation Theory. Compared to classic diffusion theory of Rogers and others, TAM places more emphasis on subjective/psychological predispositions and social influences on behavioral intention to adopt an innovation.

Venkatesh and Davis (2000) identified some of the key terms and concepts of Technology Acceptance Model as:

- (i) Usefulness and ease of use - perceived usefulness and perceived ease of use are key psychological determinants of decision to adopt. A wide variety of studies has confirmed the correlation of perceived usefulness and/or ease of use with adoption of technology, regardless of gender or level of experience.
- (ii) Usefulness to whom? - Venkatesh and Davis (2000) define perceived usefulness specifically as the extent to which the object of adoption is thought to enhance the individual's performance on the job. Others, however, define perceived usefulness as subjective utility to the citizen or consumer, depending on the context.

It can therefore be illustratively hypothesized as shown in figure 2, that the more the perceived usefulness of the innovation, the more likely adoption; the more the ease of use of an innovation, the more likely adoption and the lower the control by the subject over the benefits of the innovation, the less likely adoption.

**Figure 2: Conceptual framework for Technology Acceptance Model**



**Sources:** Davis et al... (1989) *Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3)* AND Venkatesh et al... (2003) *User acceptance of information technology: Toward a unified view. MIS Quarterly, 27(3)*

In line with TAM, as depicted in figure 2, it is necessary to facilitate the acceptance of ICTs among the women traders in the informal sector. By making the women traders aware of the importance that ICTs would play in enhancing their businesses through speedy provision of business information and maximizing of profits, then there is going to be an intention to use the ICTs which will definitely result to the actual use of ICTs among the women traders in the informal sector.

### **2.3 Informal sector and women in Kenya**

Maundu (1997) says that from an employment perspective, an informal sector may be defined as consisting of small scale units engaged in the production and distribution of goods and services with the primary objective of generating employment and incomes to those involved. This definition, however, excludes the fact that most enterprises in the informal sector are concerned about return on investment and not so much on profit and business expansion. Maundu further indicates that the informal sector is increasingly playing an important role in the Kenyan economy. The informal sector in Kenya consists of a wide range of small enterprises employing less than ten and in most instances less than five workers. These enterprises operate with little capital, at low levels of productivity and often out of temporary structures. Further, few of the micro-entrepreneurs have the qualifications normally associated with their trade and many find themselves in circumstances which make it difficult for them to adhere strictly to government regulations. As a result, micro entrepreneurs are liable to law enforcement measures, including penalties, which represent a loss of business. The enterprises do not generally benefit from government services and subsidies as available to larger enterprises, e.g. infrastructure.

Recent surveys have consistently shown that up to 70 percent of all informal sector employment in Kenya is in commerce and that the majority of the traders are women. The remaining 30 percent, mostly men are being referred to colloquially and officially as *Jua Kali* (hot sun) workers. They are involved in a variety of manufacturing and repair activities and in productive services such as metal, carpentry, handicraft, hairdressing or photography. *Jua Kali* artisans and related workers are estimated to have numbered

almost 270,000 enterprises in 1988; and are currently estimated at 900,000 enterprises employing about 2.7 million workers (National Development Plan for 1997-2001, 1997).

The informal sector is an important feature of most of the developing nations of Africa, Latin America and Asia. Women constitute a bulk in the larger informal sector of the developing world. Naturally, they represent the bulk of the informal-sector labor supply. They work at a low wage rate less than what is received by the male workers for the same work. Their job is insecure and thus unstable. They are generally restricted to low-productivity and ill-paid informal sector employment and experience higher dependency burdens. They are more likely to be poor and malnourished and less likely to get formal education, health care or clean water and sanitation (Sarkar and Bhuijali, 2005).

Chen (2000) says that women are over-represented in the informal sector worldwide. This basic fact has several dimensions. Firstly, the informal sector is the primary source of employment for women in most developing countries. Existing data suggest that the majority of economically active women in developing countries are engaged in the informal sector. In some countries in sub-Saharan Africa, virtually all of the female non-agricultural labor force is in the informal sector.

It therefore follows that the informal sector of the economy is a larger source of employment for women than for men in the developing world. However, as Datamation Foundation (2000) reveals, the women in the informal economy are lagging behind in productivity; apart from facing inequity in wages and social security. The women in the informal sector face increased vulnerabilities and insecurities in the new market regime. The unskilled women workers have experienced a decrease in their bargaining power as a result of the greater mobility of capital and skilled labor. Yet; in the recent years; innovative methods and ICTs have played a significant role in capacity building and skills enhancement of large number of workers including women traders from the 'informal and unorganized' sector of the economy. Innovative technologies can contribute to the informal sector's mobilization and education of women workers, advocacy for Worker Rights, linking of women producers to global markets, efficient



communication for micro enterprises of poor women, opportunities for Skill-building and Employment and opportunities for Self-employment.

The recommendations that focus on the informal sector include: the provision of improved ICT access for women in the informal sector; the training of women in the use of ICTs for record keeping; the linking of ICT organizations with Women's Rights organizations and the development of channels to allow foreign exchange trade for informal sector women. The use of ICTs to provide product, pricing and market information for informal sector women will go along way in improving the condition of these women.

#### **2.4 Information needs of business persons**

An information need is a requirement that drives people into information seeking. An information need evolves from an awareness of something missing, which necessitates the seeking of information that might contribute to understanding and meaning (Kuhlthau, 1993). Citing Belkin, Oddy and Brooks (1982), Ikoja-Odongo (2006) sees information as a method used to solve problems. A problem is regarded as an inadequate state of knowledge, better known as an Anomalous State of Knowledge (ASK). Information seeking is used to resolve the 'inadequacy' which can manifest itself as a gap, shortage, uncertainty or incoherence.

Citing MacKay, Taylor (1968) describes an individual with an information need as having a certain incompleteness in his picture of the world, an inadequacy in what we might call his 'state of readiness' to interact purposefully with the world around him. This 'inadequacy' led Taylor (1968) to discern four levels of information needs;

(i) *Visceral need* which is an existing need, one that either on a conscious or unconscious level is still unexpressed. It can manifest itself in the form of 'unease', which could potentially develop into action as more information becomes available; (ii) *the conscious need* is an expressed need, albeit expressed rather vaguely, ambiguously and indecisively. By communicating the need, it is hoped that clarity can be achieved; (iii) *the formalized*

*need* is formally stated as a rational statement; (iv) *the compromised need* represents the question as eventually posed to an information system.

Devadason and Lingam (1997) distinguish between expressed, unexpressed and dormant information needs. Dormant needs are described as needs of which a user is still unaware, potentially activated by an information service provider. However, unconscious needs do not necessarily (or eventually) lead to action (Krikelas, 1983). Smith (1991) classifies information needs as being either general or specific: general information refers to current information on topics of interest, while specific information involves finding solutions, and problem solving. Information should, however, not be seen as a need in itself, but rather as a construct or tool used to satisfy primary human needs (Van Lill, 2000; Fine, 1984). From the above definitions, it is clear that an information need is inwardly born, with an aim to fulfill a certain desire for purposes of an accomplishment: business, education, or research.

#### **2.4.1 Business information needs**

A business information need is a situation that arises when an informal entrepreneur encounters a work related problem that can be resolved through some information (Ikoja-Odongo and Ocholla, 2004). In a study conducted by Ikoja-Odongo (2002) on business information needs of 602 informal entrepreneurs in Uganda, it was established that access to, and use of, business information formed part of the entrepreneur's daily life. The business information needs were found to be contextual. Entrepreneurs typically needed information on subjects that enabled them to solve entrepreneurial issues in their work places. The study established that training and skills development, markets and marketing techniques, including prices and pricing techniques, sources of raw materials, finance, tools and equipment, business management skills, new areas of investment, product quality improvement and record keeping, were key areas for which information was necessary. Ikoja-Odongo (2002) went ahead to identify the most wanted business information by artisans in Uganda's informal sector as being information about markets (15.2%), suppliers (14.1%), starting a viable business (13%), and money to start and sustain a business (12.8%), training (12.1%), and government information about business development (8.7%), viable business trends, how other countries with similar businesses have developed (6.5%) and others accounting for 2.3 %.

Alunga (2004) identifies some of the areas of need that can be fulfilled through provision of the right business information as:-

(i) *Credit facilities/Loans* is a need that has been identified by Imende (1998) as ‘the information required by Small and Medium Enterprises (SME’s) on financial availability and conditions attached to the availability: loans overdrafts, repayment terms, credits, lending institutions and investment opportunities. Most of the women in the informal sector are unaware from where to acquire favorable credit offers in terms of loans with low interest rates. Most of them start their business activities with very minimal capital and go about their businesses with the same’. In another study conducted by Moyi (2000) it was noted that among the SME’s involved in manufacturing credit related information needs are second only to market information needs.

(ii) *Information on training* is a need that must be fulfilled. Imende (1998) sees information on training opportunities, availability, affordability, location, level of training and range of courses offered is important for survival of enterprises. This also includes seminars and workshops that are relevant.

(iii) *Legal ownership information*, this is mainly concerned with patents. Women traders in the informal sector come up with novel ideas, but, the rights of ownership to these products are not in their names. They are unaware of the procedure to go about to do so and even for those who are aware of its existence do not seek a patent because they see the acquisition hampered by bureaucracy and corruption. We have recently seen the loss of the *ciondo* to the Chinese which was a profound work of craft by Kenyan women, of recent has been the battle for the *kikoi*, which was won, but is a wake up call to the creative brains in Kenya. This has been well advised by government officials for example in the *Daily Nation newspaper*; an article reported that artisans were advised, “To patent their inventions, to avoid piracy. Eng. Sharawe, who was the then Permanent Secretary for Technical Training and Applied Technology, said Kenyan artisans had in the past lost rights to their intellectual property because of lack of patents. He told them

to get assistance from the Kenya Industrial Property Institute Office in relation to the patenting of their products” (*Daily Nation, June 3 1996, 23*).

(iv) *Market Information.* The women trades in the informal sector are not well informed of the market size they can tap. Majority of them only focus on tourists and the local market. Methods of accessing the market through the use of advertisements are neither used to promote their products nor to notify potential customers of their existence. Featuring on market information is tenders or contracts that artisans in this sector can get information about. These artisans are not also aware from where they can gather information that they can use to acquire raw materials or supplies.

According to Kimuyu and Omiti (2000) the promotion of MSE products through ICT facilities such as the electronic media, print media, trade exhibitions, posters/fliers/brochures, and private or public marketing bodies was found to be minimal. Quality of products and services as well as customer satisfaction was the main method of promotion of their goods and services. Turning sources of market information, a pattern emerges that 62.7% of the investigated had no specific source of market information, while 32.7% said they relied on clientele satisfaction and quality of products as the main ways of expanding their markets.

(v) *Information on appropriate Technology.* Technology, which may be conceived as a system of knowledge, skills, experience and organization, may be obtained from international markets. Technology is used to produce goods, services, to add value and profit and is found in operating manuals, specifications, patents and software. Technology is also embedded in people’s heads and organizational routines. Apart from purchase on technology markets, it could be freely obtained through training, for example in overseas countries, reverse-engineering, in conferences, seminars, etc.

Finding technology is an important concern of existing and new enterprises. For parties looking for technology, the collection and effective use of information will help ensure success and reduce the risk that attends to transfer agreements.

According to Ocholla and Ojiambo (1993) information is essential in technology acquisition because it: indicates who has and does what; gives what others have done and with what results; gives both negative and positive results; gives what is needed to achieve results; embodies a collection of information relative to particular and related fields; if correctly interpreted and used, it can indicate future trends; gives a competitive advantage; saves money and repetition work.

At the enterprise level technological information provides: Available technologies and possible alternative sources; Conditions for obtaining such technologies; Conditions in potential product market; Infrastructure requirements; Labor demands; Financial involvement; Research and development facility requirements and Intellectual property protection (Ocholla and Ojiambo, 1993).

Majority of women are not aware of what kind of technological equipment they can use to boost their production output and the quality of their products and services. This is so because they are not aware from where to acquire them from or even their existence.

*(vi) Government Regulations.* Information regarding the Kenya government's policy concerning the operations and activities of this sector are useful in that they will inform the women traders and the sector at large on the procedures they can suitably follow when it comes to addressing issues on taxation and government contracts. Another aspect of regulation that the women trader should be informed on is about standards offered by the Kenya Bureau of Standards (KEBS). According to the Institute of Policy Analysis and Research (IPAR) (2003) operation without license is a well known characteristic of micro enterprises and is the source of many problems of them, especially from Local Authorities.

*(vii) Health information.* The relationship between involvement in the informal sector and the health of participants is merely mentioned in literature sources. There are implications for the health of participants in this sector in which health is exacerbated by the unregulated nature of the sector activities, which involve the use of hazardous materials

and processes. World Health Organization (WHO) is involved in ensuring a safer working environment for all by having the following objective “attainment by all peoples of the highest possible level of health. Health as defined in the WHO constitution is a state of complete physical, mental and social well being and not merely the absence of disease in or infirmity. Long hours of work, lack of protective clothing or equipment, lack of sanitation facilities (such as shower, a simple toilet or even access to water), low pay rates, and job insecurity place a heavy burden on the well being of workers. They cause both physiological stress and the resulting fatigue can contribute to accidents on the work floor. When considering the impact of information on development, it would appear that what is meant is information in the sense of changes in people and the consequences thereof.

#### **2.4.2 Business information needs of women in the informal sector**

Women possess needs that vary from personal; health; financial; spiritual; professional to economic. Olorunda and Oyelude (2003) believe, “because they need to maintain themselves and their families, they have economic information needs. They need information about their social and economic environment”.

As noted by the IDRC Gender and Information Working Group, most of the positive effects of the “information revolution” have bypassed women. “There has been little research done on women’s information needs and access to appropriate information in developing countries. While this is changing, the “information highway” is still predominantly male-oriented, and often a forum for gender discrimination, intimidation and even harassment (Huyer, 1997).

Access to adequate and timely business information is a great priority of women who are inclined to economic development. Easy access to Information and Communication Technologies, adequate training in their use and provision for participation in policy and decision-making for professional women is of utmost importance. As women become involved in making the policies affecting new technologies, then it is easy for them to be integrated in the development process (Olorunda and Oyelude, 2003).

Mchombu (2000) in Ikoja-Odongo (2002) discusses information needs for small business in a rapidly changing environment, particularly in Africa. She notes an increasingly political instability in many African countries, intensification of government regulations over business activities, particularly those affecting profitability such as quality; safety considerations, taxes and tough competition as more countries are investing in Africa under new liberalization measures, do give rise to both risks and opportunities for small businesses that could affect their information needs. She emphasizes that focus on business information needs have confirmed existence of information needs for small businesses. She did identify the major business information needs of women in small businesses in Botswana as information on business management, how to run a business, accounting skills, marketing, quality management skills, technical skills, information on financial assistance/grants, general legal information, information on business diversification and sources of raw materials as being most important.

Women's business information needs are recognized in practically all spheres of social life as explained by the World Bank (1994): -

*(i) In the economy:* Women need information to improve and reinforce their economic independence through commercial activities, such as information on exchange-rate fluctuations, international market trends, prices of foodstuffs and other commodities on the market, and bank transactions (conditions for obtaining credit, etc.). They might then integrate themselves economically with women of other towns and even other regions.

*(ii) In the professions:* Women can reinforce their positions with appropriate training. Women who know about the new findings in their areas of specialization can enroll for refresher courses and participate in meetings and seminars to improve their work.

*(iii) In education:* African women need at least a minimum basic education that, in the worst-case scenario, would enable them to read and write their names and to distinguish between the necessary and the superfluous and between good and evil. This basic education should also enable women to actualize their traditional knowledge and be more involved in improving their conditions of life. Women who cannot move far should have

the opportunity to pursue their education by correspondence. Teachers might also instruct rural women in their own mother tongues.

One can declare, without fear of overestimation, that these business information needs are as characteristic of rural as of urban women (World Bank, 1994).

The identified business information needs of women in small businesses in Botswana by Mchombu (2000) were business management, sources of financial assistance, business diversification and legal information. The study also found that women obtain most of their business information through informal channels and that women lack awareness of formal information resources. The study makes recommendations on how to design an appropriate information service for women in small businesses.

The researcher believes that the business information needs of women may not necessarily be any different from those of men, but rather the opportunities to fulfill these information needs are not equal for women traders. It is therefore necessary that a level playground for both the players (women and men) be encouraged to ensure that no one party has an upper hand than the other, when ideally we know that business is all about competition, not only for customers but also for profits and expansion. Otherwise, women should be given a head start so as to allow for evenness. Time may be a construing factor to the acquisition of the business information required by these women. The availability of business information is not really a problem, but the unexpressed needs by the women and the identification of appropriate channels to avail the same information is the impediment.



## 2.5 Information and Communication Technology (ICT)

According to EPZA (2005) Information and Communication Technology (ICT) may be defined as computer hardware and software and telecommunications technology. Basically the convergence of telecommunications, broadcasting and computer technologies in creating new products and services, as well as new ways of learning, entertainment and doing business. This study looks at radio, television, mobile telephone and the internet as ICT that are available to women traders in the informal sector. These ICTs are also believed to have a big influence to any form of business. According to O'Brien (2006), as cited by Muhu (2007) IT plays three fundamental roles in business. Firstly, information systems (IS) are used to support business processes and operations for example, recording customer purchases, keeping track of inventory, managing payroll, stock control and evaluating sales trends. Secondly, IS play a vital role in supporting decision making in business enterprises for example decisions on what lines of merchandise need to be added or discontinued, or what kinds of investment they require. Thirdly, IS are used to support a business' competitive advantage through the innovative use of ICT for example through innovations that attract new customers and build customer loyalty.

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IS therefore play a vital role in the business success of an enterprise by providing the information a business needs for efficient operation, effective management and competitive advantage. O'Brien (2006) states that the IS function in an organization represents a major functional area of the business that is as important to the business as the functions of accounting, finance, operations management, marketing and human resources. It also represents an important factor affecting operational efficiency, employee productivity, staff morale, customer service and satisfaction. Furthermore, IS represents a vital dynamic and challenging career opportunity for millions of men and women (Turban et al, 2001).

If the sector is to reap the benefits and strategic uses of ICT, they need to begin using the most accessible or available ICTs to them as they advance to the complex ones like

computers that require literacy. Women traders by identifying their business information needs can easily match them with the most appropriate ICT to facilitate the same.

### **2.5.1 Types of ICT**

APC (2003) has identified that while ICTs include a variety of technologies, the Internet has proved the most innovative and fastest growing new technology. This network of networks has become critically important in the development of the new information and/or knowledge society, contributing to the development of what many are now calling the new knowledge-based global economy. Many of the more traditional ICTs such as radio and television broadcasting are converging on the Internet, using it, becoming part of it, and often becoming indistinguishable from it.

Information Technology (IT) uses computers, which have become indispensable in modern societies, to process data and save time and effort. IT employs the use of computer hardware and peripherals, as well as software, and requires computer literacy on the part of its users.

Telecommunication Technologies include telephones (with fax) and the broadcasting of radio and television, often through satellites. Networking Technologies of which the best known is the Internet, but which has extended to mobile phone technology, Voice Over Internet Protocol (VOIP) telephony, satellite communications, and other forms of communication that are still in their infancy. Networking technologies include the Internet, mobile telephones and cables, Digital Subscriber Line, satellite and other broadband connectivity.

### **2.5.2 Women and ICTs**

Information and Communications Technology (ICT) has no doubt been recognized as a potent force that can transform the development pace and status of a country. The potential benefits for women with the resources to access and use new ICTs are enormous. For society as a whole, ICTs offer immense possibilities for reducing poverty by providing income generating opportunities, overcoming women's isolation, giving

women a voice, improving governance and advancing gender equality. In addition, ICTs have provided various options to increase the reach and speed of communication

Kuga . Ramilo and Cinco (2007) believe that in order to maximize the potentials of ICT in effecting gender equality and women's empowerment, there is a need to not only have a clearer understanding of the concept of gender, but to also consciously integrate a gender perspective in ICT and improve our ability in identifying and analyzing gender and ICT issues. At the outset, while it is acknowledged that most development paradigms do incorporate gender as a factor, it must be noted that these are primarily and largely as an add-on or as an afterthought. It must also be noted that several developmental agencies have now taken a broad-based approach, whereby they have placed gender as a cross-cutting thematic area of developmental work. Kuga, Ramilo and Cinco (2007) add that ICTs have long been believed to be gender neutral but, contradictorily, the ICT sector is primarily a male domain. This, in and of itself, is an issue as it dismisses the invisibility of women in the ICT field as given. ICT for development frameworks and initiatives that do not incorporate gender as a key factor and concern run the risk of widening inequalities between women and men. For example, in attempts to provide universal access to ICTs among rural communities, several development agencies fail to consider women's particular needs and realities in planning and implementation.

ICT is an important tool to address women's basic needs but, more importantly, it also serves as a means for women to lead themselves out of poverty. "Women in poverty may lack education and may be illiterate, but this should not be equated with their lack of wisdom, survival skills or resilience," stressed Usha Reddi, Director of the Commonwealth Educational Media Centre for Asia. Women must be enabled to use ICT effectively within a social, economic and cultural fabric that has consistently disallowed this.

Marcelle (2000) asserts that the best approach to incorporating gender considerations into ICT policy-making would be to undertake two related types of improvement in parallel.

The first would be to make ICT policies more effective; the second would be to develop comprehensive mechanisms to treat gender issues in all ICT policies and programs.

African women's participation in the global information society is hindered by many challenges and barriers, such as infrastructure deficiencies, policy misdiagnoses, and the structural and cultural features of African societies. The first step in bringing about the desired changes would be to define an agenda of interventions that African women and their allies can use to make a gender-balanced information society a reality in Africa.

### **2.5.3 ICT policy**

Marcelle (2000) defines a national ICT policy as an integrated set of decisions, guidelines, laws, regulations, and other mechanisms geared to directing and shaping the production, acquisition, and use of ICTs. Because the ICT sector is heterogeneous, extending beyond traditional classifications of industrial or services sectors and because production and diffusion of ICTs are of equal importance, national policies in the ICT sector intersect with a number of other areas of policy-making, technology, media, industrial, and telecommunications policy.

ICT is the World's fastest growing economic activity; the sector has turned the globe into an increasingly interconnected network of individuals, firms, schools and governments communicating and interacting with each other through a variety of channels and providing economic opportunities transcending borders, languages and cultures.

Reijswoud (2006) says that Kenya published an ICT Policy document in March 2006. This document incorporated comments from the public. However, this document does not have any legislative status. It does not have the force of law. Currently, the Kenyan Ministry of Information and Communications has circulated an ICT Bill. The Ministry is in the process of collecting comments on that bill. There is not a clear linkage between the bill and the policy.

The ICT Policymaking process has been an elite driven process. The main drivers have been the private sector, through a trade association called the Kenya ICT Federation (KIF), as well as civil society, through an organization called the Kenya ICT Network

(Kictanet). To some extent, Kictanet represents social justice interests, by including representatives of open source organizations, gender activists and the youth. However, there is also a high level of private sector participation in Kictanet. Finally, the government is under to legal or regulatory obligation to consider the public's comments on the ICT policy in Kenya, which weakens the democratic implications of the policy.

The policy probably is good for the Kenyan economy. It stabilizes and clarifies the market to some extent for both large multinationals as well as for smaller technology focused businesses in Kenya.

UNCSTD (1997) produced a comprehensive set of best-practice guidelines for ICT policy-making in developing countries. Topics covered are producing and using ICTs; developing human-resources; managing ICTs for development; facilitating access to ICT networks; promoting and financing ICTs; creating and accessing Science Technology knowledge; monitoring and influencing the rules of the game in the global information society; and the role of the United Nations system.

The completion of an engendered ICT policy in Kenya will go along way in giving women leverage in the informal sector as well as other sectors of the economy. ICTs and more so computers are believed to be a means by which men have discriminated women; so instead of easing the work in the various industries, ICTs have instead been used as tools for harassment.

## **2.6 Research gaps**

From all the literature consulted by the researcher, it is quite clear that no one material focused purely on women traders, ICT and the informal sector. This is a pertinent issue that needs to be researched considering ICTs can no longer be divorced from any form or type of business if maximum profits are to be realized. Women on the other hand need to assert themselves if they are to cut themselves a niche in this sector, not only in terms of numbers but in performance and the use of facilities that enhance their trade. It is also an issue of concern that many researchers have generalized their papers in the field of ICT, mainly to look at how women can effectively use ICT, not necessarily for business or in the informal sector which has suffered neglect. An example is a study that was conducted by Opiyo and K' Akumu (2006) on ICT application in the informal sector, mainly focused on the great use of ICT by both genders in the informal sector. Most researchers have merely identified business information needs of women without necessarily proposing appropriate channels to get the information to the informal sector traders.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter briefly describes the procedures that were undertaken in accomplishing the study. The chapter highlights the research design, area of study, population, sampling procedure, data collection methods and instruments, data presentation and analysis.

#### **3.2 Research design**

Research design is a strategy, the plan and structure of conducting the research project. It is a logical manner in which individuals or other units are compared and analyzed. Beri (2000) says that the research design must answer the research question.

To ensure greater reliability of the data collection, the researcher adopted a case study research method involving the Westlands Maasai Market. According to Gerring (2004) a case study can best be defined as an intensive study of a single unit with an aim to generalize across a larger set of units. Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships. This allowed for a concentrated focus on a single phenomenon, which was the use of ICT for business information by the women traders.

This case study enabled the selection of random samples from small populations obtaining empirical knowledge of a contemporary nature. This allowed the researcher to come up with knowledge that facilitated generalizations to be made about characteristics, opinions, beliefs and attributes of the entire population being studied.

### **3.3 Area of study**

The study was conducted at Westlands Maasai Market located in Westlands Division of Nairobi where the major activities women engage in relate to the sale of whatever products (baskets, pots, sandals, papyrus sits, mats, toys, necklaces, carvings and clothes) that result from their handiworks including weaving of baskets, pottery, carving, bead work, tailoring as the major economic activities. This case study was selected owing to the fact that the other markets are temporary and traders keep moving from one location to another, this was deemed to be quite inappropriate in as far as data collection was involved. This area of study was also selected because the initial establishment of this market was to offer an opportunity for women traders in the informal sector.

### **3.4 Population of the study**

According to Busha (1980), population is any set of persons or objects that possess at least one common characteristic. The study focused on the women traders at the Westlands Maasai Market. The women traders were composed of people of different educational backgrounds, ranging from primary to university graduates. The women traders were involved in selling different artifacts, sandals, clothing and traditional furniture. The population of both men and women traders at the Westlands Maasai Market as presented in the list of traders registered with the market association, stood at 800 traders, spread in 300 stalls licensed by the City Council of Nairobi (CCN); with 500 women traders, thus being the majority at the time of conducting this study in October, 2008.

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### 3.5 Sampling and sampling techniques

A sample is one of a number of things or one part of a whole, which can be examined to see what people like. From a total population of 500 women traders, 100 women traders made the sample for this research project. This sample size was derived from Macorr sample size calculator on [http://www.macorr.com/ss\\_calculator.htm](http://www.macorr.com/ss_calculator.htm) as indicated below:

**Table 1: Sample size calculator**

Determine Sample Size		
Confidence Level:	95%	
Confidence Interval:	8.8	(%)
Population:	500	
Sample Size:	100	
Find Confidence Interval		
Confidence Level:	95%	
Sample Size:	100	
Population:	500	
Percentage:	50	(%)
Confidence Interval:	8.8	(%)

Source: Macorr sample size calculator on [http://www.macorr.com/ss\\_calculator.htm](http://www.macorr.com/ss_calculator.htm)

So as to achieve a representation from every sub-group, the researcher used stratified sampling technique based on the goods that the women traders produce and sell, for example, all the women involved in the selling of sandals formed a stratum. The sample was stratified as follows, women traders involved in the making and selling of clothing/traditional wears like *kikoi*, shirts, sandals, earrings, necklaces and bangles; traditional furniture; pots, sculptures/carvings; paintings; bags and children toys. Within each stratum, 20 women traders were picked through simple random sampling technique from the list of traders registered with the market association.

**Table 2: Strata and sample size for women traders**

<b>Types of Good</b>	<b>Examples</b>	<b>No. of women</b>
Clothing/traditional wear	<i>Kikoi</i> , shirts, sandals, earrings, necklaces and bangles	20
Traditional furniture	Kitchen stool, 3 legged stools, papyrus sofa sets, tables and racks	20
Pots, sculptures/carvings	Wooden carvings, stone carvings, metallic models	20
Paintings	Cloth paintings, batik, framed paintings.	20
Sisal and other papyrus products	<i>Ciondo</i> , mats,	20
<b>TOTAL</b>		<b>100</b>

Source: Research data

### **3.6 Data collection methods and procedure**

Data was collected using a combination of data gathering methods. These included: pre-designed questionnaires and literature surveys, which involved reading books, journals and publications with relevant literature as well as surfing the Internet.

#### **3.6.1 Self administered questionnaires**

These are questionnaires that the respondents are expected to fill independently with little assistance from the researcher. They are tools which involved writing down questions to which the respondents are required to answer in writing. Closed ended questionnaires were administered to the women traders. They were distributed to the 27 women traders who did not express difficulty in filling them. The specific reasons for choosing self-administered questionnaires include: the following category mentioned as the population of the study was educated enough to provide relevant answers to the questions and it was the cheapest and easiest method of collecting large amounts of data.

#### **3.6.2. Researcher administered questionnaires**

These were administered to 73 women traders who had difficulty in filling in the self administered questionnaires. The researcher read and interpreted the questions to the respondents and recorded the responses as given by the women traders. These questionnaires were a temporary measure incase the respondents were not in a position of independently filling in the self administered questionnaires.

#### **3.6.3 Literature surveys**

A wide range of literature related to the research topic was consulted; these resources included books, journals and publications with the relevant literature as well as through surfing the Internet. This method of data collection was also preferred because it gave the researcher an insight into what other researchers had written about ICT and the informal sector. Through this method, the researcher was able to relate the findings of the study to those of other researches which allowed for confirmation in case of any similarities and explanation of disparities.

### **3.8 Ethical considerations**

Individual consent was the basis for one to participate in the study. No respondent was coerced into giving information she felt was not worth revealing in terms of security or personal reasons. Information was treated with confidentiality in case there was need for that. Data collected was used for this research alone and would therefore not be revealed to any other party with need to carry out a similar study.

For mutual trust, a letter of introduction to carry out the research was obtained from the Director of School of Journalism and Mass Communication, University of Nairobi and was presented to the concerned authority/individual for purposes of identification of the researcher and the study being carried out.

### **3.9 Data analysis and presentation**

This involved the preparation of data collected into useful, clear and understandable information. Data analysis and processing involved coding, editing and tabulating. The data collected from the field was analyzed and processed into meaningful and relevant information. It was coded, edited and tabulated. It was also accorded percentages to facilitate analysis. Statistical Package for Social Science (SPSS) version 12 was used to analyze the primary data that was collected. Content analysis technique was used to process secondary and qualitative data for the study. Qualitative data was analyzed by comparison to findings already known and conclusions made depending on how the findings related to the research questions. Data was then presented in headings and raw data then converted into totals. To better the understanding of the findings, the data was then presented into percentages, pie charts and tables with an analysis as discussed in chapter four

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF FINDINGS

#### 4.1 Introduction

This chapter presents a detailed analysis and interpretation of data that was collected from the respondents. The data was collected from the women traders at the Westlands Maasai Market. The researcher collected data by the use of questionnaires and reviewing of literature. All the targeted 100 respondents were successfully contacted, thus there was a 100% response rate. This demonstrates that the respondents were very cooperative to the researcher. This further added to the research's success. This chapter has been divided into subheadings that reflect the objectives of the study.

#### 4.2 Demographic information of respondents

ICTs adoption and use can be affected by demographics. The demographic information of the respondents covered in this study were: age, level of education and years in small scale business.

##### 4.2.1 Age of respondents

The age of the respondents ranged from 18-60 years. From table 3, it can be seen that 45% of the respondents were in the 18-30 years age group, 38% of the respondents were aged between 31-40 years, 16% of the respondents belonged to 41-50 years age bracket, while only 1% was in the 51-60 years age group. The mean age of the respondents was 32 years. The age of the women traders at the Westlands Maasai Market was mainly concentrated between the ages of 18-40 years with 83% of the respondents falling in this bracket. In a study conducted by Karuombe (2002) on the small and micro enterprises in Namibia, 75% of the informal sector operators fell into the age group 15-40 years. The Labour Resource and Research Institute (LaRRI) (2004) study on the informal sector in Namibia also supports this findings because it found out that most of the traders in the informal sector are below 35 years.

**Table 3: Age of respondents**

Age	Frequency	Percent	Valid Percent	Cumulative Percent
18-30 years	45	45.0	45.0	45.0
31-40 years	38	38.0	38.0	83.0
41-50 years	16	16.0	16.0	99.0
51-60 years	1	1.0	1.0	100.0
<b>Total</b>	<b>100</b>	<b>100.0</b>	<b>100.0</b>	

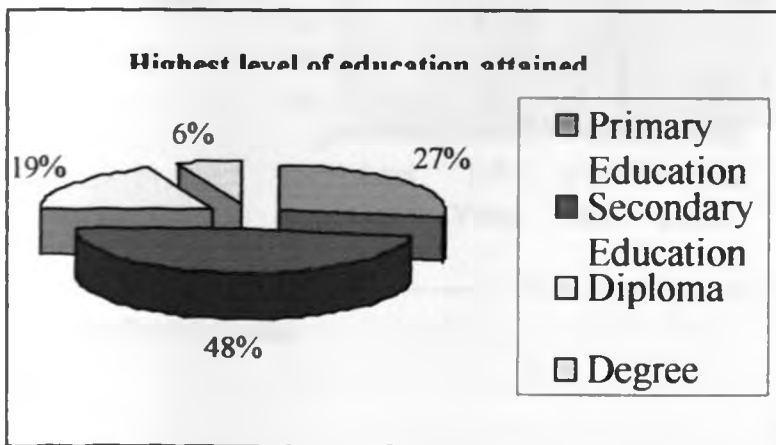
Source: Research data

Due to the intensity of the labour that is involved in the informal sector, it may be assumed that age is a determinant for entry or operation in this sector. From the responses received, most of the employees in this sector are of a youthful age and economically active and their adoption of ICT is assumed to be easier as would have been the respondents of more advanced years of above 50. Most of the respondents are of a youthful age and have grown during the development of most ICTs.

**4.2.2 Highest level of education attained**

In terms of the highest level of education attained, 48% of the respondents indicated having completed secondary education; 27% had achieved primary education; 19% had successfully completed diploma courses and 6% were holders of undergraduate degrees. The findings are summarized in figure 3.

**Figure 3: Highest level of education attained**



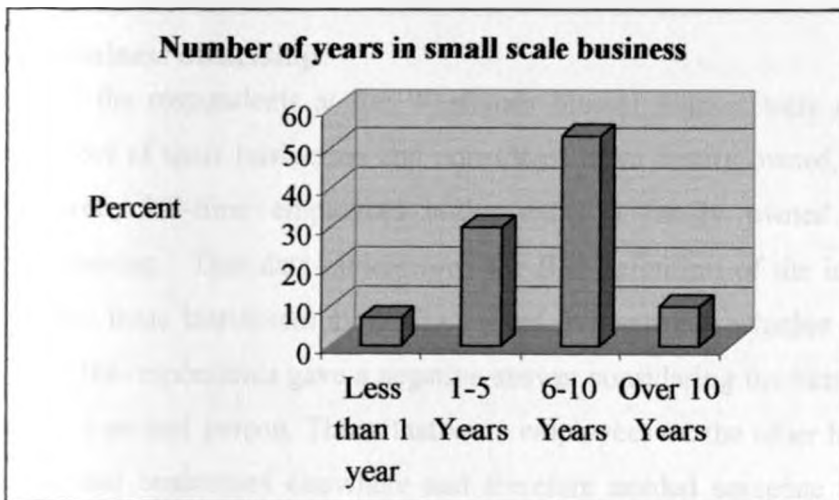
Source: Research data

From the responses on the age factor, a relationship was drawn indicating that most of those aged between 18-40 years had also completed secondary education, with all the holders of undergraduate degrees falling in the 18-30 years age bracket. A major characteristic of the education level of the women traders in the informal sector as reflected in the responses received and also observed by Ikoja-Odongo and Ocholla (2004) among entrepreneurs in the informal sector in Uganda is that the largest population was persons with low education. Most of the respondents had completed primary and secondary levels of education. Though not many, college graduates are working in the informal sector just like those who have not attended any education at all.

#### 4.2.3 Years in small scale business

In relation to the amount of time that the respondents had been in business at the Westlands Maasai Market, it was found that 53% of the respondents had been in business between 6-10 Years; 30% indicated 1-5 years; 10% had operated their businesses for over 10 years, while only 7% had been in business for less than 1 year. The mean number of years that the respondents had been in business is 6.2 years. Figure 4 gives a summary of the number of years the respondents had been in business.

**Figure 4: Number of years in small scale business**



Source: Research data

The amount of time that the respondents had been in business mainly coincided with their levels of education and, this was depicted in the fact that all the respondents that claimed to be holders of undergraduate degrees were between the ages of 18-30 years, and had been in business for between 1-5 years. However this seemed to contradict the study conducted by Ikoja-Odongo and Ocholla (2004), because they concluded that most of their respondents had been in the sector for not more than 5 years. This may well be explained in the fact that the informal sector in Kenya seemed to have been in existence and even appreciated by the government much earlier, thus offered a basis for research as depicted in the concept of the informal sector that was introduced into international usage in 1972 by the International Labour Organization (ILO) in its Kenya Mission Report. On the contrary, the informal sector in Uganda grew at an annual rate of 25% between 1995 and 1998 (Katatumba, 1998), which is a much later date as compared to the growth of the sector in Kenya from early 80s.

### **4.3 General information on the business of respondents**

The study sought information on the businesses operated by the respondents. Among the areas of interest were; business ownership, target market, number of employees, monthly turnover and the use of internet based ICTs like e-mails and websites.

#### **4.3.1 Business ownership**

88% of the respondents at the Westlands Maasai Market were owners and full-time employees of their businesses and considered them family owned, while the remaining 12% were full-time employees under either a family owned business or a sole proprietorship. This data underscores the ILO definition of the informal sector which considers these businesses as family owned. When asked whether they had employees, most of the respondents gave a negative answer considering the turnover to be too low to warrant a second person. Those that were employees on the other hand claimed that the owners had businesses elsewhere and therefore needed someone to operate the small scale business at the Westlands Maasai Market. Once again looking at the study conducted among entrepreneurs in the informal sector in Uganda by Ikoja-Odongo and Ocholla (2004), most entrepreneurs are full-time employees in their trades. In that study more than three-quarters, or 489 (81.2%), were full-time employees.



### **4.3.2 Geographical location of the target market**

93% of the respondents accounted for the percentage of the businesses whose target market was Nairobi and its environs and other parts of Kenya. 7% concentrated their business among the customers in Nairobi and its environs. The women traders believed that their businesses were carried out on a small scale and could therefore not afford to venture into the East African Market, though some of their customers were traders from Africa and other continents. They claimed to receive other business people who engaged in selling the same goods mainly from Uganda and Tanzania and therefore came to the Westlands Maasai Market for supplies.

### **4.3.3 Business turnover**

The question on monthly turnover raised jitters amongst most of the women traders who were concerned about its importance to the study; however when the researcher explained that it was all for academic purpose, only 85 of the 100 respondents gave a monthly turnover. From the responses, 78% of the respondents indicated that their monthly turnover was between Kshs. 10,001-50,000; 4% of the respondents gave their monthly turnover as below Kshs 10,000; and 3% of the respondents' monthly turnover was between Kshs.50,001-100,000. The mean monthly turnover stood at Kshs 30,647(Kshs10,001-50,000). The respondents also claimed that it was so hard to estimate their monthly turnover because at times the sale is unusually too low; an example was given of the month of September 2008, when business was almost at a standstill.

### **4.3.4 Business e-mails and websites**

Venturing into the ICT sector, the owners of the businesses were asked to pick which internet ICTs they used for their business at the Westlands Maasai Market; and out of the 88 owners, none had a website but 86% had e-mail addresses that they specifically used for the business. This could not be verified because the women traders could give their personal e-mail addresses and claim to be using them for the business. Nevertheless, the researcher believed that it was a step in the right direction as e-mails are cheap and immediate as compared to the postal services in Kenya. The same information was found in a study on Information and Communication Technologies and small enterprise in Africa: lessons from Botswana by Duncombe and Heeks (2001) from which they discovered that within Botswana, e-mail had been the fastest-growing ICT application

among business users. E-mail users reported significant business advantages in utilization of this technology. It was regarded as significantly cheaper and quicker than other methods of communication. The unreliability of existing mail services within a large country with a relatively dispersed population had also encouraged adoption of e-mail. Within the survey sample, approximately 43% of the respondents were e-mail users. Of these, 66% used e-mail very often, 25% used it quite often and only 9% did not use it very often.

The unavailability of business websites among the women traders maybe attributed to the fact that most of their target market is Nairobi and its environs and other parts of Kenya, which means that most of the customers directly visit the market as opposed to web shopping or any online advertising. Another reason for unavailability of business websites could be pegged on the monthly turnover, with most of the traders making between Kshs 10,001-50,000 a month, thus making it expensive to have a business website. It may also be assumed that the traders have not realized the value of having a website for their businesses.

#### **4.4 Business information needs**

Business information needs can enhance any trade and increase its profit margins. Through the identification of the most essential business information and ensuring that they are catered for within a given time can lead to higher productivity. Women traders have other family chores that they have to deal with everyday of their lives, issues regarding marriage and children further compound the problem by making it difficult to satisfy their business information needs. This study considered the role that ICTs can and does play in the provision of business information to women traders at the Westlands Maasai Market. As a matter of fact, it was essential to know if at all the women traders considered some of the information areas vital to their day to day operations at the Westlands Maasai Market. As a disadvantaged group and the majority in this sector, it is of utmost importance to identify the crucial business information needs of women and how ICTs do or can be used to meet them. The researcher carried out a tabulation of the same, based on the ratings that each of the business information needs received and

presented them on table 4. The business information needs of women traders at the Westlands Maasai Market were arranged in order of their importance as had been rated. Table 4 lists the business information needs and gives descriptive statistics for each depending on their levels of importance. The ratings were based on Likert scale of 1-4. The level of importance is measured based on the mean of each of the business information needs rated as 3.5 - 4 Very important; 2.5 -3.49 Important; 1.5 -2.49 Slightly important and 1.49 and below Not important.

**Table 4: Descriptive statistics of business information needs**

Business information needs		N	Mean	Standard Deviation (SD)
1	Customer Needs	100	4.0000	.00000
2	Licensing	100	4.0000	.00000
3	Business Registration	100	4.0000	.00000
4	Electronic Money Transfer e.g. M-PESA	100	4.0000	.00000
5	Market	100	3.9500	.29729
6	Raw Material	100	3.8900	.44710
7	Record Keeping	100	3.5300	.59382
8	Selling Products	100	3.3100	.90671
9	Where to Bank	100	3.2200	.73278
10	Information on Credit/Loans	100	3.1600	.66241
11	Occupational Health Information	100	3.1100	.97333
12	Business Training and Skill Development	100	3.0900	.84202
13	New Areas of Investment	100	3.0000	.85280
14	Business Management Skills	100	2.7100	.83236
15	Security of the Business Premises	100	2.4600	.86946
16	Patenting	100	2.4300	.55514
17	Advertising	100	2.3200	1.17963
18	Appropriate Technology	100	2.1500	.99874
<b>Valid N (listwise)</b>		<b>100</b>		

Source: Research data

Based on table 4, the researcher sought to identify the importance of various business information needs among women traders in the informal sector and the responses received were as follows:

Market information had a mean of 3.9500(SD=.29729), therefore very important. It was considered very important by 97% of the respondents; 1% of the respondents considered it important and 2% of the respondents rated market information as slightly important. Market information should be valued by all business people because this is the target of their business. It can however be assumed that the respondent who thought market information was slightly important may already be well informed of her target market.

Raw materials used for production, had a mean of 3.8900(SD=.44710) being very important. It was valued at very important by 94% of the respondents, 1% of the respondents viewed it as being important and 5% of the respondents believed it is slightly important. This response depicts the source of the products in this sector. The importance of raw materials to the women traders cannot be overemphasized, unless one deals in ready made goods. This sector largely depends on local raw materials like clothe, sisal, beads, wood and stone, most of which are shared with the larger formal industries.

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New areas of investment at a mean of 3.0000(SD=.85280) important; were thought to be very important by 31% of the respondents, 43% of the respondents rated it as important, 21% of the respondents slightly important and 5% of the respondents considered it not important. The women traders at the Westlands Maasai Market may not be too keen on new areas of investment because their concentration is on expanding the small scale business before advancing any further.

Capital is the backbone of every business, and thus the researcher sought to know the importance of information on credit/loans from which a mean of 3.1600(SD=.66241) therefore important was achieved, with 29% of the respondents valuing it at very important, 60% of the respondents as important, 9% of the respondents as slightly important and 2% of the respondents thought it was not important. According to the

researcher, this should have been an area that received 100% response, but it did not. The explanations of this being that many of the businesses may have been started from very little capital borrowed from friends and have continued in the same way. Most of the loaning facilities especially banks, seem to have started considering the small scale businesses recently in terms of loans and therefore explaining the findings further. In a study conducted by Soetan (1995) on technology and women's ventures in Nigeria's urban informal sector, it was noted that 45.9% of the women said that their start-up capital came from their personal savings, and 32.8% indicated that it came from friends or relatives.

Information on security of the business premises rated as slightly important at a mean of 2.4600(SD=.86946) and was broken down as 12% very important, 35% important, 40% slightly important and 13% important. Security is a matter of concern among the residents of Nairobi and it would be illogical of the 13% of the respondents who believed it is not important, however, the researcher assumed the security offered by the city council was enough to the traders and there was therefore no cause for worry. Yet again hiring of security guards may be expensive based on the returns from the business.

Technology is used to produce goods, services, to add value and profit and is found in operating manuals, specifications, patents and software. Technology is also embedded in people's heads and organizational routines. Appropriate technology ranked amongst the poorest business information needs at slightly important with a mean of 2.1500(SD=.99874). 11% of the respondents thought it is very important, 25% of the respondents indicating that it is important, 32% of the respondents believed it is slightly important and another 32% of the respondents did not value the importance of appropriate technology. This may be as a result of the apprenticeship nature of the craft. Appropriate technology may be looked at as an expense that the small scale traders do not want to incur and would rather learn from friends or family members. Finding technology is an important concern of existing and new enterprises among women traders. For parties looking for technology, the collection and effective use of information will help ensure success and reduce the risk that attends to transfer agreements.

Business training skills at a mean of 3.0900(SD=.84202) and important, was rated as 34% very important, 47% important, 13% slightly important and 6% not important. Business management skills on the other hand had a mean of 3.0900(SD=.84202) important and was rated at 16% very important, 47% important, 29% slightly important and 8% not important. Appropriate technology, business training and business management skills all fall under training and are important to the growth of the business. Imende (1998) sees information on training opportunities, availability, affordability, location, level of training and range of courses offered as important for survival of enterprises. This also includes seminars and workshops that are relevant. According to the National SME Baseline survey of 1999, management training and technical training are the most common ingredients on support of small and medium enterprises. The former (management training) emphasizes basic business skills and entrepreneurship. The main emphasis by the researcher is that the training not only enhances practical skills, but also facilitates proper financial management and thus offers opportunity for expansion.

Customer needs, licensing and business registration information stood at a mean of 4.0000(SD=.00000) thus, very important. They all were rated at 100% very important. Another 100% very important business information category was electronic money transfer at a mean of 4.0000(SD=.00000) which is a relatively new concept in the informal sector. M-PESA service, and a brain child of Safaricom mobile telephone service provider, has been received very well by the women traders at the Westlands Maasai Market. This may be assumed to be one of the major causes for 100% very important response. Basically this may be areas of importance that are shared among all the women traders at the Westland Maasai Market given the response accorded to them.

Health as defined in the WHO constitution is a state of complete physical, mental and social well being and not merely the absence of disease or infirmity. Occupational health with a mean of 3.1100(SD=.97333) therefore important, was believed to be very important by 42% of the respondents, 38% of the respondents rated it as being important, 9% of the respondents placed it at slightly important and 11% of the respondents did not

consider it important. Though a few respondents did not consider health important to their trade, it should be noted that due to its nature of operation, the women traders in the informal sector should be keen on health matters; accidents that may result from the use of sharp objects should be averted by all means.

Patenting had a mean of 2.4300(SD=.55514) rating it at slightly important. It was considered to be very important by 3% of the respondents, 37% of the respondents believed it is important and 60% of the respondents rated it at slightly important. The loss of innovation by informal sector traders in Kenya should be a matter of concern to the government and the women traders. Vigorous sensitization is necessary to alleviate the piracy that is common ground in the informal sector and more so by the western world. This rating went against the thoughts of the researcher who assumed that patenting would be a very important area to the women traders because of the recent battle for the *Kikoi*, a Kenyan innovation that was almost patented in the United Kingdom. The *Ciondo* on the other hand was patented by the Chinese, despite it being a Kenyan innovation. From the findings, it appeared that patenting was a new concept to most of the women traders at the Westlands Maasai Market.

Information on where to bank was viewed to be important and had a mean of 3.2200(SD=.73278). It was rated by 40% of the respondents as very important, 42% of the respondents rated it as important and 18% of the respondents considered it slightly important. Banking is an important aspect of any business as it offers some form of security and control for the money earned in the business.

Record keeping is an area that requires serious consideration, it is very important in any field, be it business or even political. Record keeping enables a trader to keep track of what has been going on in their business; it makes it possible for one to know how much they sold at a given time and what the profits were. Record keeping's mean was very important at 3.5300(SD=.59382) with 58% of the respondents rating it as very important, 37% of the respondents rated it as important and 5% of the respondents indicated that it is slightly important. The response relates to the name of the sector - informal and thus

record keeping, though important was still rated as slightly important by a few respondents whose approach to keeping of records may equally be informal.

Selling of products had a mean of 3.3100(SD=.90671) which is important. It was another business information need that the researcher sought to find its importance among the women traders in the informal sector. 61% of the responses received, placed it at very important, 9% of the respondents rated it as being important and 30% of the respondents considered it as being slightly important. It is common knowledge that the reason for the women traders to be at the Westlands Maasai Market is to sell, however the response does not reflect that. It may be concluded that the women traders after rating customer needs very important, thought that selling of products was catered for.

Mchombu (2000) in Ikoja-Odongo (2002) discussed information needs for small businesses in a rapidly changing environment, particularly in Africa. She emphasizes that focus on business information needs have confirmed existence of information needs for small businesses. She did identify the major information needs of women in small businesses in Botswana as information on business management, how to run a business, accounting skills, marketing, quality management skills, technical skills, information on financial assistance/grants, general legal information, information on business diversification and sources of raw materials as being most important. These needs more or less match the needs identified by women traders at the Westlands Maasai Market.

The researcher tends to believe that some of the business information needs that may have rated poorly among the women traders at the Westlands Maasai Market, could be due to a misunderstanding of the terms used or otherwise, lack of sufficient knowledge in that area. It may also be assumed that due to the size of the trade and returns from the business, most of these business information needs like security, appropriate technology and patenting are not easily affordable for these traders.



#### 4.5 ICT and business information

The study set to establish the type of ICTs the respondents use to acquire business information. The table 5 below gives a set of the business information and the total number of respondents that use a particular ICT to get the same information. The rating for each ICT and business information is at 100% response.

**Table 5: Business information needs and ICT**

Business Information		Type of ICT			
		Internet	Mobile Telephone	Radio	Television
1	Information on credit/loan – Financiers e.g. banks	-	-	98	60
2	Sources of raw materials	-	25	55	30
3	New areas of investment	-	-	78	-
4	Markets for product and services and marketing techniques information	5	-	38	-
5	Information on the security of the business premises	-	-	60	-
6	Information on appropriate technology	76	-	-	-
7	Business Training and skill development	20	-	88	-
8	Business management skills	-	-	80	21
9	Customer needs	88	80	-	-
10	Patenting –Protecting innovation	-	-	6	-
11	Occupational health information	-	-	77	80
12	Electronic money transfers e.g. M-PESA	-	80	60	66
13	Business registration	-	-	80	10
14	Information on where to bank	-	-	90	53
15	Licensing	-	-	50	33
16	Selling products	-	-	35	44
17	Advertising	-	-	89	55
18	Record Keeping	20	-	-	-

Source: Research data

The key determinants for the use of any ICTs as identified by Technology Acceptance Model include; its usefulness and ease of use among the persons to adopt it regardless of gender or experience. The possibility of ICTs to enhance the women traders' performance at the Westlands Maasai Market has a direct bearing on the choice of ICT for any particular business information. From an informal sector perspective though, information is mostly acquired from within the environment where the business is located, this could possibly mean ICTs such as the internet and television may have a very minimal role to play in terms of offering business information to women traders at the Westlands Maasai Market because of their visible absence. Nevertheless, we cannot simply overrule them considering the convergence that has taken place within the mobile telephone, the ability to surf the internet, listen to the radio and of recent watch television on the mobile telephone, which provides a wide variety within a single gadget. Of concern though, would be the affordability of this technology and the expertise to use them.

From table 5, it is clear that the radio is the most used form of ICT in the informal sector, in as much as the mobile telephone is widely available. The radio seems to be offering more business information to the women traders than any of the other ICTs. This is reflected in the wide variety of programs, wide coverage and ease of availability of the radio, through the convergence in the mobile telephone and the handy sets available in the market. The radio was used to acquire information on credits and loans by 98% of the respondents. 55% of the respondents indicated the use of the radio for information on raw materials; this may be assumed to refer to advertisements that run over the radio. New areas of investment had 78% responses in relation to acquisition of the information through the radio. Other business information acquired through the radio rated out of 100% responses include: Markets information with 38% responses; security of the business premises 60% responses and business training skills with 88% responses, which can be attributed to mainstream radio programmes that focus on SMEs. Business management skills received 80% responses; this may be due to the close links with business training skills which as earlier assumed are broadcasted through the mainstream radio. Patenting information that is broadcasted over the radio in the form of a

sensitization campaign by the Kenya Industrial Property Institute (KIPI) following the loss of the *Ciondo* to the Chinese and the near patenting of the *Kikoi* by the British, received 6% responses. Occupational health information had 77% responses, while electronic money transfers received 60% responses as regards the use of the radio. Business registration with 80% responses is compulsory before starting up any business; it involves registering a business name with the registrar of society or the local authority at the City Hall for businesses based in Nairobi. Banks are some of the highest advertisers over the radio and thus information on where to bank as shown on table 5 had 90% responses. Information on licensing with 33% responses did not rate highly in relation to the use of the radio to acquire it because of the regular inspections by the city council, which has made it automatic to acquire at the beginning of every year. Information on selling of products had 35% responses, while advertising had 89% responses, considering the radio is the cheapest means of broadcasted advertisement. The ratings above give a clear indicator to the disseminators of information that the radio is the most appropriate ICT to reach the informal sector.

Technology Acceptance Model further illustrates that, unless people are able to derive direct benefits from a given technology for their businesses or jobs, then the adoption of that technology will be minimal or none at all. Television was believed to offer a solution to a few business information needs including credits and loans with 60% responses while information on raw materials had 30% responses. Information on business management skill that may have been acquired through watching programmes like “Enterprise Kenya” had 21% responses, while occupational health information was acquired from television by 80% of the respondents. Information on electronic money transfers, assumed to have been acquired through “Posta Pay, M-PESA and Money gram” advertisement on television had 66% response rate. Television was also believed to be a source of information for business registration with 10% responses; information on where to bank 53% responses; licensing information 33% response; selling products 44% responses and advertising 55% responses. A lot has to be done to facilitate the use of television among traders in the informal sector, not just to receive information through

advertisements or as a source of entertainment, but also for acquiring other pertinent business information.

Though earlier data seemed to have indicated that the mobile telephone was amongst the most used ICTs, on the contrary it has only been effectively used in getting information on customer needs with 80% responses; money transfers also with 80% responses, which maybe the use of the M-PESA services offered by Safaricom mobile service provider, and information on raw material at 25% responses, which is also believed to be as a results of communication with the raw material suppliers.

As earlier indicated, the internet seemed to have been popular among women traders who had attained at least secondary education, on the contrary the popularity of the internet was seen among 5 % of the women traders who indicated the internet as their source of markets information for product and services and marketing techniques; information on appropriate technology was obtained from the internet by 76% of the respondents, this raises eyebrows, because initially this category of information ranked among the least sought after business information needs. The researcher would look at it as a confusing concept based on the word “technology” which has mainly been associated with computers and other electronic gadgets. Business training and skill development information was obtained from the internet by 20% of the respondents, while customer needs information was retrieved from the internet by 88% of the respondents; record keeping information was acquired from the internet by 20% of the respondents. The research deduced that the internet based application that was used to get this business information may have been the e-mail. Considering the education level of the women traders, the researcher thought that the internet should not be too foreign among the women traders. ICTs are key tools to transform the way women traders conduct their businesses and the way development takes place. The use of ICTs enables more business information to be found, retrieved and disseminated faster than ever before. ICTs have many potential benefits for women traders, for example improved global market access through e-commerce and improved access of women traders to training.

#### 4.6 Available ICTs in the informal sector

A question was posed in relation to the level of usage of ICTs in the informal sector. The responses on the internet indicated that 80% used it sometimes, 4% rarely used it while 16% did not use it at all. With 83% of the respondents falling between the ages of 18-40 years, the use of the internet may not be too foreign and thus its adoption for other functions may also be very fast, just besides the normal e-mail communications. From these findings, the internet may not be used frequently because it has to be accessed from the cyber cafés and as was noted, most of the respondents rely on ICTs that they can easily access around their business premises. The use of the internet is possible with the mobile telephone; unfortunately only a particular handset can be used, thus limiting its use further because these handsets are slightly expensive. However, from the findings on internet usage, only 84% of the respondents claim to use the internet as opposed to the earlier 86% of the owners of the businesses who indicated having e-mail addresses as the internet based ICT for their trade. The disparity could probably be because the 2% of the owners of the businesses did not consider e-mail to be part of the wider internet, which may be true considering there are intranet e-mail services that are connected to the internet via an Internet Service Provider (ISP). The other correlations, such as number of years in small scale business may not have an influence on the use of the internet. The researcher further carried out an analysis to determine if the level of education had an influence on the use of the internet. Through SPSS version 12, a cross tabulation was reached on the correlation as shown in table 6 below.

**Table 6: Education attained \* internet usage - cross tabulation**

Highest level of formal education attained	Internet usage			Total
	sometimes	rarely	never	
Primary school education	20	0	7	27
Secondary school education	44	0	4	48
Diploma	10	4	5	19
Undergraduate	6	0	0	6
<b>Total</b>	<b>80</b>	<b>4</b>	<b>16</b>	<b>100</b>

Source: Research data

From the table 6, it is clear that the level of education had some influence on the use of the internet; most of the respondents who used the internet were of secondary school level and above.

The mobile telephone has become one of the ICTs that offer the highest level of functionality and that warranted its inclusion in this study. Mobile telephones have become very important in business because of their advantages; they are time saving and offer immediate response as well as allow for money transfers through services like M-PESA. As presented on table 7, a 100% response at a mean of 1.0000(SD=.00000) was received indicating frequent usage of the mobile telephone among the women traders at the Westlands Maasai Market. This response is mainly based on the fact that all the women traders questioned were in possession of mobile telephones and once in a while used them to communicate to their customers on the readily available goods. The mobile telephone has also seen as significant growth in the recent past owing to the reduced handset prices as well as the running costs due to the entry of many service providers in the market.

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The diffusion of the radio among different groups of people has seen it become the most popular ICT. Diffusion of Innovation Theory suggests that the powerful effect of the mass media enables it to spread knowledge of innovation to a large audience rapidly, and thus radio may have sold itself as a cost effective and beneficial ICT among the women traders. Among the women traders at the Westland Maasai Market, radio also received a 100% response at a mean of 1.0000(SD=.00000) of being frequently used because of its visible availability. Most of the respondents indicated that they got information on banking and loans through the radio thus making it very important for them. Radio with the widest coverage offers the best means of information dissemination and therefore was preferred by many disseminators. Small radios that run on battery could be seen in many of the curio shops within the market, leaving no doubt to its availability and use.

Television on the contrary was not of very high use among the women traders at the Westlands Maasai Market with a mean of 2.1500(SD=35887). Television seemed to be

an ICT that offered entertainment and information through news broadcasts as opposed to offering business information. Out of the 100 women traders who filled the questionnaires, 85% of the respondents used television for business information sometimes, while 15% of the respondents rarely used the television for business information. Television may not have been rated highly because of its evident unavailability in the market. The women traders spend most of their time in the market and the little time they have at home may not wholly be used on watching television; and because of televisions' unavailability in the market, there is also a lower control of it or non at all by the respondents, making its adoption for business less likely as suggested by Technology Acceptance Model. The extent to which the television may be thought to enhance the women traders performance on the trade may not have been realized yet, therefore requiring the need for a thorough sensitization to both the service providers and the respondent so that its content is of benefit to the audience. From the level of usage of the four ICTs that the study concentrated on, a descriptive statistic was achieved as shown in the table 7 below.

**Table 7: Descriptive statistics for level of usage of ICTs**

Type of ICT	N	Minimum	Maximum	Mean	Standard Deviation
Internet usage	100	2.00	4.00	3.7000	.64354
Mobile Telephone usage	100	1.00	1.00	1.0000	.00000
Radio Usage	100	1.00	1.00	1.0000	.00000
Television usage	100	2.00	3.00	2.1500	.35887
<b>Valid N (list wise)</b>	<b>100</b>				

**Source:** *Research data*

These responses confirm the availability of ICTs in the informal sector and the fact that they are used by the women traders. The use may not be intense, but all together like in Diffusion of Innovation Theory; the likelihood of ICTs to diffuse further amongst the women traders is very high. In relation to Technology Acceptance Model, which is an information systems theory, the acceptance of some of the ICTs in the informal sector

indicate that there is some perceived usefulness in the technology characterized by ease of use.

#### **4.7 ICT Service providers and the informal sector**

Women traders can benefit from ICTs to improve their access to information and networks and to increase the competitiveness and market outreach of their businesses. The focus of the study was on ICTs and the role that they played in meeting the business information needs of the women traders at the Westlands Maasai Market, which warranted the need to know how the various ICT service providers are rated by the respondents. The service providers were categorized in terms of mobile telephone service providers, radio service providers and television service providers. The ratings were based on Likert scale, where 1-Poor; 2-Below average; 3-Satisfactory; 4-Good and 5-Excellent. The ratings are presented on a mean and standard deviation (SD) where a mean of 4.5 – 5 is rated as Excellent; 3.5 - 4.49 Good; 2.5 - 3.49 Satisfactory; 1.5 - 2.49 Poor and any rating below 1.49 as below average.

##### **4.7.1 Mobile telephone service providers**

For the mobile telephone service providers, the study sought to know the level of excellence of Safaricom, Zain, Orange and Telkom wireless in meeting the business information needs of the women traders at the Westlands Maasai Market. However, only Safaricom and Zain were rated. Orange and Telkom mobile service providers are relatively new in the market, with Telkom wireless running on Code Division Multiple Access (CDMA), while the rest are enabled by Global System for Mobile (GSM) communication. Safaricom's mean was 4.5(SD=.81874) therefore excellent, of which 62% of the respondents believed that Safaricom was excellent, 17% of the respondents rated it as being good, 10% of the respondents thought it was satisfactory and 3% thought it was below average. The responses on Safaricom totaled 92%, which led the researcher to believe that the disparity was as a result of women traders who subscribed to other mobile telephone networks. Safaricom which has the highest number of subscribers in Kenya was definitely going to have the bulk of the respondents. The M-PESA service seemed to have given Safaricom leverage over the other mobile telephone service



providers. From the website <http://www.cellular-news.com/story/30451.php>, the Safaricom subscribers stand at 9.1 million compared to Zains 2.1 million subscribers.

The 8% disparity that appeared on Safaricom was answered in Zain. Zain's mean based on the 8% response was also 4.5(SD=.53452) thus excellent in the provision of business information. Zain was further rated by 4% of the respondents as being excellent and the remaining 4% as being good. Given the total number of subscribers to both networks, Zain could definitely not have many subscribers. Due to lack of services such as money transfers, many respondents are not connected to Zain. However, no respondent indicated whether they were connected to two networks, yet this has become common among mobile telephone subscribers because of the price range of the services and other benefits offered by the mobile service providers.

The researcher could not establish any business information that the two mobile telephone service providers offered, but assumed that the ratings were based on communication with customers and mobile telephone money transfers.

#### **4.7.2 Radio service providers**

Radio is said to have the widest coverage, it is not only cheap but is also very friendly. Among the ICTs that the study looked at, the radio is the only one that offered information in almost all the local languages and thus overcame the issue of language barrier. One characteristic of the informal sector as presented by ILO, in its Kenya mission report of 1972, defined the informal sector as having been characterized by low levels of education; this thought was shared by Ikoja-Odongo and Ocholla (2004) in their study of the informal sector in Uganda. The English language that is the basis of most ICTs can be assumed to be foreign and thus a barrier to the women traders in the informal sector based on their levels of education, however the radio seems to have overcome this by broadcasting in English and Kiswahili as well as most of the local languages in Kenya.

The study classified radio stations into mainstream, vernacular, religious and classed radio. Likert scale, presented on a mean and standard deviation (SD) where a mean of 4.5 - 5 is rated as Excellent; 3.5 - 4.49 Good; 2.5 - 3.49 Satisfactory; 1.5 - 2.49 Poor and any rating below 1.49 as below average has been used to determine the role of radio in the

provision of business information to women traders at the Westlands Maasai Market. Mainstream radio as presented on table 9 had a mean of 3.6842 (SD=1.21338) making it good in terms of offering business information. It was further rated by 25% of the women traders as being excellent, 21% of the women traders as good, 14% of the women traders as satisfactory, 13% of the women traders as being below average and 3% of the women traders rated mainstream radio as being poor at meeting their business information needs. 24% of the women traders did not rate the mainstream radio, because they don't listen to it. Documentary analysis indicate that mainstream radio offers more business information than any other radios, the response concerning other radios may be because of preference as opposed to pursuit for business information. Some business related programmes that run on KBC radio English service include "Business Focus" which is aired daily at 8:30 PM and on the Swahili service *Uchumi na Biashara* aired daily from 5:45PM.

Vernacular radio received a mean of 2.9545(SD=1.13294) placing it at satisfactory. It was only rated by 22% of the respondents of which, 9% of the respondents believed it was good, 7% of the respondents thought it was satisfactory, 2% of the respondents rated it at below average and 4% of the respondents thought it was poor. Though having been assumed to offer proper understanding among women traders in the informal sector, vernacular radio did not rate well among women traders at the Westland Maasai Market. This may be as a result of the age of the respondents who would rather listen to radio that seems to be of a particular class and broadcasted in a widely acceptable language like English which is assumed to be an indicator of ones level of education.

Religious radio was ranked at a mean of 3.5714 (SD=.53452) thus good at the provision of business information. Rated by 7% of the women traders, of which 4% of the respondents thought it was good and 3% of the respondents placed it at satisfactory. The low number of listeners may be assumed to be because of the theme of these radios that is well defined.

Classed radio had a mean of 3.4217 (SD=1.26992) making it good at the dissemination of business information. Classed radio had the highest number of responses at 83%, broken down into 24% of the respondents who thought classed radio was excellent in meeting their business information needs, 15% of the respondents thought it was good, 20% of the respondents thought it was satisfactory and another 20% of the respondents rated it as being below average, 4% of the respondents rated it as being poor at meeting their business information needs. Classed radio may have ranked highly because it is the radio listened to by many respondents as a matter of preference and not necessarily for business information. The researcher sought to further relate the age of the respondents to the category of radio that they listened to, and the cross tabulation on table 8 below gives the correlation.

**Table 8: Age of respondents \* classed radio - cross tabulation**

Age of respondent	Classed Radio e.g. KISS, Capital, Classic 105					Total
	Poor	Below average	Satisfactory	Good	Excellent	
18-30 years	0	9	8	5	13	35
31-40 years	4	10	7	6	6	33
41-50 years	0	1	4	4	5	14
51-60 years	0	0	1	0	0	1
<b>Total</b>	<b>4</b>	<b>20</b>	<b>20</b>	<b>15</b>	<b>24</b>	<b>83</b>

Source: Research data

From table 8, the highest numbers of respondents at 35%, of the ages 18-30 years were listeners to classed radio and 13% of them rated it as excellent while another 13% rated it between good and satisfactory. 33% of the respondents of the ages 31-40 years were also keen listeners to classed radio. Age can therefore be assumed to be a key player in terms of choice of radio to listen to by the women traders. From this response, classed radio would definitely be the best to disseminate business information to women traders at the Westlands Maasai Market. On the contrary, apart from KBC radio, the rest of the radio service providers did not have any particular programmes geared towards small scale business, instead they would invite guests in their morning shows to discuss a wide range of topics, some of which touch on the informal sector. Most of the information on radio is also on advertisements by different stakeholders like banks placing advertisements on

loans; Kenya Industrial Property Institute (KIPI) sensitizing people on patenting. Radio can be considered to be an effective ICT to disseminate business information to women traders in the informal sector. From the responses received, radio can be the most effective ICT at enhancing business amongst women traders in the informal sector. Its convergence with the mobile telephone makes it ubiquitously available and thus efficient.

#### **4.7.3 Television service providers**

Television has become one of the ICTs that have experienced an exponential growth in terms of audience. Almost every household in Nairobi has a television set; due to its affordability and the network availability almost throughout Kenya. Television as an ICT has become an important source of information, just besides the other broadcast media. All the women traders interviewed at the Westlands Maasai Market have access to television, and thus this research wanted to know the ratings of the different station in terms of provision of business information. Among the television stations that the researcher concentrated on are KBC, KTN, NTV, Citizen and Family TV. These were chosen due to their perfect coverage in Nairobi and its environs as well as the amount of local content and the time they allocate to business related information. The rating was on Likert scale and is hereby presented on a mean and standard deviation (SD), where a mean of 4.5 - 5 is rated as Excellent; 3.5 - 4.49 Good; 2.5 - 3.49 Satisfactory; 1.5 - 2.49 Poor and any rating below 1.49 as below average.

From 47% of the responses received, KBC had a mean of 2.7021(SD=1.21431) which is satisfactory. It was rated excellent by 3% of the respondents, 11% of the respondents rated it at good and another 11% of the respondents rated it at satisfactory, 13% of the respondents thought that it was below average and 9% of the respondents branded it as being poor at provision of business information. This response once again may be assumed to be based on the preferred channel as opposed to the search for business information.

62% of the respondents chose KTN as their channel of choice rating it as good at a mean of 4.1935(SD=.98910); of these, 32% of the respondents classed it at excellent, 15% of the respondents good, 10% of the respondents satisfactory and 5% of the respondents

below average. KTNs' "Business Weekly" and "Enterprise Kenya" programmes have slots for entrepreneurs in the small and medium enterprises which would give it an upper hand in terms of offering business information. Unfortunately these programmes may not even be known to the women traders and thus the response.

NTVs 72% response earned it a mean of 3.9306(SD=99755) therefore good, spread along 27% of the respondents who thought it is excellent, 19% of the respondents who said it is good, 20% of the respondents who graded it at satisfactory and 6% of the respondents whose appraisal placed NTV at below average. Surprisingly with such high rankings, the researcher could not identify a single business programme on NTV that caters for SMEs apart from business news that is part of the larger news and "Money Matters" which cuts across the divide: both the formal and informal sectors. This only confirms the fact that most responses were based on channel preference as opposed to informational value.

Citizen TV's mean was good at 4.0448(SD=1.06505) with 67% responses of which 30% of the respondents esteemed it at excellent, 18% of the respondents stood it at good, 12% of the respondents rated it as satisfactory, 6% of the respondents believed it was below average while 1% of the respondents were dissatisfied and maintained that Citizen Television was poor in terms of provision of business information.

Family television, a Christian station had the lowest responses, standing at 22% with a mean that is satisfactory 3.5000(SD=1.50396). Most of the respondents are believed to be the same ones who indicated that they were recipients of business information from the religious radio stations. Of the 22% responses received, 8% of the respondents stood at excellent, 4% of the respondents at good, 5% of the respondents at satisfactory, 1% of the respondents at below average and 4% of the respondents at poor.

The responses received from the different service providers were summarized in table 9, covering the total number of responses received for each service provider, the mean and the standard deviation (SD).

A generation of descriptive statistics using SPSS version 12 gave the results on all the service providers as tabulated on table 9 below.

**Table 9: Descriptive statistics on service providers**

<b>Service providers</b>	<b>Number of respondents(N)</b>	<b>Mean</b>	<b>Standard Deviation (SD)</b>
Safaricom mobile telephone service provider	92	4.5000	.81874
Zain mobile telephone service provider	8	4.5000	.53452
Orange mobile telephone service provider	0		
Telkon wireless mobile telephone service provider	0		
Mainstream Radio e.g. KBC -ICT service provider	76	3.6842	1.21338
Vernacular Radio e.g. Kameme -ICT service provider	22	2.9545	1.13294
Religious Radio e.g. Hope FM -ICT service provider	7	3.5714	.53452
Classed Radio e.g. KISS -ICT service provider	83	3.4217	1.26992
KBC -ICT service provider	47	2.7021	1.21431
KTN -ICT service provider	62	4.1935	.98910
NTV -ICT service provider	72	3.9306	.99755
Citizen -ICT service provider	67	4.0448	1.06505
Family -ICT service provider	22	3.5000	1.50396
<b>Valid N (list wise)</b>	0		

*Source: Research data*

The ICT service providers' level of importance amongst women traders can only be measured in terms of the availability of the ICT to the women traders at their locations of trading because they tend to consider an ICT that they can use while at work, from which they can also find the business information they need.

#### 4.8 Benefits of ICTs in the informal sector

The use of ICTs in the informal sector is now very important and its benefits cannot be overemphasized. From the findings of the study, the women traders were asked to identify the benefits that accrue from usage of ICT in the informal sector. The table 10 below sums the importance of ICT among women traders at the Westlands Maasai Market.

**Table 10: Benefits of ICTs in the informal sector**

<b>Benefit</b>	<b>Responses</b>
Increased profitability	90
New ways of trading, for example e-commerce, M-PESA	86
Increased customer base – Capturing global markets	63
Cheaper raw material	55
New business opportunities	53
Improved legal, regulatory and policy making for women traders	34
Protection of innovation through patenting	4

*Source: Research data*

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Increased profitability rated by 90% of the respondents is a way by which the use of ICT has enhanced the informal sector. Profit is the main reason for venturing into any business and unless returns are realized, then the business ought to close or streamline.

New ways of trading was believed to be a benefit accruing from the use of ICT by 86% of the respondents, whereas new business opportunities rated by 53% of the respondents was another benefit of ICT. It is the desire of every business person to diversify or

venture into new markets and as indicated, ICTs are some of the best channels through which information on new ways of trading can be acquired.

Increased customer base with 63% responses is a pointer towards profitability. By increasing the number of customers, then there is a direct relation to the profits that will be realized by the business.

It is the desire of every person to minimize expenses and maximize on the returns, cheaper raw materials as indicated by 55% of the respondents makes it possible to produce goods at minimum amounts and thus reap higher profits. Some of the raw materials the women traders at the Westlands Maasai Market use include beads, papyrus reeds, sisal, soapstone and wood. ICT through communication and advertisements make it possible to acquire raw materials quickly and from persons who offer the best bargains.

Improved legal, regulatory and policy making for women traders was rated as a benefit of the use of ICT by 34% of the respondents. Among policies that women should be involved in are; ICT and educational policies that will enable them improve from their current state to a better one and be able to reap similar benefits that men do from these policies. Of utmost importance and still envisaged, is the ICT policy that should be engendered, not merely for greater use of ICTs by women, but by transforming the ICT systems using a rights-based approach.

Patenting as a benefit registered the lowest number of women traders, with only 4% of the respondents believing that ICT has made the protection of innovation simpler. However, in the view of the researcher, most of the traders did not understand the importance of patenting. Responses on patenting corresponded to the level of education. It was clear that this was a new concept to most of the women traders. It may also be assumed that cost is a major turn down for many women traders towards patenting.

ICT offers a wide range of advantages to women traders and therefore its use must be encouraged if more benefits are to be realized. From the researchers perspective, the use



of ICT for business among women traders at the Westlands Maasai Market is still minimal, mainly limited to making calls to customers or raw material suppliers and money transfers for mobile telephone; the use of the internet may also be limited to communication through e-mails. The radio and television on the other hand have been used passively by these women traders. It is necessary that the women traders be involved in the content development of some of these SME programmes aired either on radio or television.

#### 4.9 Challenges of accessing business information using ICTs

The use of ICTs among women has been rather slow, due to challenges that may include lack of a gendered ICT policy, lack of local content which cuts across gender and mostly among rural and informal sector women. The English language which has been predominantly used has left so many of these women out. In this study, the researcher sought to find out the challenges that women traders at the Westland Maasai Market faced in accessing business information using ICTs. The challenges have been summed up in the table 11 below.

**Table 11: Challenges in using ICTs to acquire business information**

Challenges	Responses
i. Lack of relevant information in the ICTs	75
ii. Not knowing specific ICT to get required business information	70
iii. Unreliable information	60
iv. Limited amount of time for usage of ICTs like internet	49
v. ICTs are costly and unaffordable	30
vi. Poor TV, Radio and mobile telephone networks	21
vii. The language used in some of the ICTs not understandable	19
viii. Language barrier	10
ix. Takes time to get information	4
x. Did not have time to look for information	4
xi. Inability to get required information	3

Source: Research data

Table 11 was arranged in the order in which the women traders considered the challenges to be affecting them; of concern were, content and time to use ICTs like the internet considering they have to be in the market on a daily basis for close to 12 hours.

It was indicated by 75% of the respondents that there is lack of relevant information in the ICTs. This could be true for some of the ICTs like television which have not focused there content to the SMEs. According to Technology Acceptance Model, the adoption of any technology demands perceived usefulness by the adopters; otherwise it is bound for rejection. ICT service providers must therefore ensure that their innovations contain information that is useful to the informal sector for maximum use.

The amount of information that women traders in the informal sector require is enormous. This information is not only available in the ICTs, but it is scattered in the different forms of ICTs, making it difficult to know which ICT to use for a particular business information need. Amongst the highly rated challenges, inability to identify the specific ICT to get the required business information was rated at 70% by the respondents. As stated by Technology Acceptance Model, difficulties in finding information from the ICTs will lead to poor adoption of the technology.

60% of the women traders tend to think that information received from ICTs are unreliable. These may be people who believe so much in themselves, such that any supplementary information from a different source has to be weighed critically. Yet again, it may be true that the information they got from the ICTs did not work for them at that instance, necessitating an overall dismissal of information in ICTs. In Diffusion of Innovation Theory, an innovation-decision is made through a cost-benefit analysis where the major obstacle is uncertainty; this maybe an explanation for the thought by women traders at the Westlands Maasai Market, that information in ICTs is unreliable. The theory further states that, people consider the degree to which an innovation will disrupt other normal functions in their lives, thus the more reason as to why many of the women traders tend to think that ICTs offer unreliable information, and there use only disrupts normal function.

Time constraints are a limiting factor to all and sundry, with 49% of the respondents indicating that they have limited time to use ICTs. Among other challenges on the issues of time as rated by the women traders are; lack of time to look for the information as rated by 4% of the respondents; it takes time to get information as was indicated by another 4 % of the respondents and the inability to get the required information by 3% of the respondents.

ICTs are thought to be costly and unaffordable by 30% of the women traders. This can be attributed to the turnover which may render some of them unable to acquire ICTs like websites or television sets in as much as they are thought to be cheap.

Language can be a constraint to the use of any innovation no matter how beneficial it is to other people. 19% of the women traders at the Westlands Maasai Market decried the difficulty in the language used in most ICTs, while 10% of them identified language barrier as a challenge to the use of ICT. Poor TV, radio and mobile telephone networks are a major challenge to 21% of the respondents. The challenges encountered by women traders at the Westlands Maasai Market could be attributed to their non participative role in the ICT sector, women tend to participate more in projects that they were involved in. The fact that men have always been viewed as being more technological than women could have amounted to the low interest in ICT among these women traders. The research concluded that the challenges identified by the women traders at the Westlands Maasai Market could more or less apply across the divide in the informal sector, though more challenging to women who are greatly disadvantaged than men.

#### **4.10 Conclusion**

ICT as revealed in the findings has the ability to transform the informal sector; however its limited use among women traders has rendered it almost ineffective. The findings indicate the need to identify the business information and relate them to a particular ICT, because ICTs can enable the generation and dissemination of more relevant business information, than by any other alternative means.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

The aim of this chapter is to provide a summary, conclusion and recommendations based on set objectives and findings and opinions from the respondents. The study used questionnaires and literature as sources of the findings.

The aim of the study was to investigate the role of ICTs in the provision of business information to women traders in the informal sector.

The specific objectives of the study were:

- (i) To determine the demographic characteristics of women traders in the informal sector.
- (ii) To examine the business information needs of women traders in the informal sector.
- (iii) To find out the different ICTs used for providing business information to women traders in the informal sector in Kenya.
- (iv) To investigate the challenges faced by women traders in accessing business information provided by the available ICTs.

#### 5.2. Summary of findings

The summary of findings for this study are divided into demographics details of respondents, business information needs, ICT and business, available ICTs in the informal sector, ICT service providers, benefits and challenges of using ICTs in the informal sector. These findings have been summarized as earlier presented on chapter four of the study.

##### 5.2.1 Demographic information of respondents

Most of the women traders at the Westlands Maasai Market were aged between 18-40 years with a greater number having completed secondary school education and in business operation for a mean of 6 years. Many of the businesses (88%) are owned by the women traders who also operate them on a fulltime basis. The target market for the women traders is Nairobi and its environs from which an average monthly turnover of

between Kshs 10,001-50,000 accrues. Of the 88% owners of businesses at the Westlands Maasai Market, none had a website, but 86% have business e-mail addresses.

### **5.2.2 Business information needs**

From the findings, the most popular business information needs were customer needs, licensing, business registration, electronic money transfer e.g. M-PESA, market, raw material and record keeping. Information on financiers may not have ranked highly due to the nature of the business conducted by these women traders at the Westlands Maasai Market, which is on a small scale, whose source of capital is also very small and the business is run on the same scale of capital. With the new loan systems for women traders by banks such as KCB and Equity banks, the likelihood of these businesses to grow cannot be overruled. Patenting may have been ignored, but it is pertinent due to its protection of innovation from piracy, which the informal sector is a victim.

### **5.2.3 ICT and business information**

The radio ranked as the most used ICT for business information, with most of the women traders using it to acquire information on credit and loans, business registration, information on where to bank, advertising and the selling of products among others. Television was mainly used to get information on business management skills, occupational health, new areas of investment and sources of raw materials.

The mobile telephone was limited to information on customer needs, electronic money transfers and sources of raw materials. Finally the internet was used to acquire business information on appropriate technology, markets, customer needs, record keeping and business training skills.

### **5.2.4 Available ICTs in the informal sector**

The role that ICT plays in the dissemination of the identified business information to women traders at the Westlands Maasai Market formed the theme of this study; among the ICTs that the study focused on were the internet, mobile telephone, radio and television. Mobile telephone was the most available ICT with every woman trader owning one, the most popular business information service available through the mobile telephone was electronic money transfer and this was because of the M-PESA services offered by Safaricom. The radio was the main source of most business information, its

convergence with the mobile telephone and the availability of the radio in handy form made it available among most women traders at the market. The researcher found out that many women traders look for business information from the areas around the business premises because this is where most of their time is spent, so the handier the ICT, the easier its availability and use in gaining business information. Television and the internet may not have been so popular, but they also play a role in the dissemination of business information.

#### **5.2.5 ICT Service providers and the informal sector**

Among the service providers that the study concentrated on were mobile telephone service providers of which only Zain and Safaricom were rated; radio service providers, that seemed to be the most effective disseminators of business information, were divided into mainstream radio, vernacular, classed and religious radios with classed radio being the most popular among the women traders, this was attributed to the youthful age of most of the respondents; television service providers were divided into the different channels including KBC, KTN, NTV, Citizen TV, and Family TV. KTN and NTV were the most popular, but the researcher concluded, that for both radio and television, the choice was based on preference of channel as opposed to its provision of business information.

#### **5.2.6 Benefits of ICTs in the informal sector**

Among the most popular benefits were increased profitability, new ways of trading, increased customer base and cheaper raw materials. However, more benefits are likely to accrue from the use of ICTs if the women were enabled to use ICTs effectively.

#### **5.2.7 Challenges of accessing business information using ICTs**

There are multiple challenges to ICTs becoming a positive force for women trader's economic empowerment, including lack of relevant information in the ICTs, cost, inability to identify the right ICT to get the required business information, use of difficult language in most ICTs and limited amount of time to use ICTs. Lack of awareness of women traders to the benefits of ICTs is the greatest challenge facing the informal sector. From this summary of findings a conclusion to the study was written and recommendations made.

### 5.3. Conclusion

The informal sector has become an important part of the economy in Kenya and cannot be ignored; it has come up as a major employer in the country due to the inability of the formal industry to absorb all professionals. Women traders in the informal sector have gained profitable employment and can thus be said to be self sufficient and not dependants of handout.

ICTs are key players in the achievement of vision 2030; by empowering women traders in the informal sector to effectively use ICT, there will be a leap towards achievement of the vision. However, ICTs should not be assumed to be effective if the gender aspect is not included, this is because information technology has for a long time been male oriented and a source of gender discrimination. The women traders in the informal sector should therefore be enabled to participate in the formation of ICT policies and to tailor ICTs to their situations, perspectives and concerns.

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The convergence that has taken place in the mobile telephone has made ICTs highly available, and by proper sensitization, women traders can surf the internet, listen to the radio and even watch television from their mobile telephones and thereby acquire the needed business information. Over all, ICTs can be used by women traders as a tool for information dissemination, communication and organization in their areas of specialization in the informal sector. ICT will help in improving the profit margins by bringing together raw material suppliers and opening new market opportunities. Electronic commerce is gaining momentum and the informal sector must be a part of this great innovation that is slowly transforming the small scale business community into a multi national industry.

#### **5.4 Recommendations to facilitate use of ICT by women traders**

The main area of this study was ICT, business information and women traders in the informal sector; from the findings, it is clear that there are areas that should be focused on to facilitate the use of ICTs among women traders. The researcher therefore recommends the following as means of empowering women to improve their use of ICT.

##### **(i) Identification of business information needs**

Unless the business information needs of women traders are closely identified, then the ICTs will not disseminate relevant information. Information needs of women traders have not been studied effectively. This study merely identified the business information needs of women and related them to the ICTs that they acquired the information from. The informal sector made up of more women than men is a force in the economy of Kenya, and by identifying specific business information needs of the women traders it will be easier to identify the proper ICTs to disseminate them. It is not the unavailability of the ICTs that hinders the expected progress in the informal sector, but it leans more on what the business information needs of women are and what technologies should be used to make them easily available. Technology Acceptance Model identifies two key factors that include; the usefulness and ease of use of a given technology and to whom it is useful. This therefore necessitates the need to ensure that the right business information is contained in the ICTs to lure the women traders to use them, because without the right information, there will be no pull for the women traders to ICT. For these reasons, promoting women traders' ICT use will mean focusing on the informal sector and its specific business information needs and which ICTs will be of most use.

##### **(ii) Empowerment of women traders through ICTs**

ICTs are the major cause of the digital divide which is also the course of the widening gap between the poor and the rich. Women traders in the informal sector must therefore be empowered to use all ICTs effectively, a concentration on one ICT is not enough. The study identified the mobile telephone and radio as the most widely used ICTs among women trader, which is below the mark as the internet can offer more information and opportunities for business development. Communication campaigns as to the benefits of



ICT and offering and enabling environment as suggested in Diffusion of Innovation will results to the adoption of ICTs by women traders in the informal sector. Diffusion of Innovation further indicates the powerful effect of the mass media, and therefore ICTs like radio and mobile telephone that have effectively been used by women traders can be used to sensitize them on the importance of other ICTs like the internet for economic growth of the informal sector. By empowering women traders to use all ICTs and especially the internet, will widen their scope of influence. It will make women traders in the informal sector express their ideas more freely and effectively. ICT will enable them find new markets and interact with other traders from a far off and be able to learn how others do it in their countries and what improvement the women traders at Westlands Maasai Market can do to develop their businesses.

### **(iii) Involvement of the Government and other stakeholders**

The government should take a major stand at ensuring that policies that are favorable to women traders in the informal sector are developed and implemented. Of importance is ensuring that the ICT policy is engendered to give women an equal chance in the use of ICTs. ICT is viewed as gender insensitive with men using it to gain mileage against women, however, the government in its capacity can facilitate women participation in ICT and ICT policy development issues to enable women traders improve their families and wellbeing. The empowerment of the women traders as suggested can only be possible through the involvement of the government and stakeholders like service providers by designing communication campaigns for sensitization among the women traders in the informal sector, towards the adoption of other ICTs like the internet. Timely information on policies, production methods, and support as well as advertising and marketing, can make important contributions to the success of the informal sector. This has not yet been fully explored in the context of women traders' business information needs. Stakeholders like ICT service providers can allocate time for programmes that cover women and the informal sector. From the identified business information needs, service providers can disseminate the most relevant of these to the women traders.

## 5.5 Recommendations for further research

The researcher recommends a closer look at the specific business information needs of women traders in the informal sector, because inadequate use of ICT for business among women traders may not be as a result of education and training but more or less in the relevancy of the information contained therein.

The researcher also believes that it will be very important to study specific ICTs like the internet and relate them to the informal sector.

A study on a different group of informal sector entrepreneurs, other than dealers in artifacts would help to test the relevance of the study in the entire informal sector, thus provide a basis for extrapolation of data.

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## APPENDICES

### APPENDIX I: INTRODUCTION LETTER

Nashon Stephen Dwoya,  
P.O. Box 50257-00200,  
Nairobi  
October 27, 2008

Dear Sir/Madam,

#### **RE: RESEARCH INFORMATION FOR AN MA PROJECT**

I am a postgraduate student undertaking a Master of Art in Communication Studies degree at the School of Journalism and Mass Communication, University of Nairobi. As a partial fulfillment of the requirements for the award of the MA degree, I am conducting a survey on **“The Role of ICT in the provision of business information to women traders in the informal sector: a case study of the Westlands Maasai market”**. You are one of them and I would like to kindly request for information regarding ICT in your daily business activities.

The information you provide in this study will not be used for any other purpose apart from its intended academic use. I hereby undertake not to make any reference to your name in any presentation or report hitherto the study.

I am aware that filling the questionnaire is time consuming and I will greatly appreciate your assistance. Any additional information in form of suggestions and comments that you deem necessary to make my research findings more conclusive, relevant and reflective of the study area will be highly appreciated.

Thank you in advance.

Yours faithfully,

Nashon Stephen Dwoya  
MA Communication Studies Student

**NOTE:** The information provided here is for academic purposes only and will be treated with maximum confidentiality.

For this questionnaire, the term Information and Communication Technology (ICT) has been used to refer to any communication device or application, encompassing: radio, television, mobile telephones and computer/internet as well as the various services and applications associated with them, such as M-PESA, E-commerce.

Date: 17 Oct, 2018

TELEPHONE SURVEY SYSTEM

RESEARCH & INQUIRY - STUDENT - SURVEY SYSTEM

The above survey is conducted at the School of Business & Social Communication, located in the  
Faculty of Arts & Communication Studies, University of Nairobi

The purpose of this survey is to determine the role of ICT in the provision of business services  
& services related to the Internet access in Kenya. It was made at the University of Nairobi.

The survey is for the purpose of research in the subject.

*DIRECTOR & NC*

University of Nairobi

School of Business & Social Communication



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Date: 3<sup>rd</sup> Oct., 2008

**TO WHOM IT MAY CONCERN**

**RE: DWOYA NASHON STEPHEN – K50/P/8027/2006**

The above named is our student at the School of Journalism & Mass Communication, enrolled in the Master of Arts (Communication Studies) Programme.

Mr. Dwoya is doing research on the topic "The Role of ICT in the provision of business information to women traders in the informal sector in Kenya: A case study of The Westlands Maasa Market".

Please accord him the necessary assistance in this regard.

Yours Faithfully,

 **DIRECTOR SOJ & MC**

**Ms. Wambui Kiai**  
**Director,**  
**School of Journalism & Mass Communication**

FNK/jm

## APPENDIX II: QUESTIONNAIRE

### SECTION A: PERSONAL INFORMATION

#### 1. Age of respondent

- a) 18-30 Years  b) 31-40 Years  c) 41-50 Years  d) 51-60 Years   
e) Above 60 Years

#### 2. Highest level of formal education attained

- i. Primary Education   
ii. Secondary School Education   
iii. Diploma   
iv. Higher/Advanced Diploma   
v. Undergraduate   
vi. Postgraduate   
vii. Vocational Training   
viii. Adult education

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#### 3. How long have you been in the small scale business at the Westlands Maasai Market?

- a) Under 1 Year  b) 1-5 Years  c) 6-10 Years  d) Over 10 Years

#### 4. What is the nature of your engagement in the small scale business at the Westlands Maasai Market?

- a. Fulltime employee   
b. Part time employee  If employee, go to section C  
c. Owner  If owner, go to section B

**SECTION B: GENERAL INFORMATION ON THE BUSINESS**

*(If owner of the business, fill this section and proceed to section C)*

**5. Under what category of small scale business ownership do you fall at the Westlands Maasai Market?**

- a. Sole Proprietorship     b. Partnership     c. Family Owned

**6. What type of major small scale business are you currently engaged in at the Westlands Maasai Market? (Tick only one option)**

- i. Clothing/traditional wear (Kikoi, shirts, sandals, earrings, necklaces and bangles)
- ii. Traditional furniture (3 legged stools, papyrus sofa sets, tables and racks)
- iii. Pots, sculptures/carvings (Wooden carvings, stone carvings, metallic models)
- iv. Paintings (Cloth paintings, batik, framed paintings)
- v. Sisal and other papyrus products (Ciondo, mats)

**7. What is the geographical location for your target market for the type of business selected in 7 above?**

*(You may tick more than one)*

- i. Nairobi and its environs
- ii. Other parts of Kenya
- iii. East Africa Community Member countries
- iv. Africa
- v. Countries outside Africa

**8. How many employees in terms of gender do you have in your business at the Westlands Maasai Market?**

*(Tick the appropriate box for the total number of male and female employees)*

GENDER	NUMBER OF EMPLOYEES					
	1	2	3	4	5	Above 5
MALE						
FEMALE						

**9. What is the approximate monthly turnover for your major small scale business at the Westlands Maasai Market?**

- i. Below Kshs 10,000
- ii. Kshs 10,001-50,000
- iii. Kshs 50,001-100,000
- iv. Above Kshs 100,000

**10. What internet based ICTs do you use specifically for the small scale business at the Westlands Maasai Market?**

*(You may tick more than one)*

- i. Websites
- ii. E-Mail

## **SECTION C: BUSINESS INFORMATION NEEDS AND ICT**

**11. Indicate the importance of the following types of business information for your small scale business at the Westlands Maasai Market.**

*Circle the correct business information based on the following scale: - Not Important 1: Slightly Important 2: Important 3: Very important 4*

<b>BUSINESS INFORMATION</b>	<b>LEVEL OF IMPORTANCE</b>			
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
i. Markets for product and services and marketing techniques information	1	2	3	4
ii. Sources of raw materials	1	2	3	4
iii. New areas of investment	1	2	3	4
iv. Information on credit/loan –Financiers e.g. banks	1	2	3	4
v. Information on the security of the business premises	1	2	3	4
vi. Information on appropriate technology	1	2	3	4
vii. Business Training and skill development	1	2	3	4
viii. Business management skills	1	2	3	4
ix. Customer needs	1	2	3	4
x. Occupational health information	1	2	3	4
xi. Patenting –Protecting innovation	1	2	3	4
xii. Licensing	1	2	3	4
xiii. Business Registration	1	2	3	4
xiv. Information on where to bank	1	2	3	4
xv. Electronic money transfers e.g. M-PESA	1	2	3	4
xvi. Record Keeping	1	2	3	4
xvii. Advertising	1	2	3	4
xviii. Selling products	1	2	3	4

12. From the table below, indicate the type of ICT used to acquire the business information for your small scale business at the Westlands Maasai Market.

You may tick more than one ICT for the various categories of the business information if it applies to your business.

Business Information	Type of ICT			
	Internet	Mobile Telephone	Radio	Television
i. Information on credit/loan – Financiers e.g. banks				
ii. Sources of raw materials				
iii. New areas of investment				
iv. Markets for product and services and marketing techniques information				
v. Information on the security of the business premises				
vi. Information on appropriate technology				
vii. Business Training and skill development				
viii. Business management skills				
ix. Customer needs				
x. Patenting –Protecting innovation				
xi. Occupational health information				
xii. Electronic money transfers e.g. M-PESA				
xiii. Business registration				
xiv. Information on where to bank				
xv. Licensing				
xvi. Selling products				
xvii. Advertising				
xviii. Record Keeping				



13. For every ICT provided in the table below, indicate by ticking your level of usage for accessing the relevant business information for your business at the Westlands Maasai Market.

*(You may tick more than one)*

ICT	Level of Usage			
	Frequently	Sometimes	Rarely	Never
Internet				
Mobile Telephone				
Radio				
Television				

14. For the ICT service providers listed in the table below, rate by ticking which ones best meet your business information needs.

Only rate the ICT service provider that you use in your small scale business at the Westlands Maasai Market using the following scale:-

- |               |   |
|---------------|---|
| Poor          | 1 |
| Below Average | 2 |
| Satisfactory  | 3 |
| Good          | 4 |
| Excellent     | 5 |

SERVICE PROVIDER	RATING				
	1	2	3	4	5
<b>a. Mobile Telephone</b>					
i. Safaricom					
ii. Zain					
iii. Orange					
iv. Telkom Wireless					
<b>b. Radio</b>					
i. Main stream radio e.g. KBC, Citizen					
ii. Vernacular Radio e.g. Egesa, Musii, Ramogi					
iii. Religious Radio e.g. Hope, Radio 3:16, IQRA, Waumini					
iv. Classed Radio e.g Kiss100, Classic 105, Capital, Easy					
<b>c. Television</b>					
i. KBC					
ii. KTN					
iii. NTV					
iv. Citizen					
v. Family TV					

**15. In terms of dissemination of business information how has the use of ICTs impacted on your small scale business at the Westlands Maasai Market?**

*(You may tick more than one)*

- i. Increased Profitability
- ii. Cheaper raw material
- iii. Increased customer base – Capturing global markets
- iv. New ways of trading, for example e-commerce, M-PESA
- v. Protection of innovation through patenting
- vi. Easily available and accessible immediately
- vii. New business opportunities
- viii. Improved legal, regulatory and policy making for women traders
- ix. Any other (Specify) \_\_\_\_\_

**16. What problems do you encounter in your small scale business at the Westlands Maasai Market in accessing business information using ICTs?**

*(You may tick more than one)*

- i. Takes time to get information
- ii. Inability to get required information
- iii. ICTs are costly and unaffordable
- iv. Language barrier
- v. Lack of relevant information in the ICTs
- vi. Lack of technological skills
- vii. Poor TV, Radio and mobile telephone networks
- viii. There is no trust in ICTs
- ix. Unreliable information
- x. Not knowing specific ICT to get required business information
- xi. Did not have time to look for information
- xii. Inability to un-package information from ICTs like internet
- xiii. The language used in some of the ICTs not understandable
- xiv. Unavailable, difficult to use
- xv. Limited amount of time for usage of ICTs like internet
- xvi. Any other (Specify) \_\_\_\_\_

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**THANK YOU VERY MUCH FOR YOUR SUPPORT AND CONTRIBUTION**