SPATIAL LOCATION AND ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTs) IN THE DEVELOPMENT OF MICRO AND SMALL ENTERPRISES (MSEs) CLUSTER

A CASE OF KARIOKOR INFORMAL SECTOR CLUSTER, NAIROBI, KENYA.

BY

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

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This Thesis has been submitted for examination with my approval as the university supervisor.

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DEDICATION

This project is dedicated to my late uncles, Mr. Vitalis Okal Otieno (1963-7th July 2002), Joseph Ogumbe Otieno, Paul Ayungo Otieno, my late Aunty, Margaret Odongo (1961-31st December 1999) and last but not least to my Best Friend and brother, Julius Ceaser Ayungo Osaso (1973-26th December, 2003) who read and contributed heavily to the study's proposal but never made it to see the final product. May the almighty God, continue to bless the loved ones you left behind and rest your souls in eternal peace.

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ABSTRACT

Information exchange triggers dynamism that in turn causes mobilization and activity within the society in general.

Information and Communication Technologies (ICTs) has become a vital and integral component of both socio-economic development and infrastructure of any country. Thus underscoring the need for its cost-effective availability in every sector of development.

Information and Communications Technologies (ICTs), such as the World Wide Web, e-mail, telephones, fax and satellites are revolutionizing the way in which societies interact, conduct their businesses, compete in international markets and set their economic and human development agendas. ICTs can enable societies to produce, access, adapt and apply greater amounts of information, more rapidly and at reduced costs, and offer enormous opportunities for enhancing business productivity and economic activity. ICTs can also contribute toward increasing social participation, competing in the global market place and removing barriers to modernization, making poor populations fuller agents in the sustainable developmental process. However, with the rapid introduction of these technologies in our economy, the gap between formal and informal sector is widening and alarming.

Micro and Small Enterprises (MSEs) also known as informal sector contribute significantly to employment thus providing families with income and it also creates an enabling environment for the purchase of essential goods and services. The study recognizes the difficulty this sector has, especially on direct access to ICTs. The number of ICTs services provided for them is not enough and the few which are available are haphazardly located, hence poorly utilised or neglected. In line with this argument the study endeavour to take Kariokor cluster as a case of illustration of how location of ICTs affects utilisation of the ICTs and on the same note look at the

potential of ICTs as a business development tool and as a solution to distance barrier.

The study's findings are that location of ICTs services is a significant utilization factor. It also found that MSEs are interested with local information and content and not global, thus usage of ICTs which can help them access local market is highly acceptable. Finding's also indicate that there are still strong influences of social network to provide the entrepreneurs with information which tend to be oral in nature and in relation to this, due to over reliance on face to face interaction by MSEs it becomes very hard to link ICTs utilization and MSEs business performance of ICTs. There is extensive use of telephone in this cluster as opposed to other ICTs services such as internet, where application of oral prowess is not needed. Related to these findings is that MSE cluster operators are willing to pay for information and embrace technology that they believe can improve their businesses.

The study concluded that there is need to prevent further marginalisation of the MSEs by availing ICTs services which are mixed appropriately and also properly located viz-a-viz MSEs activities. This will help them access to markets and other business information which facilitate or make their economic activities more vibrant and facilitate availability of information about new opportunities to be more accessible to them.

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Abbreviations and Acronyms

AGOA	African Growth & Opportunity Act
CBD	Central Business District
CBS	Central Bureau of Statistics
CCK	Communications Commission of Kenya
CMDA	Capital Markets Development Authority
EDI	Electronic Data Interchange
GDP	Gross Domestic Product
GIS	Geographic Information System
ICT	Information Communication Technology
ILO	International Labour Organization
ITU	International Telecommunication Union
ISP	Internet Service Provider
KEPSA	Kenya Private Sector Alliance
KIRDI	Kenya Industrial Research Development Institute
MDGs	Millennium development Goals
MSETTP	Micro & Small Enterprise Training $ Technology Project
MSEs	Micro and Small Enterprises
NCC	Nairobi City Council
NGO	Non Governmental Organization
PRSP	Poverty Reduction Programme
SAPs	Structural Adjustment Programmes
SMEs	Small and Medium Enterprises
WTO	World Trade Organization

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Infrastructures have always been unevenly distributed over the globe, with centers of comparative concentration emerging on both the national and international level. But the pace of change in economic and competitive structures has speeded up significantly. Trade barriers are falling globally, big free trade areas are being created, and merchandise flows are global and take less account of national borders. The steady spread of information and communications technology (ICT) is driving the seismic structural shifts in the globalized economy, particularly in the geography of economic centers. Transition to the information society makes extreme scenarios conceivable (Neill, 1996).

Africa's slow growth has partly been blamed on its inferior rate of infrastructure capital accumulation. While African governments tried to close the gap in 1960s and 70s by expanding socio-economic infrastructure, the decade of 1980s and 90s witnessed lagging technological development resulting to a 'technology gap' between the western world and Africa. This has hampered negatively the spread of telecommunication and globalization which have taken a leading role in the organization of the economic space (Lee and Anas 1992).

Porter (1990) cluster's theory states that through a region's specialisation on a specific industry production costs are lowered and the quality of ancillary services upgraded. Customer demand and competitive intensity generate a synergetic dynamic within a cluster and boost the entire region's innovative potential. All the companies located at a certain hub benefit from the infrastructure in place there and the broad supply of labour with varying qualification profiles.

Whereas in the 19th century low transport costs were the major argument in favour of locating in a business agglomeration, today the benefits of clustering tend to lie more in lower time-costs, access to labour markets with highly skilled specialists and

efficient process coordination, particularly in the case of complex processes based on the division of labour. Given that people from different cultures approach matters differently, direct contact and personal consultation between business community members will still be vital in future (Cairncross,1997).

Various authors (Cairncross, 1997; World bank, 2001; Habitat, 2001 and Heeks, 1999) have outlined the importance of ICT, and its impact cannot be overlooked or underestimated. There's a general consensus on the role that ICTs plays in stimulating economic development i.e. better ICT services expand overall economic potential by allowing firms to be more accessible and hence more productive and also attracting more investment to a particular area. ICTs may be demanded to meet the basic business life support. In other words, the decision by firms and others to invest is greatly influenced by the availability of adequate information and appropriate communication networks and facilities.

Kenya's specific ICT objectives and target among others is towards creation of an ICT empowered small and medium scale enterprises sector to participate in value-added services, increased participation of the private sector and growth of backward and forward linkages and use of local products by the sector (Kenya, 2002).

Through Government's Micro and Small Enterprise Training and Technology Project (MSETTP) the large rural and urban informal sector-now responsible for over half of employment and national output – will be empowered by getting ICT skills. The consequences of building ICT human capacity is expected to lead to stimulation of growth, employment and poverty reduction (Kenya, 2002).

ICTs are often presented as 'liberating, society from spatial constraints imposed by the limitations of yesterday's technologies. They enable business to access global markets and allow people to form communities of 'Netvilles' that are based on 'shared values' (Habitat, 2001). However while ICTs bring enrichment to some, they leave others impoverished. Those who lack access are left behind. MSEs are poorly served in terms of ICTs provision and this has contributed to its sluggish development

and expansion. It is this study's concern not only to find out how they are poorly provided in terms of ICTs but also look at how the available ones are located vis-à-vis other MSEs activities within the Kariokor cluster.

1.2 Research Problem

Information and communications technologies (ICTs) are today recognized as a central force in economic and social development, with the ICT sector now becoming the largest industry in the world, and the new technologies rapidly transforming every aspect of daily life.

Lacking the tools to communicate directly with buyers or suppliers and even MSE support agencies, MSEs frequently have no alternative but to rely on unreliable and haphazardly located ICTs to transact business. If they choose to travel to markets themselves to handle their own business affairs, they must be willing to spend the time and incur the additional transportation costs not withstanding closing temporarily of their business. Moreover, they have limited means of checking prices and other services that could be of help to them such as accessibility to financial services and therefore are forced to deal more or less blindly with buyers or sellers. The purpose of this study is to assess how ICTs are spatially located within Kariokor MSE cluster and also examine how ICTs are utilized by MSEs in mitigation of the above stated problem in order to gauge their potentiality as business development tools.

The study aims to identify the ICTs planning challenges and requirement in Kariokor MSEs cluster, appropriate mix of ICTs needed by MSEs and also will help in coming up with a design of an MSE cluster with adequate ICTs which can be used as ideal spatial and locational strategy of ICTs within MSE clusters. "Clustering" enterprises according to sub sector activities, is recommended as a viable strategy for providing physical infrastructure more cheaply since it would entail providing services to a single homogeneous group than to dispersed enterprises.

1.3 Research Questions:

This study will endeavor to respond to the following questions:

1. How are ICTs located vis-à-vis MSE activities in the cluster?
2. What is the level of utilization of ICTs in the study area?
3. How does MSEs benefit by using ICTs?
4. How does ICT location affect MSEs users?
5. What policy actions and strategic interventions are necessary to increase access to the ICT infrastructure and services by MSEs?

1.4. Study Objectives

1.4.1 General Objective:

The objective of the study is to examine the location and level of utilization of ICTs by MSEs and their effect on MSEs development.

1.4.2 Specific Objectives:

1. To identify factors which have favored the location of ICTs in MSEs cluster
2. To identify the benefits MSEs get by using ICTs.
3. To assess the level of utilization of ICTs services in the cluster
4. Come up with planning framework that can be used as a guide to locate ICTs in the MSEs clusters.

1.5. Research Hypotheses

The study seeks to test two main hypotheses:

1. That the Location of ICTs has significant influence on the level of utilization of the same.
2. That the level of ICTs utilization significantly influences the performance of MSEs.

1.5.1 Assumptions

1. Given the current economic set-up in Kenya, MSEs will continue to be a key factor in the economic development of Kenya.
2. That due to globalization and technological advancement MSEs access to

market will require adoption of ICTs.

1.6.1 Significance of the Study

MSE operators, like their larger counterparts, need to communicate with their customers and business partners-including buyers, suppliers and other service providers. They also need to access information, including information on market opportunities, potential buyers, prices, sources of inputs, production technologies and government regulations. The use of ICTs in Kenya has increased even though there is no comprehensive policy framework. In the 9th National Development plan (Kenya, 2002); the government of Kenya intends to develop a comprehensive policy on ICTs. It is therefore necessary to conduct a study on how ICTs are used by MSEs, knowing very well that MSEs offers employment to a large portion of Kenyans, the number of people employed in this sector can only be compared with agricultural sector which is predominantly rural. This study will strive to help the policy makers in harmonizing ICTs in MSEs and thus strengthening its usage by MSEs.

From the mid- 1970s onwards, Kenya became increasingly unable to meet the infrastructure needs of the economy. There then followed a sharp regression in infrastructure service delivery and quality (Nalo, 1993). But while the infrastructure's deterioration and its negative impact on the economy are not disputed, it is less clear how firms have been affected especially the MSE in this case and which factors have determined their response to the deficient infrastructure specifically ICTs.

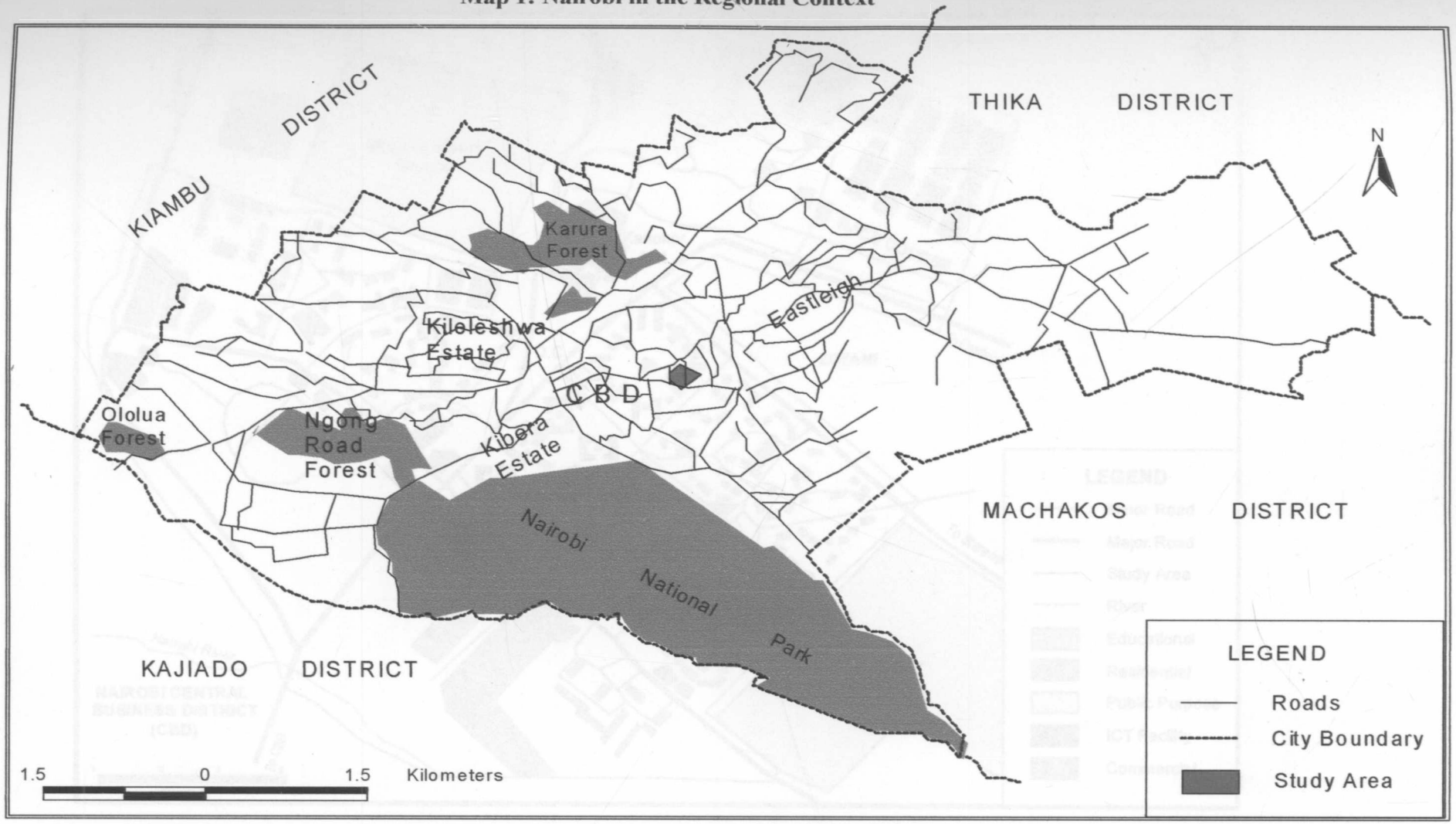
It has been widely observed that a lot of man working hours are lost by many entrepreneurs by having to travel physically from one point to another in search of goods from the suppliers and in transportation of goods and services to the customer. Incase where the owner is running the business alone like in most MSEs cases, the owner is forced at times to close down in order to do the running of up and down, this will cost him or her business as the customers will shift to a more reliable enterprise. This problem can drastically be reduced by use of ICTs, one can use telephone or even E-mail depending on the size of the enterprise and knowledge of the entrepreneur. Thus the significance of this study will be to look at the availability of ICTs and also how they are spatially located in order to enhance optimal utilization of

the same.

This study is timely as it would be able to discuss and address issues related to digital divide and reaping of digital dividends by the MSEs. This will propagate the benefits of ICTs and help MSEs to access the fruits of technology as sharing of information is no longer the preserve of the privileged few. The fact that ICTs transcend physical boundaries makes them a powerful force for integrating people and nations into a 'global economy'.

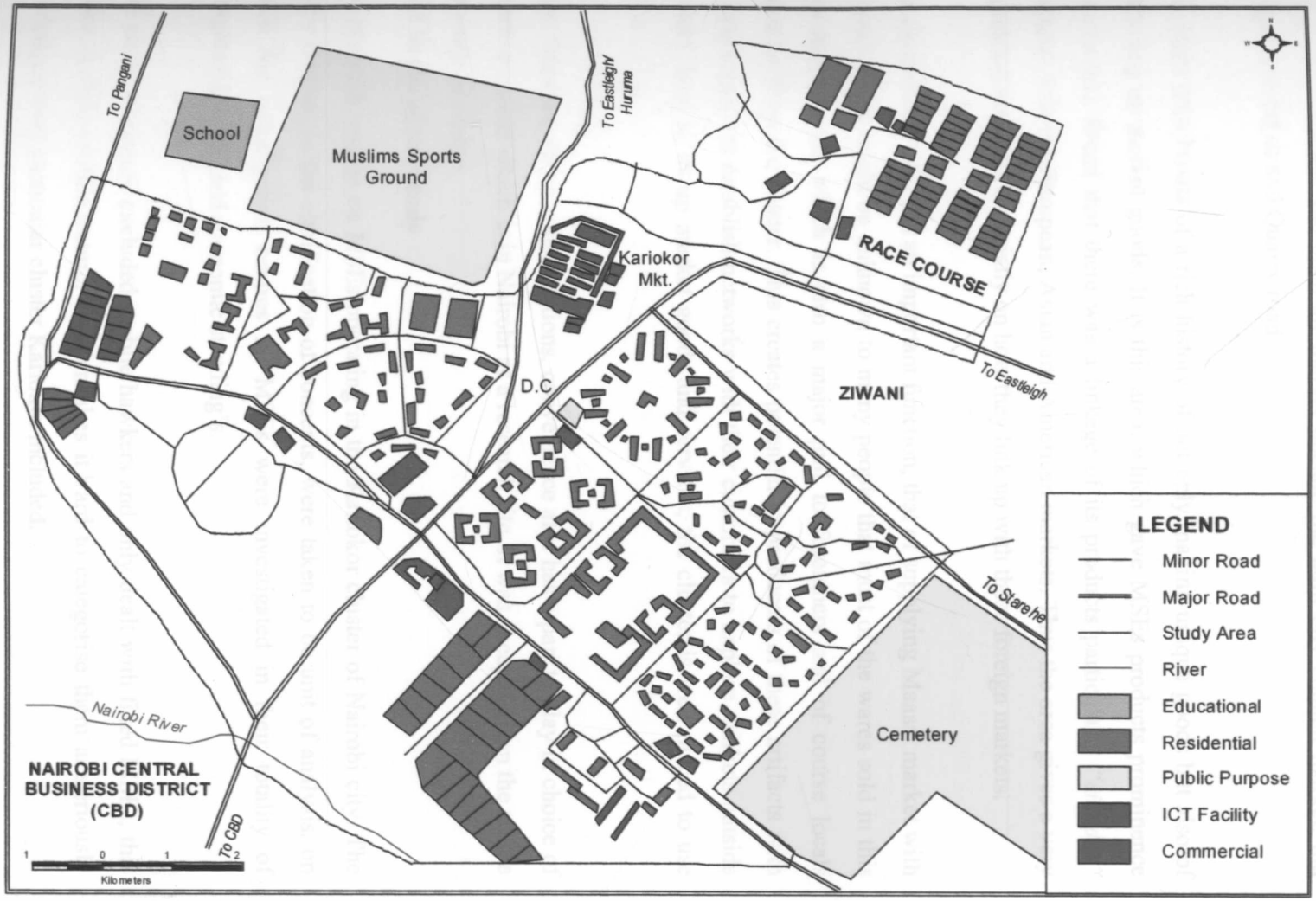
As the Nairobi City Council is currently preparing Nairobi Metropolitan Strategic Plan, this study aims at complementing efforts by the Council by providing recommendations on the location and utilization of key infrastructure for MSEs sector. It is essentially anticipated that plans shape the behavior and trend of future development and this may have influence on the level of usage of ICTs by MSEs and more importantly harmonize activities within the clusters.

Map 1: Nairobi in the Regional Context



Source: Hassconsult, 2004

Map 2: Study Area



1.6.2 Study Area and Its Justification

The study area is a cluster commonly known as Kariokor. The cluster covers Kariokor city council market, the open air market outside the built city council market, old Racecourse estate and Quarry road.

The study area boasts of a rich history of not only making unique goods but also of producing up market goods. It is this area, which gave MSEs products prominence when it was found that there was a linkage of its products particularly *"ciondos"* (baskets) with the European, Asian and American markets. Thus the area gives a very interesting scenario, especially on how they link up with these foreign markets.

Kariokor cluster also has an important function, that of supplying Maasai market with its products, it might be unknown to many people that most of the wares sold in this periodical market which is also a major pull to foreigners and of course locals emanates from the cluster. This creates potential to producers of these artifacts with an opportunity to establish networks with their customers to explore markets outside Nairobi. Due to its up market goods and services, the cluster is well placed to use ICTs.

Apart from the above considerations, convenience also has a part to play in choice of Kariokor cluster which is in Nairobi as a research site. It was cheaper given the scarce resources available.

1.6.3 Scope of the Study

The research centres on MSEs operating in the Kariokor cluster of Nairobi city. The MSEs defined in the clarification of concepts, were taken to be unit of analysis, on which the investigation centres in. MSEs were investigated in their totality of background, social and economic standing's.

The study purposely excluded mobile hawkers and only dealt with fixed MSEs, this is due to their mobile nature, which makes it hard to categorise them as seriously belonging to any particular cluster Kariokor included.

1.7 Organization of the Study

The study mainly focused on the location and utilization of ICTs by MSEs and their effect on MSEs development taking Kariokor cluster as a case.

Chapter one is the introduction, it introduces the research problem and highlights the study objectives, justification and scope.

Chapter two is on literature review. It explores various studies and identifies gaps. This section covers the general information on MSEs activities. The chapter also provides the study's conceptual framework and theoretical framework.
Research methodology analytical framework and study limitations are also spelt out in this chapter.

Chapter three gives background to the study. It covers, the historical growth of Nairobi as the study area is examined in the context of evolution of physical, social, political and economic structure. The background of the MSEs in Nairobi and that of the study area namely, Kariokor cluster are given. The Kenyan government policies in relation to MSEs development as well as the institutional policy and control framework also feature here.

Chapter four is presentation and interpretation of Location of ICTs and characteristics of MSEs. The study findings and their implications are emphasized in relation to the factors that perpetuate the location of ICTs in the Kariokor cluster.

Chapter five is the presentation of utilization of ICTs and performance of MSEs; it is also in this chapter where hypotheses postulated in this study are tested.

The sixth chapter provides summary, conclusion and recommendations including areas of further research.

1.8 Definition of Key Terms/Concepts

Information and Communication Technologies (ICTs)

ICTs are an electronic means of handling data (Duncombe and Heeks, 1999).

In this particular study the term will be used to refer to telephones, fax machines, computers, full Internet, e-mail provision and other services such as computer aided design (CAD).

The term basically refers to machines that facilitate the movement or flow of information and ideas.

ICTs primarily refer to the increasing range of "new information and communication technologies" which include the developing technologies of telecommunications, computing and microelectronics. The two defining characteristics of these ICTs is their convergence and their speed which have created a radical range of possibilities for information collection, manipulation, transmission, storage and presentation and through these possibilities have created a whole new climate for conducting business (Barton, 1999).

Cluster

The term cluster is used in two somewhat different ways in the industrial development literature. Porter (1990) uses the term to designate a group of firms engaged in similar or related activities within a national economy. Although Porter believes that the relationships within an industry cluster benefit from firms' being located near one another, he does not consider geographic proximity to be a defining characteristic of clusters.

The second use of the term is explicitly geographic. According to Schmitz (1992), a cluster is "a group of producers making the same or similar things in close proximity to each other." It is, in other words, a geographic and sectoral agglomeration of enterprises. The study adopts the second definition, because geographic proximity appears to be particularly important in developing countries where poor infrastructure, weak information systems and cultures that place high value on face-to-face communication are the norm (McCormick, 1998).

Micro and Small Enterprises (MSEs)/ Informal Sector/ *Jua Kali*

The term *micro* and *small enterprises (MSEs)* refers to a range of establishments, including informal sector activities which employ one or more persons and enterprises in the formal sector employing up to 50 persons.

In this study MSEs refers to profit-oriented private firms with between1-50 employees. The enterprise also include firms employing between 10-50 people, usually referred to as small-scale enterprises and firms employing between 1-9 employees referred to as the micro or *Jua kali* enterprises.

Physical Infrastructure

The World Bank defines physical infrastructure as services accruing from public utilities (power, telecommunication, piped water supply, sanitation and sewerage, solid waste collection and disposal, and piped gas) and public works (roads and major dams, and canal works for irrigation and drainage).A Kenya Association of Manufacturers report defines infrastructure as adequate electrical power, access roads, water and sewerage, security of tenure of premises, telecommunications and worksites.

Planning

The term refers to physical planning as opposed to economic planning. Physical planning is basically concerned with location, intensity and use of land and services for various socio-economic activities. The physical plan as a part of an overall plan embodies a proposal as to how land should be used as expansion and renewal proceed in the future (Chapin, 1965).

Teledensity

The term is used to quantify telephone lines per 100 people. When the number is high it shows that the area is well served in terms of number of lines and when the number is low, it means the vice-versa (ITU, 1998).

CHAPTER TWO

LITERATURE REVIEW:

2.1 General Overview

MSEs/Informal or Jua kali sector developed from traditional industries, which included pot making, iron working, weaving and basketry. MSEs has witnessed a rapid expansion since independence not only providing jobs, but also a means for many Kenyans to enter the manufacturing and service industry. It has been neglected for a very long time, despite its potential to alleviate many citizens from poverty to wealth creation. Infrastructure is one of the important services this sector has been poorly provided for or denied altogether.

The old unsettled argument on the historical order between the 'egg' and the 'chicken' pervades the debate on the importance of infrastructure. The supply-side perspective, which has the support of industrialists and other investors, stems from the expectation that productive activity will be, located somewhere because a basic infrastructure is in place. On the other hand, for demand side proponents, who comprise mainly of infrastructure funding agencies, evidence of substantial productive activity and economic potential, must exist before any capital is committed to the development of infrastructure in a particular location. Meeting a demand for services thus becomes the criteria for decision making pertaining to investment in infrastructure projects. The former influences government policy in new towns or the so-called 'Growth Centers' in developing countries, while the latter is mostly the scenario in older, well established cities.

Physical infrastructure is an important prerequisite in creating and supporting a business environment that facilitates private sector investment, growth and job creation. The provision of adequate infrastructure and the services thereof, coupled with macroeconomic stability and a long-term development strategy, are essential preconditions for sustainable economic and social development. Despite the importance of the sector, the past Administration allowed infrastructure to deteriorate

to the extent that it has become a major hindrance to economic development. Nalo (1993) noted that Kenya is currently characterized by a dilapidated road network, inadequate and dilapidated railway network, unreliable supply and costly electricity, poor telecommunications, neglect of Information Technology, and inadequate and poor quality of water supply systems.

It is widely believed that ICTs will change the world, but there does not seem to be clear agreement on how such change can be measured and neither how its impacts can be assessed. (Pohjola, 1999). He agreed, although that the gap between the developing world and developed in terms of new ICTs continues to widen and the developing countries are under pressure to prioritize information and communication investment in their policy agenda. However, he wondered from a positive viewpoint how productive such investments are and whether they can be substituted for the more traditional means of development.

Community-based telecenters have been set up in recent years by governments, community groups, and private-sector organizations to provide information technology and telecommunication facilities, user support and training members of a community (usually remote and isolated) who cannot afford such facilities individually or do not have the skills to use such tools. Telecenter initiative have been implemented in a variety of countries, beginning initially in the Scandinavian countries and spreading from there to Scotland, Wales, Canada, Australia and Brazil (Ernberg,1997).

To understand ICTs impacts and potential in small, medium and micro enterprises (SMEs), one must first understand information practices and needs, such as, what the information is (the content), who provides it (the source), how it is transmitted (the channel) (Duncombe and Heeks, 1999).

MSE demand for basic communication services is growing. Barton (1999), demonstrated that there are clear needs and a growing demand among MSEs for basic telecommunication services such as local and long-distance phone and fax services.

As new telecommunication services become more readily available and affordable, micro and small businesses of various types have emerged as some of the more avid customers. The availability of basic communication services makes it possible for businesses of all sizes to operate more efficiently, reduce their business transaction costs, expand their networks of business and personal contacts, access new markets, obtain better price information, and generally become more competitive.

Aleke, (1997) noted that poorly maintained and completely lack of infrastructures has dampen the spirit of anticipated MSE growth, which has led to increase in cost of goods produced by MSE, making it difficult to attract customers locally and it also adds to the cost of goods produced locally for sale elsewhere. Consumers are also discouraged from purchasing MSE goods due to difficulties of reaching sites. Underlying all these is the lack of coherent local planning structures, which hampers the evolution of development nodes and thereby reduces the growth and potential of MSEs.

2.1.1 Definition of MSEs/ Informal sector

Defining MSEs has proved rather problematic. There has been raging debate as to whether it should be done by type of activity, size of establishments, official enumeration in government publications or by legal status.

In their attempts at solving this puzzle, scholars tend to describe rather than define the informal sector often giving its characteristics as a means of identifying those activities that fall within it.

The International Labour Organization report which was the pioneer work to highlight the potential of the informal sector in Kenya defined informal activities as a way of doing thing's characterized by:

I. Ease of entry.
II. Reliance on indigenous resources.
III. Family ownership.

IV. Small scale operations.

V. Labour intensive and adapted technologies.

VI. Skills acquired outside the formal school system.

VII. Unregulated and competitive markets.

The I.L.O mission to Kenya which had the "informal sector" and the "working poor" as its major themes of analysis used the term to describe the portion of the urban economy that escapes enumeration in official statistics. It is thus an unenumerated sector (I.L.O, 1972).

In addition, characteristics to the above may be that the sector particularly in urban areas usually operates under numerous restrictions as a result of the view the authorities hold to it. This is seen in the fact that in the official government statistics, the sector is not defined, consequently, there exists no information about it.

Haggins 1968, quoted in Muench (1977), referred to the informal sector as the "traditional" or "retarded" sector in which techniques of production are traditional or highly labour intensive but with corresponding low productivity. These remarks are counteracted by Muench who said that:

> *"The pendulum of the informal sector has become unstuck and has swung rather wildly in the opposite direction. This "traditional" sector has turned out to be Cinderella and saviour as well as for several key problems of development. The sector must therefore be seen as a sensitive area of planners and urban dwellers without undue delay".*

Aleke (1993) defined informal activities as a set of economic activities that are at their core fundamentally permissible and are carried out in way that it is not in compliance with current government law. Thus an entrepreneur conducting permissible form of business according to Kiteme (1992), but does not have a license because he/she have not fulfilled the bureaucratic form required by the local government, is part of informal commercial activity.

Normally one or more of the three criteria is used to define the informal sector (Morrison, 1995). The first one is size, where the concept of informal is restricted to self-employed and micro enterprises with less than 10-20 employees. The second criterion concerns legal informality, that is informal enterprises are those that are not registered and do not comply with legal obligations concerning safety, taxes, labour laws, etc. The third criterion suggests that the firms should have limited physical and human capital per worker. Sometimes the sector is referred to as low wage sector. The common point of all these definitions of the informal sector is that there's a dual structure in the economy, with a formal sector and an informal sector (Kimuyu and Lundvall, 1998).

Just like I.L.O and Morrison, National MSE Baseline Survey (1999), also used a number of criteria in an effort to define MSE. The first one being businesses that employ up to 50 workers. The survey made a distinction between micro enterprises- business enterprises employing up to ten workers and including the working owner- and small enterprises- those enterprises employing more than ten and up to 50 workers.

A second criterion of defining MSEs as per the baseline survey, was based on enterprises that are essentially non-primary businesses, i.e., non-farm business activities excluding agricultural production, animal husbandry, fishing, hunting, gathering, forestry.

The third criterion, is that MSEs are farm-based business activities that involve some form of processing before marketing. Thus, if household members process their farm products and sell them from the farm, from the roadside or at a market, or if households are involved in buying and selling farm-based commodities, all these activities are considered MSEs.

From the survey's criteria, this study's adopted definition of MSE will encompass the size, permissibility and an added dimension which is the aim. If these three attributes are combined. MSE will refer to any private and profit oriented enterprise(s) that

employs between 1 at minimum and 50 at the maximum employee(s) including the working owner, and the above defined enterprise is engaged in legal or permissible trade by the government and society served.

2.1.2 Characteristics of the Informal Sector

In his study of the informal sector in Brazil, Merrick (1976) elaborates some characteristics of the informal sector as presented by I.L.O report. According to him, employment in the informal sector has the following characteristics:

> *"Arrangements are typified by self-employment or loose or even temporary agreements, lack of coverage by minimum wage of laws, social security and other types of government relations and without union contracts when such exists, ease of entry and high turnover of employment, small scale and less capitalized establishments and as a result generally more competitive determination of wage levels"*

In contrast the formal sector is more regulated, more difficult to enter and has a larger scale and more capitalized establishments (Merrick, 1976).

Hart, one of the early users of the term, in his study of the Frafra, an ethnic group resident in Nima, a slum area in Accra, Ghana, divides the informal sector activities into legitimate and illegitimate. The legitimate informal income opportunities, he lists:

(a) *Primary and secondary activities such as farming, market gardening, building contractors and associated activities, self employed artisans, shoe-makers, tailors, manufacturers of beers and spirits.*

(b) *Tertiary enterprises with relatively large inputs- housing, transport utilities, commodity speculation, renter activities etc.*

(c) *Small scale distribution- market operators, petty traders, street hawkers, caterers in foods and drinks, bar attendants, carriers (kayakaya), commission agents and dealers.*

(d) *Other services-musicians, launderers, shoe-shines, barbers, night-soil removers etc.*

(e) *Private transfers of payments-gifts and similar flows of money and goods*

between persons, borrowing, begging etc.

The illegitimate income informal economic activities he lists as:-

(a) Services- hustlers and spies in general, receivers of stolen goods, usury and pawn brooking (at illegal interest rates), drugs, prostitution, pouncing (pilot-boy), smuggling, bribery, political corruption-Tammy Hall style, protection rackets.

(b) Transfers- petty thefts (e.g. pick pockets), larceny (e.g. burglary and armed robbery), peculation and embezzlement, confident trickster (e.g. money doublers), gambling. (Hart, 1976).

From Hart's typology, the parallels between legitimate and illegitimate, formal and informal dichotomies. Formal sector activities are often conceived as legitimate whereas informal sector activities are seen as illegitimate. It is thus widely believed that formal sector activities appear superior and of higher status than informal sector activities.

Mutegi (1998) noted that the fact that informal sector activities are based on work and imaginations of individuals enable any person to fit to do the manual work quality for entry into the sector. Until recently the operators in this sector have been unskilled and semi-skilled persons having very little education if any at all and who have not been successful in obtaining formal employment. However this pattern is changing and fourth form leavers together with some retrenched and retired persons who are also well educated and experienced are now joining the sector.

The above observation by Mutegi is very useful for this study, because utilization of ICTs require some level of education. So with educated people now turning to MSEs for livelihood, the need and demand for utilization of these services is likely to increase, hence need to plan for them in advance.

I.L.O (1972), noted that because of heterogeneity in the MSEs sub-sectors they might have completely different requirements, but one common characteristic to all the sub-sectors is in their capacity to employ more and more people. Despite this great employment potential in the sector, Mutegi (1998) saw that the planning authorities

do not provide for them while planning urban areas. As a result these activities have developed haphazardly in uncontrolled manner leading to all sorts of inconveniences to adjacent land uses.

I.L.O observation on the challenges posted by MSEs sub-sector heterogeneity is important to acknowledge but it is no longer a main planning headache. It is true to state that all MSEs regardless of their sub-sector require infrastructure to flourish, that is may be a point the report failed to capture. Another way of planning for these informal sector, in order to control haphazard growth is by using clusters as planning units, and try hard to provide infrastructural services including ICTs at cluster level, this will consolidate MSE activities by also capturing the number of MSEs who have been operating illegally and haphazardly all over. By doing this also a lot of scarce resources such as land in terms of space will be optimally used.

The location of the informal sector economic activities choice always happen to disagree with the planning authorities causing the entrepreneurs to be harassed by the N.C.C officials and in some cases evicted when other developments are either to be undertaken or not. This uncertainty as described by Mutegi (1998), causes most traders to operate in the open air or under sketchy temporary structures just because they fear risking demolition.

The harassment and impromptu demolition noted by Mutegi can also be a reason why most of the investors fear to invest in ICTs. Since most if not all ICTs gadgets are expensive, security of the business premise is of paramount importance and no investor can take that for granted, hence need to plan for the MSEs, so as to encourage erection of more safer business premises, which will encourage private investments in ICTs and other related infrastructure. These plans need the blessing of both the Local authorities and central government who have been known to be "demolition happy" lot.

Of relevance to this study Duncombe and Heeks (2001) in a study of SMEs in Botswana characterize MSEs as survivalists and trundlers who more often have

characteristics that include: domestic-oriented, citizen-owned, informal sector, smaller, rural, with a concentrated customer/supplier base. For these, there is a sense that information is not that critical an issue; there are greater constraints that relate to markets, money, skills and motivation. For some, these constraints are almost intractable. They have the least capacity to meet information needs, and are likely to want to rely most heavily on enterprise-support agencies to meet those needs. They are not approaching the transition point. They need help building informal linkages. ICTs are of limited value (Duncombe& Heeks).

This is a misleading concept or character assassination of the MSEs especially on the information needs, the MSEs are in much need of ICTs services because they belong to the category of businesses which are run by single individuals who at times lack someone to delegate and in most cases if not all, forced to close down business in order for example to make purchases, thus in the process a lot of business is lost in the process, this can be reduced by utilisation of ICTs especially when owned or located in close proximity to the enterprises.

2.1.3 Location of The MSEs/Informal Sector Economic Activities

The quality of the infrastructure, availability of capital or qualification and flexibility of labour are traditionally important locational attributes (Cairncross, 1997). These factors, some of which have emerged as a result of historical developments (historical dependencies), often have a self-reinforcing effect on further geographic concentration of the economic area. Transport costs have always determined market boundaries; innovations brought by ICTs can be used to cut transport costs and enlarge markets.

Originally, most of these activities were to be found in the squatter settlements and the periphery of the towns. Now they are found within the town, within the low to medium income residential areas and also in the industrial areas although not established as the formal industries (Mutegi, 1998).

The researcher also observed that most of the MSEs activities also tend to be located in the city council markets and its environs. The unique thing is that, MSEs activities neighbouring these city council markets tend to be vibrant and intense than the ones operating in the market. This is true of Kamukunji cluster, where MSEs activities are so intense than what is happening in the Burma city market itself, it is also true of Kariobangi cluster, where MSE activities in the Kariobangi light industries are vibrant than both the MSE activities in Kariobangi North and Kariobangi South city council markets. It is also true in the case of this study area, where it is seen that MSE activities going on in the neighbouring Kaburini area and the open air market outside the Kariokor market is much live than the MSE activities going on inside the Kariokor city market.

Kimuyu and Lundvall (1999) notes that MSEs activities concentrate in specific parts of the cities drawn by availability of services and proximity to markets. Some operate from fixed locations and others from variable locations to obviate official harassment. The majorities are tenants, a few are landlords, while others are squatters who neither pay nor own the space they use. Informal food processing, woodworking and metal fabricating enterprises typically operate from makeshift shades. Local authorities often destroy the structures in order to relocate them. Due to the temporary nature of the premises, infrastructure services such as water, electricity are difficult to supply, limiting the technological choices available.

The above observation is worth noting, though there is need to question ourselves, as to where the planners have been, with regard to location of MSE activities and also with regard to observance of building standards. If this is stated and spelt out well, then problems of having makeshifts shades and like will be made a historical case.

Generally the MSEs will also be found located next to roads mostly in the road reserves or where they are directly visible from the main roads. Spaces between the public building's, abandoned spaces and the streets seem to be the favorable sites.

2.1.4 Emergence and Growth of the MSE in Kenya:

When the racial segregation was lifted after independence, the route for the MSE sector was opened. However the local authority inherited some negative attitudes from the colonial towards the sector and this acted as a bottleneck to the continual expansion of the sector activities (Rampell, 1974).

Kenya is often noted as the country where the study of micro and small scale enterprises (MSEs) was first born under the rubric of the informal sector some 27 years ago (I.L.O, 1972). It is widely acknowledged that the ILO study could be viewed as an eye opener to the existence of MSEs in Kenya. It is important also to appreciate the other writers view of the emergence of MSEs in different countries and how they are related to Kenya's case.

Rampel (1974) notes that, within the informal sector there were two broad classes that show different growth characteristics:

> *"The community of the poor, those engaged in the formal sector jobs, lottery and continue eking out a subsistence with a growing sense of despair helplessness"*. This group does not foresee any growth in the sector since they believe the sector is there as a sleeping stone.

The second group is made up of *"small scale entrepreneurs who have decided to invest in their businesses after rejecting wage labour in the formal sector"*.

Sinclair (1978) attributes the emergence of the informal sector as a response by the urban unemployed to the unemployment crisis, a crisis brought about by failure of the manufacturing and the service sector of the modern economy to absorb the labour supplies to which they have had access.

The above observation is likely to be true, even when you look at the growth of the MSE at this moment, most of those who have not been absorbed in the formal sector, tend to think of starting or joining the already started and established MSEs. Another driving force could be because of the low capital and technological requirements required which is by itself is within easy reach of many people.

Elliot (1975) refers to participants of the informal sector as "urban excluded". This group is composed of relatively undereducated and unskilled squeezed out of the formal sector, excluded from full time employment in the formal sector by the interaction of two processes namely the slow growth of employment and the rapid increase in the number of those seeking employment at that level. In most countries contends Elliot, between a quarter and half of the urban labour force is excluded from employment in the modern sector, giving indication of the size of the informal sector. Like his co-author, Elliot has cause to lament the discriminating attitudes by the authorities towards this sector:

> *"Nothing so well reveals the obsession of government and researchers with modern "sector" as the almost unrelieved lack of information about the ways in which a large portion of the population actually earns a living".*

Gerry (1974) in his study of the petty producers in Dakar contends that the problem of the small producers must be understood within the global problem of development and not as a n isolated case, causes of its plight must be made clear and solutions sought.

On the Kenyan's case, the first major analysis of the informal sector was undertaken in 1972 by a team of experts from the I.L.O. The mission was set up to study the causes of unemployment in the country with particular types of unemployment with particular types of problems and make recommendations accordingly. The I.L.O mission had the "informal sector" and the "working poor" as its major themes of analysis. It did a whole analysis of the informal sector tracing the factors leading to its emergence, those which perpetuate its growth, its potential for growth as well as the constraints it faces (Mutegi, 1998).

The informal sector emerges as an attempt to close the gap between the limited number of jobs in the modern sector and agricultural sectors and the increasing number of job seekers. The high rate of population growth which exceeds that of the employment opportunities, in the modern sector and the capital intensive techniques

of production applied in this sector which leaves a bulk of unemployed who must seek alternative means of earning livelihood (I.L.O, 1972 &Opiyo, 1998).

The ILO further observes that the existence of the informal sector is closely tied to the formal sector. It derives its demand from the low-income earners of the formal sector and the vast majority of the urban poor who have failed to be absorbed into formal sector.

The researcher observed that the MSEs also derive its demand from the medium and even high income earners. For example when you go to Marikiti market along Landhies road in the morning, one will be marveled by the number and models of cars parked outside the market, most of the owners of these vehicles are either from the middle class estates such as Buruburu and also from up market estates such as Runda.

In 1973, the government of Kenya published the Sessional Paper No. 10 on employment. Its main intentions were to officially respond to the findings and recommendations of the I.L.O report. The response was given that the government found the report to be refreshingly innovative on the subject of the informal sector and generally accepts its recommendations, (Republic of Kenya, Sessional Paper No. 10 on employment, 1973). So in summing up, the recognition and acceptance by government of the findings of I.L.O is indeed the emergence of MSEs.

In his classical article on the dual economy model. Lewis (1954) treated the MSE traditional sector as a reservoir of surplus labour without growth potential. The sector was seen as a temporary disequilibrium phenomenon which would disappear once the economy reached the turning point and the modern sector had absorbed the labour surplus. This view was challenged in the early 1970s, when the concept of the "informal sector" was introduced. The influential 1972 ILO report on employment in Kenya argued that the sector could provide a basis for employment creation and growth even in longer term.

Harris (1990) has suggested a classification of the various views on the MSE along

two dimensions. First, does the sector have a growth potential or not, and secondly is it autonomous or integrated with the formal sector? He observes that for the pessimists, the sector is either marginalized or exploited. For the optimists, it is either dual or complementary to the formal sector. A paper by Ranis and Stewart (1999) extends this discussion and presents a model, where the informal sector is considered to be heterogeneous so that firms can be either productive and dynamic or stagnant and traditional. They go on to analyse the factors that determine the growth of the informal sector. A key factor is the degree of integration with the formal sector. The higher this is, the higher the growth potential. A more rapid growth in the formal sector and a more even distribution of income also increase demand for informal sector products and thus its growth.

Kimuyu and Lundvall (1999), notes that a huge number of MSEs are started in Kenya, and that hardly any of those end up being large formal firms. It seems reasonable to assume that to become a medium sized or eventually a large firm, an informal firm has first to become a formal small firm. So there are two hurdles to pass. First, from informal to formal small firm and then from small formal to a larger formal firm.

The informal sector is large in most developing economies, and has been growing fast in recent decades in response to rapid urbanization and the limited ability of the formal sector to absorb influx of job seekers. In 1997 an estimated 64% of the total workforce in Kenya outside small holder agriculture worked within the so-called 'informal sector' (Economic Survey, 1998). MSE Baseline survey (1999), states that there about 1.3 million MSEs, in Kenya employing some 2.4 million people. The study shows that about 26% of the total number of households in the country are involved in some kind of non-primary activities, i.e., MSE activities that do not involve farming, fishing and other primary education.

It is estimated that MSE sector contributed some 13% of GDP in 1994 (Daniels, 1999). Kimuyu and Lundvall (1999) add that informal employment has grown at more than twice the rate of formal employment in the recent decades. The sector is also an avenue through which unskilled persons that move from rural to urban areas

acquire skills that enable them to survive in a more challenging urban environment.

Growth of MSEs in terms of absolute number and also in terms of number employed in the sector is a true testimony of how the sector has grown over time. The percentage of MSEs GDP contribution is also a clear indication of how the sector has grown in relation to other sectors including formal sector, and there is need for more support of the sector, in order to meet the country's dream of achieving industrialization status by the year 2020.

Though significant evidence is accumulating that physical infrastructure constrains the growth and development of micro and small-scale enterprises in Kenya. Circumstances differ widely between rural and urban areas and by type of business, but there are many problems in common. In urban areas specifically, inadequate legally demarcated land for MSEs operations and insecurity of tenure for worksites result in haphazard mushrooming of informal businesses and frequent harassment by local authorities.

One major fallout of this is limited access to electricity, running water and sewer facilities, which especially inhibits manufacturing, catering, food processing and similar categories of MSE activities. In many areas the lack of roads, electricity, telephone connections, etc, is a double blow as it often explains why business and financial services are unavailable in those areas, creating a further constraint to business growth (Mullei, 2000).

2.2 Role of Informal sector in Kenyan Economy:

Promotion of small-scale enterprises is recognized as key to dealing with unemployment problem facing many countries and development with shortage of capital, low skills, limited markets and uneven distribution of incomes. The small scale enterprises normally use simple technologies that use labour rather than machines and utilize locally available raw materials and skills (Aleke,1993).

Allen (1977), stated that the informal sector is a form of social blotting paper capable

of absorbing large numbers and providing urban subsistence levels of income, thus helping to avoid consideration of alternative means of planned job creation. Because of their lack of legal recognition and because they often operate on waste ground, House(1978) noted that informal sector entrepreneurs are often thought to be exposed to undue harassment by City council inspectors.

The above observation by Allen shows the potentiality of MSEs as an employer to many Kenyans and especially those who come to urban centers in search of jobs, at the same time, both Allen and house bring in the bad picture from the government and planning institutions, they are not planned for hence harassed because they are not officially recognized.

Generally MSEs are widely regarded as a primary means of strengthening the local African economies and as an engine of the emerging information economy. MSEs in developed countries tend to be homogeneous, varying mainly in terms of enterprise size and technology, while in developing countries, they are heterogeneous enterprises characterized by coexistence of very small enterprises in the informal economy and small and medium business in the organized sectors (Bhalla, 1992).

In its Poverty Reduction Strategy Paper (PRSP) for the period 2001-2002 (Kenya, 2001), the Government of Kenya underscores the need to implement complementary and crosscutting policy interventions to enhance the development of MSEs as a poverty reduction mechanism. Similarly, in its industrialization strategy, the Government of Kenya has elaborated in **Sessional Paper No.2 on Industrial Transformation to the year 2020** a variety of policy instruments to facilitate the growth of MSEs as part of the industrialization process. Among the strategies to be adopted to foster the further growth of these enterprises is the facilitation of their interaction with and learning from external markets, the promotion of competitive relationships among the enterprises and effective marketing of their products (Kenya, 1996). This can only be met if the MSE operators are aware and have knowledge of what is happening around and in other markets that can be facilitated by use of ICTs.

2.3 Evolution of Policy guiding MSE Sector development in Kenya:

There is need to create an enabling environment for informal sector enterprises to operate in through the revival of an entrepreneurial culture, support in improving their skills and attitude and market outlets. Giving handouts to entrepreneurs is killing the sector as it creates unnecessary dependency syndrome (Opiyo, 1998).

Besides the government, many Kenyan organizations are seeking to promote the development of the MSE sector in Kenya, often with external financial support. As King (1996) notes, the informal sector has been attractive to international development agencies as they have sought more private sector oriented and market friendly strategies. Support for the sector, particularly through microfinance programmes was also regarded as being a potentially financially sustainable means of tackling poverty as well as harnessing entrepreneurial energy.

Since its initial recognition of the sector, the role of the government has evolved from one of active intervention, through a range or projects, programmes and parastatal organizations, to one of facilitating the development of the sector. More recently this facilitation has included efforts to encourage what are regarded as important players, such as the commercial banks and the private sector, to take a more active part in the development of this sector as will be highlighted in this review.

2.3.1 The ILO report of Kenya 1972

The report was a product of an ILO study mission for Kenya on increasing productivity employment in Kenya. It was the pioneer user of the term "informal sector" to connote and describe the portion of the urban economy that escapes enumeration in official statistics. The study dissected the Kenya's employment economy into formal and informal. The report ranked informal sector as a priority area for emphasis in the economic development of the country.

2.3.2 Sessional Paper No. 10 on employment of 1973

This was seen as the government's response to ILO's report. It accommodated

wholesomely the ILO recommendations on the informal sector. Since then commitments to the development of the informal sector continues to be mentioned in all the subsequent development plans, though it is important to note that their implementation has remained illusionary.

House, Kabagambe and Green (1977) noted that in practice, few positive measures had been taken to actively promote and encourage the growth of the sector. They suggest that lack of positive action from the government could be as a result of inadequate database on which to build a programme of help for informal sector. As a result the ILO report and ensuing sessional paper on employment, the informal sector received considerable attention in the **Third National Development Plan (!974-78).** The establishment of the industrial estates and rural industrial centers were proposed. Also harassment of the sector's entrepreneurs was to be curbed through review of the central and the local government's regulations.

Direct assistance to the informal sector enterprises and setting up of an administering organization for the sector was envisaged for the plan period. Unfortunately, none of these policy strategies was implemented.

2.3.3 Fourth National Development Plan 1979-83

In this plan, various measures to encourage and support small scale and rural industrial development centers were proposed. Hiccups facing small scale manufacturers and the potential of the informal sector were noted. Measures for the promotion of small scale industries during the plan period included massive expansion of K.I.E services for every district, provision of KShs. 5 million funding for informal sector, reviewing of inimical laws and regulations, training and encouraging subcontracting between small manufacturers and large enterprises. In addition, the Kenya external trade authority was to assist handicraft producers to modify and adopt designs to meet export market requirements. The level of implementation of these programs was very low. Indeed most of them began after the plan period.

2.3.4 Presidential Committee on employment of 1982/83

The committee recommended that the sector should be given a legal status and recognition, and that infrastructure be built for it to thrive and attract more people. Yet Aboagye (1986), fifteen years later after the government's legal recognition of the sector, identified as among other the problems facing the informal sector, as heavy taxation and harassment by the authorities. Moreover, in the same year (1986) an IDS workshop report on research priorities recommended that, given the government's increased interests in the informal sector, it is important to increase research in that field before policy makers began addressing the details of the governments increased interests and commitments there.

2.3.5 Fifth National Development Plan (1983-89)

This plan foresaw the establishment of fully-fledged small industries division in the ministry of commerce and industry to monitor the implementation of small-scale development programme and to provide assistance to industrial extension service. The division was established as planned. A shift of emphasis from capital intensive, modern industries to small and cottage industries to increase the level of employment in the country was proposed. Partial protectionism for the manufacture of some items by small and cottage industries for the sake of their development was envisaged, but not enforced. With the adoption of the district focus strategy, it was hoped that the dispersion of the small scale industries would be accomplished. At the initiative of President Moi, several workshops commonly known as *"Nyayo"* sheds were constructed as support measure for the MSEs in the country.

2.3.6 Sessional Paper No.1 on Economic Management for Renewed Growth

This paper made it clear that the MSEs feature much more prominently in the country's development strategies and that it shoulders as a much heavier responsibility and plays a vital role in renewed growth of the country. To make MSEs play its intended role, a number of measures were proposed to be undertaken, these include:

- The setting up of special task force to review all the policies, laws and by-laws and regulations governing informal sector activities with a view of

protecting self-employed people.

- Re-organizing and rationalizing all technical training and vocational training to make it relevant to the sectors entrepreneurs.
- Making credit accessible to the MSEs much easier by amending collateral requirements, encouraging aid donors to provide funds to lending institutions for the sector firm and encouraging the formation of cooperatives and associations to represent the sector's entrepreneurs.
- Macro-economic policies were also to be geared towards assistance of MSEs especially those in manufacturing, transport, construction and housing.

Just like most of the other predeceasing suggestions, not all of these suggestions were implemented but an effort was made to implement some of suggestions. It is also important to note that the policy did not address marketing issues, which will definitely necessitate the growth of this sector, because even if you access credit to the MSEs without improving the marketability of their products, not much can be achieved.

2.3.7 Sixth National Development Plan (1989-93)

In this plan period, both public and private agencies were to be encouraged to develop supportive efforts in training, advising and counseling entrepreneurs in project formulation, implementation, operation, monitoring and evaluation. The Capital Markets Development Authority (C.M.D.A) was charged with the task of designing ways and means through which successful small scale and *"Jua Kali"* enterprises could expand their capital base, whereas NGOs working in this area were to form an umbrella organization to facilitate the optimal use of scarce resources in small enterprise development activities. It is during this plan period that the government prepared and adopted the sessional paper No. 2 of 1992 on small enterprise and *"Jua Kali"* development in Kenya.

2.3.8 Sessional Paper No.2 of 1992 on Small Enterprise and *"Jua Kali"* Development in Kenya

This Sessional paper provided a comprehensive framework for the MSEs development in Kenya. It is geared towards the improvement of existing policy and regulatory environment, gender specific issues, policy measures to improve access to credit facilities and measures to improve the provision of non-financial promotion programmes. The government as stipulated in the paper will largely to provide an enabling environment for sustainable growth and development within the MSE sector. For this to come about, the following measures will be undertaken:

- Improvement of mechanisms for policy and strategy implementation, coordination and monitoring and evaluation of impact of such policies and programs on targeted beneficiaries;
- Improvement of the legal and regulatory environment;
- Market development for MSEs;
- Development of technology and technical skills of the MSEs operators;
- Improvement of the design and delivery of other vital support services;
- Facilitation of information gathering and dissemination; and Encouragement of strong backward linkages with the manufacturers
- Structural adjustment policies of de-regulation and liberalization will be pursued. This will include: Investment incentives for new factories outside Nairobi and Mombassa among others.
- The government will divest itself of hitherto direct involvement in providing the MSE sector. Instead it will be involved in providing the physical infrastructure and information network to enable efficient operation of MSEs.
- Need to assess on actual and prioritized requirements of infrastructure, availing industrial land to small enterprise and encouraging formation of associations will be done through District Development Committees.
- Government organs will collaborate with existing relevant institutions to facilitate improved mechanism for information sharing, research training and

other promotional activities.

It is important to note that these measures together with a comprehensive review of the pertinent acts, licensing arrangements and the building codes, with a view of removing adverse impacts hindering small scale sector development are currently under implementation.

With the projection that the informal sector is likely to sustain a growth rate of 11% and above per annum beyond the year 2000 the role of MSEs in the socio-economic development of Kenya cannot be understated (Kenya, 1997; CBS, 1995). Further employment projections indicate that the MSEs will generate about 75% of all new jobs in the urban sector. In the rural areas it is estimated that approximately 50% of new non-farm jobs will be in the MSEs sector. Results from a recent baseline study show that the sector contributes at least 13.8% of Kenya's GDP (MSE baseline Survey 1999). The Government has therefore formulated policies to assist growth of the sector. The Government in endeavor to promote this sector has drawn several Sessional papers. The mother of all Sessional papers in Kenya (Sessional Paper No.10 of 1965 on **African socialism and its application to planning in Kenya**) acknowledged the importance of industrial development, which was to be determined by Government planning. It is however, important to note that the policies were not well spelt out to favour informal sector industrial growth. Sessional paper No.1 of 1986 on **Economic Management for Renewed Growth in Kenya** spelt out more focused policies and strategies currently adopted for the promotion of the informal sector in Kenya. It reviewed the broader economic environment, highlighted the significant role of the informal sector in employment creation and poverty alleviation in Kenya and set the agenda for the sector's development.

Sessional Paper No.2 of 1996 on **Industrial Transformation to the Year 2020**, spell out means of transforming Kenya into a prosperous industrial nation, recognizes the potential of this sector to create jobs than any other off-farm sector. Among the recommendations made to promote the growth and expansion of the informal sector include facilitation of (a) the informal sector's interaction with and learning from external markets;

(b) competitive relationships among informal sector micro-enterprises; and
(c) effective marketing of the sector's products.
These measures are geared towards ascending the informal sector for effective competition at the both the local and international markets.

Not much has been said or put in place since the publication of sessional paper No. 2 of 1992. The 7th -9th National development plans have just been repeating and give encouragement for the implementation of what is in the sessional paper No.2 of 1992. A lot has not been achieved but it is worth noting that the current Government has given hawkers in the CBD and especially those operating in the CBD of Nairobi, some streets where they are given permission to spread their wares without interference and harassment from the city council. This is in itself a boost to the growth of MSE sector.

Attempts have been made to address some of the policy issues explained above.
On the technological font for instance, programs to boost the technological capability of MSEs are being implemented by technical training institutes, national universities and non-governmental organizations. There are about 41 technical training that train craft, technician and higher technical levels. The Kenya Industrial Research development Institute (KIRDI) is involved in adapting technology for MSEs. A broad number of NGOs such as ApproTEC, FIT Resources and Kisumu Innovation Centre are involved in addressing the technological needs of the sector. However, the transfer and diffusion of technology is still hampered by mismatch between supply and demand for technology, inadequate funding for technology development and underdeveloped investment capacities and learning mechanisms (Mitullah and Odek, 2002).

Inadequacy of these interventions has continue to be manifested in this sector's development, (Kenya 2002;PRSP,2001:57), noted that MSE suffer from low productivity leading to low incomes and hence low potential to provide a viable vehicle for poverty reduction. The average income from MSEs according to the 1999 Baseline Survey was Ksh. 6000 monthly. Surprisingly, this level of income is nearly

twice the gazetted monthly basic minimum wages for the agricultural sector. This shows that MSE operators by definition are not absolutely poor; they however still fall in the low-income groups relative to the wages within the formal sector (Mitullah and Odek, 2002).

From the above literature review, it seems that the following factors, can be said to have led to the growth of MSEs

Factors leading to MSEs growth:-

1. Agricultural sector has been the main employer especially in rural areas and it has experienced a slow growth and decline in some cases. This has created an influx of people from rural to urban areas who have resulted to looking for employment in the MSE sector.
2. Slow economic growth in various sectors has resulted in economic hardships forcing many organizations to consider restructuring and downsizing of personnel.
3. The civil service which is a major employer can no longer sustain its large personnel and therefore the structural adjustment programme (SAP), which was initiated in 1993 to reduce budgetary deficits, has now been implemented. It was one of the conditions given by donor community if they had to give aid to developing countries.
4. Graduates from primary and secondary schools, college, universities and other institutions of higher learning can not find employment and are therefore forced to join the informal sector in order to sustain themselves.

2.4 MSEs Access to Infrastructure

Kenya had by the 1960s built a fairly modern infrastructure which helped to consolidate its position as East Africa's commercial centre. The capital city, Nairobi and other major towns are the main regional road, rail and air links. Nairobi is also the hub of telecommunications within the region while the port of Mombasa is the gateway for many countries in the interior. Since infrastructure and related networks

were considered strategic for national development, their provision became the responsibility of the public sector. In subsequent decades, however, a combination of population pressure, poor maintenance due to inadequate outlays, resource difficulties and ineffective macroeconomic policies began to erode the quality of infrastructure provision (Nalo1993, Republic of Kenya, 1995)

A major constraint facing many MSEs in Kenya is the lack of adequate infrastructure. The term infrastructure relates to adequate electrical power, access roads, water and sewerage, security of tenure of premises and telecommunications. Good infrastructure has the effect of promoting competitive private sector growth by lowering the cost of doing business (CBS, K-REP and ICEG, 1999).

Access to utilities is a proxy for the quality of infrastructure available to the entrepreneur. While easy access to utilities is important in all business activities, it is particularly critical in the manufacturing and services sectors where access to utilities may determine the type of technical processes to be used. From 1968, the government of Kenya through the Kenya Industrial Estates put up a hundred of sheds for MSEs throughout the country and these were complete with all required utilities. The National Council of Churches of Kenya made a contribution to the infrastructure issue by developing an "industrial area" for small-scale enterprises in Nairobi. Other more recent attempts at dealing with this issue include the Ministry of Research and Technical Training *nyayo* sheds. These have been a disappointment because they were not planned, were poorly located, and lacked utilities; consequently their impact has been low (ibid).

It has generally been observed that MSEs are excluded from the town planning process; therefore, land is seldom zoned exclusively for the needs of MSEs. The National Baseline Survey 1999 established that infrastructure problems are more acute in rural-based enterprises.

2.5 Information and Communications Technology policy context

ICT is a vital component in the socio-economic recovery strategy. Cognizance should be given to this fact and considerable measures must be taken to encourage growth in this sector. The Government must play its significant role both as a driver and a major facilitator.

Attempts at the elaboration of an ICT policy in Kenya did not emerge until the last quarter of the 1990s following the liberalization of the telecommunications sector. Hitherto, the Kenya Posts and Telecommunications Corporation (KPTC), a state monopoly, provided both telecommunications and postal services and took charge of the regulation of the services. The Kenya Communications Act (1998) which took effect in July 1999 established the National Communications Secretariat, housed within the Ministry of Information., Transport and Communication to serve as the policy advisory arm for the Government on matters pertaining to the to the telecommunications sector. Under the same Act, Kenya Post and Telecommunications Corporation was disbanded into three independent legal entities:(a) Telkom Kenya Limited (TELKOM);b) Postal Corporation of Kenya (POSTA);and c) the communications Commission of Kenya (CCK).The Appeals Tribunal was also established to serve as an independent arbitrator in the communications sector (Kenya,1999).

Telkom Kenya Ltd. was established as a public telecommunications operator under the Companies Act, thereby effectively taking over all the functions of the former KPTC. Telkom Kenya Ltd. Holds license to operate the following services: Local Telephone Services, National Long Distance Telephone Service, International Gateway Services, Global Mobile personal Communication by Satellite, Mobile Radio Services, VSAT services, Internet Nodes and Backbone services, Value Added Services, Customer Premises Equipment vending and External Wiring Services. Premises Equipment vending and International and External Wiring services. Telkom Kenya still has notable exclusivity in the provision of some of these services implying

that the liberalization of the communication sector is still largely partial.

The communications sector services that are fully liberalized include the following: a) facility-based data communications network and services which are regarded as resale services; b) internet facilities and services (including internet service provision (ISPs), national and international Internet backbone services and internet exchange points (IXPs); c) value added services which include non-facility based service providers such as premium rate service providers (PRSP), audio-text service providers (ASP), store and forward services (SFSP), electronic data interchange (EDI), credit card validation platform services and number portability platform services; d) resale services (including payphone service providers, telephone access bureau service provision, Cyber Cafe' service provision among others; e) telecommunications dealers (including telecommunications terminal equipment vendors, installers and maintainers as well as telecommunications internal and external wiring licensees (http://www.cck.go.ke/telecomu/status_tele.htm).

2.6 Status of Information and Communication Services in Kenya

2.6.1 Landline

Kenya's landline telephone exchange capacity has increased at the rate of 15% per annum from 112,681 lines in 1981 to about 480,000 lines twenty years later. The number of public telephone booths in operation has increased rapidly from 588 in 1981 to 10,000 in mid 2001. Telephone service density (teledensity) is estimated at around 0.16 lines per 100 people in the rural areas and about 4 lines per 100 people in the urban areas. In terms of the telephone penetration factor (percentage of households/offices with a telephone), about 4.2% of households, nationally, have a telephone line. The telephone penetration factor, however, varies markedly from 0.1% in the very remote districts to 27.7% in the city of Nairobi. Moreover, most of the telephones in the urban areas are within offices rather than in households (http://www.cck.go.ke/telecomu/status_tele.htm).

The Government of Kenya's objective is to improve telephone penetration in the rural

areas from the present 0.16 lines to 1 line per 100 people and in the urban areas from the present 4 lines to 20 lines per 100 people by the year 2015. These targets translate to the installation of over 375,000 lines in the rural areas and 2 million lines in the urban areas. At an estimated cost of 800 to 1250 US dollars per line, the total investment is estimated to cost between US$2 billion and US$3 billion. As a result of the heavy investment requirements, a gradual liberalization of the communications sector attract private sector financing is underway (http://www.cck.go.ke/telecomu/status_tele.htm).

The liberalization of Telekom will play an important role in stimulating the improvement of the teledensity and also make acquisition of landline easy and affordable. The government should aim at distributing landline facilities instead of taking them to towns and areas where there is already developed and with high teledensity. This will mean that the teledensity should also reflect the connectivity of the MSEs who belong to the informal sector of the economy. There is a lot of hope in Kenya, that when the monopoly the Telkom Kenya has been enjoying come to an end in July 2004, the telecommunication sector via landlines will greatly improve.

2.6.2 Mobile cellular phone services

The mobile cellular phone market is still partially liberalized and has two players: Safaricom Company Limited (60% owned by Telkom and 40% by Vodafone UK) and Kencell Communications Ltd. (60% owned by Sameer investments Group and 40% by Vivendi International). By December 2001, both Safaricom and Kencell had connected 600,000 mobile phone users. Mitullah and Odek (2002) noted that the two cellular phone operators are finding it hard to cope with the rising demand for subscriptions. The operators are also facing problems with CCK regarding the quality of their services and pricing policies. The quality problem arises largely from the over subscription of their services than earlier forecasted, thereby leading to congestion of traffic on the GSM networks.

It is highly noticed that the mobile technology has really revolutionized the communication sector, and it will be prudent if the government can bring in some

more players in the sector to make these facilities more affordable for the MSEs, because controlling the sector in a liberalized economy will stifle the sector and since we are in a liberal economy, bringing in of more players will make the sector control itself. On the issue of increased subscription of mobile phone users, the issue should be not of the number subscribing, but on the status of those who can afford to subscribe. Most of those subscribing are the middle income earners and the well off who already even have office and residential landlines and not the MSEs.

2.6.3 Internet Service Providers

In the current Development Plan (2002-2008), the Government of Kenya has spelt its plan to develop an The number of Internet Service Providers has grown from 9 at the time of liberalization in 1996 to 70 as January 2002. However, only 30 of the registered ISPs are operational and of these, only 10-15 are active in the market. Most of the remaining operational ISPs are corporations that purchased an ISP license to meet organizational communication needs without contracting a provider (Kane, 2002).

It is estimated that there are about 40,000 dial-up Internet subscribers in Kenya and close to 100,000 people who regularly access internet and e-mail services (http://www.cck.go.ke/telecomu/status_tele.htm). Approximately 90% of the Country's dial-up subscribers are located in Nairobi; rural connectivity is hampered by the use of long distances analog lines (Southwood, R.Balancing Act Update News #88). The Internet service provision is faced with both supply and demand constraints. On the supply font, it is possible that the exhausted copper infrastructure and monopolization of international traffic by Telkom restricts the dial-up market that has the potential to be as large as 60,000 to 100,000 subscribers. The Internet Service providers are entirely reliant upon this dilapidated infrastructure as the existing regulation restricts investments in alternatives such as the VSAT technology. On the demand side, there are a limited number of Kenyans who can afford, have the knowledge to utilize, and are interested in paying for the internet services (Kane). A recent survey of Internet users published in the East African Standard found that typical Internet user in Kenya is aged between 18-44 years, has completed an

undergraduate college degree, and has a stable job that earns over KSh. 25,000 monthly (Balancing Act News Update #86). This rule out most of the MSEs as well as the average Kenyan population. A policy framework that addresses both the demand and the supply limitations to the provision of Internet services is therefore essential (Mitullah and Odek, 2002).

ICT literate population through retraining and skills building that will give special emphasis on the informal sector and the current workforce (GoK,2002:112). The Government hopes to integrate more seriously ICT skills into the school curriculum, to empower the informal sector workers to utilize ICTs through the Micro and Small Enterprise Training and Technology Project (MSETTP) and re-train its workforce on ICTs.

There are enormous opportunities provided by access to information and communication technologies to reinforce the processes of development, reconstruction, democratization and decentralization and to leapfrog some longstanding development blockages like access exploitation of AGOA, EAC and COMESA among others. Efficient ICT infrastructure is a prerequisite for effective ICT industry growth (Kenya, 2003). Although the government is expanding and improving ICT systems, the current state of infrastructure is still a major hindrance to the country's full participation in the information society. Consequently, the government during the current plan period is committed to implement policy initiatives and programs that will facilitate the development of the ICT infrastructure in the country (Kenya, 2002).

It is a pity, that Kenya does not have an ICT policy paper which can be used to guide ICT development. Just recently (Daily Nation March,16 2004), an ICT conference was informed that it has taken the parliament nine years to debate the ICT policy paper and the paper is yet to be passed in parliament. The liberalization of the ICTs sector will also enhance the growth of the sector and economy in general, for example there is need to allow a second landline phone operator and also liberalization of Jambonet and VSAT technology in order to make utilization of ICTs facilities

affordable to all and especially the MSEs whose income at times is a constraint to use of modern technology.

Involving the private sector in economic revival is vital for the success of strategies laid out by the government with regard to ICT. It is with realization that the Ministry of Planning provoked Kenya Private Sector alliance (KEPSA) that is composed of 17 economic sub sectors to play a pivotal role (Kenya Engineer journal, 2003).
ICTs benefits or dividends will be realized once the government puts in place measures beyond existing ones. It is essential for MSEs to embrace ICT and therefore take a significant advantage of the results accruing from its usage.

2.7 MSEs Experience with ICTs

Trade barriers are falling globally, big free trade areas are being created, and merchandise flows are global and take less account of national borders. The steady spread of information and communications technology (ICT) is driving the seismic structural shifts in the globalized economy, particularly in the geography of economic centers (Clarke, 1994).

There is need for planners to see development process within the broader human development of improving people's access to income, employment opportunities, health, education and a safe physical environment. Planners are becoming involved in supporting economic development, more directly, by achieving a better understanding of the constraints and requirements of business, particularly the informal sector by strengthening urban management functions such as infrastructure maintenance, financial services and a sympathetic regulatory framework (ibid).

This a worthy call for planners, they should be in a position to come up with plans that can generate or spur economic growth instead of continuing tying themselves to traditional and conservative approach, this calls for the need of physical planners to work close with economic planners in order to address how the economic blueprints can be implemented spatially.

Local markets may offer few new business prospects, and accessing business opportunities in other more distant markets may be difficult. Lacking the tools to communicate directly with buyers or suppliers in remote markets, MSEs frequently have no alternative but to rely upon middlemen to transact business for them. If they choose to travel to these markets themselves to handle their own business affairs, they must be willing to spend the time and incur the additional costs. Moreover, they have limited means of checking prices in other markets and therefore are forced to accept the terms that local middlemen are willing to offer or else deal more or less blindly with buyers or sellers in other areas. Given these realities, it is easy to understand why there might be pent-up demand for telephone services and other information and communication tools by MSEs operating in these environments (Barton.1999).

Availability of means and ways of communicating with external market is the only solution to this problem of meeting the demand outside one's location. Building of road networks or railways may at times not be feasible, hence need to have ICTs, to cater for the missing link between the MSEs and the outside market.

Duncombe and Heeks (2001) note that not just in theory, but also in reality, ICTs can be seen to bring benefits to small enterprises in Africa. Cases from Botswana indicated that ICTs can reduce time and money costs of business processes, and can improve the certainty and quality of those processes. Word processing remains the dominant application. Email and spreadsheet use fight it out for second place with Web use a little way behind. It is the communication-based applications that show the fastest growth rates, and ICTs can be of particular value in supporting communication since this addresses the relatively information-poor and isolated nature of enterprise in Africa.

The Botswana experience is a good indication of the potential of ICTs in developing ICTs and economy at large, it is therefore that their availability is planned so that to cater for them well in advance, in cases where a plan for a new MSE cluster is done,

the planner should be not only be able to plan for the activities en masse but also facilitate the communication requirements of the cluster, which will help in saving man hours needed badly to revitalize Kenya's slumping economy.

MSEs are beginning to demand higher value-added services. Awareness and demand, however, are still quite low. The current gap between the actual and potential uses of ICT-based services will close incrementally as consumers become more aware of the benefits of interactive information services and as suppliers identify cost-effective strategies to provide customized information products to large numbers of MSEs at affordable costs (Barton, 1999).

Creating of awareness without availing ICTs for MSEs might not help much, but placing them strategically as you conduct awareness, can facilitate acceptance and adoption to them much faster than anticipated.

There are financially viable business models able to satisfy MSE demands for basic communication services. (Barton, 1999) provided examples from several countries of ways in which MSE demands for basic telecommunication services are being satisfied through business models that appear to be financially sustainable. Evidence from a range of developing countries, including Bangladesh, India, Indonesia, the Philippines, and South Africa, suggests basic telecommunication services can be provided to rural and underserved urban communities on a commercially viable basis through a range of business models, such as privately owned phone-shop franchises or individual cell phone subscriptions.

Case studies conducted by Duncombe and Heeks (2001) showed that poor decision making was a consistent feature within businesses that relied heavily on informal information. However, a move to the right-hand end of the continuum is not the answer: enterprises trying to rely just on formal information would rapidly go out of business. In practice, then, enterprises need a mix of both informal and formal information.

This makes us believe that mixing both the formal and informal information is away or a process of graduating from traditional methods of communicating to modern ways of communication. So the mixing of the two is like providing a bridge to the desired end, which is adoption of ICTs utilization, which is an important aspect a planner needs to know, especially in this era of strategic planning, where societal participation and indigenous knowledge is highly recommended.

Issues of access and coverage also mean that higher priority should currently be given to other information-related technologies Duncombe & Heeks (2001). In terms of marketing, for instance, ICTs hold considerable promise. However, for the majority of small enterprises – serving only a relatively localised market – this is probably not worth placing high up the priority list. Despite issues of infrastructure and reliability, other forms of marketing – direct mail, telephone sales, advertising, personal contact – are underutilised and would form a better target. Locally, Botswana – like most other African countries – remains below 'critical mass' in terms of Internet-related marketing. At best, then, ICTs should form part of the SME marketing portfolio, at least for those who already have access to a networked PC, but not yet a dominant part.

The aspect of ICTs forming MSEs marketing portfolio has been overlooked and this has made life for the MSEs to be very miserable, because they are only restrained to local markets. The middlemen have also come in to exploit the MSEs by buying their artefacts at exploitative prices only to sell them or even export them at a very exorbitant price.

ICT-based communication applications (email and then the Web), then 'reality-supporting' ICT applications (word processing), and only then for other ICT applications such as accounts. Wherever possible, ICTs should supplement rather than substitute for other information-handling technologies, at least for the foreseeable future (ibid).

The integrated approach sees ICTs as a means to an end, not as an end in themselves (Duncombe & Heeks). In very simple terms, this approach has three steps:

1. Identification of enterprise development objectives.
2. Identification of the new and/or reengineered information systems requirements needed to meet those objectives.
3. Identification of the role that ICTs and other information-related technologies have to play in meeting those information requirements.

This study will attempt to bring out the elements of the integrated approach, though being a planning study, it will look these issues in relation to their spatial implications, for instance if lack or poor location of the available ICTs interferes with enterprise development.

Miehlbradt (199) notes that a possible reason for the difference is that smaller MSEs are focused mainly on day-to-day operations and decisions – for which telecommunications services are ideal. Larger MSEs have started to think more about business development, for which information services are needed to find new suppliers, markets and technology he adds that as the Philippines and other countries continue to integrate their economies internally and with the world economy, the need for MSEs to communicate with buyers and suppliers beyond easy face-to-face contact will increase

The importance of ICTs as an MSE development tool is shown by the above statement, though there is need to show how their availability and location can be used to gauge their potentiality.

The Philippines survey indicates that telecommunications services help MSEs to be more competitive by reaching their suppliers and buyers faster and saving time and money. While telecommunications is important to MSEs daily operations, they appear to use it less for business development, such as looking for new buyers (ibid). The survey also notes interestingly that, the price of services, convenience of location and distance from MSEs' businesses received only average or low importance ratings,

showing that MSEs are willing to go out of their way to use telecommunications services.

The study also recognizes the inability of using location as the only single factor which can enhance utilization of ICTs by the MSEs. It thus acknowledges the complementary roles other factors can bring into play. As it will be shown clearly in the conceptual model, social, economic, physical and institutional factors and arrangements are very important complementary factors, which together with location and availability of ICTs will either enhance or discourage utilisation of these services.

Also in the same vein, relying on the muddling through approach in MSEs growth does not help, and especially at this time when the government is relying on it heavily to create jobs for many unemployed citizens, there is need to consciously avail the necessary enabling environment by availing other needed services such as business development services such as training, micro credit and also strengthening of MSEs associations among others to enrich their closeness which will lead into overcoming of many barriers which they cannot handle individually but when these challenges are given a corporate approach, thing's will work out well and this calls for a planner to help in sorting out the spatial barriers which may bedevilling this sector.

The study's parting message on the review is that the importance of other infrastructures is highly acknowledged and hence does not underestimate the role played by the lack or availability of these other infrastructure such as roads, water, electricity etc. Recognition of the complementary functions these infrastructures play in MSE development or underdevelopment is of paramount importance and indeed unchallengeable.

2.8 Research Gap

Just as observed by Kimuyu and Lundvall (1999) that MSEs activities concentrate in specific parts of the cities drawn by availability of services and proximity to markets. Some operate from fixed locations and others from variable locations to obviate official harassment. The majorities are tenants, a few are landlords, while others are

squatters who neither pay nor own the space they use. Informal food processing, woodworking and metal fabricating enterprises typically operate from makeshift shades. Local authorities often destroy the structures in order to relocate them. Due to the temporary nature of the premises, infrastructure services such as water, electricity are difficult to supply, limiting the technological choices available.

This is quite a planning challenge and since physical planners are designated to take their position as spatial organizers, the thrust of this study is to get the criteria behind selective development, whereby the MSEs are isolated when it comes to provision of infrastructures and in this case ICTs provision.

The main contribution of this study is to avail information on how clusters can be used as MSEs planning units, taking ICTs as a case and hope that other infrastructural services can be availed using the same unit.

This study will attempt to give information for appraising the MSE sector in physical planning process, because currently, the physical planning apparatus such as the physical planners act of 1996 and the physical planners registration acts, scantly mention MSEs. The study will also aim at contributing to the enrichment of the current draft physical planning handbook, on how planners can contribute to the growth of the MSE sector, especially on issues relating to infrastructure provision and in particular ICTs provision and location of the same.

2.9. Theoretical Framework and Conceptual Model

2.9.1 Theoretical Framework

Planners are the advocate of the poor because they are in weaker positions to articulate their needs and safeguard their interests, it is desirable and necessary for plans to support distribution of income and wealth and this calls for pro-poor planning measures to the disadvantage, in this case the informal sector's MSEs sub sector has been neglected and plans have seen to favour and focus on formal sector and to some extent Small and Medium Enterprises (SMEs).

The researcher had difficulty in choosing one best theoretical preposition, which can holistically articulate the study's arguments and the desired end state. Therefore, an agglomeration of theoretical positions and concepts were tied together to give this study a locus in planning school. The paradigms, which this study hinges its arguments are as follows;

1. Modernization and Dependency Theory

Africa's development effort is guided by theories of modernization and dependency. Modernization "calls for Africa's integration with the world capitalist market system", while dependency theory "calls for disengagement from the world capitalist system". Modernization is a theory of development as a linear process evolving from traditional to modern societies, along the paths trodden by Western Europe and North America. Thus according to this perspective, development has to eliminate the obstacles that impede its advance to modernity, including " (a) capital shortage (b) prevalence of crude technology, (c) high birth rates (d) high rates of illiteracy (e) insistence on traditions, and the attitude of the population towards necessary changes (f) lack of modern industries and low capitalization of land". Conversely, dependency theory sees development as a drive towards economic independence or self reliance by breaking away from the unequal exchange that characterizes economic relations between the more developed and less developed countries of the world.

The African Growth and Opportunity Act (AGOA), which was first promulgated in the 2000 and renewed as AGOA 2 under the Trade Act of 2002, seeks to promote "self-sustaining economic and political development" in Africa through trade than aid, besides being an integral part of the ongoing economic globalization effort. (McCormick and Rogerson, 2004)

In line with above argument, it is important to put MSEs in the picture, by availing and locating ICTs strategically in their respective clusters, in order to benefit from the globalized trade and this will also help in sharing and transferring technology among

the trading partners which could jump-start or modernize the sectors technology, especially in the current information-driven global economy.

2. Central Place theory

Christaller (1933) formulated central theory which was an attempt to explain the size, nature and spacing of cities as central places supplying goods to the surrounding population. This study is not concerned with the spacing of cities, but would like to borrow some of the concepts put across by this theory in order to come up with a solid argument on how to plan for optimal and ICTs sustainable MSE cluster. Some of the borrowed elements from this theory are as follows; The first is threshold which refers to the minimum population required to support a given function or service. The second is range which is the maximum distance a consumer will travel for a service or to purchase a good.

ICTs services are classed on a relative scale from lower order to higher order services. Lower order services such as mobile and landline are those services which MSEs operators need frequently and therefore are willing to travel only short distances for them. Higher order services such as email, internet, and fax are needed less frequently so MSEs are willing to travel farther for them.

In line with the above argument, the study aims at balancing the two concepts of threshold and distance carefully in order to gauge the potential of the cluster to generate enough threshold to sustain these services and looking at the same time the viability of these services in relation to minimum distance travelled for the services, which will mean addition of more ICTs services or intensification of the existing ones with exemption of those located in the road reserves, that is by basically adding more ICTs services or locating the available ones strategically so as to sort out the problem of sporadic spread of the services.

3. Communication view of Systems Theory

Meier (1990) sees the City as a set of systems of interaction prompted by man's urge to maintain communications (in the general sense) with his fellow men. At present stage of man's development, transportation and communications technology supply the principal media of interaction. Cities have always exerted a strong propensity for growth because of the opportunities of face-to-face transactions that they offer. But Meier notes that the technological developments are reducing the necessity for face-to-face interaction and that transportation overloads are imposing limiting conditions on opportunities for interaction through transportation systems.

With the substitution of communication for transportation, communication becomes increasingly important as a focus to study not only the city, but also various sub-sectors which make up the city like MSEs clusters. From this perspective, communication systems offer what can be considered to be the basis for understanding human communications and the activity systems that arise out of human relations involved.

The study has acknowledged the importance of communication via ICTs and especially at this time, when Kenyans are faced with transportation problems, due to the reforms carried out by the government in the public service vehicle sector, a lot of people are unable to meet the transportation costs and hence are forced to walk or even abandon the journey altogether, incase this involves a business deal, this means that a lot of businesses will be lost and more so among the MSEs who belong to the smallest and most vulnerable groups of the society and in particular it occupies the lowest cadre in the business community ladder, this calls for a strategy which can help them come out of the economic quagmire they find themselves in as a result of the increased transportation cost.

4. ICTs Theory

Population, economic capacity and wealth have always been unevenly distributed over the globe, with centres of comparative concentration emerging on both the

national and international level. But the pace of change in economic and competitive structures has speeded up significantly. Trade barriers are falling globally, big free trade areas are being created, and merchandise flows are global and take less account of national borders. The steady spread of information and communications technology (ICT) is driving the seismic structural shifts in the globalized economy, particularly in the geography of economic centres. Transition to the information society makes extreme scenarios conceivable. Cairncross (1997) prophesied the 'death of distance' and Pawley (1997) envisaged the displacement of urban space by the virtual world. In contrast to this, empirical evidence suggests that while ICT will shift the emphasis of traditional locational factors, they will not become redundant. To better understand the special influence of ICT on the choice of business locations, have a look at traditional factors.

ICT decreases transaction costs, defined as the costs incurred for the determination, transfer and enforcement of rights of disposal. ICT makes entirely new decentralized organisational forms possible, such as an international division of labour via Internet. Technological progress modifies the established advantages of agglomeration and thereby impacts on the economic topography. With modern technology it would be possible to achieve a more even spatial spread of economic activity. Here, the differences in key locational factors (such as education levels, wage costs) are greater on an international than a sub-national level. Extreme scenarios such as the 'death of distance' or 'disurbanisation' are repeatedly debated (Caincross, 1997).

Modern ICTs are cutting transaction costs substantially, enabling the tertiary sector, too, to be integrated into the global network. The digital revolution is making certain services tradable across time and space. Activities of this kind, which are now often being outsourced from the traditional value structure, include ticketing, simple word processing activities, call centre jobs, translations and the production of construction drawings or computer graphics. On the whole, ICT-driven structural shifts are becoming evident in digitalised goods and clearly structured, modular digitalized services in particular (ibid).

The transition to an information society is not rendering the traditional locational factors of the physical world entirely redundant, although it will lead to a shift in their relative value. Even with state-of-the-art ICT, factors in the real world will still be important to the decision on a business location. Whereas in the 19th century low transport costs were the major argument in favour of locating in a business agglomeration, today the benefits of clustering tend to lie more in lower time-costs, access to labour markets with highly skilled specialists and efficient process coordination, particularly in the case of complex processes based on the division of labour(ibid).

The potential of MSEs to benefit from utilization of ICTs will be clear when the government also puts protective measures and concessions, which can give the MSEs courage and desire of adopting to these technologies, for example the big companies from the North can subcontract MSEs to undertake production of certain goods and services, and this will be easier if the MSEs are operating in a cluster which will improve their bargaining power and hence visibility.

This theoretical preposition in addition to Meier's (1990) Communication's view of System theory, Christhaller's (1933) central place theory and Guttenberg's (1960) concept of growth of city as a result of accessibility, which he termed as the "community effort to overcome distance", are the ones forming the bedrock of this study. As a long term strategy, the strategic location of ICTs services and especially higher order ICTs is a way of connecting the MSEs to the global markets, which at the moment seem to be enjoyed by the formal sectors and market brokers. Though the dependency theorists may argue that adoption of ICTs by the Less Developed Countries (LDCs) economies is a sign of dependency, that's true and at the moment, every sector of the society is a captive of globalization and that's the only way out for any economy and especially the third world, which has been sluggish in adopting to new technology such as eCommerce and ICTs generally.

2.9.2 Conceptual Model

The researcher defines the conceptual framework/model, as the systematic way or steps of arriving at the study's anticipated ideal end state. In this case the anticipated ideal end state is having or attaining an ICT sustainable MSE cluster that is well catered for in terms of ICTs facilities, which are properly located to facilitate optimal use of the same.

The model presented here centers around the present and the near past of social, political and economic and institutional arrangements in Kenya. It is also important to note that the theoretical perception also helps in relating the importance of turning to ICTs as a substitute for transportation and especially in Kenya due to unreliability and exorbitant transportation costs, the theoretical will complement the conceptual model by justifying the anticipated climax position of the model, which is the attainment of an ICT sustainable MSE cluster which is adequately provided for in terms of ICTs.

The growth and operation of the MSEs cluster with adequate ICTs can be conceptualized to be influenced by a number of factors. These factors reflect the social, economic, physical, institutional and environmental aspects. The social aspects highlight the MSE operators and workers educational level, professional training and exposure to ICTs among others.

On the economic front aspects such as income level, the cost of using ICTs in relation to the benefits accruing from using of the same, affordability of the ICTs services in relation to transportation cost and the location of targeted market.

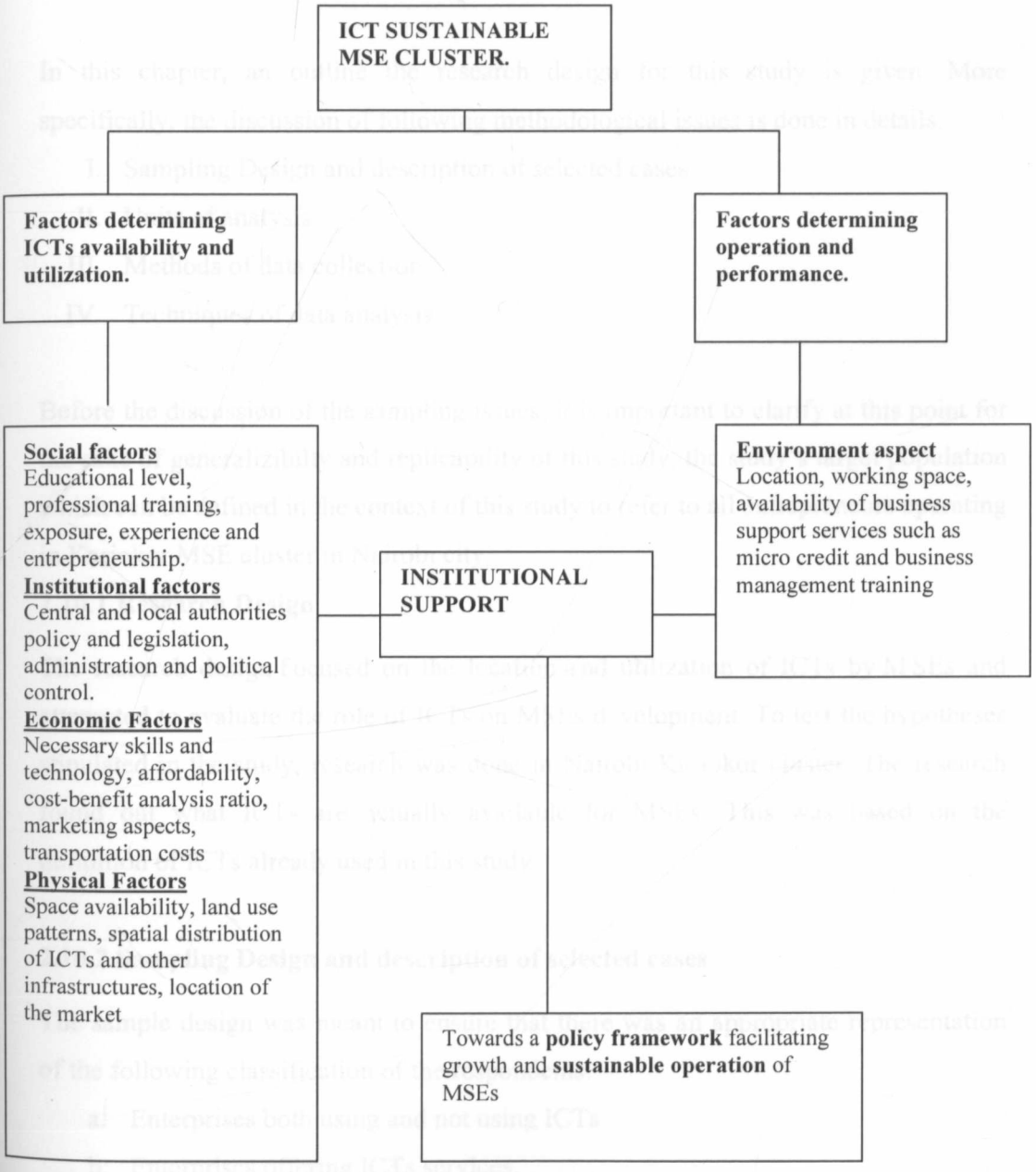
On the physical aspects, include the availability of space to locate the ICTs and MSE activities, the existing land use patterns, the condition and spatial distribution of the available infrastructure.

The institutional factors highlight the central government policy and laws for example the current reforms in the public transport sector. Local authorities and By-laws, administration and political policy all of which regulate and control planning activities are all considered here.

Once started the operation and performance can be conceptualized to revolve around an environment of such factors as location, working space and also in an environment where business support services such as micro credit and business management training are availed. Such environment is conceptualized to help in having a desirable MSEs cluster which will be informed on the usefulness of using ICTs; hence the demand for the services will be created. It is also conceptualized at the same time that the lack of this enabling environment will lead to lack or collapse of the existence of MSE cluster with adequate ICTs provision.

It is important to note that the factors determining the formation and sustainability of the conceptualized MSE cluster (social, economic, institutional and physical) together with ones determining the operation and performance (environment created) need institutional support (central and local government, non governmental organizations, financial institutions, associations, unions and other established private sectors etc) in order to be able to coordinate and actualize with the aim of developing a policy framework that may facilitate growth and sustainable operation of MSE cluster supplied with adequate ICT.

2.9.3 CONCEPTUAL FRAMEWORK



Source: Author, 2004

2.10. RESEARCH METHODOLGY

According to Singleton et al (1993), "research involves the planning, execution and interpretation of scientific observations". To accomplish these goals a researcher must devise ways and instruments of measuring the objects of interests plus acceptable ways of selecting cases for observation.

In this chapter, an outline the research design for this study is given. More specifically, the discussion of following methodological issues is done in details:

I. Sampling Design and description of selected cases
II. Units of analysis
III. Methods of data collection
IV. Techniques of data analysis

Before the discussion of the sampling issues, it is important to clarify at this point for the sake of generalizibilty and replicability of this study, the study's target population which can be defined in the context of this study to refer to all entrepreneurs operating in Kariokor MSE cluster in Nairobi city.

2.10.1 Research Design

The research design focused on the location and utilization of ICTs by MSEs and attempted to evaluate the role of ICTs on MSEs development. To test the hypotheses stipulated in the study, research was done in Nairobi Kariokor cluster. The research found out what ICTs are actually available for MSEs. This was based on the definition of ICTs already used in this study.

2.10.2 Sampling Design and description of selected cases

The sample design was meant to ensure that there was an appropriate representation of the following classification of the respondents:

a. Enterprises both using and not using ICTs
b. Enterprises offering ICTs services.

The accessible population was MSEs in Kariokor cluster of Nairobi city. The study sampled out from a section of this cluster. The cluster area sampled covers Kariokor city council market, the open air market outside the built city council market, old Racecourse estate and Quarry road.

The choice of first, the cluster itself as oppose to dealing with the MSEs en masse is in itself a sampling method. Singleton et al (1993) noted that clustering concentrate interviews within fewer and smaller geographical areas, thereby spreading the travel over several cases and saving on the costs of any one interview. Since the MSEs sector is so wide, even within the Kariokor area, the utilization of clustering is actually a rewarding sampling technique of sampling.

The choice of the selected areas within the cluster was determined by the fact that MSEs were not located evenly throughout the cluster. McGee (1977) observed that MSEs tend to concentrate in the areas of dense population such as nodes of transportation, or where adjacent activities are entertainment complexes, public markets and also in where they can benefit from product complementarily and mutual customer attraction. As in our case, the MSEs in this cluster tend to concentrate in the Kariokor city council market, outside the market, Kaburini where the enterprises seems to coexist by playing a complementary role to each other e.g. the hardware dealers and the garages, another concentration was at the Racecourse shopping centre.

With the administration centre just bordering the market and which is also at the centre of the cluster, the researcher noticed a lot of cohesiveness of activities in the cluster, may be this might be a sign of fear or avoiding cases of being victimized by the administration when enterprises isolate themselves, though this was not looked at. The cohesiveness of activities within the cluster thus made the work of sampling the subjects quiet easy.

The researcher also seek to have a variety of cases in the sample, thus, it was found out that each of the area selected has a unique feature, for instance, in the Kariokor city council market, there were general shops, weavers, cobblers, eating places, those making handicrafts and tailors. Outside the market, there are those who are dealing

with both new and second hand ready made clothes, honey sellers and handicraft sellers. At the Kaburini area, it has the noisiest activities in the cluster, which include welding, panel beating, auto spray painting and hardware dealers among others. The Race course estate shopping centre has bars, pharmacies, very many ICTs service centers, including being the only area with email service and internet service.

- **Sampling**

In explaining sampling techniques in social research, Som (1973) argued that sampling is a process whereby inference is made to the whole by examining only a part. Its purpose is to provide various types of statistical information of a quantitative or qualitative nature about the whole by examining a few selected units. He further argued that sampling method is a scientific procedure of selecting those sampling units which would provide the required estimates with associated margins of uncertainty, arising from examining only a part and not the whole.

- **Sample Size**

Gay (1981) suggests that for co relational research, 30 cases or more are required; for descriptive studies, ten percent of the accessible population is enough and for experimental studies, at least 30 cases are required per group.

Where time and resources allow, a researcher should take big sample as possible. With a large sample, the researcher is confident that if another sample of the same sizes were to be selected (Mugenda, 1999). He adds that the danger with small sample is that they do not reproduce the salient characteristics of the accessible population to an acceptable degree.

With the above justification as given by Gay, the study used a sample size of 30 subjects to represent the Kariokor cluster MSE population.

- **Sampling Procedure**

To select a representative sample, the researcher had no choice but to draw a sampling frame in which to sample the cases from. As noted by Mugenda (1999) a sampling

frame refers to a list, directory or index of cases from which a sample can be selected. Subjects or cases selected from the sampling frame form the units of observation.

Since there was no existing sampling frame the researcher had to compile the existing MSE activities, minus the MSEs providing ICTs in the area, because they were to be handled separately, using a different instrument. The number enumerated was totaling up to 1400 subjects.

In order to make the study valid and to make it come out with the accurate information. Probability sampling was adopted. The goal of probability sampling as widely known is to select a reasonable number of subjects or cases that represent the target population. Schutt (1996) states that probability sampling provides a researcher with an efficient system of capturing, in a small group, the variations or heterogeneity that exist in the target population.

Singleton (1993), notes that random sampling which is part of probability sampling is reliable as it allows generalizibility to a larger population with a margin error that is statistically determinable. Random sampling as noted by Mugenda (1999) allows use of inferential statistics; statistical indices calculated on the sample to be evaluated in order to determine the degree to which they accurately represent the population parameters.

Since the testing of the already stated hypothesis was one of the main aim of this study, which in itself involve use of inferential statistics, mainly Chi-square, because in this study, the use of categorical data was very pronounced. The study adopted the simple random sampling method technique to select its final subjects.

- **Simple Random Sampling**

This method involves giving a number to every to every subject or member of the accessible population making up the listing frame. In this study, the researcher was keen on selecting 30 MSEs operating within the Kariokor cluster. In order to select these subjects, the researcher did the following:

1) The researcher compiled a list of all 1400 MSE operators within the cluster.
2) Each MSE operator was assigned a number from 0001 to 1400.
3) The desired sample size of 30 was also kept on mind, and was to be chosen from the 1400, that is the sampling frame.
4) The numbers were then put in a container and then picked randomly.
5) Though the desired sample size was 30, the researcher picked 40 cases, just incase some difficulties are to be experienced with the first 30, you have an immediate replacement, and this really helped because, 4 of the initially selected subjects, were unwilling to be involved in the exercise.

On the MSEs providing ICTs services, the researcher targeted the whole population of these MSEs. Mugenda (1999), states that when the target population is so small that selecting a sample would be meaningless. Taking the whole population in such a cases is advisable. So in this case there were 21 ICTs service providers located in the cluster, but out of the 21, only 18 were interviewed, one refused and the other two had closed down.

Sampling ratio: 48 enterprises will be sampled. A large sample size is not always representative and in this case it is not needed as MSEs in clusters do not have a great variability or heterogeneity. The aim is to draw out well-grounded responses that require face-to-face interaction.

Table 1: Summary of Sample size

MSEs using ICTs	30
ICTs service providers	18
Total	**48**

2.10.3 Units of observation and Units of analysis

According to Mugenda (1999), a unit of observation is the subject, object, item, or entity from which we measure the characteristic or obtain the data required in the research study. On the other hand units of analysis, also called the unit of statistical

analysis refers to those units that we initially describe for the purpose of aggregating their characteristics in order to describe some larger group or abstract phenomenon. Units of analysis are therefore the individual units about which or whom descriptive or explanatory statements are to be made.

From the above elaborate definition by Mugenda and the sampling procedure explained previously, it becomes clear to state that this study seeks to have entrepreneur's enterprises within the Kariokor cluster as a unit of observation. On the other hand since the study is to be generalized to cover the whole of Kariokor cluster, then the study's unit of analysis will be the MSEs operating in Kariokor cluster of Nairobi city.

2.10.4 Data Collection Methods

The required information was gathered through questionnaires, personal interviews, direct observation and library research. All these methods were optimally used accordingly to get the accurate information.

1) Secondary data: Relevant literatures as pertaining to the issues related to MSEs were collected. The issues touched on topics such as the background and historical development of MSEs and policies which have been formulated and the impact of those policies in as far as its development is concerned. Information from the secondary data source was to bring out the magnitude of the various components as laid out in the already existing work related to our topic of concern. The secondary data was sourced from journals, theses, Government documents, conference papers, books, grey literature, periodicals and internet.
2) Questionnaire administering: This was done in order to beef up the information gotten from the literature review. Two sets of different questionnaires were drawn and administered via face to face interview to the respondents by the researcher. The face to face interview is important in such a case because one can correct any misguiding information then and there and

also one can be in a position to probe further when in doubt or when an interesting and un anticipated response is gotten.

3) Observation method: This was an additional method used by the researcher to ascertain, some of the visible traits of the entrepreneurs and also of the enterprises. For instance via observation, the researcher was in a position to establish the gender of the respondent. Also on how, the ICTs are located, the researcher could observe and relate what is observed and how the respondents view the locational aspects, in order to correct exaggeration and underestimation of statements made by the respondents.

2.10.5 An Analytical Framework

There are many advantages of preparing an analytical framework to guide data analysis. It ensures that the analysis is well thought out to provide answers to important questions of the investigation or research. Appropriate techniques of analysis are selected to suit the available data and purpose of analysis. More often, planners prepare an outline of the plan or report required as a means of organizing results from data analysis. An analytical framework should indicate at least five items or components (ibid).

The five components which this study will use are:

- Study's objectives
- Study's purpose or Specific questions
- Types of data
- Techniques for analysis
- Expected results

All these components will be presented in a tabular form, in order to increase comprehension and visual level.

Table 2: Study's Analytical Framework

Research Objective	Purpose/Specific Questions	Types of Data	Techniques of Analysis	Expected Results
1. Identification of factors favoring the location of ICTs in the cluster.	-To know the pulling factors to this cluster, to identify the appropriateness of current location of the ICTs.	-Locational and distributional factors, the nature of demand for ICTs services.	-Descriptive and Inferential analysis, spatial analysis by use of maps showing location of ICTs in the cluster.	-Establish the locational concepts of ICTs in the cluster. -Testing of hypothesis that the location of ICTs has a significance influence on the level of utilization of the same
2.Examination of the nature of benefits that MSEs get by using ICTs and also by not using ICTs	-What is the kind of benefit entrepreneurs derive, by using ICTs? -what other benefits do they get a s a b usiness support scheme	- All forms of benefits they derived from use of ICTs. -The nature of other benefits they get by not using ICTs.	- Cost benefit and comparative analysis and descriptive analysis and inferential statistic	-Establish the sustainability of ICTs use in the cluster. -Identification of the appropriate mix of ICTs needed in the cluster -Testing of the hypothesis that the level of ICTs utilization significantly influences MSEs performance
3.Asses utilization level of ICTs in the cluster	-what is the usage frequency of available ICTs?	-Types of ICTs services. -Frequency of ICTs usage	-Descriptive statistics	-Identification of p ossibility of unmet demand of ICTs
4.planning framework as an ICT location guide	The purpose is to have a sustainable ICT provided cluster.	-Strategic interventions needed to provide sustainable ICTs services to MSEs	Descriptive and spatial analysis	To use a cluster as an MSE planning unit

Source: Author, 2004

2.10.6 Data Management and Analysis

Data analysis is needed before any intelligent and rational planning of an area can be undertaken. Planners employ a variety of techniques for analyzing local, national and regional data (Ngau, 2003). In order to achieve the status of intelligent and rational planning, the study will make use of the above analytical framework as a map in linking the study's objectives and its finding, elaborating in the process the various techniques to be employed in data analysis and hypothesis testing.

In this study, there will be general use of both of the descriptive and inferential statistics. Descriptive statistics according to Singleton et al (1993) and Ngau (2003) describe and summarize data using a few indices or statistics. So in this study use of frequency distribution, measures of central tendency and variability and measures of association or relationship will be employed where necessary and appropriate.
Inferential statistics on the other hand deals with situations where inferences about population based on results obtained from samples are made (ibid). In this study hypothesis testing technique will be applied to investigate or determine the validity of the results obtained from samples about the population. The use of Chi-square will be employed to test the study's hypotheses; this is because the data collected had categorical or ordered variables.

The following is an elaboration of various statistical methods of data analysis and presentation techniques employed in this study.

a. Use of Statistical Tables

Tables as noted by Ngau (2003) can be used to show absolute measures-such as regional incomes, dates and volumes. They can also be used to show derived measures such as percentage increase or rates of change in regional income. Derived data usually involves a comparison of absolute measures over time, among different places, among different populations groups or among different types of economic activities.

The study used different kind of tables, that is one dimensional, two dimensional to stacked and nested table to describe and elaborate various issues both in their absolute and derived measures, as it will be shown in the analysis chapter.

b. Graphic representation of data

Graphs are useful supplement to statistical analysis. The graph enables the reader to compare or see the trend of the distribution more vividly than simply looking to numbers in a frequency table. This study will make use of bar charts and pie charts in data presentation of its analysis.

c. Spatial Presentation of Data

This is one of the key element and aspect of any study in the planning field. Showing location of various land uses and activities cannot be achieved without maps, hence a must item, for any planning study to achieve its desired status and objectives convincingly. In this study via the use of Geographic Information System commonly known as (GIS) technology, maps were made to show the existing land uses in the study area and also location of various activities within the study area and indeed a lot of other information and deductions were gotten from the maps.

d. Pictorial Presentation

Use of photographs is also a very powerful way of information presentation and communicating study's findings. Photographs help in showing the existing conditions and helps in framing and linking one's mind with the real situation in the ground. In this study, photographs were used to show the location of ICTs and also some of the types of MSEs activities within the cluster.

In nutshell various data management, analysis and presentation techniques discussed above are all combined carefully and systematically using the analytical framework as the main link between the proposal face of the study and the implementation face of the study to come up with a conclusive analysis and finding's which will be discussed in detail in main chapter four and five.

2.10.7 Problems and Limitations of the Study

A. Problems Encountered in the Field

- Sensitivity and general suspicion: Some of the MSEs who were initially part of the sample to be surveyed became very suspicious of the intention of the survey, especially the MSEs who were operating in the open air outside the built market, these made some to withdraw from the survey and hence the utilization of the surplus sampled came to fore to replace them which is time consuming.
- Maasai Market- This is a periodical market, which is known to operate on Tuesdays, a good number of MSEs take their wares to these market and hence those who are left behind, are incapacitated to handle the issues addressed in the questionnaire and incase they are capacitated are reluctant to respond for fear of victimization by the owner.
- Poor record keeping- due to poor record keeping or at times absent records, accurate information at times was not attainable, hence use of estimate given by the respondents.

A. Methodological Limitations

It has been elaborated that the use of probability sampling method is the most unbiased way of selecting subjects for a study. In this study, there was no up to date sampling frame to which one could have used, hence the difficulty in making sure that the enterprises were either co-owned or belonged to one person, so the figure of 1400 MSEs in the cluster cannot be taken as the gospel truth of the number of MSEs in the cluster.

Limitations in the field was affected by the time period allocated for research and financial constraints hence concentrated on a few sampled area of the Kariokor MSE cluster.

Note: All these problems and limitations of the study have thus affected the final content of the study.

CHAPTER THREE

BACKGROUND OF THE STUDY AREA AND THE STUDY

This chapter addresses itself to four main valuable aspects. These are the physical and socio-economic background of the study area, evolution of the MSEs activities in the study area, government policy and the institutional policy and controls in regards to the performance of MSEs activities and ICTs development.

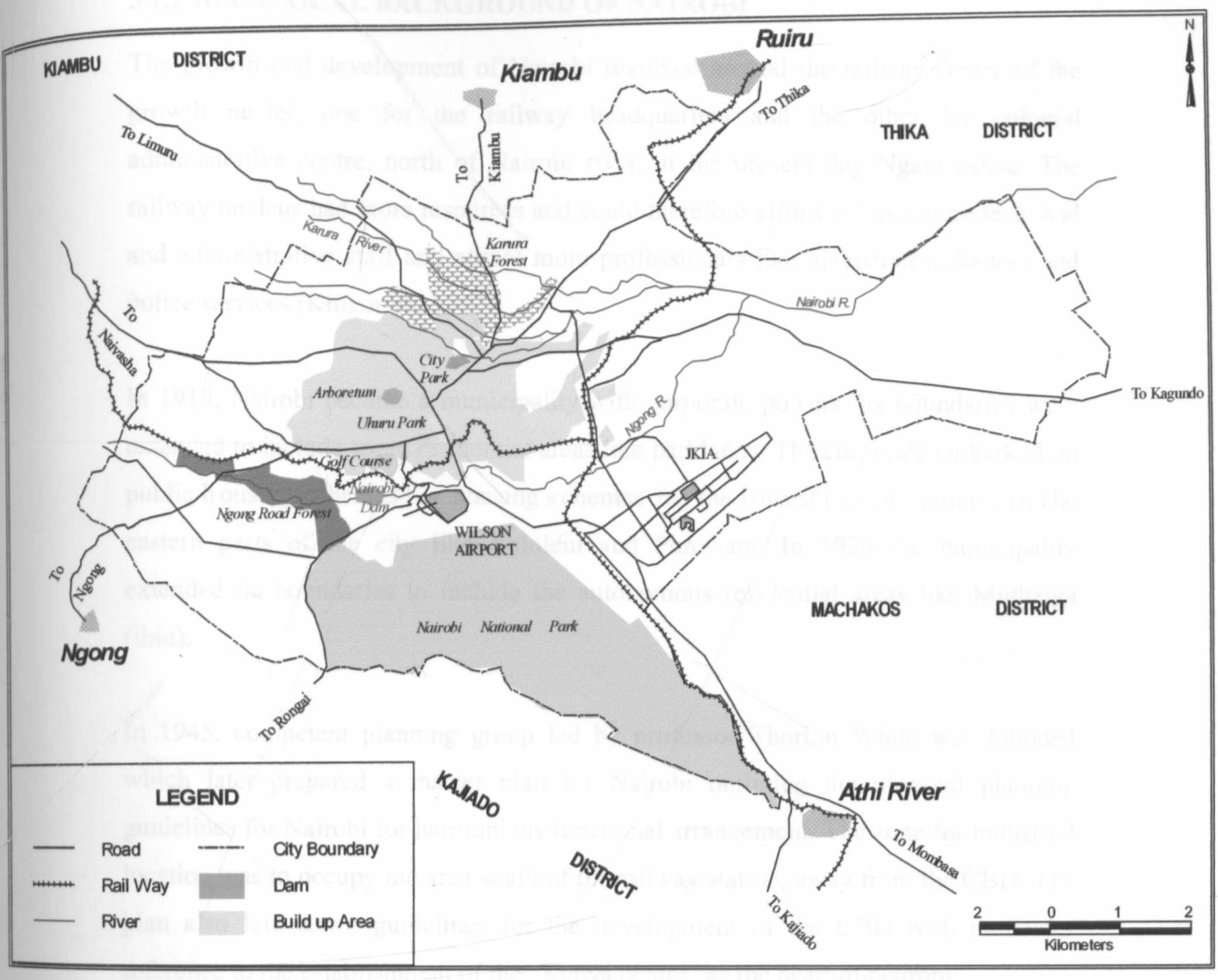
3.1 PHYSICAL FACTORS

3.1.1 Regional Location

Kariokor cluster is located to the North-Eastern side of Nairobi's CBD. Nairobi itself is situated at the junction of the Aberdare foothills and the Embakasi Plains at an altitude of 5,490 feet above sea level. The city lies astride the main road and rail routes from Mombasa on the Coast to Uganda on the West and Sudan, Ethiopia and Somalia to the North. Presently Nairobi is both a capital city and one of the eight provinces in Kenya. Nairobi's birth is attributed to the establishment of a base camp by the Kenya-Uganda Railways, prior to the construction of the long climb up the Kikuyu and Limuru escarpment, at the turn of the 19th Century.

Nairobi is the capital city of the Republic of Kenya. It is the principle urban centre and also the social, economic, political, communications and technological hub of the country, thus a classic primate city.

Map 3: Nairobi in the Regional Context



Source: Field Survey, 2004

3.1.2 HISTORICAL BACKGROUND OF NAIROBI

The growth and development of Nairobi revolved around the railway centre of the growth nuclei, one for the railway headquarters and the other for colonial administrative centre, north of Nairobi river, at the present day Ngara estate. The railway nucleus had more resources and could therefore afford to have more technical and administrative staff and attract more professionals like magistrates, doctors and police services (Kingoriah, 1980).

In 1919, Nairobi became a municipality with corporate powers. Its boundaries were extended to include some residential areas like parklands. The corporate embarked on public housing schemes for housing schemes for the lowest income groups, in the eastern parts of the city like Kaloleni and Pumwani. In 1928 the municipality extended its boundaries to include the autonomous residential areas like Muthaiga (ibid).

In 1945, competent planning group led by professor Thorton White was founded which later prepared a master plan for Nairobi outlining the physical planning guidelines for Nairobi for harmonious functional arrangement. The zone for industrial location was to occupy the area south of the railway station, away from the CBD. The plan also laid down guidelines for the development of the CBD with particular reference to the establishment of the "Kenya centre" as the heart of Nairobi.

In 1950, Nairobi was accorded the city status, but there were no major changes. A major step towards development of Nairobi was undertaken in 1972 by Nairobi urban study group. The development strategy that emerged consisted of first, policies related to major aspects of development (Employment, housing and transport) and secondly, of a broad physical structure within which policies could be realized. The strategy was formulated on a comprehensive basis to ensure that the policies and the structure are compatible. The study also laid the guidelines for the expansion of Nairobi (Elliot & Kingoriah, 1980).

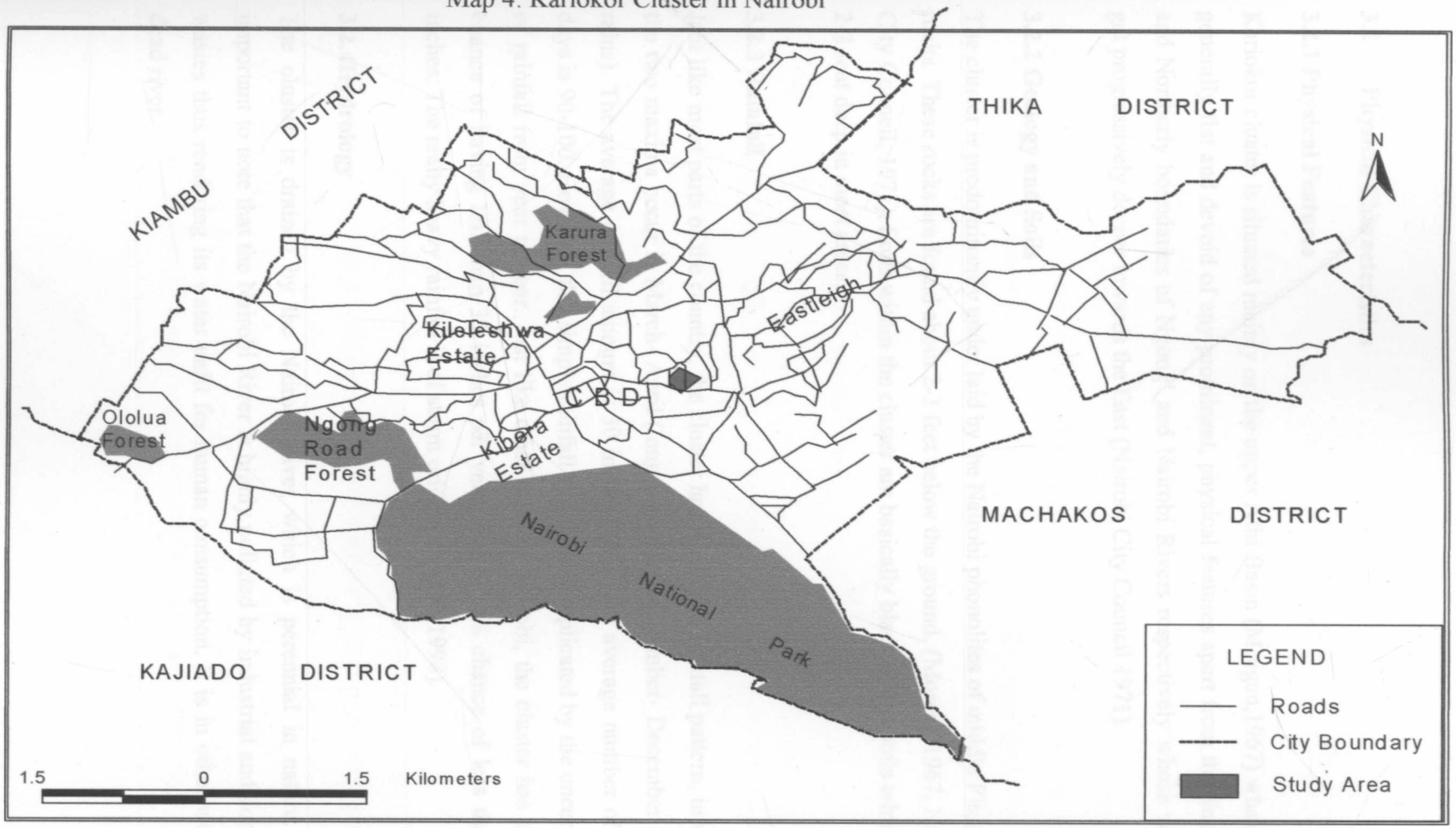
Another challenge facing Nairobi is of how to contain the City's population. The population of Nairobi grew rapidly and reached a total of 5,000 people in 1902, expanding further to 16,000 people in 1910 and up to 23,000 in 1920. By 1948, Nairobi population had reached a total number of over 100,000 people (Elliot 1975 & Kingoriah, 1980). The City had a population of 2.1 million people according to the 1999 census records. But it is currently being estimated that the City's population could be somewhere near 3 million people.

In 1993, the Nairobi city convention on **"The Nairobi We Want"** prepared the report and recommendations titled **"actions towards a better Nairobi"** as a historical attempt at participatory development by Nairobians to offer practical and pragmatic solutions to their problems due to deteriorations of all the aspects of life in the city and to define the vision of the city want in the era of political pluralism. The physical area of Nairobi expanded from 3.84 Kms squared in 1910 to 25 Kms squared in 1919. By 1948, the city boundaries covered an area of 83 Kms squared. In 1963, the boundary was extended to 680 Kms squared which is currently still the official extension of the city (Ondiege, 1990). The rapid boundary expansion can be explained by this high rate of urbanization that has been attributed to increased immigration and high natural population increase.

3.1.2 Location of Study Area

The study area is located on the North Eastern side of the Nairobi City. The kariokor cluster is the area bordered by CBD to the South, Ngara to the west Ziwani to the East and old Racecourse estate to the North. It is bordering the CBD which happens to be the hub of many important activities including commerce, administration, education, religion and culture, recreation, communication and so on. Its evolution is strongly attached to the establishment and growth of the CBD area and the bordering estates and activities. Many commercial enterprises were attracted to this part of the town to take the opportunities offered by the numerous residents who inhabit the neighbouring estates. The development and expansion of the cluster has attracted a large population of entrepreneurs, mainly indigenous Africans.

Map 4: Kariokor Cluster in Nairobi



Source Hassconsult, 2004

3.2 Physical Characteristics

3.2.1 Physical Features

Kariokor cluster is situated mainly on the upper Athi Basin (Morgan,1967) where it is generally flat and devoid of any prominent, physical features apart from the Southern and Northerly boundaries of Ngong' and Nairobi Rivers respectively whose valleys get progressively deeper towards the East (Nairobi City Council 1971).

3.2.2 Geology and Soils

The cluster is predominantly under laid by the Nairobi phonolites of middle Pliocene rocks. These rocks are found about 2-3 feet below the ground. (Morgan 1967, Nairobi City Council, 1971). Soils within the cluster are basically black cotton soils which are 2-3 feet deep in most areas.

3.2.3 Rainfall

Just like most parts of the country, the cluster has a bimodal rainfall pattern, in which the two maxima occur in March- April (long rains) and November- December (short rains). The average rainfall amount is 30 inches, while the average number of rain-days is 90-100. However, this simple rainfall regime is complicated by the uncertainty of rainfall from year to year. Just like other parts of Nairobi, the cluster has a 30% chance of having less than 30 inches per year, and a 10% chance of less than 20 inches. The really heavy rainfall is of storm origin (Kasuku, 1998).

3.2.4Hydrology

The cluster is drained by the Nairobi River which is perennial in nature. It is important to note that the Nairobi River is highly polluted by industrial and domestic wastes thus rendering its water unfit for human consumption. It is in other words a dead river.

3.2.5Prevailing wind

The mean direction of prevailing wind within Kariokor is westerly with variations for part of the year (Morgan, 1967).

3.2.6Environment and pollution

Kariokor cluster is one of the poorest zones in Nairobi both in terms of ecology and environmental quality. In fact the largest Heat Island in Nairobi is precisely located just above Pumwani Maternity Hospital (Maina, 1982) which is less than a Kilometer from the cluster.

The cluster also has scanty vegetation. This indicates that the place is hot and thus that the environmental quality of the cluster is low.

Other polluting factors which lower the environmental quality within the cluster and its environs are as follows:

- **Noise Pollution:** The cluster experiences noise pollution from the various light industrial activities emanating from the cluster. For example panel beating, making of cooking stoves. The noise pollution also emanates from the many vehicles which uses the neighbouring routes to and from the CBD especially the Matatus which are notorious for hooting menacingly.
- **Air Pollution:** The cluster also experience air pollution from gaseous pollution by vehicles using the nearby routes, spray painters especially the automotive spray painters. Carbon monoxide and other hydrocarbons which cause respiratory complications are produced by motor traffic.
- **Solid Waste:** There is a lot of solid waste which lies uncollected, especially outside the Kariokor city market. This poses a health hazard to various visitors and operators who frequent the market, especially those who come to eat in the cluster. The cluster is a known spot for roasted goat meat.

3.3.1History, Planning and Development of Nairobi

Present location of Nairobi was before the coming of the Europeans an ethnic front for Kikuyus, Maasais and Kambas. Kikuyus occupied the Kikuyu plateau towards Aberdares; the Kambas were too far east of the Athi Plains outside present city boundary, while the Maasai occupied the Athi plains. In fact, the name of Nairobi was derived from the name Maasai gave to Nairobi River passing through Kilimani, Museum and Kamukunji which was part of the initial settlement nucleus of the city. The river was called *"Enkare Uaso Nairobi"* meaning the stream of cool waters!. During this time, the dominant mode of transport was pedestrianization and to some extent, animal transport while livestock production was the dominant land use activity (Kingoriah 1980 and Thorten-White 1948).

In 1896, sergeant George Ellis built a transport depot near Martin's camp and became the first European to live in Nairobi. This was occasioned by the building of the road that linked Mombasa Harbour and Uplands running through Pumwani, Ngara, and Westlands to Fort Smith. Before this date, Nairobi had by 1850 become a popular spot a long a caravan route. By 1891, Captain Eric Smith established Fort Smith near Dagoretti, while Pangani was also declared a camp site for porters. Nairobi was first established in 1899 as a railway depot, and soon became a communications centre and the headquarters of the provincial administration. The community's permanence was confirmed in 1950 when it became the capital of the country (Kingoriah, 1980).

Initially, the growth of the town had been controlled only by economic forces, with no coordination of development other than by the layout of a gridiron street pattern in the centre. A town planning consultant was appointed in 1926 to make recommendations on zoning arrangements. However, little was done to curb land speculation and development continued to occur haphazardly. A master plan study was commissioned in 1948 (Thorten-white, 1948). It laid down guidelines to be followed in the next twenty years, earmarking land for residential, industrial and other uses. It introduced the principles of neighbourhood units; it was largely responsible for the present layout of the industrial area; and it proposed important extensions to the road network (ibid).

With the attainment of Independence in 1963, the boundaries of the city were enlarged from the 'Old City' area of 90 square kilometers (35 square miles) to embrace area of 690 square kilometers (268.6 square miles) including Nairobi's peri-urban settlements and certain other important features such as the game Park, Embakasi airport and area of ranching land in the east. The boundary expansion aimed at giving the city adequate reserve land for future expansion. The demarcation of the boundaries was, however, greatly influenced by pre-independence political considerations, with the result that the entire city area does not constitute a cohesively planning unit (Kasuku, 2001).

In 1973, a metropolitan growth strategy for Nairobi was done by the Nairobi Urban study group under the auspices of World Bank. The strategy stipulated policies related to the employment, housing, transport, among other major aspects of urban development. This plan had a life span of 25 years, and has since expired. At the moment, the Nairobi City does not have a plan to guide its present and future development needs including infrastructure provision such as ICTs, thus providing the premise and legitimacy for this study.

3.3.2 The development of Kariokor Cluster

In 1905, the Land Committee for East Africa Protectorate recommended separate residential location for different races in Nairobi and was the first time when African residential locations were discussed. A site was selected outside the initial Nairobi Township and was the first time when an African zone was brought within the municipal boundary and an alternative site was set aside in which Africans built their own huts since the colonial government did not take responsibility for providing Africans with housing. However, the government built some houses at Kaburini near quarry road for its employees (Kasuku, 2001).

By 1910, population of Africans in Nairobi was growing tremendously made up of porters, cooks and helpers who were part of European caravans from the coast. The

Europeans were mainly hunters, explorers, pioneers and tour-instructors. In 1913, the government set up a 'military reserve' to house these Africans to the south of Nairobi- where plots were allocated to individuals who could prove that they served the government for at least 12 years. The site was later relocated further east outside Municipal boundary along the Nairobi River- where the medical reserve was housed. The area which forms part of the present Eastlands was chosen because it was spacious and expansive and could allow more extensions towards the Athi Plains. The area lacked ideal building soils but was well drained and accessible since it could be reached within a few minutes of walking from the CBD and was just outside the city boundary (Thorton-white, 1948).

Development of the site was delayed until 1917 when the regulations that were to govern the administrations and sanitation of the location were drawn up thus marking the first planning effort in the cluster. The site was occupied in 1919 and forms the present site of Pumwani (it was named Pumwani because it provided the Africans with the first opportunity to breathe freshly without harassment). African population grew immensely between 1920 and 1930 due to rural urban migration leading to the building of many squatter settlements by Africans 12,000 in 1950, 25,000 in 1928 and 28,000 in 1930 (Kingoriah,1980). This period was characterized by demolition of squatter settlements. In 1920, vagrancy ordinance was passed and in 1926, the municipality published by-laws under the ordinance which provided for riding the town of undesirable natives through compulsory repatriation to their rural homes. Only employed Africans were allowed to be in the city, Pangani was declared a native housing location in 1923. The Feetham commission, of 1927 and local government ordinance of 1928 declared Nairobi except Eastleigh as an area where Africans were not allowed to reside (ibid).

In 1929, Nairobi Municipal Council started developing rental housing for African subordinate staff beginning with carrier corps camp which served African porters who served in the 1914-1918 First world war. The settlement is presently known as Kariokor Estate. The houses were in form of dormitories since African servants were not allowed to have families in Nairobi at that time. The estate however became

unpopular and was converted into cubicles in 1930s. In 1929, the government developed the first housing scheme for its employees with more amenities and privacy at that time than those in council housing. The Estate was named "Starehe" (luxurious and plush) (Kingoriah, 1980).

In 1939, the Land use pattern was done for Nairobi municipality and was the first time when the African residential sector was expanded eastwards from Kariokor, Starehe, Shauri Moyo and Makongeni. The positioning of African residence in the relation to their work place was to maximize accessibility and mobility efficiency. Africans therefore resided within walking distance to their place of work which were mainly CBD, railway stations and the furthest walking distance was 2 Kilometers (Thorten-white,1948). It is possible to claim that, the growth of Kariokor cluster traced its emergence to this historical background. The African population inhabiting Kariokor, Starehe and Ziwani must have created a demand for merchant goods and foodstuffs which must have led to the existence of the cluster.

3.3.3 The Background of MSEs Operations in the Study Area

This section deals with the emergence and growth of the MSEs activities in Nairobi and later in the Kariokor cluster.

It is important to acknowledge that MSEs activities are old phenomena in the history of Nairobi. Africans, mainly men found employment as porters, cooks and other helpers later and later were encouraged to serve as labourers in the urban economy. Their wages were however too low to support their families. An average African employee's wage was between Kshs 23 and Kshs 57 per month, while estimates of cost of living showed that minimum requirement for a single man was Kshs 21 per month and for a married man was Kshs. 38 per month. Yet nearly 1600 men were getting less than Kshs. 21 per month (Hake, 1977). The above scenario show the potential of emergence of MSEs to fill in the gap created by the low remuneration offered to native African employees.

After the World War II and in the late 1950s after the state of emergency there was a major population influx in Nairobi with the removal of the restrictions which were

prohibiting many of the Africans from staying in Nairobi. Nairobi was flooded with job seekers and then open urban unemployment became a problem. There was thus emphasis on hawking and the "informal" sector economic activities appeared in response to the pattern of demand of the great majority of Africans who possessed low income (Kenya, 1965). The aim was to supplement the insufficient wage earning's. The hawkers included daily commuters from nearby Kiambu and others who came on a long term basis. They engaged in such activities as street hawking, shanty food/tea kiosks and other street corner trades open air marketing all located at strategic points.

The MSEs activities has grown steadily in spite of hardships encountered. In 1963 it registered a total of 1500 MSE operators, though the number of unlicensed could equal that. In 1984 the figure dropped to about 1370 and was further cut down to 1040 in 1965. In 1968 the ceiling was fixed at 15000 licenses although only a total of 1414 had been licensed by the year 1969 (Hake, 1977).

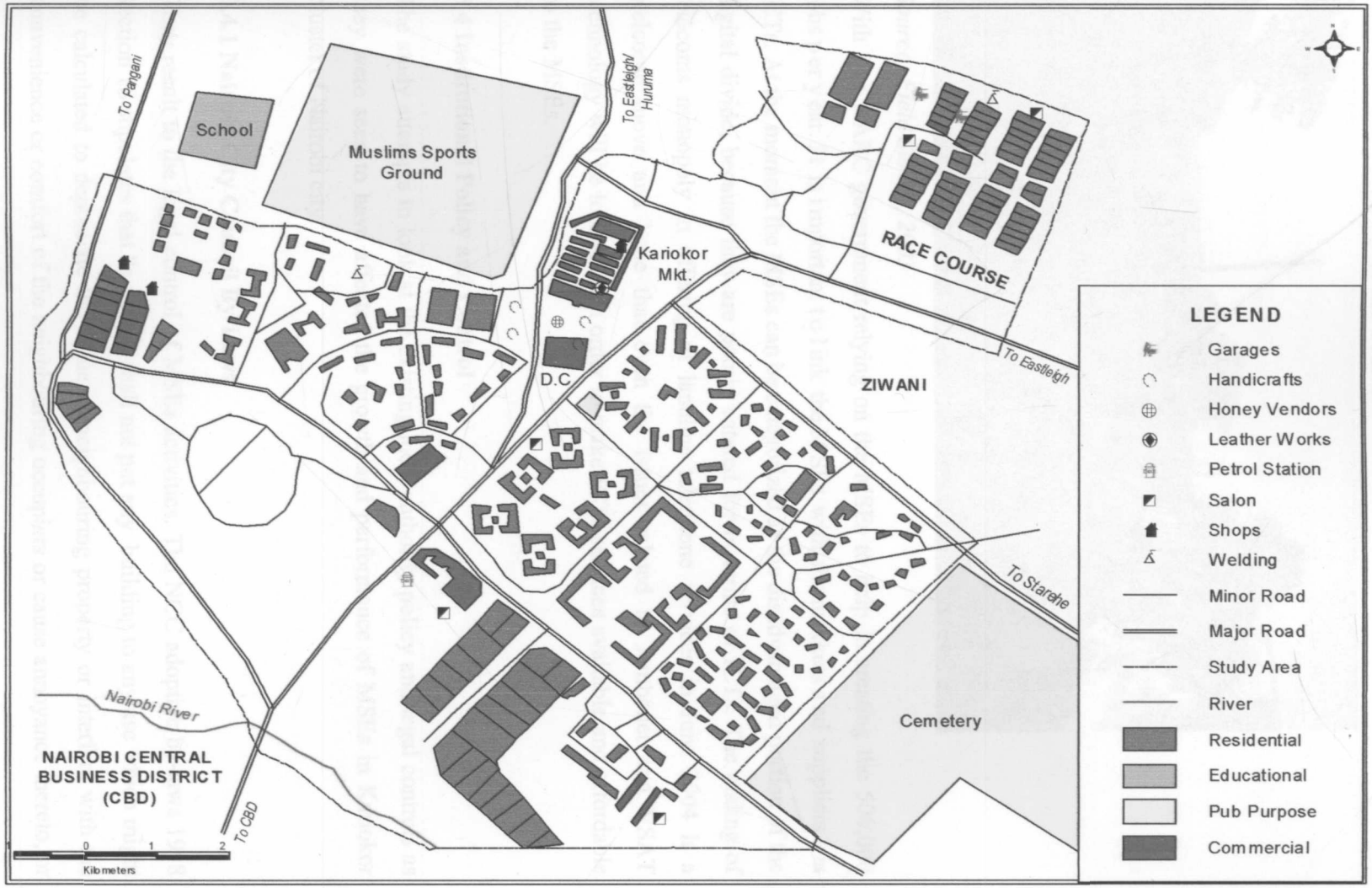
It could be concluded that Africans were faced with many discriminatory rules during the colonial time, which dealt a big blow to their advancement. For example MSEs activities which were referred to as informal activities were exclusively confined to the squatters and low income settlements in the periphery of the city such as Kariokor area and Ziwani which forms the area of our study.

Even after independence and abolition of these restrictions which had hitherto placed Africans at a disadvantage in comparison with Europeans, the same trend persists. The native Africans continue to engage themselves in petty trades and in ever increasing number. These Africans by doing so, are only responding to what has come to be called the employment crisis, the crisis being the consequences of the failure of the manufacturing and service sectors of the mainstream economy to absorb the labour supplies to which they have had access.

The most predominant MSEs activities found within the Kariokor cluster by the time of these study were, general traders shops, eating places, leather dealers shops, curio

sellers, tailoring, car wash, automotive garages, honey sellers and ready made clothes sellers both new and second hand clothes, African sandals "*Akala*" dealers, cobblers, plastic containers dealers among others. Map 5, on the next page, shows location of various MSEs activities within the study area.

Map 5: Location of Various MSEs Activities in the Cluster



Source: Field Survey, 2004

Plate 1: MSEs Activities in the Cluster

Source: Field Survey, 2003

With The NARC government relying on the MSEs to help in creating the 500,000 jobs per year. It is important to link the MSEs with the markets and suppliers via ICTs. At the moment the MSEs can be categorized as the disadvantaged portion of the digital divide, because they are poorly catered for in terms of ICTs. The ending of telecoms monopoly in offering of landline telephone services in June 2004 is a welcome move and hope that even the issues related to Jambonet and VSAT technology will be looked at in order to make ICTs services available and affordable to the MSEs.

3.4 Institutional Policy and Control

The study attempts to look at the existing local authority policy and legal controls as they were seen to have affected the growth and performance of MSEs in Kariokor cluster of Nairobi city.

3.4.1 Nairobi City Council By-Laws

They result to the legal control of MSEs activities. The NCC adoptive by-laws 1948 section 18 stipulates that "a person shall not put any building to any use which might be calculated to depreciate the value of neighbouring property or interfere with the convenience or comfort of the neighbouring occupiers or cause annoyance thereto, or

which might have deleterious effects upon the health of the occupiers in the neighbourhood". It is noticed that some MSEs in Kariokor cluster are operating in shop verandas and frontages, pedestrian's walkways etc and littering the area as well as making a lot of noise. This is seen as a contravention of the requirement of the above By-laws.

The NCC (Hawkers By-law 1963) drawn by the city council of Nairobi as empowered by regulation 201 of the local government regulations 1963 governed and regulated MSEs in the city of Nairobi. Under the By-law, hawking is interpreted as placing oneself in any street or public place or unclosed land or going about in streets or public places or from premises to premises for the purpose of carrying trade or exchange of goods, wares, merchandise or refreshment. This however does not include "the seeking or taking orders for subsequent delivery, or the delivery of goods, wares, merchandise or refreshments to premises for the purpose of resale".

In order to be allowed to engage in MSE activities, any would be entrepreneur is expected to apply for a license to the town clerk thereby furnishing the town clerk with particulars of his or her place of work and the commodity as well as the place and places at which the applicant intends to engage in MSE activities.

It is also stipulated in the Bylaws that the license is issued to a particular person who should always carry and produce it at the request of the inspector. The same is not transferable unless with the consent of the town clerk.

The MSEs are expected to abide by the conditions and terms of the license and any person guilty of an offence under those By-laws are liable for a fine not exceeding one thousand shilling's.

3.4.1.1 The Business Licensing Act Cap 499 Section 5

It states that "no person shall conduct business except under and in accordance with the terms of a current license." In this case it was noticed that there is a section within

legal requirements which require the license to indicate at least the following, business location, including plot number and certificate of proof of ownership premises or temporary lease. These are seen as difficult to obtain for MSEs and in particular the micro enterprises that in most cases have no premise or land.

3.4.1.2 Land Planning Legislation Act Cap 303 of the Laws of Kenya Section 10 (I):

States that any person carrying out development on land as for said shall seek permission from the planning authority of the area before undertaking the development. Such development control would then ascertain whether the intended development is in order with the laid down principle plans for the area in question. This makes the life of MSEs miserable, it is a common belief and practice, that apart for development and initiated by the NCC themselves, MSEs in Kariokor cluster do not seek development permission before locating in the cluster. Therefore their existence in the area is seen as a contravention of this regulation. On the other hand the MSEs see it as the only fair option as they can not obtain permission to locate their makeshifts in the cluster.

3.4.2 Government Policy

There is absence of a clearly defined governmental locational policy meaning that there are no positive locational guidelines for the MSE activities. The Nairobi City Council only seems to relate to the MSEs when they are collecting money from them either under the auspices of business license act or via dubious means which can be termed as harassment and corruption.

It is worth noting, of a positive step which has been taken, by the government via the ministry of lands on MSEs and ICTs. In the draft physical planning handbook (2002), the locational requirements, land requirements and controls of the MSEs have been highlighted, though the draft does not consider giving considerate and attainable building standards for the MSE operators as this will enhance and increase the number of those coming forward to seek for development permission.

In the ICT front, the draft elaborates on the route the telephone cables and lines should follow, which should be road reserve space, except for lines branching off from the road that a way leave has got to provided. The draft goes further to state that the nature of activities involved in the transmission of information via both telephone exchange and boosters demand that an Environmental Impact Assessment (EIA) report be done. It also recommends that location of the telephone exchange and the boosters be done in accordance with the requirements of the Communications Commission of Kenya (CCK) and the National Radiation Board to ensure the safety of both man and the environment.

It is worth noting that this is the first time a planning instrument is giving ICTs prominence and as in everything this is indeed a starting point, and especially if our country is to meet the recommended provision of 25-35 lines per 1000 inhabitants as recommended by the International Telecommunication Union (ITU).

3.4.3 The Kenya Communications Act (No. 2 of 1998)

It provides the framework for the regulating the communications sector in Kenya. Enacted by Parliament in 1998, the Act was a deliberate attempt by the August House to give legislative teeth to the Postal and Telecommunications Sector Policy Statement (the Policy Statement), which had been issued by the then Ministry of Transport and Communications in January 1997.

The Policy Statement was set out against a deliberate move by the government to optimise the sector's contribution to the development of the economy as a whole by ensuring the availability of efficient, reliable and affordable communication services throughout the country.

The salient features of this act is meant to provide for the establishment of the Communications Commission of Kenya and to provide for the transfer of the functions, powers and liabilities of (KPTC) and for connected purposes. The Act has total of 103 sections, which are contained, in five thematic Parts supplemented by three Schedules.

In summary, the Act provides a unique piece of legislation that has enabled the country to successfully manage transition from a monopolistic market structure, which combined both regulatory and operational issues to multi-operator market structure. It has enabled the licensing of a number of regional telecommunications companies (in October 2000), a number of courier operators and a number of frequency spectrum users. It is also a dynamic, flexible piece of legislation that enables the Minister to make regulations in order to enrich the provisions therein and to provide for operational details that cannot possibly be provided for in a statute.

Currently, the Commission has embarked on a process of reviewing the entire Act. The objective is to evaluate its relevance in the current and planned info-communications market structure, which will further free the airwaves. The process is estimated to take a maximum of three years.

3.4.4 Implications of the Policies and Regulations

Generally MSEs play a significant role in the life of Kenyans. It is for this reason that the government policies have the intention to support these activities. It is important that the policies should now also aim at harmonizing MSE activities with other land users. This because the policies tend to separate MSE activities with other formal activities, the literature has clearly indicated the complementary role the MSEs play to the formal sector, hence need to have a linking policies.

The NCC By-laws, also tend to stagnate and inhibit MSEs growth, they are stifled in the sense that they cannot grow and compete with other sectors. The provision of license that limits one to transact only in the few items, acts against diversification of the MSEs and these narrows the MSEs only to specialize on narrow lines, which might be dangerous to the growth of the sector.

Because most of the MSEs have temporary license, this put them in a position of being unable to put up a permanent structure safe enough to put enough stock. There is also a sense of insecurity in the whole operation constant threat of eviction which amounts to hindrance of smooth running of the business where at times the operator is

forced to leave where he had established a "business empire" and with flourishing "good will".

The task of meeting the requirements in order to obtain development permission are also too demanding from the MSEs and hence the government should aim at coming up with realistic standards and regulations in order to minimize the sporadic and haphazard development of the MSE sector. It is highly likely that when these requirements are revised to meet the demands of the MSEs, a lot of them will be glad to sort for development permission as shown in the study.

There are seems to be a simmering misunderstanding between the two authorities policies, namely the government and the NCC. Whereas the government has come out clearly and is out to steer MSEs in its development matrix, the conditions brought in the NCC by-laws are detrimental to the growth of MSEs. The MSEs potential cannot be achieved with abiding to these regulations.

MSEs have proved to be part and parcel of the urban economy, thus a need for assurance and support from the government and the NCC to create an enabling environment via formulation of harmonious regulatory framework which can truly enhance the growth of the MSE sector.

The Kenya communication act, does not spell out how the provision of ICTs services can be enhanced to reach the MSEs, the act seems to view rural areas as the disadvantaged population. It does not state for instance how the teledensity of the informal sector can be improved.

3.4.5 Conclusion

The MSE sector is always left in a state of dilemma or confusion. It has never enjoyed fully the government's commitment to help it. Operators within this sector only exist through their own initiative, and they tend to rely solely on their own input to survive. They are poorly provided for in terms of business development support services such as credit and ICTs and are left to fend for themselves. If indeed, the government and

planning authorities is committed to the development of this sector, there is need to correct the problems which have been highlighted in the foregoing literature and also hope that the draft planning handbook will be improved and passed in parliament as this is anticipated to amplify the planners mandate in catering for MSEs needs especially in the technological front where it is lagging behind.

CHAPTER FOUR

CHARACTERISTICS OF MSEs AND LOCATION OF ICTs

The first section of this chapter, will give a description or characteristics of the MSEs found within this cluster. This is important, because it will help in not only gauging the capacity of the MSEs to embrace utilization of ICTs, but also understand the logic behind their current mode of operation.

4.1 Sample and Respondents Background

The sample of the first 30 respondents is divided into three sub sectors, namely the manufacturing, trade and service sub sector. The spread of this sub sector can be shown in the frequency distribution table below.

Table 3: Frequency Distribution of the MSEs Sub-sector

MSE Sub sector	Frequency	Percentage	Valid Percent	Cumulative Percent
Manufacturing	9	30.0	30.0	30.0
Service	10	33.3	33.3	63.3
Trade	11	36.7	36.7	100.0
Total	**30**	**100.0**	**100.0**	

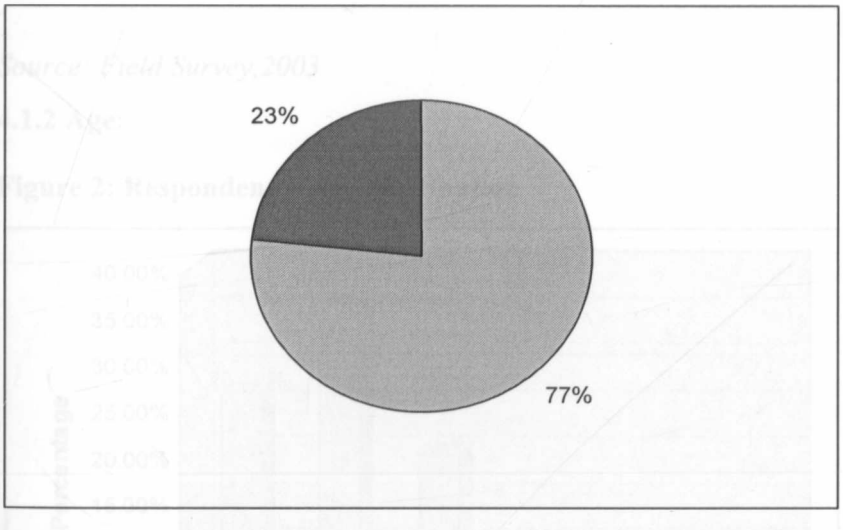
The trade industry seems to be a dominant activity in this sector within this cluster; this involves activities such as the general shop, hardware dealers and curio sellers etc. Other sub sectors are also catered for and the discrepancy is very small. The trade sector accounted for 36.7% whereas manufacturing had the smallest share accounting for 30% of the total sample.

Plate 2: Trading Activities in the Old Racecourse Estate

Source: Field Survey, 2003

4.1.1 Sex of the Respondents

Figure 1: Gender of the respondents



Source: Field Survey, 2003

The research covered a total of 48 MSEs in the selected areas of the Kariokor cluster. Out of 48 respondents 36 were males and 12 females, which represent 77% and 23% respectively. MSEs activities seem to accommodate both sexes. However as it is shown in the sample, most MSEs activities seem to be predominantly male oriented.

The sections of the MSE activities with high-level female participation are general shops, salon and eating cafes.

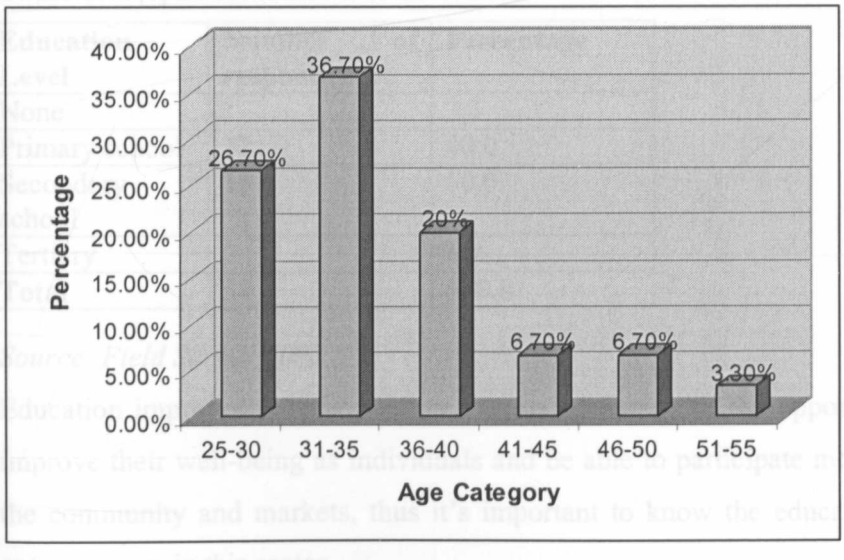
Males were mainly involved in the manufacturing sub sector, namely welding, carpentry and shoemaking; they were also involved in the service sub sector mainly in automotive garages.

Plate 3: Male Dominated MSE Activities

Source: Field Survey,2003

4.1.2 Age:

Figure 2: Respondent's Age Distribution



Source: Field Survey 2003

The distribution of respondent's age is an important planning aspect. It serves as a pointer to whether the MSEs activities attract specific age groups. This will have implications of various concerns such as policy and planning.

The respondents' age ranged from 21 to 55 years. The age with the highest frequency as shown in the chart is 31-35 years accounting for 36.7% followed closely with 25-30 bracket which accounts for 26.7%. On the contrary, the age bracket with the lowest number is 51-55 years, which was represented with 3.3%. This shows that MSE is dominated by those who are relatively young. The bar graph shows that over three quarter of the respondents 83.4% were young adults that are aged between 25-40 years.

The dominance of this sector by young adults show that this sector employs a lot of young people who are still young and agile, this is the generation which is in need of active employment. This is the generation which is commonly known as the dot.com generation which is eager to adapt to modern way of doing things and since ICT is a modern technology, the generation has the potential to embrace it to improve their businesses and their socio-economic status in general.

4.1.3 Respondent's Education Level

Table 4: Respondents Level of Education

Education Level	Number of respondents	Percentage
None	1	3.3
Primary school	12	40.0
Secondary school	15	50.0
Tertiary	2	6.7
Total	**30**	**100.0**

Source: Field Survey 2003

Education improves people's ability to take advantage of the opportunities that can improve their well-being as individuals and be able to participate more effectively in the community and markets, thus it's important to know the education level of the entrepreneurs in this sector.

The MSEs is made up largely by those who have certain level of formal education. Generally the level of education an individual has attained coupled with the kind of formal training the individual has had, are important determinants of the type of technology an individual can use. It was found that 96.7% of the respondents have undergone through some form of formal education. Significant percentage of them, 50% having gone up to secondary level.

4.2 Available ICTs And Their Location In The Cluster

This second section of this chapter will highlight on the ICTs available in the cluster, ICTs locational attributes and the planning framework for sustainable ICTs provision within the cluster.

Table 5: ICTs Services Available in the Cluster

ICTs Type	Frequency	Percentage	Valid Percent	Cumulative Percent
(a) Mobile phone	13	50.0	50	50
Landline (private)	5	19.3	19.3	69.3
Landline (public phone booth)	6	23.1	23.1	92.4
Fax	1	3.8	3.8	96.2
Email& Internet	1	3.8	3.8	100
Total	**26**	**100.0**	**100.0**	

Source: Field Survey,2003

It was found that 50% of the ICTs services located in the cluster are mobile service providers, followed by public phone booths, accounting for 23.1%, though not all of them are working, their unreliability has led to emergence of private landline phone service operators which is accounting for 19.3%. This gives an accumulative percentage of 92.4% for the low range of ICTs services.

It was also found that the provision of high range of ICTs services is very poor in the cluster, only 3.8% of the ICTs services in the cluster, provide fax and another 3.8%

provide email and internet, which account for a paltry7.6%. This finding can be linked with the lack of expertise and network required for one to use such services.

4.2.1 Factors Favouring Location of ICTs in the Cluster

There are certain pull and push factors, which lead to the current location of ICTs services in the cluster. It is important to understand and appreciate the current locational factors before giving an alternative ICTs locational framework.

Table 6: Factors favouring Location of ICTs in the Cluster

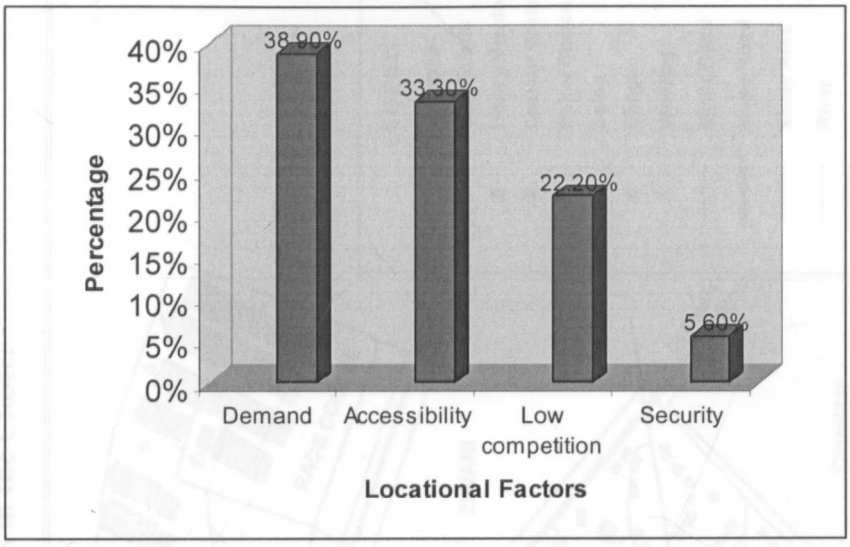
Reason for Locating ICTs	Frequency	Percentage	Valid Percent	Cumulative Percent
Lack of such businesses and telephone booths	6	33.3	33.3	33.3
It is a busy area	6	33.3	33.3	72.2
To make services more accessible	4	22.2	22.2	94.4
Security of the site.	1	5.6	5.6	38.9
Near ICT operator's residence	1	5.6	5.6	100.0
Total	**18**	**100.0**	**100.0**	

Source: Field Survey 2003

Analysis show that 33.3% of the respondents locate their businesses due to lack of such services in the area, the lack of services does not necessarily mean absolute lack of but also in terms of inadequacy in number of such services in the cluster. Another 33.3% locate their ICTs businesses in the cluster due to the potential of this area in terms of number of persons frequenting this cluster. This basically indicates that the

cluster is a busy area. The other pronounced reason for locating business that accounts for 22.2% is to make the services accessible to the MSEs operating in the cluster.

Figure 3: Appropriateness of Current Location of ICTs



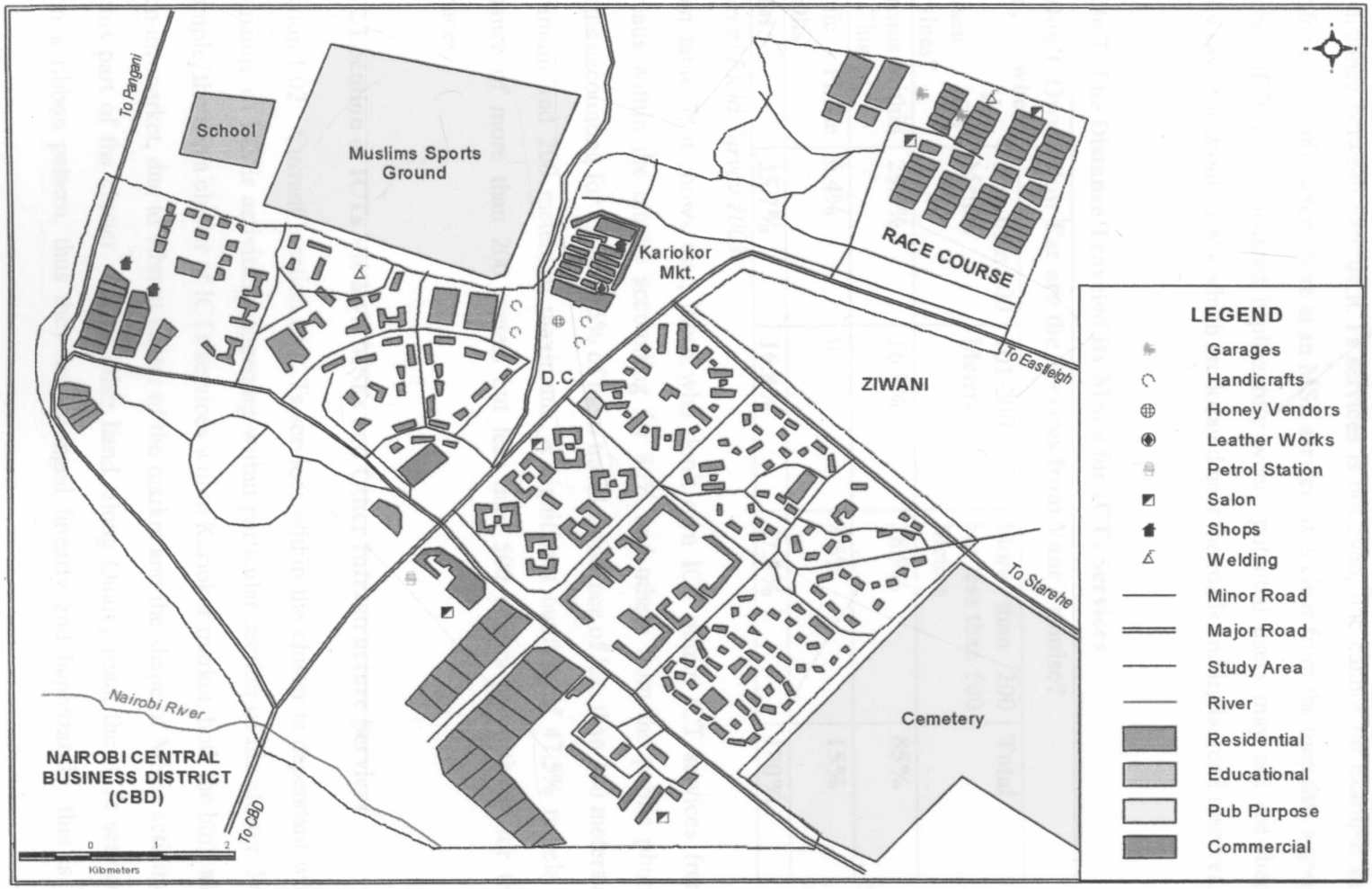
Source: Field Survey 2003

The factors favouring the current ICTs location are: 38.9% due to existing demands for the services, 33.3% due to accessibility of the current locations and 22.2% due to low competition, that is there are no proliferation of such services in the area and finally 5.6% locate such services due to the security reasons, that is the place is safe for such kind of businesses.

4.3 Spatial Location of ICTs

This section of this chapter will shed light on the spatial location of ICTs services, location of ICTs services in relation to location of MSEs activities and other infrastructural services such as road networks and electricity network within the cluster.

Map 6: Location of ICTs Services in the Cluster



Source: Field Survey, 2004

4.3.1 Description of Current Location of ICTs

From map 6, showing the location of ICTs in the cluster. The location of ICTs services is sporadic and does not seem to follow any planning principle. For example, the distance between various ICTs services is not even, one cannot for example say that for every 100 meters there is an MSE service. It is clear from the map that a good number of ICTs are located haphazardly where potential users may not see them easily save for about 77.8% which are located near the roads and in the road reserves.

Table 7: The Distance Traveled By MSEs for ICTs Services

If Don't Own ICT, where Do You Obtain ICT Services?	**How Far are the Services from Your Premise?**			
	Less than 100 Meters	101-200 Meters	More than 200 but less than 500 Meters	**Total**
Bureaus within the Cluster	29.3%	16.8%	38.9%	**85%**
Public Phone Booths	6.4%	0	8.6%	**15%**
Total	**35.7%**	**16.8%**	**47.5%**	**100%**

Source: Field Survey 2003

From table 7, it shows that, those who don't own ICT obtain ICT services from bureaus within the cluster accounting for 85% and others from the public phone booths accounting for 15%. 52.5% of them travel a distance of less than 100 meters at minimum and 200 meters at maximum. A significant number of 47.5% travels a distance of more than 200 meters but less than 500 meters respectively for the services.

4.3.2 Location of ICTs Vis-à-vis MSEs and Other Infrastructure Services

Section 1.02 Current location of ICTs services within the cluster is dependant with the nature of MSEs activities happening within particular section of the cluster. For example, there is a cluster of ICTs services within Kariokor market, both the built and open-air market, due to vibrant nature of the market and the shape of MSEs activities in this part of the cluster. On the other hand, along Quarry road, the ICTs services form a ribbon pattern, thus they are arranged linearly and haphazardly, this is in

response to MSEs, which are also operating along the road. This interferes with the traffic flow, especially pedestrians, who are forced to abandon, their designated footpaths and are now using the motorway, which is dangerous to the motorists, pedestrians and the ICTs service providers.

ICTs services require the availability of other infrastrucural services in order to operate, especially electricity. It was found that the cluster is well supplied with electricity power, however, location of certain ICTs services made the supply of power to them difficult. Finding's shows that 31.5% of the ICTs services within this cluster are located along road reserves, they were mainly providing mobile phone services and not high range ICTs services such as email and fax, which cannot do without electricity. These mobile phone operators are housed in temporary structures, which can be done away with any time hence advocating for these businesses to be supplied with power, will be against planning principles and regulations, because a need may arise for expansion of the road or any other public good. So with this finding, there is an indication that ICTs location is also influenced by distribution of power lines and road networks.

Table 8: Preferred Distance for various ICTs by Kariokor MSEs

ICTs Type	LESS THAN 100M	101-200M	201-300M	301-400M	401-500M	MORE THAN 500M	TOTAL
(a) Mobile phone	82%	7.8%	6.6%	3.6%	0	0	100%
Landline (private)	74.6%	15.7%	9.4%	0.3%	0	0	100%
Landline (public phone booth)	76.3%	12.5%	7.3%	3.9%	0	0	100%
Fax	40.2%	14.8%	24.9%	15.3%	2.6%	2.2%	100%
Email& Internet	39.7%	28.4%	10.8%	8.6%	7.4%	5.1%	100%

Source: Field Survey, 2003

The analysis shows that, MSEs are not willing to travel long distances for low range of ICTs services such as mobile and landline telephone services. A significant proportion of 82% and 74.6% are willing to travel for less than 100 metres for such services. Also a significant percentage of 76.3% are willing to travel less than 100 metres for public telephone booth services. On the other hand, over half of the MSEs are willing to travel more than 100 metres for high ended ICTs services, such as fax and internet. 59.8% and 60.3% of the MSEs are willing to travel more than 100 metres for fax and email and internet services respectively.

4.4 Planning Framework for Location of ICTs

The ICTs planning framework, aim at coming up with a framework which can lead to attainment of a cluster which is adequately provided with sustainable ICTs services, placed strategically to elicit optimal utilization

The choice of location of ICTs services is influenced to a large extent by the location of MSEs activities, which broadly can be seen as a response to market forces of supply and demand. An ICT service provider will therefore choose that location where he/she will be able to operate at optimal profit. In all the cases interviewed it is reported that preferred location was one with very many people (customers) as well as the minimum number of people doing the same business, though 69.3% of the respondents were engaged in similar ICTs service provision, mainly mobile phone service and only 7.6% was engaged in high range of ICTs namely fax, email and internet service provision.

For the short term strategy, the study proposes a framework, which is in response to the current preferred distance analysis of ICTs services, where over 90% of the respondents preferred a distance of low range ICTs services such as mobile phones, landline both private and public phone booth to be within of 200 metres, this is because these services are prone to attract many users, hence long queues. On the other hand, high-ended ICTs such as Fax, email and Internet can be within a distance of 200metres but not more than 500 metres. This is because these services are not

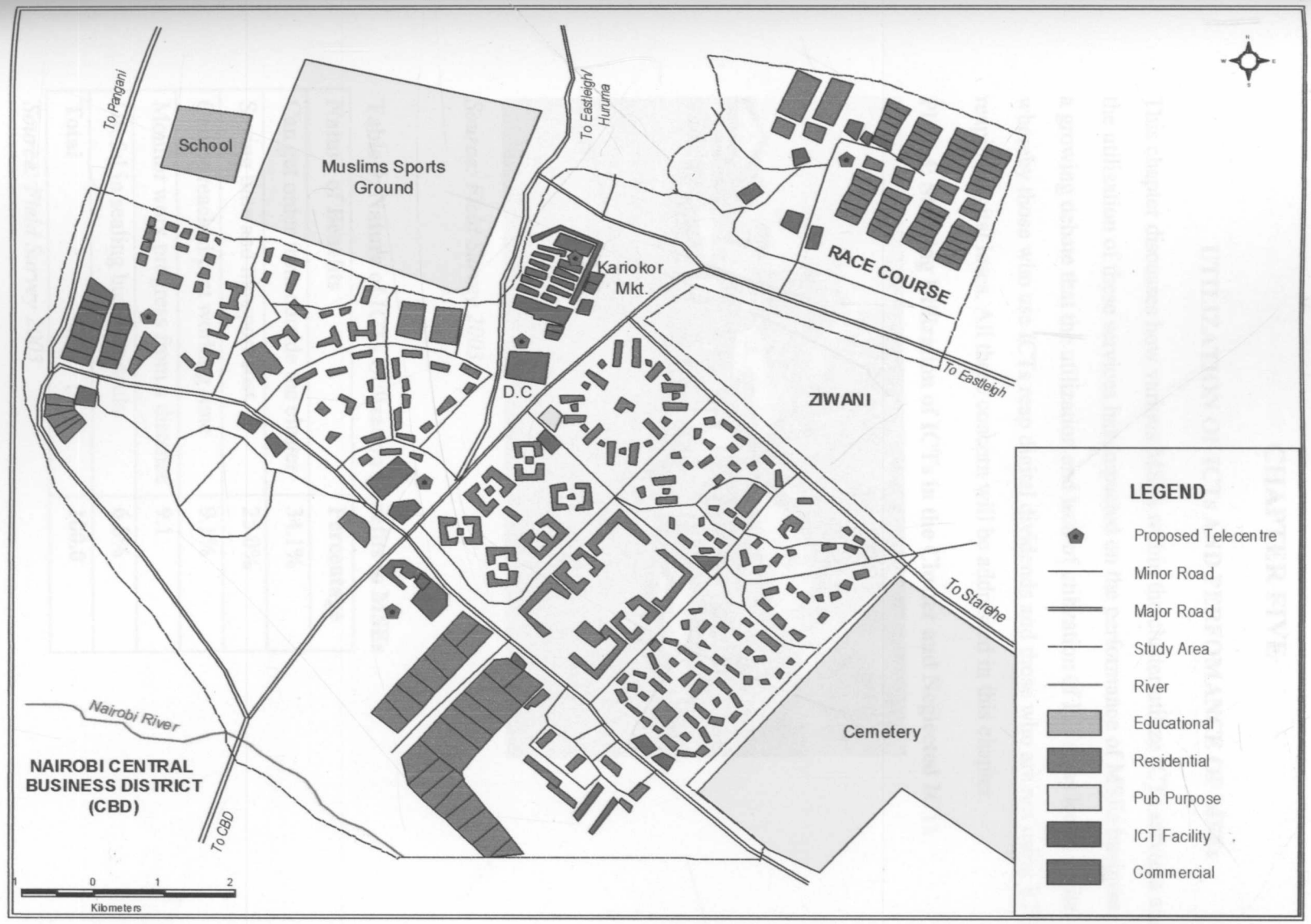
frequently used by MSEs operators, hence may not immediately generate users traffic, needed to sustain the services, the distance suggested also means that they will be fewer in number as compared to the low range ICTs services.

The proposed planning framework, aim at availing ICTs services well spread all over the cluster. For long-term strategy, the study proposes that the initial involvement of the government in provision of ICTs services via telecentres. The government to subsidize costs of ICTs utilization in these telecentres, to help MSEs who most of them complain of the exorbitant charges of the ICTs services. This proposal anticipate that community and public access points in the name of telecentre will be a strategy to complement individual MSEs effort to overcome the barrier of restricted access. In order for the telecentres to serve all members of the cluster sustain ably, it is necessary to develop a partnership with the private sector, NGOs and the MSEs.

It is also proposed, that the telecentres will have additional ICTs facilities in order to improve the performance of MSEs utilizing them. The telecentres should not be located more than 300 metres from the enterprises; this is to minimize time wasted in walking for such services. It is also proposed that there should be densification and intensification of telecentres ICTs service, so as to avoid situations whereby MSEs operators are engulfed in long queue and more importantly, the ICTs distribution to be distributed in a cluster manner, instead of ribbon pattern, in order to adopt the principle of *Agora*, where important services are centrally located.

For the framework to work harmoniously and sustainably, demand-driven elements need to be expanded to incorporate: early involvement of users in intervention planning; participation and consensus amongst stakeholders and users; and prototyping/testing of new information systems prior to widespread application. This will improve the relevance of interventions. Such a participatory approach to intervention formulation and implementation also reduces the risk of overstating the importance of information in the development process; particularly new information that is likely to be transmitted through strategically located ICTs.

Map 7: Location of Proposed telecentres



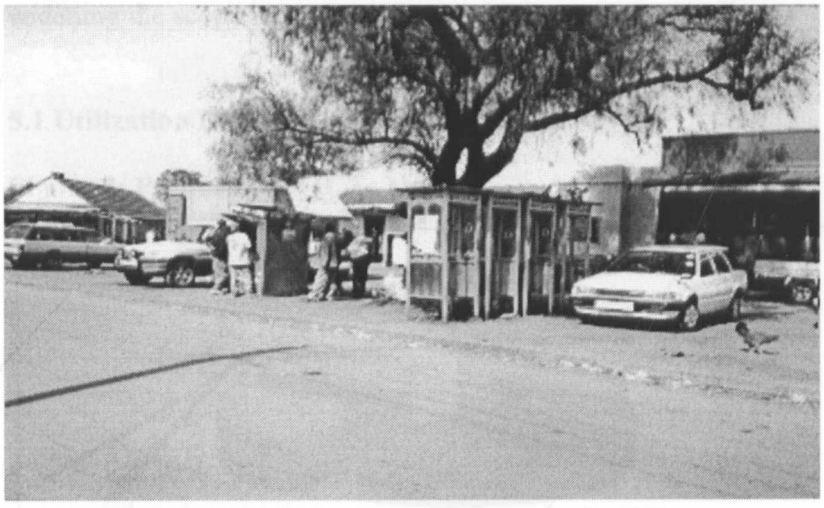
Source, Adopted from Survey of Kenya

CHAPTER FIVE

UTILIZATION OF ICTs AND PERFOMANCE OF MSEs

This chapter discusses how various MSEs within the cluster utilize ICTs services and how the utilization of these services has impacted on the performance of MSEs business. There is a growing debate that the utilization and lack of utilization of ICTs has led to digital divided, whereby those who use ICTs reap digital dividends and those who are not using ICTs are reaping digital loses. All these concern will be addressed in this chapter.

Plate 4: Showing Utilization of ICTs in the Cluster and Neglected ICTs



Source: Field Survey 2003

Table 9: Nature of ICTs Utilization Benefits to MSEs

Nature of Benefits	**Percentage**
Can get order from outside the cluster	34.1%
Saving time and transport cost	25.0%
Can be reached past working time	9.1%
Monitor work progress from a distance	9.1
Useful in sealing business deals	6.8%
Total	**100.0**

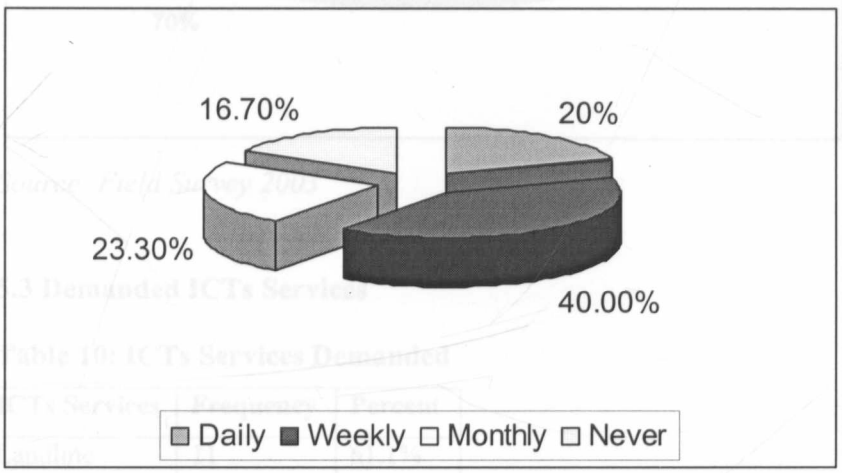
Source: Field Survey 2003

ICTs are playing an important role in modern economic development. Digital dividends that are generally the fruits, gains and benefits obtained as a result of using tools made available by ICTs and ICT related businesses can be drawn from the table above. 34.1% of the respondents said that they can be able to get orders from outside the cluster due to utilization of ICTs, which means, that this has led them to expand their business borders. 25% said that a lot of time and money is saved, due to minimization of mobility and especially on transportation. 6.8% find it beneficial to use ICTs to seal business deals, which might leak out when done via face-to-face interaction.

From the above analysis, it is possible to say that utilization of ICTs has a potential of widening the scope in business that entrepreneurs engages in.

5.1 Utilization Levels of ICTs in the Cluster

Figure 4: Frequency of ICTs Usage



Source: Field Survey 2003

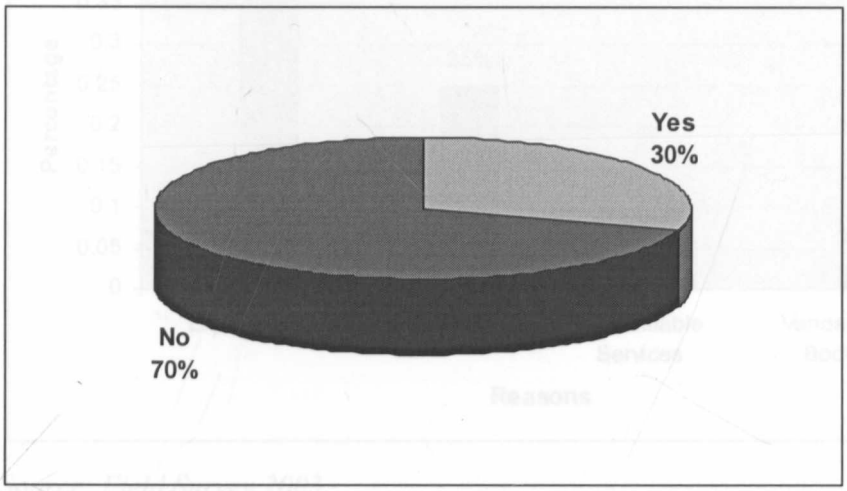
On the level of utilization, 40% of the respondents, uses ICTs weekly, 23.30% uses ICTs monthly, 20% on daily basis whereas only 16.70% have never used the ICTs services.

On affordability, which also determines the frequency of utilization, 96.7% said that the ICTs services and gadgets are not affordable. Only a mere 3.3% saw that ICTs services are affordable.

5.2 ICTs Ownership

From the survey, it was found that 30% of those interviewed, at least own some ICTs. Majority that is 70% do not own any ICT. 88.8% of ICTs owned were mobile phones whereas 11.2% were landline, none owned high ended ICTs such as fax and computer.

Figure 5: ICTs Ownership



Source: Field Survey 2003

5.3 Demanded ICTs Services

Table 10: ICTs Services Demanded

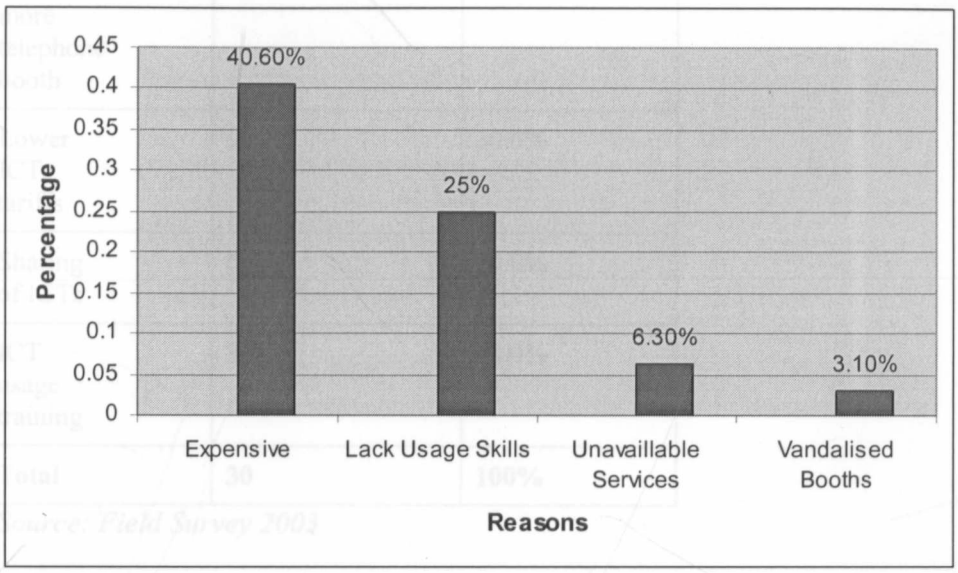
ICTs Services	Frequency	Percent
Landline	11	61.1%
Fax	5	28.1%
E-mail	2	10.8%
Total	**18**	**100%**

Source: Field Survey 2003

On the ICTs demanded, 61.1% of the customers demanded for the landline telephone services, this is because they are likely to be cheaper, 28.1% demanded for fax whereas only 10.8% demanded for email services, this is due to the belief that owning an email account is

a costly affair and also the myth of that anything computerized is for the highly learned people.

Figure 6: Reasons for Not Using ICTs



Source: Field Survey 2003

From the above figure, it is clear that ICTs have affected every facet of modern business life. ICT has brought both new challenges and new opportunities, leading to digital "haves" and "have-nots". From the analysis, it was found that 40.6% do not use ICTs because they are expensive, that is the gadgets themselves and also in terms of service and maintenance of the same, 25% said that they don't have the skills to make use of those services, 6.30% said that the ICTs services are not available where they are located and finally 3.10% said that the available telephone booths which are the only ICTs they rely on have been vandalized and hence are not in operational mode.

5.4 Opinion on how ICTs can be used to Improve MSEs Business

Table 11: Showing How ICTs can be used to Improve MSEs

Opinion	Frequency	Percent
Provide more telephone booth	12	40.0%
Lower ICTs tariffs	9	30.0%
Sharing of ICTs	6	20.0%
ICT usage training	3	10.0%
Total	**30**	**100%**

Source: Field Survey 2003

40% of the respondents had the opinion, that provision of more telephone booths is needed in order to increase utilisation levels of the ICTs, they went on further to state that these booths should be located strategically in order to minimize travelling distance and also to reduce cases of vandalism of the same. 30% on the other hand felt that there is need to lower the tariffs charged for utilisation of ICTs. Whereas 20% suggested communal ICTs services which can be shared in order to minimize utilisation costs. 10% felt that there is need to train MSEs on how to use ICTs such as computer and internet, so that they can fully reap the ICTs benefits.

5.5 Relevance of ICTs utilization in MSEs Development

ICT is seen as a tool, which if properly utilised can lead to growth and improvement of the MSEs. Finding's indicate that 38% said that ICTs can be used to access market information, such as what is demanded and the prices of the demanded goods and services. Another 22% said that ICTs can make the entrepreneurs to know and locate where to go for business support services. About 17% said that ICTs can help in identification of where inputs are sold cheaply, so as to reduce production costs.

5.6 Location of ICTs and their Utilization by MSEs

Chi-square test was used to establish the relationship between existing location of ICTs and the level of utilisation of the ICTs services by MSEs. The study endeavour to test the hypothesis that the location of ICTs has significant influence on the level of utilisation of the same. Table 12 shows a cross tabulation of location and utilization of ICTs.

Table 12: Location and Utilization of ICTs

	Daily	Weekly	Monthly	Total
Near	3 (1.96)	3 (3.18)	0 (0)	6
Far	7 (9.80)	16 (15.92)	7 (4.29)	30
Very far	6 (4.24)	6 (6.90)	1 (1.90)	13
Total	**16**	**26**	**7**	**49**

Note: Figures in brackets e.g. (1.96) are the expected values (computed).

Observed values (fo) are; 3,7,6,16etc.

The X^2 technique compared the proportion observed in each category with what was expected under the assumption of independence between the two variables.

I. Null Hypothesis (H0):

There is no relationship between ICTs location and utilisation of the ICTs services.

II. Alternative Hypothesis (H1):

There is a significant relationship between location of ICTs and utilisation of the ICTs services.

III. Model Specification and assumptions:

- Categorical variables: Locational distance and utilisation frequency.
- Chi-square distribution
- Random sample

IV. Significance Level

V. Computing Chi-square statistic

Expected values (fe) = $\frac{CT*RT}{GT}$

Where: CT Column Total, RT Row Total and GT Grand Total

$\frac{16*6}{49}$ =1.96

Computed Chi- square statistic= $\sum(fo-fe)^2/fe$

0.55+0.01+0.86+4.02+1.71+0.73+1.45+1.90= 11.23

VI. Decision

Computed Chi-square= 11.23 > Chi-square expected =9.776

Ho is rejected i.e. There is significant relationship between location of ICTs and utilisation of the ICTs services.

5.7 Chi-Square (X^2) Test on Whether Utilization of ICT services Significantly Influences the Performance of MSEs.

Table 13: Utilization of ICTs and Perfomance of MSEs

	Daily	Weekly	Monthly	Total
Poor	0 (4.32)	1 (2.88)	2 (1.8)	9
Average	7 (6.24)	4	2(2.6)	13

		(4.16)		
Good	5 (1.44)	3 (0.96)	1 (0.6)	3
Total	**12**	**8**	**5**	**25**

Note: Figures in brackets e.g. (4.32) are the expected values (computed).

Observed values (fo) are; 0,7,5,4 etc.

The technique compared the proportion observed in each category with what was expected under the assumption of independence between the two variables.

VII. Null Hypothesis (H0):

There is no relationship between ICTs utilisation and MSEs business performance.

VIII. Alternative Hypothesis (H1):

There is a significant relationship between ICTs utilisation and MSEs business performance.

IX. Model Specification and assumptions:

- Categorical variables: ICTs utilisation frequency and MSEs business performance.
- Chi-square distribution
- Random sample

X. Significance Level:$\propto$= 0.05

Degrees of freedom (r-1)(c-1)= 2×2=4

Critical value of X^2=9.94

XI. Computing Chi-square statistic

Expected values (fe) = $\underline{CT} \times \underline{RT}$

GT

Where: CT Column Total, RT Row Total and GT Grand Total

$$\frac{12\times9}{25} = 4.32$$

Computed Chi- square statistic= $\sum(fo-fe)^2/fe$

Summation of Observed values minus expected values squared a ll over expected values.

$=(0-4.32)^2/0+(1-2.88)^2/1+(2-1.8)^2/2+(7-6.24)^2/7+(4-4.16)^2/4+(2-2.6)^2/2+(5-1.44)^2/5+(3-0.96)^2/3+(1-0.60)^2/1$

0+0.86+0.02+0.08+0.01+0.18+2.53+1.39+0.16= 6.94

XII. Decision

Computed Chi-square= 6.94< Chi-square expected =9.94

Ho is accepted i.e. there is no significant relationship between utilisation of the ICTs services and the MSEs business performance.

CHAPTER SIX

Summary, Conclusion and Recommendations.

6.1 Summary

MSEs are increasingly the focus of attention for stimulating growth and employment in Kenya. This study's findings indicate that Information and communication technologies (ICTs) are also increasing in importance for MSE enterprises to develop.

The study's literature shows that, ICT is transforming global and local markets. Available evidence shows that electronic markets are more transparent and efficient. Through lower transaction costs and increased reach, the prices of the MSEs are likely to be competitive and the business procurement costs will also be lowered.

The study's hypotheses indicates that strategic location of ICTs in Kariokor have the potential to assist MSEs directly, by improving the utilization levels of the ICTs which lead to efficiency of business processes and through that enable MSEs to develop new products and services, thereby establishing new business opportunities and markets.

Clustering is an economic way of organization MSEs spatial activities, finding's shows that there is a close link between MSEs operating in the cluster and they also tend to complement each other in many way, this in turn is expected to lead to sustainable gains in productivity, quality and responsiveness. The adaptation to utilization of ICTs and other innovative ways of running business can easily be spread especially if it takes full account of individual cluster needs and at the same time can be rejected, if not responsive to cluster members need.

In Kariokor cluster, applications focus on using ICTs to improve domestic business communications and networking, there is no link between MSEs operators and use of ICTs to facilitate access to external (regional and global) networks – such as through e-commerce, but the use of ICTs to improve access to local market is already in place in the cluster.

Formal sector do better than MSEs because they go out of their way to invest in ICTs and are thus more market orientated, having identified niche products or services leading to

profitable and sustainable market opportunities. By intense use of ICTs they enjoy and benefit from a higher degree of integration into market systems, which are more highly developed and in closer proximity. The study found out that the MSEs services and facilities are not affordable to most MSEs and that's why they cannot go out of their way like formal sector counterparts to invest in individual ICTs such as computers and hence a need to suggest how they can be helped to increase their interaction with other market actors which can be facilitated by access to affordable and strategically located ICTs services, which can be communal or shared to reduce costs.

The study concurs with Bamako conference (2000), and summarizes that ICTs must be considered as factors for structuring and planning the territory. As such they should play an important role in empowering the poor and the marginalized sector of society, such as MSEs. The spatial, economic, social and cultural parameters that limit access to ICTs by MSEs should be analysed and adequately corrected to make the cluster vibrant in all sense.

6.2 Recommendations

The following recommendations are not only intended to control location and utilization of ICTs in Kariokor cluster but also to provide a general guideline to control and guide location of ICTs in all the major MSE clusters in Kenya.

6.2.1 Appropriate Location of ICTs

The ICTs services should be located where MSEs activities are clustered, as this will help in building the required utilization volume (threshold) needed to make the venture viable. There should be avoidance of locating ICTs service near dumping sites, behind toilets and other deserted areas as this will put off potential users and at the same time encourage vandalism because of the neglect.

ICTs services should not be located along the road reserves or riparian reserves as this will risk the life of both the ICTs users and ICTs service operators. This will also interfere with the traffic flow, particularly pedestrians.

There is need to maintain a radius of 200 metres for an averagely dense MSE cluster and 100-150 metres for very dense MSE cluster, for every ICTs located within these clusters. This is to minimize cases of long walks, which interfere with production and other economic activities driving the MSE clusters. This proposal has taken into the account that quite a good number of MSEs, are one man businesses which might loose much when forced to close business in order to go and make a call 500 metres or 1 Kilometre away. 200 metres for averagely dense cluster, is suggested because the cluster is not very busy and hence one can organize with a neighbouring enterprise to keep an eye on his/her business without necessarily interfering with the neighbours operation. 100-150 meters is a case where the cluster is very busy and therefore one might not be in a position to keep an eye on his/her neighbours business, thus need to have the ICTs services closer to the enterprises to avoid lose of business.

Closely related to this, popular ICTs such as phones should be provided to MSEs in large numbers at minimal distance as opposed to high range ICTs such as internet and fax which are not in high demand. It is also recommended that a population of 200-250 MSEs are enough to sustain a telecentre at the beginning, but once the MSEs realize the benefits of ICTs utilisation, it is recommended that the population to be reduced to 100-150 per telecentre because of anticipated positive change of attitude towards ICTs.

6.2.2 Sustainable Utilization of ICTs by MSEs

In essence, the availability and optimal location of ICTs does not guarantee automatic investments. For the MSEs to reap full benefits there is need for complementary investments in human capital so as to equip the targeted users MSEs with adequate skills to use the ICTs unreservedly.

On the demand side, it is critical to understand how information and communication are vital to the lives and livelihoods of the MSEs, and how ICTs could enhance their access to markets, institutions, services and skills. The study recommends that the ICTs services with already established demand to be supplied as a matter of priority at the recommended distance, and at the same time, encourage the government and other development partners to explore the potential of telecentres at a pilot scale before full adoption depending with the

response. The proposed telecentre services should have high range of ICTs services such as email, internet and fax among others. All members of the cluster should also be encouraged to open email addresses or use any of the telecentres as his/her contact point. The telecentres should also be located strategically and centrally. Telecentres should not be more than 300 metres from the enterprises, this is due to the fact that other ICTs service providers will continue to operate and also because, the telecentres will have intensified ICTs services, thus minimal time spent on queuing for the ICTs services.

There is need to lower the costs of ICTs facilities, in order to encourage more people to invest and own facilities. For the MSEs, there is an urgent need to reduce, the amount charged for utilization of such services, the government should look at ways of catering for MSEs, by adopting a system where MSE clusters are given preferential treatment when it comes to communication, and this can be done by for example issuance of membership cards to cluster members. This will encourage the culture of networked economy, where MSEs can embrace ICTs without going to deep into their ever shallow pockets.

6.2.3 Government Policies and Strategic Interventions

There is need for the government to formulate ICTs policies and strategies, where ICT is treated mainly as a sector or industry. The Government should make a policy framework that help MSEs to build networks, especially business linkages.

The government's current focus on investment in traditional infrastructure must be broadened and scaled-up to address the enabling ICTs policies, institutions, software infrastructures, and skills needed to propel the MSE sector to the anticipated growth achievement.

The government should avail information to MSEs on how they can secure new customers and markets. Development of MSEs should top their agenda for example when negotiating for integration of regional markets. The government should also look for ways of incorporating MSEs in EPZs so as to improve the qualities of their products and this will entail utilisation of modern technology which will require adoption and utilisation of ICTs.

As the impact of emerging ICTs grows in the wider economy, there is a more pressing need for Kenya to develop a systemic national policy framework for implementation of ICTs in the MSE sector. But as a short term measure, the government and other stakeholders including MSEs associations should try the following measures;

- Arranging meetings between entrepreneurs, especially between potential suppliers and potential customers, such as trade fairs.
- Facilitating collaborative ventures between MSEs; this might encompass facilitation of co-operatives (where a bottom-up drive should be explored as top-down creation of co-operatives tends to fail).
- Creating enterprise clusters (though care should be taken since there is a bad history of attempts to relocate small enterprises to new designated premises, failing to understand the true value of an enterprise's current location).
- Encouraging the growth of sub-contracting (though, sub-contracting is a mixed blessing: it brings orders and infusions of information and other resources; but these infusions have a narrow focus that can easily breed dependency unless it is ensured that sub-contracting forms only one part of the enterprise's business).
- Mentoring schemes that link managers in large firms to entrepreneurs in small firms for the purposes of providing advice and support. This will help in creating the image and picture of viable ways of doing business.
- Supporting the creation of private sector trading firms that will sell small enterprises' goods.

6.3 Conclusion

A successful MSE sustainable ICTs cluster requires that the ICTs provided are the ones demanded by the entrepreneurs and that they should be located strategically, in order to generate optimal utilization and avoid lose of man hours by the MSEs in search of the services. There should also be a strategy aiming at investment in human capital, which will trigger active absorption of skills and technology. This calls for a collaboration or partnership between government and other development partners especially those who can

facilitate training in business development and management skills and utilization of ICTs. A special focus of this ICT strategy should be to demystify and promote diffusion of ICT as a general purpose technology to MSEs.

It is believed that use of new technologies, can be crucial to meeting the Millennium Development Goals (MDGs) in a timely and effective fashion. In response to this noble call the study conclude that there is need to prevent further marginalisation of the MSEs by availing ICTs services which are mixed appropriately and also properly located. This will help them access to markets and other business information which facilitate or make their economic activities more vibrant and facilitate availability of information about new opportunities to be more accessible to them.

6.4 Areas of Further Research

Machiavelli (1961) lamented that:

> *"There is nothing more difficult to plan, more doubtful of success nor more dangerous to manage than the creation of a new order of thing's. Whenever his enemies have the ability to attack the innovator, they do so with the passion of partisans, while the others defend him sluggishly, so that the innovator and his party alike are vulnerable"*

This study, deviated from traditional infrastructure which has been the domain of physical planners, and it encourages physical planner to shun fire fighting planning exercise by coming out in time to help in giving economic planners and other professionals, spatial interpretation of current and anticipated changes, so that to generate a coordinated and harmonised Planning output. Planning for MSEs has not been taken as a serious exercise and hence need to plan for them not only in terms of ICTs but also include other aspects such as revising building standards and revising policies which tend to stagnate MSEs and block them from investments, hence unable to develop and reap fully from the global market.

MSEs Cluster, just like any other sector in society experience new dimensions of technology. The question therefore is; how can a planner facilitate spatial diffusion of

innovations such as ICTs, without affecting the perceived order in the cluster? Put simply as, how can spatial planning aid diffusion of technology and change?

REFERENCES:

Aboagye, A.A., (1986), *Informal Sector Employment in Kenya: A Survey of Informal Sector Activities in Nairobi, Kisumu and Mombasa,* JASPA, I.L.O.

Abuodha C, and King, K (1991), *The Building of an industrial society; Change and development in Kenya's informal (Jua-kali) sector*- Discussion paper no. 92 1972-1991, University of Nairobi.

Adam, L. (1999) 'Web content for Africa', *Information Development*, Vol.15, No.2, pp127-131. African Development Forum (1999) *Globalisation and the Information Economy: challenges and opportunities for Africa*, Economic Commission for Africa, Addis Ababa. http://www.bellanet.org/partners/aisi/adf99docs/infoeconomy.htm sighted on 16th December, 2003.

Aleke-Dondo, C., (1989) *"The Impact of Government Policies and Programmes on Kenya's Informal Sector.*

Aleke-Dondo, C. (1993), *Inventory of Jua Kali Enterprise Development Institutions in Kenya,* a project of the OVPMNPD/ODA/UNDP/K-REP.

Babe, R.E (1994) *Information and Communication in Economics*, Massachusetts: Kluwer.

Bamako Declaration (2000) "*Bamako 2000 Plan of Action"* (http://www.unais.org/bamako2000.org). accessed on 30 November, 2003.

Barton C, (1999), *Information and Communications Technologies: Are They the Key to Viable Business Development Services for Micro and Small Enterprises?* Micro enterprises Best Practices, Marshall Bear Development Alternatives, Inc MD.

Bates, T., (1989), *"Small Business Viability in Urban Ghetto"*, Regional Science, 4, 625-642.

Beije, P. (1998) *Technological Change in the Modern Economy*. Cheltenham: Edward Elgar.

Bhalla, A.S. (ed.) (1992) *Small and Medium Enterprises: Technology Policies and Options.* London: Intermediate Technology Publications.

Cairncross, F. (1997) *The Death of Distance-How the Communication Revolution Will Change Our Lives.* Cambridge.

Central Bureau of Statistics (1996). *Economic Survey*. Nairobi.

Central Bureau of Statistics, International Centre for Economic Growth & K-REP Holding's Ltd. (1999). *National Micro and Small Enterprise Baseline Survey 1999: Survey Results*.

Chapin, F.S., (1965). *Urban Land Use Planning*, London, University of Illinois Press.

Communication Commission of Kenya (2003) (http://www.cck.go.ke/telecomu/status.tele.htm), accessed on 24 October 2003.

Elliot C. (1975), *Patterns of Poverty in the Third World, A Study of Social and Economic Stratification*, Praeger Publishers.

Ernberg, Johan. (1997*). "Empowering Communities in the Information Society: An International Perspective.*" The International Telecommunication Union, Geneva, Switzerland.

Ferguson, A., Ngau, P., Nyamweru, C., and Palutikof, J., (1981), *Field Work and Data Analysis in Geography*, Nairobi, Macmillan Kenya Limited.

Forge Simon (1995*)," The Consequences of Current Telecommunications Trends for the Competitiveness of Developing Countries*. World Bank, InfoDev Working Paper, Washington D.C.

Gay, L.R. (1981), *Educational Research: Competencies for Analysis and Application*. Charcles E. Mairill Publishing Company, Columbus.

Gerry Cris. (1974), *Petty Producers and the Urban Economy, A Case Study of Dakar*, I.L.O Working Paper No. 8 of 1974.

Government of Kenya (GoK). *1999 Telecommunications and Postal Sector Policy Statement,* Ministry of Transport and Communication, Nairobi.

Government of Kenya (GoK). *1986. Sessional Paper No.1 of 1986 on Economic Management for Renewed Growth.* Government Printers Nairobi.

_____. 1990. *Maina Wanjigi Report on the Presidential Committee on Unemployment,* Government Printers Nairobi.

_____. 1992. *Sessional Paper No.2 of 1992 on Small Enterprise and Jua Kali Development in Kenya,* Government Printers.

_____. 1995. *Sixth Report of the Public Investments Committee on the Accounts of State Corporations, Volume 1.1.* Government Printers, Nairobi.

_____. 1996. *Sessional Paper No.2 of 1996 on Industrial Transformation to the year 2020.* Government Printers, Nairobi.

_____. *1998. Economic Survey*, Government Printers, Nairobi.

_____.2002. *The Ninth National Development Plan for the period 2002 to 2008.* Government Printers, Nairobi.

_____. 2002. *Draft Physical Planning Handbook*, Department of Physical Planning, Nairobi.

Golledge, R.G., and Rushton, G. (Eds). *Spatial Choice and Spatial Behaviour: Geographical Essays on the Analysis of preferences and Perceptions* (Columbus, Ohio: Ohio State University Press, 976).

Gould, P.R. *Space Searching Procedure in Geography and the Social Sciences*, Working Paper No.1, Social Science Research Institute, University of Hawaii, 1996.

Hake, A., (1977), *African Metropolis Nairobi Self-Help City*, Sussex University Press.

Harris, J, (1990), *"Linkages Between Formal and Informal Sector in Developing Countries; a Review"*, ILO, WEP 2-19, Geneva.

Heeks, R, and R. Duncombe (2001) *'Information Technology and Small Enterprises: A Handbook For Enterprise Support Agencies in Developing Countries'* IDPM, Manchester. IDPM, University of Manchester, UK.

Hudson, R, (1975) *"Patterns of Spatial Search," Transactions*, Institute of British Geographers, June 1975. University of Manchester.

InfoDev (2000) *Rural Access to Information and Communications Technologies: the challenge for Africa*, World Bank, Washington, DC. http://www.infodev.org assessed on 17th March 2004.

ITU (1998) *African Telecommunication Indicators*, International Telecommunications Union, Geneva.

ITU (1999) *World Telecommunication Indicators*, International Telecommunications Union, Geneva.

Kasuku, S.O., (2001), *Utilisation Levels of Pedestrian Footbridges at Burma, Makadara and Hamsa in Jogoo Corridor, Nairobi City, Kenya.*, Unpublished Urban Implementation Project Report, DURP, UoN.

Kenya Engineer, (2003), *"Reaping Digital Dividends", Journal of the Institution of Kenya*, Vol. 24 No. 5, Sept/October 2003.

King, K, (1996), Jua Kali Kenya: *Change and Development in an Informal Economy, 1970-95*. East Africa Educational Publishers, Nairobi.

Kingoriah, G.K., (1980) *Policy Impacts on Urban Land Use Patterns in Nairobi; Kenya 1899-1979.* A Dissertation Presented to the School of Graduate Studies Indiana State University Terre Haute, Indiana.

Kimuyu, P., (1999), *The African Factor in Enterprise Structure and Performance in Kenya,* DP No. 0199/99 IPAR.

Kimuyu, P., Bigsten, A& Lundvall, K, (1999) *Are Formal and Informal Small Firms Really Different? Evidence from Kenya Manufacturing*, IPAR, DP No.020/99.

Kimuyu, P., Kayizzi-Mugerwa, S., (1998), *Enterprise Response to Deficient Infrastructure in Kenya,* DP No. 011/98, IPAR.

Korir, P.C,. (1991), *Informal Sector as a Source of Employment in Intermediate Towns,* Unpublished M.A. Thesis, DURP, UoN.

Lee, K.S., Anas,A., (1996), *'Cost of Deficient Infrastructure: The Case of Nigerian Manufacturing;* Urban Studies, Volume 29, Number 7.

Lewis, W.A, (1954) *"Economic Development with Unlimited Supplies of Labour",* Manchester School of Economic and Social Studies.

Maina, F.W, (1982) *Planning for Recreation and Open Space, Eastlands. Nairobi* (UoN, published Masters Thesis).

Massam, B.H., and Bouchard, D. *"Toward a Framework for examining the utilization pf a public facility: health care centers in Kuala Lumpur, Malaysia,"* Geoforum, vol. 8, 1977, pp 113-119.

Machiavelli, N (1961), *The Prince*, translated by George Bull, Baltimore, Penguin Books. Originally published in 1513.

McCormick, D (1998) *'Enterprises Cluster in Africa: On the Way to Industrialization'* IDS Discussion Paper No. 366, Nairobi University.

McCormick, D and C. Rogerson eds (2004), *Clothing and Footwear in African Industrialisation,* Africa Institute of South Africa, Pretoria, South Africa.

MCGee, T.G., et al (1977). *Hawkers in South East Asia Cities: Planning for a Bazaar Economy.* International Development Research Centre: Ottawa.

Meller, H., (1990) In Patrick Geddes, *"Social Evolutionist and City Planner"*, Maleche's Principle & Theory of Planning Handbook, pp 62.

Merrick, T.W., (1976) *"Employment & Earning in the Informal Sector in Brazil; A Case Study of Belo Horizonte"*, The Journal of Developing Areas Vol. 10 No. 2, April 1976, pp 338.

Miehlbradt, O.A., (1999), *How to be Demand-Led: Lessons for Business Development Service Providers from Information and Communication Services in the Philippines.* A Paper Prepared for Presentation at the International Conference on Building a Modern & Effective Development Service Industry for Small Enterprises, March 2-3, Rio De Janeiro, Brazil.

Mitullah, W, and W. Odek (2002) *'Impact and Potential of ICTs in MSEs: A Comparative Study of Kenya and Ghana* (Unpublished).

Morgan, W.T.W. (Eds), (1967), *Nairobi City and Region*, Oxford University Press.

Morrison, C., (1995) *"What Institutional Framework for the Informal Sector?"* Policy Brief No. 10, OECPD Development Centre, Paris.

Muench, L., (1977), *The Informal Sector in Kenya*, Occasional Paper No. 25, IDS, UON, 1977 pp 2.

Mugenda, O.M. &Mugenda, A.G., (1999) *Research Methods; Quantitative and Qualitative Approaches*, African Press for Technology Studies (ACTS), Nairobi, Kenya.

Mutegi, D., (1998), *Planning for Urban Informal Sector Economic Activities: A Case Study of Street Vendors in the CBD of Nairobi,* Unpublished Thesis DURP, UoN.

Nalo, D.S. O., (1993), *"Adequate Road Maintenance in Kenya: The Need for Appropriate Policies"*, International Journal of Transport Economics, Vol. 20, No.2.

Neill, J.R., (1996), *"Fueling the Engine of Growth with Investment in Infrastructure":* A Lesson from Neoclassical Growth Theory; Journal of Macroeconomics, Vol. 18, No. 3.

Opiyo, R (1998) *Effects & Nature of Poor Safety Measures & Practices on the Health of the Informal Metal Work Artisans-The Case of Ziwani $ Gikomba in Nairobi City*, Catholic University of Eastern Africa (Unpublished Dissertation).

Pedersen, P.O. and McCormick, D. (1996) *Small Enterprises: flexibility and networking in an African context*, Longman, Nairobi, Kenya.

Rampell, H., (1974), *"The Informal Sector"*, Paper Presented at the Inter-Disciplinary Urban seminar held in Nairobi, 1974.

Rannis, G& Stewart, F., (1999) *"V-Goods& the Role of Urban Informal Sector in Development"*, Economic Development & Cultural Change 47(2): 259-288.

Schutt, K. R, (1996), *Investigating the Social World: The Process & Practice of Research.* Pine Forge Press: Thousand Oaks, California.

Sinclair, S.W., (1978), *Urbanization& Labour Market in Developing Countries*, Croomhelm, London.

Silk, J. *"Search behaviour: general characteristics and review of the literature in the social sciences," Geography Paper No. 7*, Dept. Geography, University of Reading, 1971.
Singleton, A., Royce (Jr), Straits, C.B, Straits M.M (1993), *Approaches to Social Research* (2nd Edition), Oxford University Press: Cambridge.

Som, R.K., (1973), A Manual for Sampling Techniques, Heinmann London, 1973.

Thorten-White L, W. Silberman L., Anderson, P.R., (1948): *Nairobi Master Plan for Colonial Capital.* A report Prepared for Municipal Council of Nairobi. His Majesty's Stationary Office, London.

Wheeler, D.,Mody, A., (1992), "International Investment Location Decision: The Case of US Firms", Journal of International Economics, Vol. 33, Nos. 1-2.

World Bank (2001) *'Business Development Services for Small Enterprises: Guiding Principles for Donor Intervention'*, 2001 Edition, prepared by the Committee of Donor Agencies for Small Enterprise Development, The World Bank Group, Washington, D.C. [on-line] http://www.ilo.org/public/english/employment/ent/papers/guide.htm assessed on 14th March, 2004.

WTO (1998) *Electronic Commerce and the Role of the WTO*, Special Studies No.2, World Trade Organisation, Geneva.

Appendices

Appendix A

UNIVERSIRTY OF NAIROBI

DEPARTMENT OF URBAN AND REGIONAL PLANNING

ICTs QUESTIONNAIRE

Survey on the Spatial Location of Information and Communication Technologies (ICTs) and their Role in Micro and Small Enterprises (MSEs) Development...

A case study of Kariokor MSEs Cluster.

I Kindly request for your assistance by responding to the questions below. Your response will be treated with confidentiality and shall only be used for the purpose of this study.

QUESTIONNAIRE FOR MSEs

Date of Interview _____
Type of Business e.g. salon, furniture, curio

_____
Name of Interviewer_____

Age of Respondent _____

SECTION A: RESPONDENTS BACKGROUND

1. Sex of the respondent 1. Male 2. Female

2. Respondent's education level_____

Formal	Others

1. None 2. Primary School 3. Secondary School 4. Tertiary

3. Age of respondent____

Code	1	2	3	4	5	6	7	8	9
Age in (yrs)	Below 18	19-24	25-30	31-35	36-40	41-45	46-50	51-55	55+

4. Enterprise sector- category under which your enterprise fall e.g. hardware, general shop belongs to trade, garage, barber shop, food kiosks is under service sector while furniture making, welding belongs to manufacturing

1. Manufacturing 2. Service 3. Trade

SECTION B: ICTs AWARENESS AND OWNERSHIP

5. Which of the following ICTs do you know?

ICT Type	Yes	No	How they came to know about

			ICTs
Mobile Phone			
Landline			
Fax			
Stand alone Computer			
E-mail			
Internet			
Others (specify)			

6. How did you come to know about them? _____

7. Have you ever undergone any ICT related training such as computer training ?

1. Yes 2. No

If yes, specify the nature of training?

_____

_____

8. Do you apply those (ICTs) skills when operating your business? 1. Yes 2. No

If yes, how have you benefited from those skills

businesswise?_____

_____

9. Do you own any ICT facility? 1. Yes 2. NO

10 a. If yes, when did you buy it? _____

and how much did it cost you to purchase it?_____

10 b. If no, where do you obtain ICTs services?_____

10 c. How far from your premise?_____

SECTION C: USAGE AND SUSTAINABILITY

11. What ICTs services do you use& how far are you be willing to travel for the following ICTs services?

ICT TYPE	USE Y/No	FREQUENCY OF USAGE 1. Daily 2.	COST PER WEEK	Distance Travelled For ICTs services

		Weekly 3. Monthly 4. Other		1.Less than 100M 2.101-200 3. 201-300 4.301-400 5. 401-500 5. More than 500m
1. Mobile Phone				
2.1 Landline-local calls				
2.2 Landline-international calls				
3 Fax				
4. E-mail				
5. Internet				
6. Computer Aided Design (CAD)				
7. Others (Specify)				

12. Are ICTs services affordable? 1. Yes 2. No

13. Why don't you use ICTs service? _____ 1. Expensive 2. Services are not available
3. Lack skills to use the services 4. Others (specify)_____

14a. How does your business gain from usage of ICTs?

_____

_____

14b. How can you rate the performance of your business as a result of utilization of ICTs?

1. Good 2. Average 3. Poor

SECTION D: BUSINESS ADVICE AND PLANNING INTERVENTION.

15. Do you receive any business advice? 1. Yes 2. No

16. If Yes from whom? _____

17. What kind of advise and help do you get from your business advisors? _____

18. What kind of services do you get from City council and the central government? ____

19. Are you aware of existence of any plans in the clusters? 1. Yes 2. No

20. If yes, do these plans address or provides for ICTs services?_____

21. In your opinion, how can ICTs be made to improve their operation levels?

Appendix B

UNIVERSITY OF NAIROBI

DEPARTMENT OF URBAN AND REGIONAL PLANNING

Survey on the Spatial Location of Information and Communication Technologies (ICTs) and their Role in Micro and Small Enterprises (MSEs) Development.

A case study of Kariokor MSEs Cluster.

I Kindly request your assistance by responding to the question below. Your response will be treated with confidentiality and will only be used for the purpose of this study only.

INTERVIEW GUIDE FOR ICTs SERVICE PROVIDERS

Date of interview_____

SECTION A : ENTERPRISE'S BACKGROUND

1.Name of the enterprise _____

2.Physical location of the enterprise? _____-

_____

3. Year of Establishment_____ Respondent's Age_____

4. Respondent's Education Level_____

SECTION B: SERVICE PROVIDED AND ICTs LOCATION

4.What services do you provide? _____

5. How do you charge the following services?

_____

Service	Rate
Mobile phone	
Landline-local	
International calls	
Fax	
Computer services	
Internet	
Others	

6. Are there any services that are demanded and are not offered? _____

7. Who are your target customers? _____

8. What is the average number of clients do you serve in a day?_____

9. Which ICT service has the highest demand? _____

10. How can use of ICTs be enhanced in the MSEs?

_____

_____

11. Why did you locate your business on this site?_____

_____

12. How appropriate is the site for this kind of business?_____

_____

Thank you,

_____