

MIDLANDS STATE UNIVERSITY



FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF LOCAL GOVERNANCE

**EVALUATING THE UTILISATION OF ICT AS A SERVICE DELIVERY TOOL IN URBAN COUNCILS. A CASE OF
HARARE CITY COUNCIL.**

DISSERTATION BY

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***DISSERTATION SUBMITTED TO THE MIDLANDS STATE UNIVERSITY DEPARTMENT OF LOCAL
GOVERNANCE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF A BACHELOR OF SCIENCE
HONOURS DEGREE IN LOCAL GOVERNANCE STUDIES***

GWERU

2016

RELEASE FORM

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**TITLE OF PROJECT : EVALUATING THE UTILISATION OF ICT IN URBAN
COUNCILS AS A SERVICE DELIVERY TOOL.**

**DEGREE PROGRAMME : BACHELOR OF SOCIAL SCIENCES HONOURS
DEGREE IN LOCAL GOVERNANCE**

YEAR GRANTED : 2016

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The undersigned certify that they have read and recommend to Midlands State University for acceptance, a research project entitled: ***“EVALUATING THE UTILIZATION OF INFORMATION COMMUNICATION AND TECHNOLOGY AS A SERVICE DELIVERY TOOL. A CASE OF HARARE CITY COUNCIL”***: submitted by Valentine Nyahunzvi in partial fulfillment of the requirements of the Bachelor of Science Honours Degree in Local Governance Studies.

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DEDICATION

This dissertation is lovingly dedicated to my respective parents who have given me the drive and discipline to tackle any task with enthusiasm and determination. Without their love and support this research paper would not have been made possible.

God bless you all

ACKNOWLEDGEMENTS

I wish to acknowledge the assistance from various players in the City of Harare, who took their valuable time to assist me in the dissertation from the start to the final production of the project document. I would like also to extend my gratitude to the team at HCC who assisted me in my research. I cannot mention them by name but I am grateful to everyone that assisted me in any way possible.

Special thanks go to my Supervisor, Mr E.P.Mutema, whose encouragement, meticulous revision, sage advice, insightful criticisms, patient encouragement, guidance and support from the initial to the final level enabled me to develop an understanding of the subject.

ABSTRACT

Information and communication technologies (ICTs) are increasingly being incorporated into the internal workings of government, globally. This is done in pursuit of a more effective, efficient and responsive machinery of governance. The research evaluates the utilization of Information Communication and Technology as a service delivery tool in Harare City Council. Research objectives were to establish the link between service delivery and Information Communication and Technology (ICT). Literature review then focused on giving description on the link between ICT and benefits of ICT and challenges been faced by urban councils in developing countries. Mixed methodology was used, stratified random sampling and purposive sampling was used to select the participants. The sample for research was 50 participants which constitute 26 employees, 19 residents, 2 ICT managers and 3 councilors. Questionnaires and interviews were employed as research instruments. An overall response rate of 90% was achieved from respondents. Data presentation and analysis was carried out. Finally data was presented in tables, graphs, pie chart followed by analysis. The findings reveal that the utilisation of ICTs in HCC is not according to acceptable best practices. The research reviewed that internet is accessed via mobile devices in Harare City, the research recommend that HCC must invest in mobile government to improve access to online services. HCC performance with regards to effectiveness in service delivery, the research shows that there is poor ICT literate rate and there is limited access to internet for residents and employees, level of networking connection in departments and households' access to ICT are very poor. Though there are proven research and imperial evidence to the capacity of ICTs to improve service delivery, there are a number of threats to its adoption and use in HCC. This study identifies some of these impediments like; shortage of skilled ITC personnel, lack of adequate ICT infrastructures, shortage of finance, among others. The paper therefore recommends that government should invest in the provision of ICT infrastructures, as well as in purposeful ICT training.

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CHAPTER I

INTRODUCTION

1.0 Introduction

This is an introductory chapter for the research which establishes the study on: evaluating the utilization of information communication and technology (ICT) in Harare city council (HCC). Highlighting the current status of ICT in urban councils their uses and their impact on organizational performance and why the urban councils have embraced the ICT. The chapter draws attention of the background of the study. Laying out statement of the problem accepting the constraints faced by various urban councils in developing countries. Research questions, significant of the study, delimitation, limitations and objectives are going to be outlined, finally definition of terms and chapter summary.

1.1 Background of the study

Harare City Council is a local authority in Zimbabwe and it is the capital city. Its obligation is to foresee the administration of Harare. Harare city has a total populace of more than two million according to 2012 census. The whole populace falls under the authority of Harare City. City of Harare was developed in early as 1891, with the development of a Board of Management which was established to oversee the affairs of city of Salisbury (Machingauta,

2010). The operation of Harare city council are guided by the Urban Council Act chapter 19:15 and the constitution of Zimbabwe. Their powers, responsibilities, source of funds and function are well-defined in these legal frameworks. The operations of HCC are supervised by the Ministry of Local Government, Public Works and National Housing.

The activities of HCC are managed by both administration and political representatives. Administratively the council is run by the Head of Departments (directors) and the administration chain is headed by the Town Clerk. The mayor is the political head together with his councilors. Presently HCC is led by a council comprising of 46 councilors and the city has grown to 46 wards from 7 wards in 1897. There are committees which are established according section 96 and 97 of the Urban Council Act. The

committees are human resource committee, general purpose, environment, finance, and audit committee whose members are councilors; they are headed by the ceremonial Mayor.

City of Harare offers a wide range of services which encompasses, water and reticulation, refuse collection housing and community services, education, recreation and stadia and employment. HCC is failing to meet the needs of residents since it is receiving continuous grievances from the citizens over its provision of poor services. Harare city was once recognized as the Sunshine City, but is now it is, "bedeviled by critical failures in service delivery as evidenced by water shortages, inefficient refuse collection and meandering stream of sewage in some suburbs". (Crisis Coalition of Zimbabwe, 2013:1). Service delivery must be addressed if there is continually going to be a change in the current situation.

Information Communication and Technology is a term that describes computer based communications technology that is presently being established and used in development and dissemination of information by means of electronic computer hardware and software as postulated by Blessings et al (2011). ICT comprises of a range of technologies that consist of telecommunications (telephone, satellite, television radio), as well as digital technology (computers, information networks, websites and software application (Chisenga, 2001).

Information communication and technology developments since the end of 20th century have steered several convergence of content computing, telecommunications and broadcasting. ICTs have significantly changed other areas primarily knowledge and human resources capabilities. The egression of ICT has been introduced by the proliferation of computer network well-known as internet. It has improved the way local authorities function, enabled knowledge sharing, dissemination of information. The use of ICT has improved service delivery, reduced corruption, bureaucracy, enhances accountability and transparency in many countries all over the world. Such countries include Nigeria, South Korea, Germany, South Africa, and Norway.

HCC like any other urban council in developing countries has recognized the importance of information communication and technology in service delivery. In late 1990s up to 2008, HCC received many complaints from citizens and employees that the manual system was not effective and efficient since some documents could not be found, lack access to adequate information on the council and poor

service delivery. This led to the introduction of ICTs, which are like improve service delivery and dissemination of information. ICT in HCC is still on the developing phase.

ICT progress in HCC can be traced back to June 2012 with the adoption of Integrated Result Based Management, thus ICT is a new phenomenon in HCC. In 2013 it twined with Munich, Germany to improve service delivery and address the city's billing system and the revenue collection system which was porous. Presently HCC have a website, although it was not officially launched. Harare City Council believes ICTs have the prospective to improve service delivery and information dissemination.

Harare city council partnered with private sectors mobile services providers such as Netone, Telecel, and Econet who function in mobile banking. Due to this HCC residents are now able to pay their taxes using mobile phones without queuing. Thus the state and private sector have revealed an interest and positive attitude towards information communications and technology in promoting development. This is supported by (ADB 2012) which stated that both central government and private institutions are playing an imported role to keep the city connected. Even though HCC have introduced ICT infrastructure yet still most of the services are offered manually.

1.2 Problem Statement

Local authorities play a vital role in the social, political and local economic development of the area under their jurisdictions, even though they encounter several constraints which affect their capabilities in delivering effective and efficient services to the citizens. Hence the introduction of ICT creates opportunity for its usage to enhance service delivery in urban council with a particular emphasis on HCC. Harare city council has made some significant efforts towards the implementing and utilization of ICT in its various departments for different reasons, one of them being enhancement in service delivery. Unfortunately, delivery of public services in Zimbabwean urban councils has been weakening characterized by irregular water supply, potholed roads, poor revenue collection, long queues', and decrepit infrastructure and commonly dwindling of quality of services. Local authorities are falling to fulfill their mandate, as they exist to provide more effectively and efficiently services to ratepayers because of their closeness to the citizens than the central government. The research major objective is to improve the problem of poor service delivery, through utilizing ICT.

1.3 OBJECTIVES

- 1 To establish the extent of ICT utilization in service delivery by Urban Councils.
- 2 To establish the link between ICT and service delivery in urban councils.
- 3 To examine challenges faced by urban councils Council in ICT utilization
- 4 To come up with recommendations that enhances the utilization of ICT in Urban Council.

1.4 RESEARCH QUESTION

- 1 What is the link between service delivery and ICT?
- 2 What is the extent of ICT utilization in service delivery by urban councils?
- 3 What are the challenges faced by City of Harare in ICT utilization?
- 4 What are the necessary recommendations that can be implemented to enhance ICT utilization in Urban Council?

1.5 SIGNIFICANT OF THE STUDY

- The research is going to outline guide lines for ICT use in urban councils, since it delivers a well appreciative link between service delivery and information communications and technology in urban councils. ICT is a new phenomenon in urban councils in Zimbabwe, efforts has been made to explore ICT components in order to increase the relationship between urban councils and residents through the delivery of effective service using ICT as a service delivery tool.
- The study can also be used to harness online service delivery support system by service delivery organizations for example urban authorities in order to drive e-service support beyond the landscape of e-business and e-commerce.
- The research will be useful to academic and future researchers and will equally contribute meaningfully to the growing literature in this field of research and will provide theoretical base on which subsequent researchers in this area will build.
- The study will enhance revenue collection, enhance transparent and accountability in local authorities.

1.6 DELIMITATION

The research area has to be selected so as to attain the objective of the research. The research is aimed at assessing the significance of ICT components for service delivery in Zimbabwe using Harare City Council as a case study. City of Harare is the biggest urban council in Zimbabwe among 30 urban councils which encompasses cities, local board, town council, municipalities and local board. It is located in the central Province of Zimbabwe. It has a total population of more than two million. The study covers service providers (employees, management and councilors) of City of Harare and the residents as service seekers. It is likely that using City of Harare as a case study will give an insight take place in numerous urban councils in Zimbabwe.

1.7 LIMITATIONS

Limitations of the study are those features of research that establishes restraints on the presentation or understanding of the findings of the research, that is the shrinking on generalization and utility of findings that are the result of the devices of design or method that establish internal and external validity (Van Veenhuizen, 2006).

Some participants were not willing to be disturbed from their work in order to participate in the research. As a solution, the researcher moved to the next respondents who were willing to participate in the research.

Some of the residents who were among the targeted population had a negative attitude towards the research itself asserting that they wanted improvement in services delivery not being asked questions. The researcher understood their frustration and she assured that the study was aimed at improving service delivery and their contributions would be very crucial.

Management considered some information which was helpful to the research as private for the common reason of protecting organizational reputation; henceforth participants were not willing to provide the information. Some employees exaggerated their response so as to portray a good image about their organization due to the fear of management actions, to resolve this problem the researcher had to make judgment and assure the respondents that all information to be obtained was to be kept confidential.

1.8 DEFINITION OF TERMS

ICT is a term that is used to refer to a computer based communications technology that currently being established and used in formation and dissemination of information by means of electronic computer hardware and software as postulated by (Blessings M, et al 2011).

Urban Council- is a body created to serve a community and administer in a given geographical area. It is made up of appointed and elected officials. They are also sub national level of government that are operating within specified local area of jurisdictions their main function is to provide services to the grassroots community in a particular manner (Chakaipa, 2010).

Service delivery – is the actual producing of a service such as refuse collection, construction of roads and street lightening. (Tamrkar, 2010)

1.9 SUMMARY OF THE CHAPTER

This was an introductory chapter of the study. The chapter presented the background of the study underlining utilization of ICTs in local authorities and their bearing on organization performance, paying particular attention on City of Harare as a case study. The chapter went on further to offer problem statement acknowledging constrains faced by urban councils. Research objectives, significant of the study research questions, limitation, delimitation and definition of terms have been illustrated clearly. The next chapter will review literature established on specified objectives and research questions.

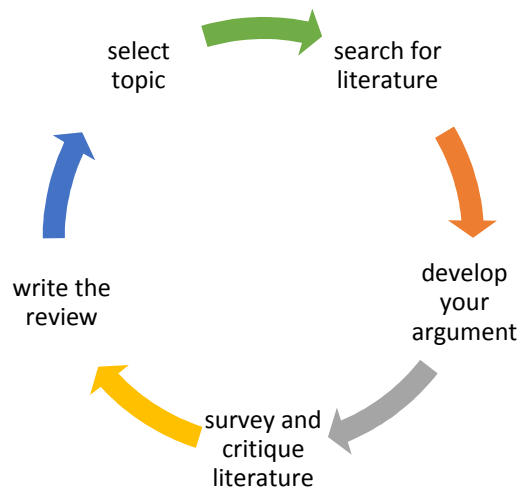
CHAPTER II

LITERATURE REVIEW

2.0 Introduction

The drive of this chapter centers on reviewing existing literature on the issue of Information Communication and Technology utilization and the relationship between service delivery and ICT in urban councils. It will bring out their results and describe the present day. Experiences of the urban councils in relation to available literature will also be used with a view of establishing the relevance of ICT as a service delivery tool. The chapter seeks to discover the positive and negative impact of ICT on urban council's performance. The study is organized into four major themes namely ICT utilization and service delivery, challenges and benefits, ICT regulatory framework and strategies to improve ICT implementation and utilization. Figure 1 reflects the process of literature review used for this study by Machi and the McEjoy (2009).

Fig 1 **Literature review Process**



2.1 ICT OVERVIEW

2.1.1 Defining ICT

ICT have been well-defined in different ways by various scholars. ICT is defined by Blessings (2011) “the practices of technology used to produce, store, process and use information in its several forms (data, voice, image, multimedia presentations and other forms including those not yet conceived) and which allow, enable and provide communication”. More specifically ICT is defined as the merging of micro-electronics, computers and telecommunications which make it likely for data, including text, video and video signals to be transmitted anywhere in the world where digital signals can be received. They include networks such as fixed, wireless and satellite telecommunications, broadcasting networks and applications such as the internet, database management systems and multi-medium tools. (Howell and Lundall, 2000).

ICT is an collective system that embraces technology and vital infrastructure to store, influence, disseminate information , the legal and economic institutions are necessary to control ICT access and utilization , and the social and inter-personal structures which permit information to be shared, enable access to the ICT infrastructure, and through which revolution takes place (Wenger, 2007). Blessings (2011) also concurs with the argument when he defined Information communications and technology as a complex term that is used to the meeting of new general array of a computer-based communication technology that presently being used to development, used in the information handling and diffusion of information by electronic means such as radio, television cellular phone computer and network hardware.

A number of definitions have been employed to describe and understand ICT, this study will embrace the definition by Torero and Braun (2006) who proposed a much comprehensive definition which incorporated tools and services. For them ICT consist of computing tools such (as internet, networks, hardware, soft ware and related services); automated data processing and display (such as photocopiers, scanners, cash registers and calculators) as well as telecommunications and related services such as fixed and cell phones, facsimile machines, and audiovisual equipment and services.

2.2 The link between Service Delivery and ICT

There is a positive link regarding service delivery and information communications and technology. The utilization of ICTs in urban councils has been valuable to enhance effective, efficiency, reasonable services and decreasing delay in delivery of public services. Public service delivery is defined by Fox and Meyer (1995) as the provision of public activities, benefits or satisfactions.

There is growing evidence that local authorities have devoted to investments in Information communications and technology so as to improve its internal management as well as the delivery of public services to the residents (Mitra and Gupta, 2007). The main objective for emphasizing on service delivery was that the urban councils where not been responsive to the citizen's requirements in the contemporary times. World Bank (2005) cited that, public service delivery has been erratic with denizen preferences and considered poor in developing countries. ICT can lead to enhanced and improved services delivery of government (UNESCO, 2005).

2.2.1 Effective service delivery and efficiency

ICTs are employed in urban councils to improve efficiency and effective in delivery of public service. The issue of service delivery to citizens is also of effectiveness (Pathak 2010). Effective services delivery is defined in terms of cost effective, easy and timely access to the services provided by the service providers to the service seekers. ICT is used as a tool for service delivery to the citizens; effectiveness of service delivery to the community at any time anywhere with affordable cost. ICT has also assured major efficiency gains in the delivery of government services (Linihan, 2005). ICT can increase efficiency in local government departments which results in government and its agencies offering cheaper and faster services (Heeks, 2001).

There is no doubt that the urban councils in developing countries are facing difficulties and challenges in provision of service. The advent of information communication technology thus offers opportunities for its use to facilitate effective and quality service delivery in public services particularly in urban councils, as many countries in the globe have embraced ICT as a way forward. Rowley (2008:5) suggest that, "service quality is a key aspect that differentiates service offered and helps build competitive advantage". Therefore, there is a positive correlation between ICT and service delivery, as ICT is seen as a tool to upkeep the work of urban councils with the objective of providing effective public services and information in a more appropriate, citizen centric and cost effective approach.

2.2.2 Reduces delays in service delivery

ICT applied in urban councils due to its ability to lessen delays in the provision of service to the service seekers and reducing the necessity to visit local government offices. Alexander (2003) stated that numerous systems such as internet and websites offer a value of improved and better-quality service delivery to the community in a fast manner and it gives opportunity for greater participation of all people in decision making. For instant, 7 million agriculturalists in Karnataka (India) are able to acquire title deeds online in 10 minutes (World Bank 2004). Citizens will consequently save time to go to government offices since accessibility of services is improved. Information Communications and technology system differentiates itself from old ways where service delivery was exemplified by inflexibility, extensive delays, unnecessary complexity and there was no dissemination of information to the public.

2.2.3 Cost Reduction

The introduction of ICT in the delivery of public service was also focused on achieving cost savings and improving efficiency. Primarily the administrative and managerial focus was on developing e-services within each public institution, with limited reflection being specified to cross-organizational coherence, the emphasis today has obviously shifted towards coordinated services offering one-stop shops to citizens and businesses (OECD, 2007). Developments in technology have ushered in a new era of improving incorporation in delivery of services based on commonality of infrastructures, data and organizational procedural and processes (OECD, 2005). ICT tools have the global influence to make time and distance irrelevant thereby increasing manifold the efficiency of public service delivery. New and better approaches to managing information technology and the emergence of online channels of service-delivery promised significant financial savings (Walubwa, 2008).

2.2.4 Accessible of public services

ICT plays an important role in improving accessibility of services to the citizens. According to OECD (2003:37) “accessibility has been referring to as the major driving force of e-government activity “(OECD, 2003:37). According to Leitner (2004) e-governance is a system of public administration practice of ICTs to increase access to services to benefit citizens, employees and management of urban local bodies. According to World Bank (2010) for example in remote Ginnack (Gambia) nurses in municipal clinics make use of digital camera to record patient’s symptoms and send the image electronically for diagnosis in a nearby town or city by more experienced doctors so as to gain a specialist view. Thus ICT extend service delivery to isolated regions, and permits dissemination of information in both ways, thus enabling the poor to participants in decision making and giving them a voice. This is because ICTs allows

the delivery of more obtainable and up to date services (Culbertson, 2004). Provision of public services by urban councils will be faster, appropriately and obtained twenty-four hours a day, seven days a week and therefore citizens will have access to services. Most societies in our local governments are inaccessible and may not be aware of the activities of urban councils. This no doubt, will have a negative impact on delivery of services on the part of the urban councils. ICT will help to promote the integration of such isolated communities into global economy. Therefore ICT and service delivery are intertwined.

2.2.5 Reduces Bureaucracy

The need to transform the bureaucracy was extremely argued all-round the world and as the result the governments of developed and developing countries faced the challenge of transformation and the need to modernize administrative practices and management systems (Tapscott 1996). In this regard, information communication and technology (ICT) was introduced in various institutions of government. ICT application and tools helps to transformation traditional model of public service delivery, World Bank Operations Policy and Country Services (2008). The procedures in urban councils are long, time consuming, lacking accountability and transparency resulting in poor public service delivery and corruption. For example an organization that desires to acquire a business’s permit or a certificate has to fill out a number of application forms, has to visit a number of different offices and spend a considerable amount of time. If a citizen wishes to be issued with a certificate or any other official document, he or she will have to go to the council’s offices into several offices which is time consuming. ICT offers online services which can be accessed anywhere at any time thereby reducing delays, cost and bureaucracy and providing effective, efficiency and quality services.

Table 2.1 Benefits of e-service delivery to the citizens (service seekers) and urban councils (service providers)

Benefits to service providers	Benefits to service seekers
Reduced need for paper form and manual data entry. Reduce number of face to face inquiry. Eliminates time consuming manual process. Latest technology used to streamline operate. Allows urban councils to give quality services	All day access to information and services Elimination of long line at government offices. Eliminate need to fill out paper forms. Delivery with urban councils will change from hindrance to convenience’. easy and timely access to the services

Adopted from Andrade (2007)

The table above summarizes the benefits of ICT in public service delivery. Therefore, from the literature analysis, it is clear that service delivery and ICTs are interwoven as ICTs play a major role in service delivery; they can lead to better-quality and enhanced delivery of public services. Most urban councils' goal is to strive and create more efficient and effective service delivery systems which can only be achieved through effective utilization of ICTs.

2.3 ICT Utilization

2.3.1 The purposes of ICT utilization

2.3.1.1 Citizen's participation

One of the aims of introducing ICT in local government was to improve citizen participation. ICT has the strength to empower citizens. Carega (2009) articulated that ICT is of great importance in speeding up information dissemination and knowledge between local authorities and residents and transform the way in which citizens and local government interact. ICT enables accessibility of information to all concerned stakeholders (Shareef et al, 2010). Gant (2008:15) in concurrence to this states that, "flow of information is essential for effective governance and will result in empowered citizens". Most of the local authorities' activities, particularly in Africa are carried out in secrecy and very little information is provided to the citizens. Nevertheless, ICT has the prospective to alter as it persuades releasing of strategic documents and information on the website.

2.3.1.2 Reduces Corruption

The utilization of ICTs shrinks corruption in many organizations, particularly in the public sector where corruption has become a cancerous disease. Corruption led to poor services delivery as public resources are used for personal interest. According to Gadzikwa (2013) of Standard Association of Zimbabwe (SAZ) director stated that the use of ICT in government processes, particularly the computerization of systems in Zimbabwe Revenue Authority (ZIMRA) curb corruption as ICT improves data integrity and prevents fraud, errors and human interactions. In concurrence to this Pasi (2013) stipulated that ZIMRA has introduced new systems such as self-evaluation, scanners, e-banking and online payment of taxes, among many others to reduce corruption. Pathak et al (2008) in the research-based articles entitled e-governance, corruption public delivery, and comparative analysis of Ethiopia and Fiji established that ICT is absolutely related to lessening corruption and improving government-citizen relationships. The study using 400 participants from Fiji and Ethiopia observed that ICTs play an important role in corruption reduction.

and improving service delivery to the residents. The analyses of literature above pointed out that effective ICT utilization in urban councils can play a vital role in restraining corruption which has a negative impact on service delivery,

2.3.1.3 Increasing transparency

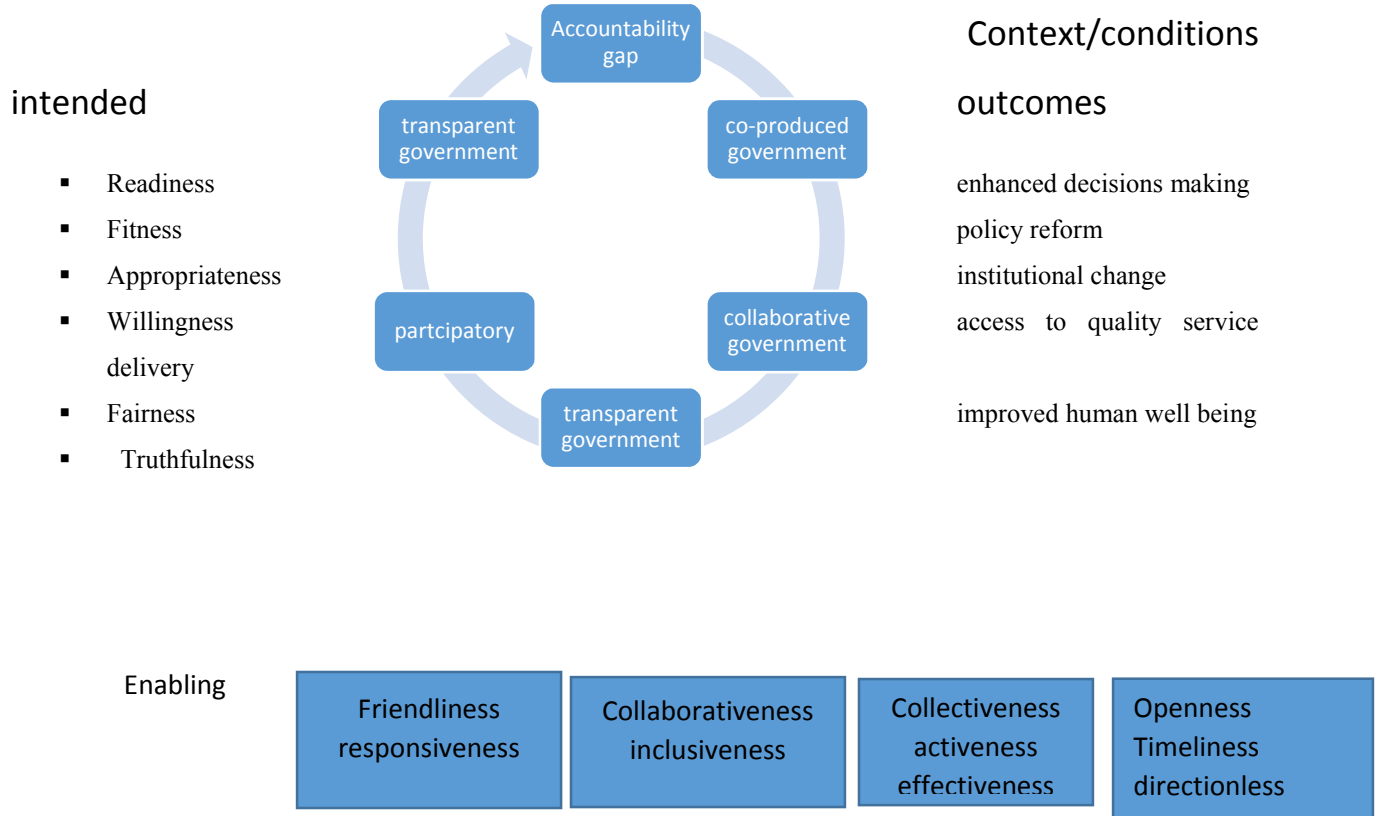
ICT tools such e-procurement and e-government has a variety of benefits for making urban councils transparent. Transparent is one of the vital pillars for anti-corruption. Information communication and technology helps to increase the transparency of decision-making processes in government activities and expenditure (Ahn and Bretschneider, 2011). Information communication and technology tools offers opportunities for residents to directly be involved and engaged in decision-making process , by granting them the opportunity to provide their own ideas and suggestions in forums and online communities (Oakland 2003). If websites are designed carefully and openly, they can be valuable resources for transparency as citizens, businesses and other stakeholders could be able to see political and governmental information, rules and policies (Stahl, 2005). Earlier it was often necessary to go directly to governmental offices to obtain information, but now this information should be available on the web (Malhotra, 2001). Unfortunately in urban councils in developing countries they are chief aspects that provide foundation for council appointed officials and elected officials room to manipulate the system for personal gain thereby causing corruption, reducing transparent and reducing the delivery of effective services to the citizens. To overcome this, integrating ICTs is one of best way to enhance transparent and reduce corruption. In agreement to this UNESCO (2005) cited that increased transparency in government activities will also assist in curbing corruption as citizens can track the progress of their applications online.

2.3.1.4 Accountability

The prospective of ICT as a tool in accountability initiatives has been commonly argued particularly with the growth of social media in the last several years (Bertot et al, 2010). Urban Councils Association of Zimbabwe (2011) defines accountability as the practice by which individuals are answerable for their activities. The direct interaction between citizens and local authorities increase accountability, by permitting citizens to partake in preparation of budgets and spending of public resources and making decisions concerning public life. The Loch Ness Model below demonstrate that ICT enable residents to hold local authorities accountability, but effective accountability will only be embraced after acknowledging the gap between urban councils and citizens and come up with strategies on how to break the gap between both sides. Engagement in ICT-enabled shrinks accountability gap, yet in

different conditions it continue to be vulnerable. Loch model describes main appropriate features that act as an accelerator to prevent the accountability gap.

Figure 2.2: The Loch Ness Model



2.3.2The extent of ICT utilization

ICT utilization is a practice that involves commitment and attentiveness from the citizens and service providers (urban councils). There are countless aspects that can be put in place during the implementation and utilization of ICTs for success to be attained. The levels of ICT utilization range from human capability, to availability of basic ICT infrastructure, websites presence, legal framework. The objectives can be achieved if the following parameters are put into consideration.

2.3.2.1 ICT Security and ICT Policies

One of the chief matters which can be used to evaluate the level of ICT usage is security.

Earlier research results into ICT safety issues have described a comprehensive observation of the booming of a myriad of electronic attacks, malware, susceptibilities and interruptions in the domain of information communication and technology. According to Schneier (2008) ICT security issues are not only faced in the cyber space, but their bearing is more noticeable and significant in urban councils. On this it comes to an agreement with Beqiri (2008) who cited that, there are difficult areas where security related issues are currently impacting the level of ICT utilization in a negative way.

ICT necessitates vibrant regulatory framework and legal actions as a critical means for success and for effective ICT utilization (UNESCO, 2005). The existence of regulation regarding digital signatures, digital identification, and data security is will form favorable environment to the adoption of e-government (ITU, 2009). In partnership with national ICT Policy in Uganda according to Uganda e-Government report (2011) It stated that the scope of Uganda's National ICT Policy Framework covers information as a resource for development, mechanisms for accessing information, and ICT as an industry, including e-business, software development and manufacturing. Therefore the ICT policies should not venture in one side but is should be a national aspect for the organizational Development. In regard of this it agrees with the Zambian government (2007) who launched its national ICT policy to enable a diversified and export-oriented economy. This shows that nations are making sure to have availability of ICT policies to guard against information abuse and data lost.

However the Zambian case is different from Zimbabwe where they are five laws that govern the terrain of information and communications namely Postal and Communications Act (2004), Broadcasting Act (2001) , Access to Information and Protection of Privacy Act (AIPPA) (2002) , Interception of Communications Act (ICA) (2007) and Criminal Law (Codification and Reform) Act (Criminal Code) (2004). Mukaratirwa (2007) find out that among all the laws there is no one law which addresses issues of online access to information. It is therefore imperative that, when a country is adopting and implementing ICT system, necessary legislative frameworks are developed to support such initiatives. This is why in Zimbabwean local authorities there is low level of ICT use. "The success of e- government initiatives and processes are highly dependent on government's role in ensuring a proper legal

framework for their operation (OECD, 2003:48). From the above analysis it clearly shows that ICT policies and security affect the level of ICT utilization in public and private sectors.

2.3.2.2 Infrastructure index

ICT infrastructure is another aspect that can be used to measure the use of ICTs in urban councils. ICT infrastructure is described as the availability of technology in use in the organization. The availability of ICT infrastructure is an important aspect of ICT utilization in urban councils. It include internet facilitates; power supply, digital devices and maintenance of e-service. This infrastructure may also include high end computing infrastructure, fiber optic/satellite/wireless or wired networks and internet gateways (UNESCO, 2005). Various developing acknowledged the importance of ICT in delivery of public service and established African Information Society Initiative (AISI), a framework for building ICT infrastructure. AISI it is an implemented regional ICT strategy aimed at for growth of ICT infrastructure which will increase ICTs utilization in urban. Currently, there is low ICT utilization in Africa due to a challenging gap in ICT infrastructure when compared to the rest of world in relations to chief telephone lines and fixed broadband. Even though, there has been an upturn in mobile phone and citizen's access to internet due to public sector contribution, yet ICT access still continue to be low, (ITU, 2007) , resulting to poor utilization of ICT in service delivery by urban councils.

The element of infrastructure in ICT projects and programs is not only restricted to technological infrastructure but also extend to the energy sector. The presence of electricity is important for performance of ICT infrastructure, thus attentiveness must be paid to the development of infrastructure in the energy sector (ITU, 2009). Zimbabwe does not have a dependable provider of electricity and this has a downbeat e-government project in local authorities. Ruhode, Owei and Maumbe at el (2008:16) cited that "Zimbabwe has a critical shortage of electricity which is one of the inhibiting factors in rolling out ICTs to the whole country". The Rural Electrification Program has made some progress but they are still several isolated areas have no access to electricity and in urban areas there is serious load shedding, which negatively affect ICTs.

Website

This indicator assesses the development of the web existence and the improvement made in the delivery of electronic services. One of the major steps in implementing and utilizing ICTs is designing and

developing a web portal. Ruhode, Owei and Maumbe (2008) stated that, the use of an intergraded website is gradually becoming a significant element of ICT infrastructure. UN (2008) postulated that they are five stages of e-government development which start from the emerging stage and proceed to the final, connected stage. The recent UN e-government survey revealed that all member states now have an online presence, though the majority is concentrated on in the emerging and enhanced stage (UN, 2014). The majority of these web-portals in developing countries is still in the first and second stages, since they are generally informational and simply permit the down loading of documents. This why there is poor ICT utilization in Africa. In developed countries the majority of urban councils are now on the transactional stage in which resident are now able to pay for vital services. This is exemplified by Manchester city council (United Kingdom) its website allows resident to pay for taxes online and they are also able to for other services like birth, marriage and death certificate (Manchester City Website 2014)

Telecommunication infrastructure index

Telecommunication infrastructure index is used to access the conditions of the telecommunication infrastructure in a country. There has been tremendous growth in telecommunication infrastructure Africa but at a sup-optimal rate. However the costs of telecommunication services in Africa are high, reducing the level of use by citizens. According to the UN (2009) the telecommunication services can be measured using five components. These components are;

- The total number of internet users per 100 people.
- The total number of personal computers per 100 people.
- The total number of main telephone lines per 100 people.
- The total number of cell phone per 100 people.
- The total number of broadband per 100 people.

In Africa there is low literacy rate, for instant in Nigeria illiteracy is rife it is about 40% of the population (Ifenedo, 2005) and secondary education enrolment is low (Musari 2004). In addition to generally low literacy level in the country, Nigeria also lacks qualified I.T professions in its local authority. This might

hamper e-governance efforts, as skilled hands needed to develop such services are not readily available. ICT literacy is critical in everything therefore measurements of it and its impact should be reviewed so that its results will yield development in ICT growth. In Nigeria's citizens access internet is very low; this has a native impact on the accessibility of online services provided by urban councils. There are only three million internet users in a nation of more than hundred and fifty million residents, which is a small number of the total population; this is less than one percent of the total population. Internet is crucial for e-services to be effective, but it is of little help with unsatisfactory bandwidth in Africa. Only lately did a few countries in Africa obtained bandwidths more than ten million. In developed states there is effective and efficiency service delivery, due to accessibility of internet even in remote areas. Modern technologies in e-government are more focused on the development of fibre optic networks than traditional cable networks as these tend to allow greater broadband access (World Economic Forum, 2011). The City of Manchester is developing a broadband infrastructure itself, in a very ambitious scheme; as a result the city council is now providing the deprived areas of East Manchester with wireless broadband wide area network (Manchester City Website, 2014). This will enable people in remote area to access the local intranet free and give disadvantaged group access to internet and online services. The United State of America Public report (2012) commented that the literacy rate is crucial for economic leadership and employees who lacks ICT skills has fewer opportunity for personal advancement, and an organization that lacks ICT work force will not achieve its objectives. This agrees with the CSC Report of (2012) which stated that urban councils often lacks in-house expertise and project management skills, Anderson (2010) state that government generally recognize that along with national ICT policies citizens need education or training in new ICT skills if they are to function in the global environment.

2.3.2.3 Human resource capacity

The human capital index comprises of adult literacy rate and the joined primary, secondary and tertiary gross enrolment ratio (UN, 2008). The dimension extends to the capacity of citizens to use ICTs such as computers and also the ICT skills of urban council's employees. It is generally acknowledged that the 'information community' will successful lead to a 'knowledge society'. Citizens and government employees need knowledge and skills to understand and take advantage of ICTs benefit so as to operate ICTs effectively, this will enhance service delivery. Human capabilities powerfully affect polices, practices and systems that influences both employees and citizens attitude and behavior towards the adoption and use of ICT in public service delivery endeavors. ICT literacy is the ability to use digital technology,

communication tools and networks appropriately to solve information problems in order to function in Organisations. This literacy would include the ability to use technology as a tool to research, organize, evaluate and communicate information. It also adds up according to the findings that ICT literacy have a fundamental understanding of the ethical and legal issues surrounding the access and use of information. Therefore it is crucial for users to possess such skills for the effectiveness of ICT usage to improve service delivery in Urban councils.

In Africa there is low literacy rate, for instant in Nigeria illiteracy is rife- it is at about 40% of the population (Ifinedo, 2005) and secondary education enrolment is low (Musari 2004). In addition to the generally low literacy level in the country, Nigeria also lacks qualified I.T. professionals in its local authorities. This might hamper e-government efforts, as skilled hands needed to develop such services are not readily available. ICT literacy is critical in everything therefore measurement of it and its impact should be well reviewed so that its results will yield development in ICT growth. The United State of America Public Sector report of (2012) commented that the ICT literacy is crucial for economic leadership and employees who lacks ICT skills has fewer opportunities for personal advancement, and an organisation that lacks an ICT literate workforce will not achieve its objective. This agrees with the CSC Report (2012) which stated that urban councils often lack in-house expertise and project management skills to undertake major e-government. In addition to ICT skills, Anderson (2010) states that governments generally recognize that along with national ICT policies citizens need education or training in new ICT skills if they are to function in the changed global environment

Therefore, there is need of urban councils to evaluate the necessities for ICT skills, establish how much of this is available in the area under their jurisdictions and come up with an ICT suitable approach to meet ICT skills requirement. Urban cities need to development programs in place to stay competitive, to keep existing services strong and to raise residents' standards of living through delivery of effective e-services. Citizens and workforce requires collaborative and coordinated efforts of various stakeholders with the same objective. In Tanzania the government has undertaken strategies, tactical and operational initiatives to expand the availability to local skills. ICT capacity is a prerequisite of enhancing ICT.

2.4 Case Studies: use of ICTs in urban councils

Two examples have been selected for the discussion and they lay n the sector of ICT in urban councils. The case studies highlight how urban council in developing and developed countries has been implementing ICT to improve service delivery. E-government from Cape Town, South Africa which is a city in developing country context will be analyzed briefly below. This example was specifically chosen

because it is a pilot project implemented in a typical developing country context, and findings will be useful to many local authorities in the same situation. The case study will explicitly show the challenges that developing countries face, but it will also reveal the transformation that ICT projects can bring to local government.

More so, a detailed analysis of Seoul City will be provided, which was ranked the number one digital city for five consecutive years. The details of e-government project will be examined to determine the major factors which lead to the successful implementation and utilization of ICTs, though they are also faced several challenges.

2.4.1 Seoul city e-government

Seoul is the capital city of South Korea, a developed nation. Over the past it has succeeded to build ICT system that is emulated worldwide. The metropolitan of Seoul city is now becoming more oriented to m-government and it is “proactive promoting across the board, mobile oriented administrative services to provide citizens with real time public services anytime anywhere on their mobile devices” (Seoul Metropolitan Government, 2013). This approach aims to offer services to the citizens twenty-four hours a day and seven days a week without limitations. The city has succeeded in building a structure whereby they can offer all important services through mobile phones platforms.

Sophisticated infrastructure and citizen involvement and engagement in e-government projects have led to the success of e-government of Seoul city. Construction of supportive ICT infrastructure is one of the essential steps in e-government implementation and utilization. Seoul city has succeeded in developing its specific telecommunication networks and launched information systems that linked all its public services. It successfully managed to set up 477 types of information systems, which are controlled by the Data Centre (Seoul Metropolitan Government, 2013).

E-government projects and programs require committed individuals from higher offices who can champion their cause. Committed and dedicated leadership must be a priority. Since 2003 Seoul city managed to appoint a chief information officer (CIO) who advocated for the foundation of e-government and, through his leadership they have managed to create an e-government promotion group (Seoul Metropolitan Government 2013).

Seoul city has managed to actively engage its citizens in e-government projects that are tailored to suit the needs of the citizens. The city moved to mobile government after recognizing that the majority of residents were accessing online public services through mobile devices (Seoul Metropolitan Government).

Seoul city has established free wifi access to make sure that citizens have unlimited access to e-services. There about 1057 access points of Wi-Fi that have been build around the city, especially in public places like parks and markets. There are also free mobile charging places that have been established around the city. Efforts have been made to ensure that under privileged groups are not left out in e-government projects and every year the city donates second hand computers to such groups (Seoul Metropolitan Government 2013).

The example of Seoul city gives hope to Harare City Council, indicating that it is possible to build a viable e-government system; many practical lessons can be drawn from Seoul's example and can be replicated in Zimbabwean local authorities with equal success.

2.4.2 Cape Town e-government system

The city of Cape Town is the largest metropolitan city in Western Cape Province. The city is divided into 24 sub councils and 111 wards (Sterwart, 2005). The city of Cape Town is an example of a local government committed to putting ICT to work for social and economic development in Africa.

ICT projects oblige leadership commitment of individual's from higher office that can support ICT implementation and utilization. (Stewart, 2005) cited that in January 2002 the city council commissioned to undertake a pioneering assessment of the digital divided in Cape Town in order to get a view of where its citizen's residents, community and organization stood in terms of current ICT use. The study examined the access, use and need for ICT in Cape Town the study helped the city leaders to measure ICT integration, plan, and for expansion support was required. The process helped the city better connect with citizens to gain a widespread support for the e-strategy the process development. As a result different public and private sector initiatives commenced in Cape Town with related goals of fostering the budding ICT sector (Stewart, 2005).

The penetration of mobile phone, web and social media has deepened to the extent that these channels have gone main strain (Sterwart 2005). The use of mobile web has surpassed expectations prediction. Goldstuck and Wrongski (2011:5) " The egression of mobile government and wireless technologies ranging from first to fourth generation coupled with the integration of internet services has witnessed speedy adoption of these technologies towards the provision of e-services". Hence mobile government has transformed the way urban councils operate by acting as a distribution medium for digital products and information dissemination.

Cape Town has established learning centers in public libraries where disadvantaged groups are helped to use new technologies (Van der Mer and Van Widen, 2010) as a way of improving literacy rate of its residents and government employees. As an exceptional it has linked municipal building with broadband lines. The reason behind is to save cost and to exchange information relating to ICT which improves service delivery.

The ICT project in Cape Town proves success in a developing country perspective. The city of Cape Town primarily encountered the entire problem likely to be faced by developing country local govern. The city lacked resources and skills to fully implement and use ICT as a result the engaged in a strategic partnership with Accentive/SAP to improve its ICT infrastructure any human capability (Van der Mer and Van Widen, 2010).

2.4.3 Comparative analyses

In South Africa, the infrastructure is inferior to that of South Korea. Cape Town claims to be the best wired City in Africa, but however from international perspective, the infrastructure is poor. This is mainly due to the monopoly position of the Telkom, the incumbent telecom operator. Prices are high and the services are poor. Sophisticated infrastructures have led to the success of e-government of Seoul City. Both urban councils have recognized the important of mobile computing. The practice of mobile computing, particularly cell phones, can proof to be valuable as there has been currently proliferation in the usage mobile telephone globally, and especially in Africa, in the past few years (UN, 2012). Mobile government services can be exploited to boost the communication and relationship between resident's and local authorities. ICTs in Cape Town have not been linked with much success compared to that of Seoul city, even though there are some projects and programs which were successful. Several urban council ICT projects are still in the first phase and second stage of ICT development models. Maiga and Nabafu (2012) believe that, "developing nations' lack of success in e-government projects is due to the fact that they are trying to implement e-government according to models of developed mainly for richer countries". These models will not work for developing countries unless they are tailor-made to suit their conditions (Maiga&Nabafu, 2012:288).

2.5 Challenges

There are several problems and obstacles that may hinder ICT, for instant poor communication and poor infrastructure, inadequate of Information ICT expertise and abilities, shortage of skilled employees, reluctance and resistance by residents and council employees drift to digital platforms. Developing countries appear to face various challenges in utilization of ICT compared to developed countries.

(Grunde2009:37) cited that “it is a poorly kept secret in the computer industry that information systems are more likely to fail than succeed, but the failure rate of e-government projects in developing countries is a real and a practical problem”. Estimations of the disappointment rate of ICT developments in developing nations and mostly African countries is rated from 65-85 (Gant 2008). This is because of the current prevailing situation in those countries. Schuppan (2009) stated that less developed nations, particularly those in Sub-Saharan Africa, are weak to guarantee valuable utilization of Information Communications and Technology.

2.5.1 Shortage of skilled human resource

Wheeler (2010) various urban councils in less developed countries are facing a barrier of shortage of trained staffs. Present literature propose that the role of skilled work force influence organization competitive advantage but staff turnover has become of leading obstacle affecting various urban councils Luna-Arco (2008) . The shortage of experienced and trained employees has posed a serious challenge to the utilization and implementation of information communications and technology in African countries local authorities in order to improve service delivery. Bashir et al. (2011) confirm those leaders’ skills and ability to manage ICT tools effectively, and their ability to ensure that ICT infrastructure functions adequately, are vital factors in the success utilization of ICT. The herald November (2012) on ICT environment of Zimbabwe stated that Lack of trained employees in using Information Communication Technologies is the major challenges facing Zimbabwe.

2.5.2 Erratic power supply

Erratic power supply is another obstacle which is hindering ICT in less developed countries. This is supported by Asoga (2011) who cited that, there is an unreliable source of energy in Africa and at time absence of electricity in rural areas. This will definitely obstruct ICT programs, as ICTS are powered by electricity and there is shortage of sustained energy regulatory frameworks that will make sure availability of power (ITU, 2009).

2.5.3 Shortage of finance

Financial resources play an important role in the function of any organization. The main challenge faced by urban councils is that of shortage of finance. Due to this urban councils are failing to implement ICT effectively to improve service delivery (Hamilton 2000). Previous studies have long-established that lack of financial resources support has caused many urban types of council to face sustainability problems in Malaysia (Norizan&Jalaluddin, 2008). The acute shortage of financial been experienced by urban

councils have crippled their ability to provide improved services consistently and has led to lack of using ICTs since some councils do not have enough money to purchase the advanced machinery.

2.5.4 Lack of ICT infrastructure

Lack of ICT infrastructure has a negative impact on ICT utilization. Lack of technological infrastructure required to make e-government function is one of the defining characteristics of developing countries. According to the 2012 UN Survey, one of the challenges that affect the development of ICTs in Africa is lack of infrastructure, and Africa remains at the tail end of the digital divide because of this. Chen, et al. (2006) points out that there is also usually reluctance in developing countries to invest in expensive ICT projects. This view is supported by Kundishora (2010) when he argued that, there is lack of communication and powerful infrastructure in several developing nations. This shortage of ICT infrastructure is mainly due to the insufficient of resources and few available resources have to be used to “feed, house, nurse employ, educate, and protect its citizens instead of investing in technological infrastructure (ITU 2009). According to Mwesige (2003), poor basic infrastructure acts as a bottle neck to ICT implementation and utilization.

2.5.5 Resistance to change

Resistance to the adoption of Information communication and technology is also one of the factors which hinder ICT implementation and utilization. Resistance is considered by Elbber and Van Dijk (2007) as the extent to which new electronic government services from the stage of planning through implementation are obstructed delayed or prevented from making progress by imperial verifiable decisions and actions of actors within urban councils, such as project managers and project team managers, head of departments, councilors and directors. In this study's analysis resistors are those people who are directly involved with development using ICT, as well as those who are eternally work on the implementation of e-services. Thus the definition differ those of Ebber and Van. Divik (2007) articulated that, in the extension of the actors, included in the emphasis of the adoption of ICTs tools as well as in dimension of the considered innovation phase. Thus not only people in the process of formulation, decision making regard ICT but also those who use who are within the organization can resist and the service seekers (residents), resulting in the failure to successfully implementation ICTs are viewed as service tools in local authorities.

2.6 strategies to improve ICT implementation and utilization

2.6.1 Public private partnerships

Effective ICT utilization requires partnership with the private sector. The Effective use and diffusion of ICTs in local authorities comprises of a cooperative, inclusivity and vibrant capacity building Mansell and When (2008). For example Manchester city council which is one of the best wired urban council in the world that has partnered with a Consortium of ICT Fujitsu and Deloitte (Stewart 2005). This procedure is said to permit urban councils to tap into specialized skills of private companies, for instant financial and skilled human resources. OCED (2003) in concurrence with this postulated that, partnership also minimizes the need to raise adequate financial resources upfront prior to utilizing a service.

In agreement UNESCO (2005) stipulated that, an effective cooperation and partnership between government agencies and the industry/private sector bodies lead to an easy achievement of ICT objectives. Kundishora (2010) also indicates that inadequate public private partnership is one of the obstacle in less developed nations especially Africa, hence urban councils should look for ways to partner with private companies so that they can fulfill their objectives. Public private partnership provides a stepping stone in sourcing of funds which are scarce in public sector, this in turn will assist urban councils in implementing and utilizing ICTs.

2.6.2 Committed leadership

ICT projects and programs requires devoted and committed. Cloete (2012) points out that, for ICT projects to be operational, it is essential for decision makers in local authorities to acknowledge, that ICT is an essential for development and not basically a luxury. If this awareness is made by senior officials in urban councils then they can successful ICT projects. E-government in Seoul City was successful due to leadership commitment. Since 2003 Seoul city managed to appointed a chief information officer (CIO) who has advocated the foundations of e-government and, through his leadership, they have managed to create an e-government promotion group (Seoul Metropolitan Government ,2013). Hence leadership commitment is a critical component of ICT in order to inspire and break down hindrances to change,

2.6.3 Training of personnel

The general environment of ICTs it entails lot of skilled ICT personnel. Wheeler (2005) articulated that training of personnel in ICTs is an obligatory so that they can be able to use modern ICT tools. This therefore obligates local authority's staff to be equipped with the innovation knowledge on the use of advanced ICTs so as to improve public service delivery to the citizens. Presidents of Kenya in 2012 at the national e-learning program articulated that all citizens in Kenya should be computer literacy. In South

Africa Cape Town has established learning centers in public libraries where disadvantaged groups are helped to use new technologies (Van der Mer and Van Widen, 2010), as a way of improving literacy rate of its residents and government employees. This is supported by Anderson (2010) when he cited that, government of different nations have accepted that citizens and employees needs training skills if they are to function in the transformed global environment. Training institutes like universities, private colleges and training organizations can be a solution to sustain urban council's employees and citizens with relevant knowledge, skills and vast experience in a local community.

2.6.4 Increasing awareness to the citizens

Increasing awareness to the public on the use and benefits of E-Governance system is another strategy which can be employed by urban councils to improve ICT utilization. According to Saugata (2007), lack of awareness from the public has crippled the functionality and usage of e-governance system. He further postulated that in some cases especially those resides in rural communities or geographically isolated regions are not aware or fortunate to access to the use of advanced technologies equipment. Residents in rural areas and other disadvantaged communities need to be exposed to the digital economy so that they are not isolated or marginalized.

2.6.6 Existence of an e-government vision and Sustained budget

In many urban types of council in developing states there is absence of any vision or strategy on ICT (Heeks, 2001:18). For any ICT project to be fruitful requires a vibrant vision and mission and a sustained budget. This is concurs by Sharref, et al (2010) who argued that, a clear vision pave way for ICT implementation. Objectives and strategies on how to attain vision and mission must be laid out. Therefore there must be a robust organization ICT vision and strategies. Effective ICT utilization will definitely requires a vibrant budget precisely allocated for that purpose.

2.7 Summary

This chapter has demonstrated that ICT as a tool to improve service delivery can be effectively used by urban councils to create and maintain relationships with their citizens in order to achieve effective, efficiency, transparent and accountability in service delivery. Thus, literatures were reviewed to understand the performance of ICT in urban councils. Literature review was conducted based on the main research questions of the study. Although ICT provides several benefits, its adoption in urban councils has faced different challenges. Examples were drawn from Cape Town (South Africa) and Soul City (South Korea), to demonstrate how ICT operates as a service delivery tool in urban councils. This

chapter has provided the researcher with the insight of major items to be studied. The next chapter will look on the methodology to be used in this study.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

The chapter provides a general concept of undertaking the study. In other words the research methodology is outlined in this chapter. Numerous methods have been employed in the process of gathering data so as to explore the use of ICTs in the City of Harare. The research design is outlined, giving details on how the research was undertaken. Justification of the sample which was used is provided and the instruments used to collect data. Data was collected using questionnaires and interviews since it is a case study. The findings of the research are going to be presented, analyzed and discussed in chapter 4 through both qualitative and quantitative approach (mixed method approach).

3.2 research design

Research design is defined by Copper and Schindler (2008) as a plan or a structure for examination so as to acquire answers to research questions. The study took a mixed approach technique. The design forms the general pattern or programs of the study. It encompasses the framework of what the researcher undertakes to do from writing the hypotheses and operation effects of the final analysis of data collected through research instrument.

3.3 Research approaches

An applied research method which comprises of qualitative and quantitative approaches was used known as mixed method approach. According to Scandelowsk (2003) a mixed methods approach incorporate qualitative and quantitative approach, where critical characteristic are retained. The study used mixed approach so as to strengthen the study by offsetting the weakness of qualitative and quantitative techniques.

3.1. 1 Qualitative research

Qualitative approach is defined by Creswell (2004:21) as “qualitative approach is one in which the inquirer often makes knowledge claims based primarily on constructivist perspectives, that is the multiple meanings of individual experiences meanings socially and historically constructed”. Knowledge gained through qualitative investigations is more informative, richer and offers enhanced understandings compared to that which can be obtained via quantitative research. This will enhance the researcher to gather vital data. More so qualitative design is highly-focused and flexible. It contains evolving questions and procedures, information specifically collected in the informant’s setting. Seemingly qualitative research makes available meanings and interpretations tied to actions thus an individual behaviour portrays how these are interpreted and enlightens on the motivators which connect attitudes and behaviour. As a result qualitative research design is of paramount importance in defining attitudes and feelings.

3.1.2 Quantitative research

Quantitative methods describe the phenomena by measuring or quantifying and this involves the use of questionnaires and interviews or any other method that may result in the quantifying of data. Quantitative research includes numbers and statistical manipulation and analysis. Creswell (2004) is of the opinion that a quantitative approach is one in which the researcher primarily uses post positive claims for developing knowledge that is cause and effect thinking, reduction to specific variables and hypotheses and questions, use of measurement and observation, and the test of theories, employs strategies of inquiry such as experiments and surveys, and collect data on predetermined instruments that yield statistics data. This method was employed because there is strength in numbers and its ability to change data into quantifiable charts and graphs.

3.4 Targeted population

According Harper (2008) a targeted population is a group of people from which data is collected. It also refers to the total populace of respondents to whom the research can be generalized. In this case the

targeted population was 50, which comprised of 26 employees, 2 managers, 3 councilors and strictly 19 residents of City of Harare. City of Harare has a total population of more than two million. Residents were nominated because they are the recipients of the services offered by HCC. ICT managers and employees from different department were selected since they are the upholder of information system and they are the service providers.

Table 2: Targeted Population

Category	Population	Sample	Sampling technique
Managers	72	2	Purposive
Employees	7000	26	Random
Citizens	2 000 000	19	Random
Councilors	46	3	Random
Total	2 007 118	50	

Source: researchers own

3.5 Sampling

Sampling is process of the research were the researcher choose to study only a fragment or a subset of the targeted population. Sampling is a well-defined by Harpes (2008) as a group of items selected from the population for examination. Sampling is classified under two categories that are probability and non-probability.

3.5.1 Sampling techniques

Locke et al (2010) defines sampling techniques as the process for selecting the group of people which will represent the large population. In this research both random and purposive sampling methods were applied to select a sample of 50 participants from employees, councilors and residents of Harare.

3.5.1.1. Random sampling

Random sampling is a process of selection where each member of the population has an equal chance to be selected (Adams and Schvaneldit, 1991). Random sampling was used in selecting residents and employees. In this case 46 pieces of paper were prepared in the selection of citizens by ward, in which each was written a name of the ward. The piece of papers were sealed and put in a hat, in which they were mixed well and afterwards nineteen pieces of papers were randomly selected to obtain 19 wards.

This gives residents in all wards equal chances of being selected therefore this stimulated high representative as residents' population was high.

Random sampling was also employed in selecting employees so that every department was represented. Names of all employees from various department were written on equal pieces of paper with the same shape and were shuffled in a box. Afterwards the twenty-three names were picked out of the box. This gives equal chance to all HCC employees in all departments.

Merits

- ❖ Greatly representative if all subjects in the Council participate in the selection criteria which provide for equal opportunity for every employee to be selected during the research.
- ❖ Results can be generalized for the sample, as the sample selected will be representing the interests of others from the council in matters of addressing the issue of ICT use and its impact in service delivery which the research is focusing at.
- ❖ Gives everyone a chance of being selected to participate in the research as names of people will be picked from the box thus giving every employee equal access to be selected.

Demerits

- ❖ Selected units might be spread over a large geographical area thus it becomes costly as names are provided for from all departments of the Council.

Drawing a simple random sample can lead to inappropriate numbers of what the research will be looking for since there is limitation of participants from the Council

3.5.1.2 Purposive sampling

Purposive sampling refers to sampling method which permits the researcher to use his or her own judgment to select participants who will best, and their response will enable the researcher to answer research questions and objectives (Saunders et al 2009). A purposive sampling technique was applied to select managers and councilors, so as to select participants who were directly involved in ICTs and well versed in this area of study.

Merits

- Sample size is small thus saves time, this is because the people to be selected in the research at HCC that have the knowledge about the research are few.

- Permits the researcher to use people, who have good grounds and knowledge in the research area concerned, thus people with knowledge on ICT use were selected to participate in the research.
- Produces exactly what is needed in some cases. This is so because the focus will be to look for employees at HCC who are adequately equipped with information and actively participate in the issues to do ICT utilisation.

Demerits

- Purposive sampling does not produce a sample that is representative of a larger population. People are judgmentally selected thus other general employees of the council will not be equally represented in the research.

Table 3.2: Sample size (50)

Category	Population	Population sample
Managers	72	2
Citizens	2 000 000	19
Councilors	46	3
Employees	7 000	26
total	2 007 118	50

Source: Researchers own

3.6 Sources of data

There are two main sources of data that is primary and secondary sources. The study is going to make use of both secondary and primary sources.

3.6.1 Secondary data

Secondary data is well-defined by Saunders et al (2009) as data that have already been gathered for other reasons. In its broadest term it is defined as review of data collected by someone else. The researcher made use of different sources of data such as journals, books and existing records of the institution so as to come up with a sound historical background of corporate governance and challenges faced by HCC in implementing and utilizing ICT. It also assisted in collecting data about the network connection to every department. Never the less secondary data is exposed to individual bias and checking up its validity and reliability can be a challenge. However in order to assure reliability the researcher will also make use of primary data.

3.6.2 Primary sources of data

Primary data is illustrated by Makore-Rukuni (2001) as the initial raw data collected by the researcher at the point where it was generated. Two primary data collection instruments were used in this study are questionnaires and interviews. Primary data collection was the paramount asset of the research; this is because primary sources are the central source which enhances reliability and validity compared to secondary source. It also validate hypothesis to answer research question by establishing the connection between variables under study.

3.7 Data collection instruments

Several data collection tools can be employed in data collection depending with the nature of the study. The researcher applied a mixed method technique. The study will use self-administered questionnaire and interviews as research instruments to gather data.

3.7.1 Questionnaires

A questionnaire is defined by Jankowicz (1995) as a set of questions designed to generate necessary data so as to accomplish the objectives of the research project. The study used questionnaires because they can be accessed by all participants in the sample so as to gather appropriate information. The questionnaires are cheap as they permit the researcher to collect data from a large sample at a relatively low cost (Pickard, 2007). According to (Sekaran 1992) questionnaires are not restrictive as they can be open ended, the respondents will be able to answer without any boundaries. They can also be closed ended; hence they can be structured in a way that participants answer in a way that seeks specific facts, opinion and attitude. The opened ended provide an opportunity to gather qualitative data.

3.7.1.1 Advantages

- Questionnaires are cheap. In this study they are cheaper to the researcher because the population under study has a large population of more than two million. This is supported by Bryman and Bell (2011) who argued that, self-completion questionnaires are cheaper to administer particularly if the researcher's sample is geographically widely dispersed.
- Questionnaires permit anonymity and therefore respondents were free to answer without fear of victimization which increases the response rate and the researcher obtained 90% respondents rate.
- The researcher made use of closed questions which were easy to administer, easily coded and analyzed, allowing quantification and produce fully completed questions while avoiding irrelevant respondents (Scrantakos, 2005).
- Since the research is a mixed methods approach, the researcher also employed opens ended questionnaires which are qualitative in nature. They allow time, space and free from response

which invite participants to share their understanding, experience, as well as their reactions on the area under study. However

3.7.1.2 Disadvantages

- Lack of interaction between the researcher and participants in this study makes the findings susceptible to misinterpretations, which can result in accurate findings. In this in mind the researcher prepared user friendly questionnaires which were understood easily by the respondents.
- Open ended questionnaires give a variety of response which was difficult for the researcher to analyze. With this in mind, the researcher asked in a way that directs participants into definite channel without actual suggestions (Payne 1951)
- They are also prone to low response rate. Some of the participants were providing inaccurate information so as to please the researcher. The researcher also used secondary data sources to verify some of the answers so as to ensure reliability and validity of the findings.

3.7.2 Interviews

Interviews are defined by Wenger (1999) as an exercise in which there is conversation between interviewer and interviewee for the purpose of eliciting data from the participants through direct questions. This can either be carried out through face to face or over the phone. This research is going to use face to face interviews where the researcher interviews selected sample of City of Harare. Walsh (2001) notes that in making preparations for interviews, the interviewee works out a set of questions in advance but they can also be adjusted in the middle of the conversation. The researcher will employ unstructured questions to collect data for the project under study. Unstructured questions give the researcher flexibility because they are an open situation. Hence interviews assist the researcher to clarify points and enhance the research findings.

3.7.2.1 Advantages of interviews

- Interviews allow the interviewee to control the data collection atmosphere which results in serious commitment from the participants.
- Room for clearance can be given as they will be room for probing for details on sensitive issues and unexplained issues.
- Face to face interviews present the opportunity to alter one's line of question. Participants were asked more information from their response and the researcher attuned.
- There is great room for responses

3.7.2.2 Disadvantages

- They are time consuming for a large number of interviews as the sessions differ in length. In this case it took time to interview HCC employees and residents since the willing participants provide information unlimitedly.
- Some employees at HCC were unwilling to participate as a result their information about the research was not provided for.

3.8 Ethical Consideration

It is noted that the study has to be ethical so as to guarantee authentic, valid and reliable of the research. Some ethical principles guided the research throughout the whole study. The researcher acknowledged this as ethical guidelines; henceforth take in account the following among others.

- The researcher will inform the participants on why the study shall be conducted. In this regard the study will be guided by the principles of informed consent which views it unethical to collect data from people without informing them why the study was conducted. Researcher will give the purposes and a brief description of the benefits reasonably to be expected. In order to address this researcher will ask the participants to fill in consent forms.
- The researcher will not force the participants to participate, they voluntary contributed and the will be given the room to withdraw if ever they decided during the process of data gathering.
- The names of the respondents will stay unspecified and data collected will be treated confidential. No names will be written on the questionnaire and during interviews.

3.9 Reliability of data

Reliability is concerned with consistence of measures. According to Copper and Schindler (2007) reliability has to do with the credibility, accuracy and precision of a measurement procedure. To determine the reliability of instruments, similar set of questions would be included on questionnaires given to respondents. The instrument produced the same result when repeated several times to be considered reliable. Reliability seeks to evaluate the instrument, in terms of how accurate and

consistent the instrument is to the target group. The members of staff in Harare City Council were assumed to have knowledge and skills on the use of ICT to enable them to answer questions in the questionnaire

3.10 Validity

According to the study of (Pack of Research Methods and Techniques 1998:339) validity is described as the extent to which correct influence can be made on the basis of the findings obtained from the research instruments. Validity is an effort to establish the measure the research instruments used by the researcher on its appropriateness for the research under investigation. It measures the link between two variables. Leery (1989) articulated that, validity is concerned with the effectiveness and soundness of measuring instruments. Testing the validity the researcher wanted to confirm degree at which the instruments measure what it is intended to measure.

3.11 Pretesting

The research instruments were to be tested before wide distribution to the employees and residents of Harare City. Pretesting indicates the workability and the capability of questionnaires and interviews to collect the intended data. White (2005) argued that to ensure validity of the research instruments there is need to pretest them on the selected sample and make necessary rectification before being used into the field. It provides guidelines in rewording the questionnaires soon as to empower residents to answer the questions. The pretesting of instruments once more provides an indicator on the level of understanding on information communication and technology of correspondents on the problem under review.

3.12 Data Analysis and Presentation

Several methods of data presentation shall be applied. It shall be presented in the form of texts and tables. These will provide for a systematic analysis of data from which research findings and conclusions will be drawn. The analysis shall also be assisted by the literature obtained from secondary data sources.

3.13 Summary

The chapter has established the research design for the study and its justification. Both qualitative and quantitative methods were applied. The target population for the research incorporated the citizens of Harare City only but from various wards, senior management and junior employees of Harare City

Council. Data was primary collected from the targeted population through interviews and questionnaires and presented, analyzed. The sampling technique appropriate for this research was also identified as random and purposive. The following chapter will provide detail the presentation of findings and discussion. In this chapter data collected from both secondary and primary is presented in qualitative and quantitative term and possible interpretation and meaning of findings are prepared.

CHAPTER IV

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

The emphasis of this chapter is to present and analyze data that was obtained through primary and secondary source. The research will make an effort to come up with interpretation and analysis of the data gathered through these two sources. The findings were based on sub-questions which will result in discussion and the interpretations of findings of the study. The data will be presented and analyzed in tables, graphical presentation, illustration and narration. The graphical demonstrations have an additional advantage of increasing and emphasizing on certain phenomena where the use of narrations falls short of conveying the message. In other words, the chapter provides detailed understanding about Information communications and technology in Harare City Council.

4.1 Data presentation process

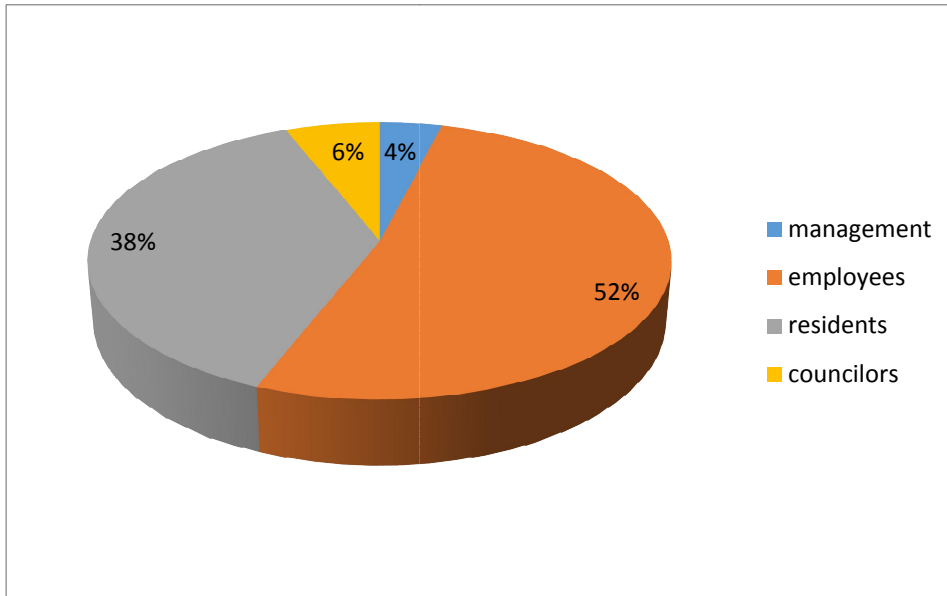
Table 5 Questionnaire respondent rate

Questionnaire	Quantitative	Percentage
Hand delivery	50	100%
Valid return	45	90%
Non response	5	10%

Source: HCC Field Research 2016

Questionnaires were distributed to the selected participant of city of Harare. A systematic follow up on distributed questionnaire was carried out resulting in 90% valid return. This is a satisfying response rate. Figure 3 shows the respondents who partake in the study are shown below.

Figure 2: Percentage of participants



Source: HCC Field Research 2016

Figure 3 illustrates the percentage distribution of participants of Harare. It is important to note that the majority of respondents were employees whose information helped clarify issues the utilisation of ICT and the challenges they are facing in implementing ICTs. The rest are equally relevant stakeholders as they all have a bearing on ICTs.

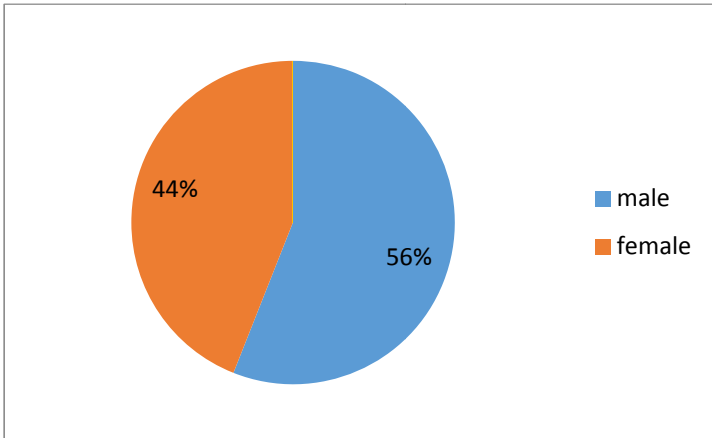
4.1.2 Personal Data of Respondents

Table 6

Distribution of Participants of City of Harare by Gender (n=50)

Participants	Male	Female
Management	2	0
Employees	17	9
Residents	7	12
Councilors	2	1

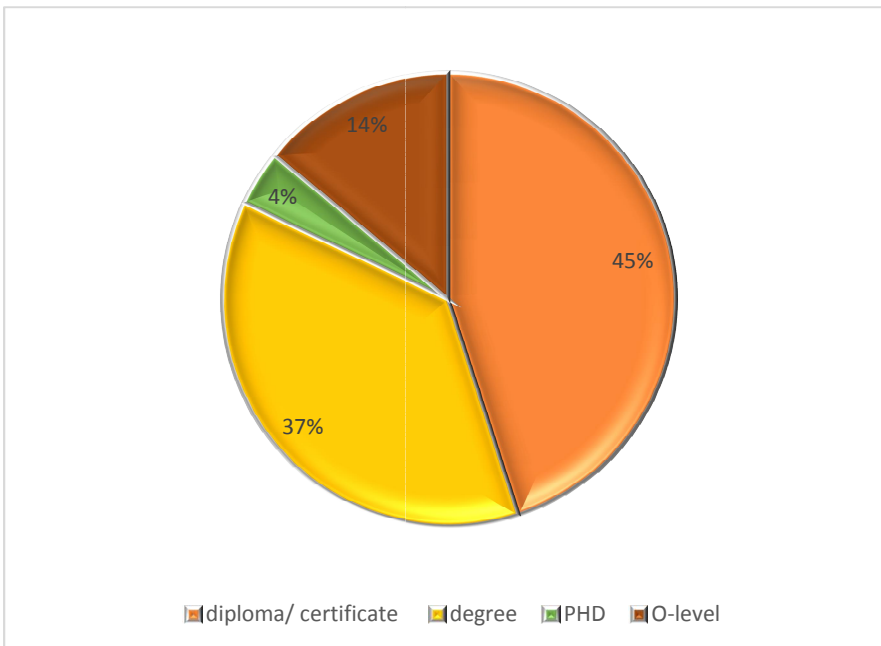
Figure 3: total percentage of participants by gender



Source: HCC Field Research 2016

The findings in figure 4 reveal that 56 % participants were male and 44% participants were femals. This is a reflection of a reasonable average gender balance. These gender statistics therefore shows that the views gathered are fairly representative of gender.

Figure 4: distribution of respondents by education



Source: HCC Field Survey 2016

The level of education

Figure 5 above shows the level of education of respondents, have at least a certificate, degree, o-level and PHD. Among the respondents 14% have o-level, 45% where diploma graduates / professional certificate, while 37% where degree holders and 4% have PHD. Education is a fundamental variable in the utilization of ICT, as it assists in understanding and appreciation of ICT in urban councils. Highly educated persons are creative, innovative and adaptive to the changes within the organization. Hence the study tries to find out the level of education of the respondents. Generally the level of education of respondents was high which is likely to have a positive impact on the comfort of ICT use. However the results do not expose whether such levels of academic also reveal the resultant of ICT literacy rate.

4.2 The link between service delivery and ICTs.

Table 7: e-services offered by HCC (n=50)

e-services	frequency	percentage
Payment of taxes	35	70%
Bidding tenders	15	30%
Health information	7	14%
Housing services	10	20%
Job advertising	25	50%
Bills inquiries	27	54%
Payroll	15	30%

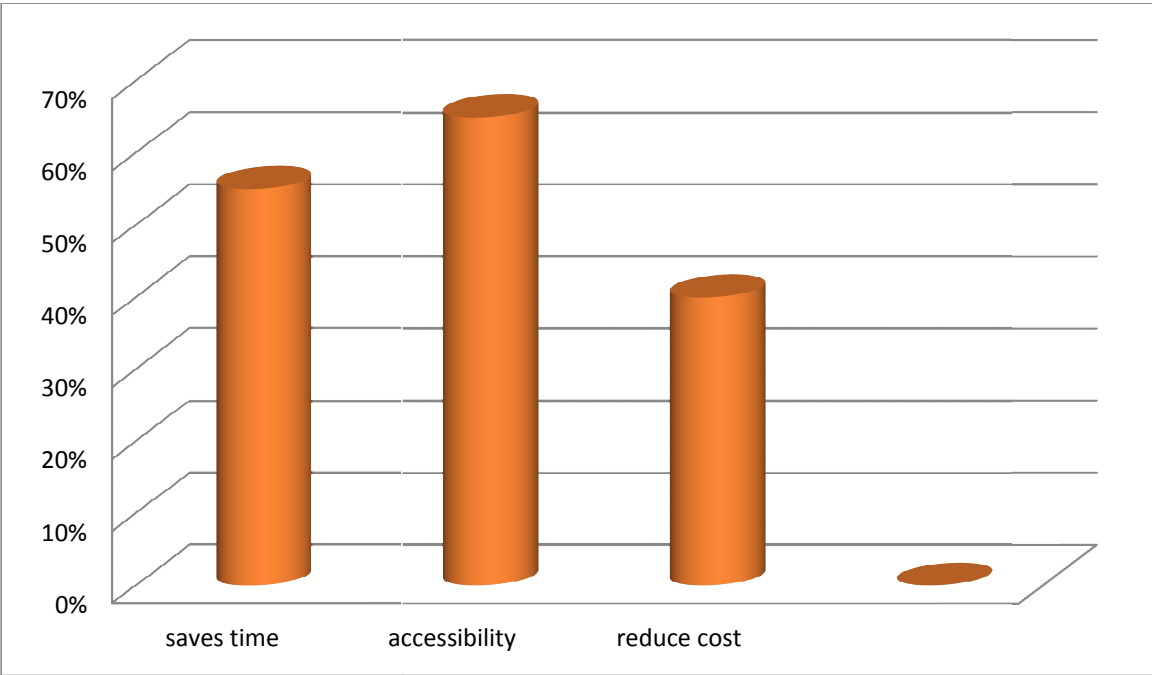
Source: HCC Field Survey 2016.

The table 6 provides a summary on the nature of e-services offered by HCC. In this case, the e-services offered to the residents were 8 in total. From the findings the researcher observed that ICT services were used greatly for job advertising, bill inquiries and tax payments. However, on the basis of the above discoveries, majority of the respondents approved that there were very limited service from HCC that are provided to the residents through the use of ICT. This entails that very limited public service are offered at HCC are delivered electronically. This is because of the financial constraints and

inadequate ICT infrastructure. Adequate ICT infrastructure and financial resources are associated to the effectiveness of e-services.

4.2.2 The impact of ICTs in improving service delivery

Figure 6: ICTs Improve service delivery



Source: HCC Field Research 2016.

4.2.2.1 ICT enhance effective and efficiency in service delivery

The findings in figure 6 show that 55% of the respondents indicated that ICT saves time and 40% revealed that ICT reduces cost. The findings show ICT improves efficiency and effective in service provision. Hence effectiveness in this research was defined in terms of accessibility of services, saves time and cost reduction.

The findings in figure 6 reveal that 55% of the respondents indicated that ICT saves time. Employees who were interviewed cited that, *HCC structure are bureaucratic in nature, ICT improves effective and efficiency in service delivery as ICT save time from bureaucratic procedure, which are long and time consuming.* Some participants highlighted that ICT had enhanced efficiency in managing business permits, rates and miscellaneous billing and have assisted in saving time to get these services.

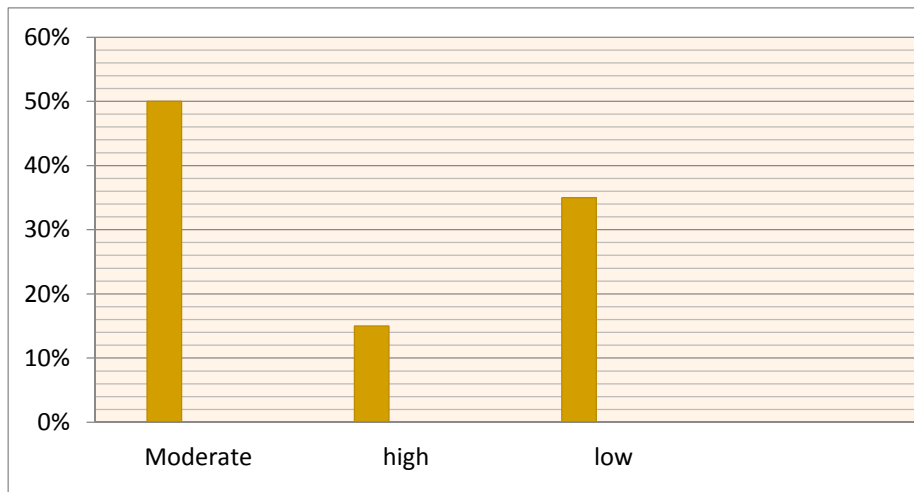
65 % shows that ICT improves accessibility of services. The respondents stated that, they are now able to access some of the services twenty-four hours a day and seven days a week, even those in remote areas. This is the same with the in remote areas of Ginnack in Gambia where nurses in municipal clinics make use of digital camera to record patient’s symptoms and send the image electronically for diagnosis in a nearby town or city by more experienced doctors so as to gain a specialist view (World Bank, 2010). In agreement with the above Leither (2004) stipulated that e-government is a system of public administration practice of ICTs to increase access to services to benefit citizens, employees and management of local bodies. Therefore ICT extend services to isolated areas, and allow dissemination of information in both ways thus, permits residents in remote areas to participate in decision making.

40% revealed that ICT reduces cost. The participated cited that ICTs improve effective since they helped to reduce costs of seeking services, decrease the need to visit to the office and ensured procedural fairness which has resulted in the reduction of personal favors when seeking services.

4.3 The extent of ICT utilization in service delivery by Harare City Council Networking

4.3.1 The extent of network connection at HCC

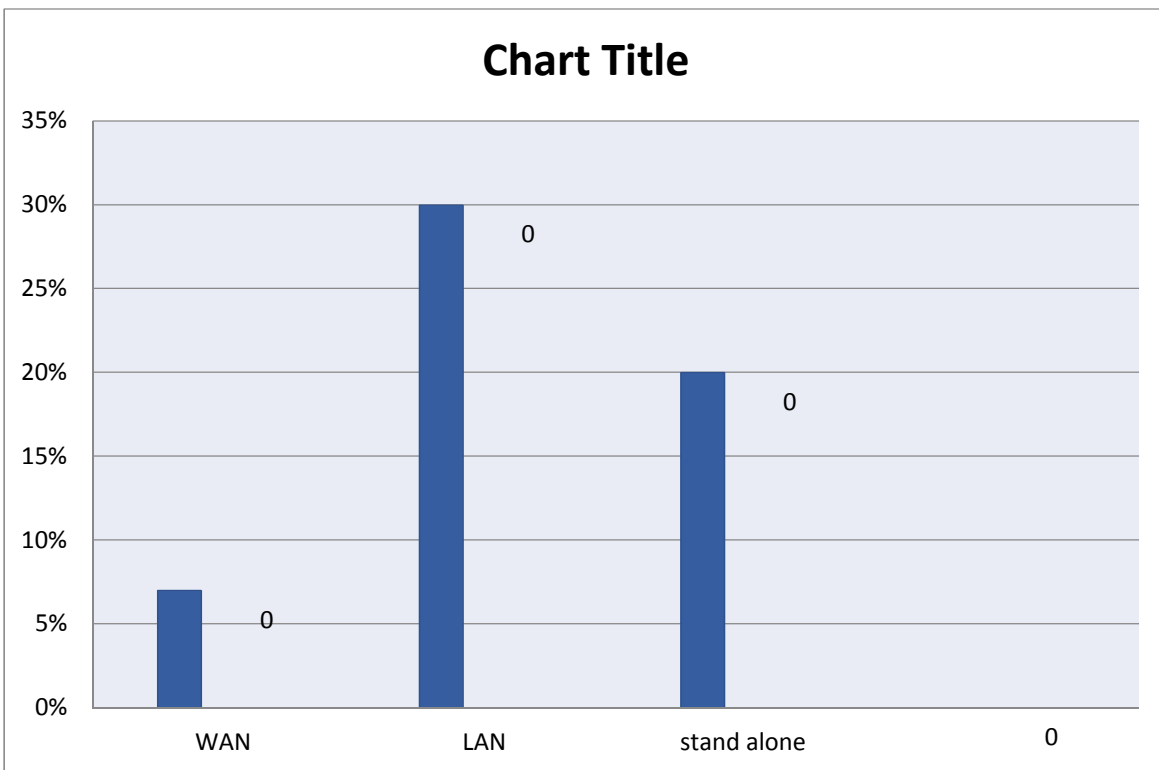
4.3.2 Figure 6: the level of ICT usage



Source: HCC Field Survey 2016.

In figure 6 it can be noted that 50% of the respondents indicated that in HCC there is moderate use of ICT. 15 % of the participants revealed that network connection in HCC department is high. The participants explained that there is high network connection in ICT department, since most of their work require internet. However 35% showed that there is low net work connection. One of the respondents pointed out that, networking is quiet serious component for ICT management and utilization. This is supported by Gichoya (2009) who stated that, for any urban council to be in advance with technology, network play a critical role, since networks are chief means to enable information dissemination among the council and residents. ICT department the connectivity was available to a large extent.

Figure 7: Network work systems available at HCC



Source: HCC Field Research 2016.

4.3.1.2 Network work systems available at HCC

According to the findings on the figure 8 above 7% of the respondents pointed out that in their work place there was the installation of wide area network (WAN), 20% of the respondents indicated that there is local area network (LAN) and 20% stand alone. This shows that at HCC is installing ICT

infrastructure to improve ICT utilization in the provision of public services. Basing on the above analysis it can be argued that HCC embarked on a project to establish a wide area network, it allows urban councils to run effectively regardless of the distance barriers that may exist in service delivery. A WAN allows an organization to run effectively regardless of the distance barriers that may exist. This also affects the capabilities of local authorities to provide effective e-service to residents.

4.3.2 Access to ICTs

Table 7: House hold access to ICTs in Harare

ICT access	yes	No
cell phone	98%	2%
Internet facility	20%	80%
Land line	35%	65%
radio	80%	20%
television	96%	4%
computer	30%	70%

Source: HCC Field Research 2016.

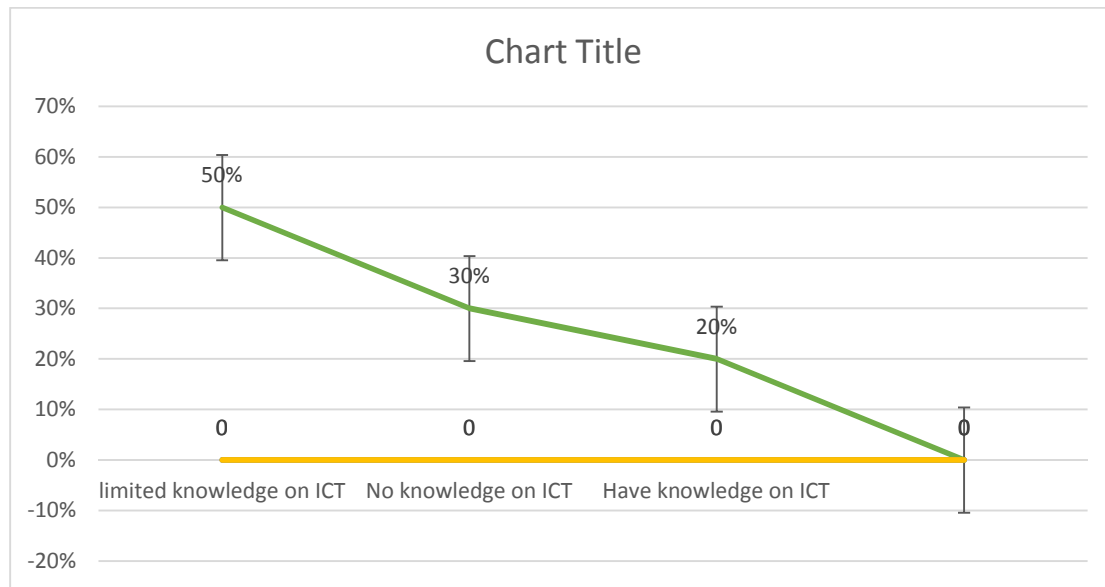
The table 7 above shows the percentage of house hold access to ICTs tools. The table shows that 98% of the respondents have accesses to mobile phones and only 2% of the respondents have no access to mobile phones. One of the residents highlighted that, they are now able to pay for their water bills using mobile phone through eco cash.

The findings also reveal that 20% of the respondents have access to internet facilities either and 80% of the participants have no access to internet facilities. One of the manager explained that, *having access to internet at household level is a requirement for ICT obligation as it enables workers and residents to interact effectively*. Unfortunately the findings show that 80% of the respondents do not have access to internet facilities. The respondents indicated that there is limited internet access for the citizens in Harare. This is similar with Nigerian case; were citizens' access to internet is very low. There are only three million internet users in a nation of more than hundred and fifty million residents, which is a small number of the total population; this is less than one percent of the total population. The majority of

resident's relays on cyber cafes which are expensive for ordinary people, taking into account the economic status of the nation, many citizens cannot afford the expense.

80% of the respondents indicated that they have radios and 20% did not have. Table 7 reflect that 35% have access to landline and 65% do not have, 30 % have computers and 70% do not have computer.

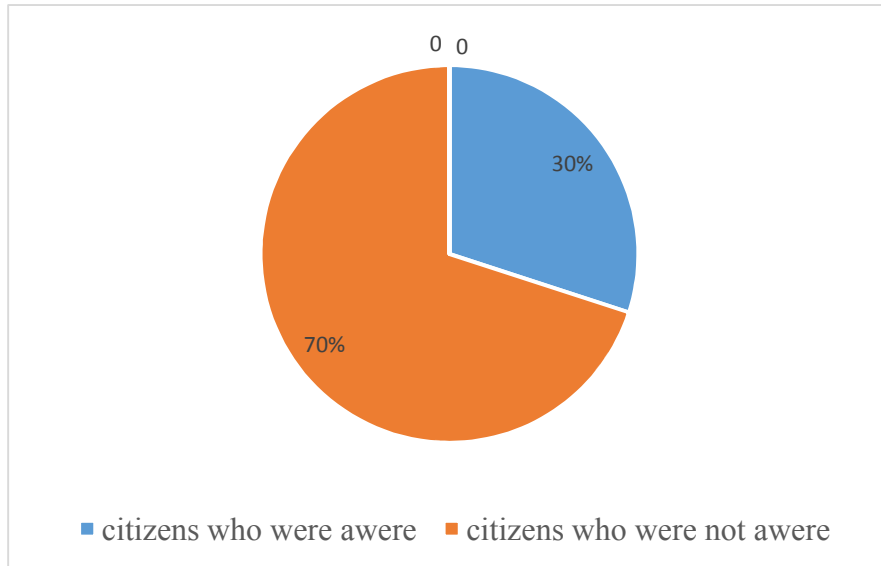
Figure 9: ICT literacy rate



Source: HCC Field Research 2016.

Figure 9 shows that 20% of the respondents are ICT literate, 50 % had limited knowledge and 30% have no knowledge about ICT. Low literacy according to Cloete, Wissink and de Coning (2000) will surely affect the success of ICT implementation and utilisation in lesser developed countries. Some of the reasons cited by the respondents were of lack of technological expertise. One general employee who was interviewed explained that, the ICT literate rates is low because there is no any form of awareness or education that takes place at community level regarding ICT utilisation and its benefit. According to (Saugata, 2007) awareness to the public is crucial since they are the end user thus there is need for awareness campaigns. This awareness can be done in various ways, for instant, through meeting, workshop, trade fairs and awareness campaigns.

Figure 10 Percentage of residents who are aware of the HCC website



Source: HCC Field Research 2016.

The figure 10 above indicates the total percentage of the residents who acknowledged the existence of HCC websites. During the field research it was noted that 30% of the respondents were aware of the HCC website and 70 % were not aware. Respondents who were interviewed highlighted that they were not aware of the website because the website for HCC was implemented in June 2012 and it was never officially launched. Thus the residents were not informed about the website. If websites are designed carefully and openly, they can be valuable resources for transparency as citizens, businesses and other stakeholders as they will be able to see political and governmental information, rules and policies (Stahl, 2005). Earlier it was often necessary to go directly to governmental offices to obtain information, but now this information should be available on the web (Malhotra, 2001).

4.4 Challenges faced in utilization of ICTs

Figure 11: Percentage of ICTs constraints

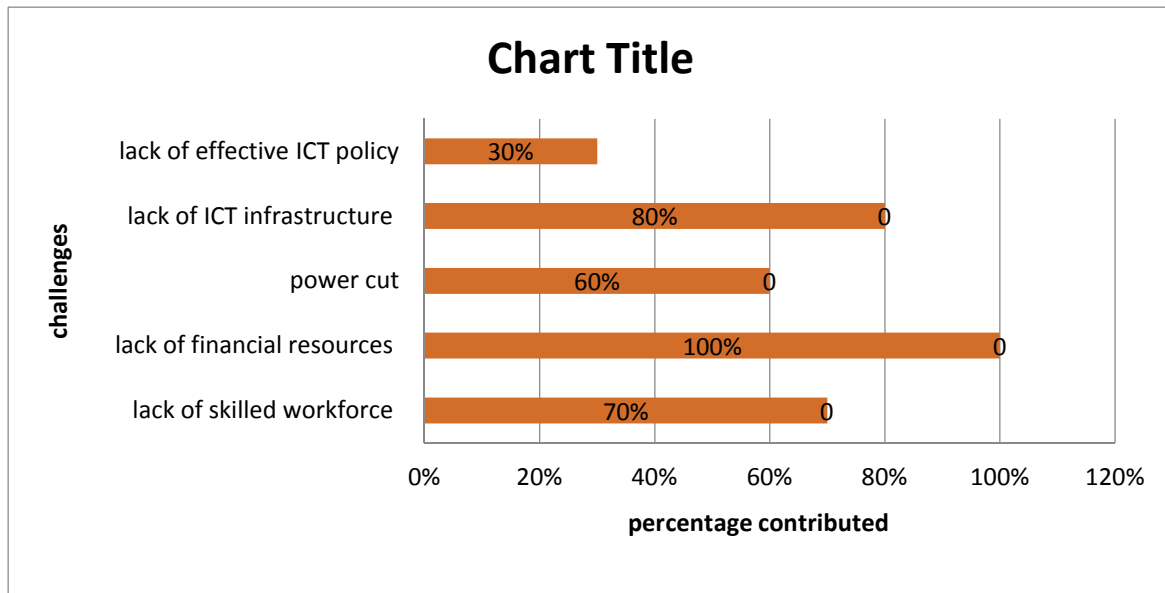


Figure 11 above shows the range of challenges been faced by Harare city councils in implementing and utilization ICT as a service delivery tool. The figure 11 shows the challenges that have made it difficult for urban councils to utilize. The findings reveals that 80% of the respondents agreed that there is lack of ICT infrastructure , 30% of the respondents mentioned lack of effective ICT policy , 70% lack of skilled workforce, 100% lack of financial resources and 60% revealed power cut as another challenge encounter by HCC. The

4.3.3 Lack of ICT Infrastructure

The challenge that Harare City Council is facing as an urban council is lack of ICT infrastructure as shown by figure 11. 80% of the respondents from management and employee mentioned that scarce ICTs infrastructure is a challenge encountered by the council. Respondents who were interviewed cited that HCC's ICT infrastructure needs rectifying if any significant ICT implementation and utilization is to be carried out. According to the 2012 UN Survey, one of the obstacles that have a negative impact on development of ICTs in Africa is poor infrastructure, as a result Africa remains at the tail end. In support to this Mwesige (2003) argued that poor basic ICT infrastructure act as a bottle neck to ICT implementation.

4.3.4 Shortage of Power supply

Respondents were asked whether the regular ICT operations were affected by load shading and 60% of the respondents approved that it is affected by load shedding. The infrastructure element also encompasses the energy zone, as access to electricity is a requirement for ICT functioning infrastructure (ITU, 2009). The respondent mentioned that Harare has an unreliable power resource. This goes to around 2007 when load shedding was introduced. It deteriorated to the point of power cuts for up to twenty hours. On the contrary however in the study site visited it was found out that the organization has continuous supply mechanisms via generator, but only at the main offices.

4.3.5 Lack of skilled workforce

Data gathered from the questionnaires revealed that HCC is also experiencing the challenge of lack of skilled workforce and knowledge in developing nature of ICT system. The findings in figure 11 show that 70% of the respondents mentioned this challenge. In this agrees with City of Harare (2012) which cited that HCC identified their depleted workforce as one of the challenges they are currently facing. One general employee explained that there is lack of skilled workforce due to the economic meltdown in 2008; the local authority lost many of its competent and skilled personnel who have vast abilities and knowledge on ICTs to Western countries and neighboring countries in search for greener pastures. According to the participants only a few ICT skilled employees were left behind. In this agreed with (ADB, 2012:1) which cited that “Zimbabwe was properly resourced with ICT workers in the past but due to its economic crisis there has been a major ‘brain drain’ that has left a significant gap in the ICT sector”,. This resulted resulting in shortage of ICT personnel.

4.3.6 Lack of ICT policy

The findings also reviewed that lack of ICT policy in Zimbabwe is another challenge affecting the utilization of ICTs by Harare City Council. 20% of the participants cited this problem. Misuraca (2007) believes that “a proper regulatory framework is needed in order to enable secure information exchanges”. Thus HCC is facing inadequate support from the central government so as to entirely take aboard the advantage of ICTs to enhance service delivery to the citizens.

4. 3.7 Shortage of financial resources

Shortage of financial resources is one of the major challenges faced by HCC’ the findings also revealed that 100% of the respondents cited the challenge as the major challenge. The respondents cited that

HCC is experiencing acute shortages of finance that they do not have enough money to purchase the advanced machinery and this has crippled their ability to provide improved services consistently. As a result Harare City Council has been failing to utilize ICTs tools effectively to enhance service delivery. Previous studies have long-established that lack of financial resources support has caused many urban types of council to face sustainability problems in Malaysia (Norizan&Jalaluddin, 2008).

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The chapter has discussed and analyzed data collected, laying out main findings. On the whole there is overwhelming indication that ICTs have improved organization performance. Numerous obstacles and benefits have been highlighted. The most disturbing finding is financial constraints, and poor ICT infrastructure. The research also stipulated strategies to mitigate mentioned obstacles for instance public-private partnership.

This Chapter consists of summary, conclusion and recommendations. The recommendations are based on the findings of the research. As indicated in chapter one, the aim of the research was to explore the utilization of ICT in Harare City Council as a service delivery tool. It is the researcher's belief that the recommendation will go a long way to improve service delivery through effective utilization of ICTs. The researcher also believes that the recommendations will go a long in resolving the challenges to utilization of ICT in Harare.

5.1 Summary

Chapter one was an introductory chapter of the study. The study paid a particular focus on City of Harare in an area covering 46 wards. The study was prompted by low ICT utilization and poor service delivery by Zimbabwean local authorities which is on decline characterized by erratic water supply and poor revenue collection. Thus the introduction of ICTs creates opportunity for its use to enhance service delivery. The chapter presented the background of the study underlining utilization of ICTs in local authorities and their bearing on organization performance, paying particular attention on City of Harare as a case study.

The study provides guide lines for ICT utilization for urban councils. As it provide a better understanding on the link between service delivery and information communications and technology in urban councils. ICT is a new phenomenon in urban councils in Zimbabwe, there has been attempt to explore ICT components in order to improve the relationship between local authorities and citizens through the provision of effective service delivery using ICT as a service delivery tool.

The research faced some constraints in obtaining data since some respondents had very negative attitude towards the study itself stating that what they require is development and services not being asked some questions. Most of these respondents are the ones who were assured that their outstanding salaries would be cleared off and that never happened. Their frustration was be understood by the searcher and they can assured that the research is meant for improving service delivery and their inputs would be of great importance

To get an insight of the study, the researcher reviewed literature of various scholar in the field of ICT utilization. Discussed the impact of ICT as a service delivery tool in urban councils. The discussion was guide by four major objectives. The research looked at the relationship between service delivery and ICT. The extent of ICT utilization in service delivery by urban councils. The study went on further to discuss challenges that impedes ICT implementation and utilization and strategies to overcome come these challenges. Two case studies from Seoul city (South Korea)and Cape Town (South Africa) were employed. Examples from other countries such as South Korea, Germany, Nigeria and Morocco were employed to show how other urban councils are implementing and utilizing ICT in their urban governance system.

Mixed method technique and a research design was employed. A sample of 50 participants from a total population of more than two million was selected, using stratified random sampling and purposive sampling. Questionnaires were employed as research instruments. All the questionnaire distributed were, returned presenting a study response rate of 100%. 100% response rate highlight validity and reliability of the research. In order to address the issue of reliability and validity the questionnaire where pretested.

The chapter has discussed and analyzed data collected, laying out main findings. Table, graphs and charts were used in presenting the findings of the study. On the whole there is overwhelming indication that ICTs have improve organization performance. Numerous obstacles and benefits have been highlighted. The most disturbing finding is financial constraints, and poor ICT infrastructure. The research also stipulated strategies to mitigate mentioned obstacles for instance public-private partnership.

Conclusions

Literature on ICT was analyzed majoring on four areas

Objective 1. The link between ICT and service delivery

The findings indicate that there is a positive link regarding service delivery and information communications and technology. From the findings it is clear that ICTs improve service delivery. This is compounded by the fact that more than 50% of the participants agreed to the fact that ICT has improved efficiency, accessibility and effectiveness in service delivery. The improvement in service delivery was also observed as respondents agreed that e-services are time effective. The study has analyzed the effectiveness of ICTs in terms of improved service delivery from organizational and customers' point of view. Despite the vast advantages of ICTs, little is shown in Zimbabwean urban councils. There are very few services which are offered electronically. If HCC was providing more e-services then the customers' visit to council would have reduced largely and customers would have more benefited. The research indicates that the average response of HCC employees and residents towards the impact of ICTs in delivery of services is positive but the degree of assertiveness varied, whereby unlike council employees, citizens viewed "effectiveness" in a moderate manner. With these findings, it can be said that the impact of ICTs on service delivery can be established by both organizational factors and customer's aspects.

Objective 2 the extent of ICT utilization in service delivery

The findings of the study revealed that there is moderate use of ICTs in the city of Harare as the respondents have little knowledge of ICTs. There is also limited access to internet for residents in Harare. There are developed telecommunications networks in the private sector that offer high speed internet access for instance Netone, Econet and Telecell but considering the economic conditions of the country, many residents cannot afford the cost. The ICT literacy rate is low according to the findings of the research. Education and training is viewed as being crucial to address e-readiness of ICT usage. It means that the organizational website does not provide all the necessary information, for instance, when the organization started using e-services, how is it progressing, how to use it. According to the findings, the majority of residents who are the service seekers are not aware of HCC website. This has a negative impact on the extent of ICT utilization as the creation of a website allows the offering of basic services to residents through the internet.

Objective 3: challenges of utilizing ICTs

The researcher concluded that the City of Harare is facing serious challenges and these entail lack of ICT infrastructure, lack of leadership commitment, shortage of skilled ICT personnel to fully utilize ICTs tool to

improve service delivery. HCC have failed to build viable leadership for ICT implementation and use.

5.2 Recommendations

1. Lack of financial resources according to the findings is the major challenge affecting the utilization of ICTs at Harare City Council, thus it should extended public private partnership and city twinning initiatives to the ICT sector so as to ensure that Council can acquire financial resources and other resources from partnership. HCC managed to twin with Munich (Germany). Munich has developed an e-government system that is at a transactional stage. Their website is well developed and contains much necessary information to its residents. Hence HCC must arrange for programme exchange with Munich so as share ideas of how they managed to develop their e-government system.
2. City of Harare should build on their human development resource development initiatives so as to ensure continuity of ICT by retaining the skills and knowledge that the local authority has in its ICT department. This ensures that skills are not lost through brain drain and various labour turn overs.
3. It should also carefully come up with awareness campaigns and training programmes in ICT skills for its residents so as to provide them with vast knowledge and understanding on ICT.
4. HCC must invest in m-government. Mobile government has been accepted by various urban councils in developing and developed countries. Local authorities are now coming up with strategies to developing their m-government. In Harare, statistics pointed out that 98% of the internet is accessed via mobile devices according to the research findings. It is therefore advisable for HCC to develop an effective m-government strategy. M-government can improve ICT utilisation, as the council can be able to send notification to residents through their mobile phones instead of printing out account bills at the end of each month and not having employees to deliver them from house to house which is time consuming and tiresome .
5. Central government should made significant progresses towards ICT utilization by implementation effective ICT regulatory framework and setting up a wide area network that links all local authorities throughout the country so that ICT system can be a viable initiative in improving service delivery.

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APPENDIX 1



MIDLANDS STATE UNIVERSITY (MSU)

SOCIAL SCIENCES

LOCAL GOVERNANCE STUDIES

Questionnaire for Harare City Council employees

My name is Valentine Nyahunzvi. I am a student studying Local Governance Studies Degree at Midlands State University of Zimbabwe. I would like to ask you if you would be so kind as to complete this questionnaire. The data collected will be used in connection with my dissertation only. My research is focused on “evaluating the utilization of ICTs in urban councils as a tool to improve service delivery: A case Harare City Council. May you kindly assist by completing this questionnaire and send back to the researcher? Please put a tick to indicate your choice of answer

SECTION A: Demographic information

1. Sex:

Male

Female

2. Age group:

A. 18-30 year's b. 31-40 years. c. 41 – 50 years .51+ years.

3. What position are you currently occupying at Harare City Council?

a. Senior Management

b. Management

c. Employee

d. If others specify.....

Section B

The link between service delivery and information communication and technology (ICT).

4. Which services do you offer in your department?

5. From the services mentioned above which of the services do you offer electronically?

Services	Yes	No
Planning		
Salary		
Bills inquiry		
Billing systems and processing of billing		
Birth registration		
Disaster Management		
None of the above		

6. Which services can also be offered electronically?

.....

.....

.....

7. Has the utilisation of ICT facilitate for effective service delivery

Yes [] No []

8. If yes how often do you use ICT TOOLS?

Very often [] often [] sometimes []

Section B

the extent of ICT utilization service delivery.

9. Do you have access to ICT tools

ICT Access	Yes	No
Computers		
Electronic mail		
Internet		
Social media		
Word processing		
Mobile phone		

10. ICT role performance in job execution

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
ICTs have eased your working procedure					
Can work more due to ICTs services					
Customer crowd in offices has decreased due to use of ICT tools					
ICTs are prompt and efficient					
ICTs have helped to save time from bureaucratic proceedings					

11. What is the extent of network connection to every department?

Greater extent	Neutral	Less extent

11. Has the use of ICT improved organizational performance?

Yes [] No []

If yes explain your answer

.....
.....
.....

12. Has the utilization of ICT benefited your stakeholders?

Yes [] No []

If yes please explain your answer

.....
.....

Section C: ICTChallenges

13. HCC is facing the following challenges in the utilisation of ICT Please indicate the degree of agreement by ticking the most applicable to you.

Challenges	Agree	Disagree
Poor ICT infrastructure		
Lack of skilled workforce		
Power cut		
Lack of ICT policy		
Lack of financial resources		
All of the above		
None of the above		

14. How can the challenges be eliminated. Please indicate the degree of agreement by ticking the most applicable to you.

Strategies	Agree	Disagree
Partnership		
Sustained ICT budget		
Legal framework		
Twinning		
Committed leadership and training of personal		
All of the above		

15. What are your concluding remarks regarding ICT utilization in HCC.

.....

Appendix 2

SECTION A: DEMOGRAPHIC INFORMATION

1Sex:

Male

Female

2Age group:

A.18-30 year's

b. 31-40 years.

c.41 – 50 years

.51+ years.

Section B: the link between service delivery and ICT utilisation

3. Has the implementation of ICTs improve efficiency in service delivery

	Yes	No
Save time		
Accessibility of services		
Efficiency and effective		
Reduces delays		

Section B: utilization of ICTs in service delivery

4. Access to ICTs to household

ICT Access	Yes	No
Cellphone		
Internet facility		
Landline		
Computers		
Radio		
Television		

5. Indicate the degree of your agreement with the following statement

ICT Skill	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
I can start and shutdown a computer					
I can use an internet/email					
I can use word processing					
I can use spreadsheets					
I can use databases					
I can use PowerPoint					

6. Are you aware of the Harare City Council Website?

Yes [] No []

Do you think the website will enhance service delivery and assist in the dissemination of information to the residents?

.....

.....

.....

.....

.....

7. In your opinion do you think ICTs can be the best alternative for urban councils?

.....

.....

.....

Section C: ICT Challenges

8. HCC is facing the following challenges in the utilisation of ICT Please indicate the degree of agreement by ticking the most applicable to you.

Challenges	Agree	Disagree
Poor ICT infrastructure		
Lack of skilled workforce		
Power cut		
Lack of ICT policy		
Lack of financial resources		
All of the above		
None of the above		

Thank you