

**THE ROLE OF ICT IN PROMOTING PUBLIC SECTOR GOVERNANCE IN
TANZANIA: THE CASE OF THE MINISTRY OF NATURAL RESOURCES
AND TOURISM**

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TANZANIA: THE CASE OF THE MINISTRY OF NATURAL RESOURCES
AND TOURISM**

**By
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**A Dissertation Submitted in Partial fulfillment of the Requirements for Award of
the Degree of Master of Public Administration (MPA) of Mzumbe University**

2013

CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation entitled: **Promoting Good Governance in the Public Sector in Tanzania through ICT: A Case of the Ministry of Natural Resources and Tourism**, in partial/fulfillment of the requirements for award of the degree of Master of Public Administration of Mzumbe University.

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DEAN, SCHOOL OF PUBLIC ADMINISTRATION AND MANAGEMENT

DECLARATION AND COPYRIGHT

I, Thomas Safari, declare that this thesis is my own original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

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DEDICATION

I dedicate this work to my wife Josephine John Gobry for her endless encouragement, support, care and love and my children Loema, Loveness, Daniel, David and Maria for their love, care and prayers.

ABSTRACT

Tanzanian public sector is challenged to promote good governance through ICT. Thus effective use of ICT as a tool for promoting good governance is believed to have a significant impact for the public organizations in policy implementation and thereafter realization of goals and objectives.

This study aims at understanding the role or contribution of ICT as a management tool in promoting good governance in the public sector organizations. In this regard the study is set to fulfill the following objectives: i) To identify the role of ICT adoption and use in governance in the Ministry of Natural Resources and Tourism; ii) To identify and assess the extent to which the available possibilities for employing ICT may improve governance in the Ministry of Natural Resources and Tourism and iii) To establish the relationship between quality of services and ICT use in the Ministry.

In the course of realizing the objectives of this study, the research employed questionnaires, observation and interview as the data collection methods. These methods were in line with the research design aimed at in this study. The research design which was seen as appropriate to this study was ‘a Case Study’. Thereafter the data and information collected was analyzed using computer Microsoft Excel Program.

The study revealed that despite having the legal and policy framework for ICT and appreciation of the role of ICT in the public sector organizations as a means for promoting good governance, still there are some challenges that limit the effectiveness of ICT in the course of promoting good governance in the public sector in Tanzania. Such challenges include inadequacy of well skilled technicians and/or computer system analysts, unreliable power supply (electricity cut-outs), lack of technical know-how, lack of modern equipments, spare parts and anti viruses, level of education of most employees (users), poor technological infrastructure, capital (cost of maintenance), and lack of priorities (readiness) as a result of political interference in technical and administrative matters.

Therefore, it is recommended that it is high time that the ideal of the legal and policy framework should be adequately reflected in the reality. That is the government should now give priority to ICT if it really means that it to be a tool for promoting good governance in the public sector.

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ABBREVIATIONS

ADB:	African Development Bank
ADB:	Asian Development Bank
GDP:	Gross Domestic Product
ICTs:	Information and Communication Technologies
IRMT:	International Records Management Trust
LDGs:	Least Developed Countries
MDA's:	Ministries, Departments and Agencies
MDGs:	Millennium Development Goals
MNRT:	Ministry of Natural Resources and Tourism
MPA:	Masters of Public Administration
PSRP:	Public Service Reform Program
SFM:	Sustainable Forest Management
SOPAM:	School of Public Administration and Management
UK:	United Kingdom
UNDP:	United Nations Development Programme

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CHAPTER ONE

1.1 Introduction

Over the last two decades we have witnessed increased use of Information and Communication Technologies (ICT) by the public administrators as a facilitator for good governance, along with private sector applications. The main focus has been on the refinement in the legal and policy implementation process model and economic efficiency. The pre-dominant aspects of employees' participation/involvement, transparency, responsiveness and accountability, cost effectiveness, efficient delivery of services or customer satisfaction, were of an economic orientation.

1.2 Background of the study

The rapid developments in Information and Communication Technologies (ICT) have a profound impact across all sectors of human life. Broadly defined, ICT covers any product that stores, retrieves, manipulates, transmits or receives information electronically in a digital form. It includes computers, the rapidly changing communication technologies (radio, television, mobile telephone, and internet), networking and data processing capabilities, and the software for using the technologies. ICT is a general-purpose technology that has wide applicability in various sectors. It has strong spread effects and extensive linkages with the rest of the economy by imbuing greater information and development content in products and processes. ICT provides new and faster ways of delivering and accessing information that can improve productivity and earning opportunities, provide effective ways for communication create new jobs and bring about improvement in the delivery of education, health and other social services (Lwoga et al, 2005).

This work surveyed the conditions for the use of ICT (Information and Communication Technologies) in Tanzania. Both the factors determining good governance at the Ministerial level and their relatedness to ICT were examined in

order to increase knowledge on this relationship. Important aspects that were considered include: participation/involvement, transparency, responsiveness and accountability.

The Government is committed to good governance as the key requirement for attaining the Millennium Development Goals (MDGs). The Tanzania Development Vision 2025 envisages a nation imbued with five main attributes: High quality livelihood; peace, stability and unity; good governance; a well educated and learning society; and a strong and competitive economy capable of producing sustainable growth and shared benefits.

On the other hand, the national ICT Policy has articulated ten main focus areas in harnessing ICT in Tanzania which include strategic ICT leadership; ICT infrastructure; ICT Industry; Human Capital; Legal and Regulatory Framework; Productive Sectors; Service Sectors; Public Service; Local Content; and Universal Access.

It is also noteworthy that Vision 2025 explicitly includes ICT by noting, “The new opportunities that ICT is opening up can be harnessed to meet the goals of the Vision”. Therefore this ICT Policy is a reflection of national goals, objectives and aspirations as expressed in Vision 2025, setting out digital opportunities that Tanzania can exploit towards meeting the Vision 2025.

Tanzania’s Public Service Reform Programme (PRSP) Phase II recognized the opportunities in ICT and challenges presented by information and communication technology (ICT). PSRP activity had focused initially on promulgating the national e-Government Strategy; interventions likely to be included were: developing capacity, building infrastructure, providing official information through websites and creating a legal framework of ‘cyber laws’ with regulations and standards. Key enablers to support e-Government include privacy, security, transparency, interoperability, records management and preservation of

information. Underpinning Tanzania's aspirations for e-government was a national ICT Policy, approved by Cabinet in March 2003. Policy objectives for the 'Public Service' envisaged the Government as a model user of ICT, and supporting ICT to promote good governance, transparency and accountability. (IRMT, 2007).

The Public Service section of the Policy recognized the 'capture, preservation and dissemination of relevant government records and archives' as a challenge. In practice, there remained a risk that MDAs were still able to pursue their own initiatives and objectives.

However, the government is eager to invest in ICT as it has noted that ICT is a development facilitator that promotes ICT culture and general awareness. For the sustainability of ICT in the country, the government is also eager to involve private sector by sourcing some of ICT services to ICT investors and building relationship with manufacturers and designers.

1.3 Problem Statement

Some of Public Institutions in Tanzania have made remarkable progress in deploying ICT. This progress has been well received by employees and service providers who are striving to address unmet demands and competitions in newly liberalized markets.

There are weaknesses in the quality of leadership, planning, organizing and delivery of services. These weaknesses are a result of poor classification of information in public institutions. Sometimes information that is necessary for customers to know are termed as confidential or secret unnecessarily and as result there are no transparency and stakeholders' involvement or participation since they cannot access necessary information.

Given the above facts, many employees, especially in public institutions, do not have adequate skills and Knowledge on how to operate computers and other ICT equipment. Older people, including some decision-makers, find it hard to grasp the potential of ICTs to transform their areas of activity.

However, earlier studies from researchers, academicians and institutions have proved that the use of ICTs can make decision making more dispersed yet, at the same time, more informed and transparent. However, many of the benefits of ICT and responsive governance will require a new kind of expertise and the development of more sophisticated knowledge management systems. Reforms will also require development of organizational climates that encourage openness and participation rather than control (United Nations 2005).

In spite of big strides made on promoting good governance and accountability through ICT, Tanzania is still facing challenges on how to foster effective, efficient, reliable and sustainable national ICT infrastructure commensurate with grass-root needs, and compliant with local, national, regional and international standards, with increasing access while reducing cost. Still there is a problem of adequate of well skilled personnel, unreliable power supply, lack of technical know-how, lack of modern equipments, spare parts and anti viruses, poor technological infrastructure, capital, and lack of priorities (readiness). Therefore, this study will bridge the gap that exists while focusing on the role of ICT in promoting public sector governance in Tanzania

1.4 General Research Objective

The objective of this study was to understand the contribution of ICTs in Promoting Good Governance in the Ministry of Natural Resources and Tourism.

1.5 Specific objectives

1. To identify the role of ICT adoption and use in governance in the Ministry of Natural Resources and Tourism.
2. To identify and assess the extent to which the available possibilities for employing ICT may improve governance in the Ministry of Natural Resources and Tourism.
3. To establish the relationship between quality of services and ICT use in the Ministry.

1.6 Research Questions

1. What is the role of ICT in governance in the Ministry of Natural Resources and Tourism?
2. How does the status the status of ICT implementation in relation to governance at the Ministry of Natural Resources and Tourism looks like?

1.7 Significance of Study

The significance of the study is to:

1. Improve public understanding on the role of ICT such as data storage and retrieval, communication and decision making, easier and fast payment, communication and decision making, awareness creation and participation, employment, leadership, gaining experiences and improving skills in the achievement of organizational objectives.
2. To improve literature on public sector ICT in Tanzania whereby the study has made a clear note that despite the government has acknowledges the role and relevance of ICT in public sector operations and governance in specific, still there is a lack of setting ICT as a priority for the governance.

3. To fulfill the MPA requirement by conducting field research as a mean to gain more knowledge and experiences from the real working environment.

1.8 Limitations of the Study

In conducting my field research, I encountered some problems which in one way or another limited my efforts. These include:

Financial Problem: Since I was a student who fully depended on the funds provided by my sponsor, shortage of the same lead me to put extra effort to accomplish the study. However, I managed to complete my research within a given time.

Time Constraint: It took hardly six months for field research and under serious practical training, preparation of proposal, data collection and report writing the time was not much enough although I also managed to complete my study within the required time.

Organization restructuring: The Ministry made some changes in its structure by allowing Forestry and Beekeeping Division to become a new government Agency known as Tanzania Forest Services (TFS) aiming at improving its efficiency in revenue collection as well as conservation of Forest and Beekeeping resources. From these changes TFS introduced new Zonal offices and most employees from the Headquarters were transferred to these zonal offices. Therefore, I could not manage to collect data from 157 respondents as proposed earlier and instead I managed to collect data from 97 respondents who were drawn from the total population of 297 employees based at the head office. However, this study was not affected with the changes happened in the structure of the Ministry as I could managed to get information from 32.7% of the total population remained at the headquarters.

Reluctance to fill questionnaires: Some respondents were reluctant to fill questionnaires and as result it cost me much time to complete my study. They were

not ready to waste their time even though they have time and by doing so it is very difficult to get important information or data that could be used for the intended study. I managed to talk to them as a mean to create awareness on the importance of filling different academic questionnaires and that is why and how I got information from them.

Taking part in interview questions: At the beginning questionnaires were planned and prepared for all respondents, but due to lack of time for Ministerial top management officials, I opted to interview one Director and two Assistant Directors as a mean to get information from them. This interview was done and their information is included in the data analyzed and presented.

1.9 Delimitation of the Study

This study mainly focused on the role of ICT in promoting public sector governance in Tanzania, The Case of the Ministry of Natural Resources and Tourism. However, the problem understudy, research objectives and questions, population and variables chosen for this study were suitable for the area of study selected as it can represent other public institutions.

1.10 The Organization of the report

This report was written in chapters whereby chapter one consists of introduction and information to research, chapter two contains Literature review, chapter three research methodologies, chapter four contains findings, data analysis and presentation and chapter five contains conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter involved many activities including identifying, reading, evaluating, describing, summarizing, discussing, citing, and synthesizing various documents (literatures) with information related to the problem under investigation with an intention of incorporating them in the study.

2.2 Literature Review

The study mainly focused on the Role of Information and Communication Technologies in promoting public sector governance in Tanzania, the case of the Ministry of Natural Resources and Tourism (MNRT) head office.

2.3. The Concept of Good Governance

Good Governance may be defined as comprising the processes and structures that guide political and socio-economic relationships, with particular reference to "commitment to democratic values, trusted services and just and honest business", when there are fewer troubles in a country and the country seems to be peaceful (Agere, 2000).

Means a situation where "government should be owned by citizens at large and be efficient and effective in meeting the economic, social and political needs of the society (Mgonja, 2006).

2.3.1 Understanding Governance: Meanings and key elements

Governance: It comprises all the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights and obligations and mediate their differences (Brillantes Jr., 2005).

Key elements of governance include:

Democracy is a form of government in which all eligible citizens participate equally either directly or through elected representatives.

Effectiveness is the capability of producing a desired result. The degree to which objectives are achieved and the extent to which targeted problems are solved.

Efficiency in general describes the extent to which time, effort or cost is well used for the intended task or purpose. The comparison of what is actually produced or performed with what can be achieved with the same consumption of resources (money, time, labor, etc.) <http://www.businessdictionary.com/>

Representation means acting in place of, or standing for another party by an authorization or legal right through (1) an agent or proxy on behalf of a principal, (2) a counsel on behalf of a client, (3) an administrator or executor on behalf of a deceased, (4) an elected representative in a legislative body on behalf of the electorate in his or her constituency.

Participation: Refers to the involvement of citizens in the development process. It also refers to different mechanisms for the public to express opinions and ideally exert influence regarding political, economic, management or other social decisions.

2.3.2 Understanding good governance: Meaning and key elements

Good governance: Means a situation where “government should be owned by citizens at large and be efficient and effective in meeting the economic, social and political needs of the society (Mgonja, 2006).

Key elements of good governance:

Accountability: The obligation of an individual or organization to account for its activities, accept responsibility for them, and to disclose the results in a transparent

manner. It also includes the responsibility for money or other entrusted property.
<http://www.businessdictionary.com>

Participation: Refers to the involvement of citizens in the development process. It also refers to different mechanisms for the public to express opinions and ideally exert influence regarding political, economic, management or other social decisions.

Transparency refers to the availability of information to the general public and clarity about government rules, regulations, and decisions. It can be strengthened through the citizens' right to information with a degree of legal enforceability (Asian Development Bank, 1995).

Responsiveness: Refers to the specific ability of a person or leader, system or functional unit to complete assigned tasks within a given time. It also refers to the ability to identify both the explicit and implicit needs of people he/she interacts with and uses his/her understanding of those needs to try and fulfill them, whenever required.

2.4 Relevance of good governance in public sector

In all countries citizens entrust governments, the public sector and state enterprises with their tax money and the resources of their country to manage the public good, present and future, and to provide essential services and infrastructure. It is this element of trust that is supposed to be in line with good governance.

There must be **sustained and committed leadership** that embodies the core values of good governance. Direction starts at the top. Leadership can make good governance become a reality. When senior management is committed to transparency, participation, integrity and accountability and lives by these standards, it will set the tone for staff.

Integrity sits above everything. If everyone in an organization acts with integrity there will be no room for corruption. Staff will be hired on merit and professional competence not because of whom they know. All payments will be properly recorded; all decisions will be made based on judgment not graft. **Respect** for one's own work, for one's client and for one's co-workers.

Transparency, participation and accountability: Information is power. For the majority of public institutions or state enterprises this will rarely be the case. People should always have the information accessible to hold their institutions to account.

2.5 Models or Theories of Good Governance in public sector

The New Public Management Theory

The new public management theory involves managing an organization by introducing private-sector management methods and incentive structures into the particular organization. Advocates of this theory believe that introducing private-sector methods and incentive structures into international organizations will increase the efficiency of these organizations. They derive their inspiration from market economics, rather than democratic theory.

Applying the new public management theory to international organizations would require running the organizations like a private business. This involves two aspects. First, international organizations may apply traditional private sector management techniques such as: (1) Clear standards and measures of performance, (2) results-based management techniques, and (3), a focus on the bottom-line.

Second, international organizations may adopt portions of the corporate governance theory that structures private businesses.

In particular, international organizations could seek inspiration by looking at how Anglo

-American corporate governance theory separates the roles of each participant in the corporation.

This theory is applicable in public institutions in Tanzania particularly in the Ministry of Natural Resources and Tourism as one of the Ministry that collaborates and having partnership with different national, regional and international private sector agencies in conservation and management of the country's natural resources.

2.6 Role of ICT in governance: Linking ICT and good governance.

Historically, Information Communication Technologies (ICT) has been facilitating the public sector managers to achieve good governance in terms of cost effectiveness and economic efficiency. The ICT is not simply an effective mode of economic efficiency but in addition, it is equally and effectively capable of ensuring the legal process; check on public managers in policy implementation, and catering the need of public involvement and participation.

Information and Communication Technologies (ICTs) hold great potential to transform citizen participation and service delivery tracking and influence government decision-making and execution. Frameworks like '**Wananchi portal**' which is an initiative that allows Tanzanian citizens to contact their government, can positively impact citizen-government engagement and be used as a tool to amplify citizens' voices. However, there is still little empirical evidence on the ways in which ICTs interact with the unique structures and practices characterizing good governance. Lately, the terms governance and good governance are being increasingly used in development literature, although the concept of governance has been around in both political and academic discourse for a long time. The cornerstone of good governance involves high quality service delivery, quick and efficient response mechanisms, easy access to necessary resources, and high civic engagement.

Good governance is not yet achieved in its totality in Tanzania today. If Tanzanians are to attain sustainable economic and social development, all must work together towards this ideal with the aim of making it a reality. The Government must lead other supporting members, such as the local administrators in the different counties, to the individuals who will identify the biggest issues at the grassroots level and communicate these issues to the Government.

Innovations in the ICT sector can extend human capacity and help in attaining good governance. It is important to remember, nevertheless, that such innovations cannot replace human communication. Thus, it is vital to understand the balance between use of such ICT tools and the limitations. Research is needed to understand the participatory value-add of such technology platforms and the real effect on improving governance.

The successful implementation of sustainable hybrid governance requires supportive ICT infrastructure, government commitment, and active citizenry as shown in the diagram. This can be greatly achieved with the principles of subsidiarity—where matters should be handled by the smallest, lowest or least centralized competent authority—, and solidarity—unity that is based on common interests. If the Government can demonstrate these principles to its citizens by sharing authority with local administrators in the different counties, the citizens must also respond with full-participation and strong advocacy for important community issues. If local administrators across Tanzania can serve as hubs to mobilize and engage citizens to participate in government processes, Tanzania will have more effective dialogue, reporting, and a greater governance structure.

Information and Communication Technology (ICT) is a diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information (Tinio, 2009). In recent years there has been an upsurge of interest in how computers and the Internet can best be harnessed to improve the efficiency and effectiveness of governance at all levels and in

both formal and non-formal settings especially in the developed countries. But ICT is more than just these technologies; older technologies such as the telephone, radio and television, have a longer and richer history as governance tools.

Good Governance can be promoted through ICT by the use of eGovernance. EGovernance can be defined as the optimal utilization of ICT within the framework of good governance to ensure effective interaction between the various arms of government and its environment (citizens, civil society, private sector...) (UNESCO, 2003). eGovernance offers an opportunity for governments to re-invent themselves, get closer to the citizenry and forge closer alliances and partnerships with diverse communities of interest, practice, expertise, conviction and inter-dependence within the context of national development agendas (Okot-Uma, 2000).

Public access ICT venues face the challenge of generating demand for their service (Amariles et al, 2006; Best, 2007; Blattman, 2003; Parkinson & Lauzon, 2008).

At the institutional level, Best et al (2007) noted that subsidized computer centers in Kyrgyzstan experienced economic benefits in terms of increased clientele, and contributed to economic growth by creating up to 31 new jobs. On the other hand, they also found that other computer centers that were not benefiting from the subsidy program closed down, possibly as a result of competition.

According to James Bohman (2004), new technologies are often greeted with political optimism. The Internet was thought to herald new possibilities for political participation, if not direct democracy, even in large and complex societies, as 'electronic democracy' might replace the mass media democracy of sound-bite television. The high hopes for electronic democracy seem to have faded, however, as critics such as Sunstein (2001) and Shapiro (1999) have come to argue that central features of the Inter-net and computer-mediated communication generally undermine the sort of public sphere and political interaction that is required for genuine democratic deliberation.

There is little utility in analyzing the relationships between ICTs and human rights if the key topics of democracy and good governance are not concomitantly addressed, for before one can help to propagate the other, both must be contextualized as the by-products of the same system. The main impact of ICTs on democratic life concerns their ability to strengthen the public sphere by expanding the information resources, channels of electronic communication, and the networking capacity for many organized interest groups, social movements, NGOs, transnational policy networks, and political parties with the technical know-how and organizational flexibility to adapt to the new medium, (Selian, 2002).

Sheppard (2001) and Kumar (2004) observed that support from public sector service providers facilitates public access ICT sustainability by providing a source of revenue (Richa Kumar, 2004; Sheppard, 2001).

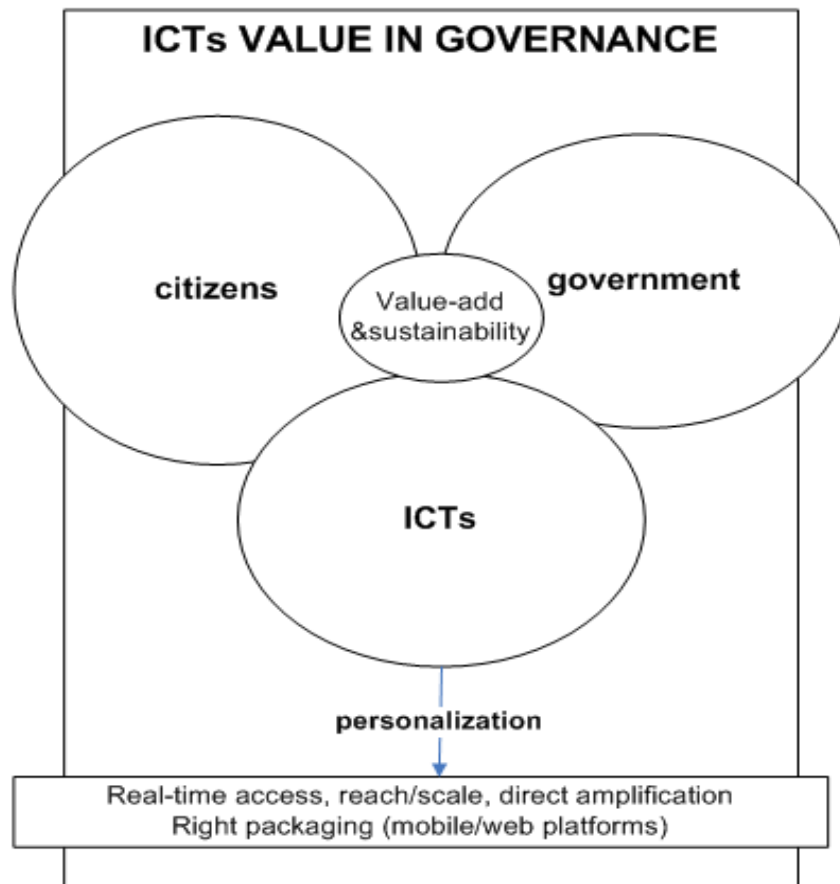
In a critique of the focus on financial sustainability as a measure of success, Simpson, Daws, & Pini (2004) recommend that public access points be reconceptualized as essential community infrastructures like schools and libraries, and deserving of government funding: “This would mean re-defining the sustainability of a public access only in terms of the outcomes it produces in terms of social and community betterment rather than only in terms of economic gain.

Access to information technology and networks has improved exponentially in the past two decades, particularly in developing countries. This has led to increasing focus on how information and communications technology can be harnessed to meet the Millennium Development Goals. One impediment is the high though constantly declining cost. ICT provides an opportunity for innovation in the effort to make public administration more responsive. Access improved first in urban areas but has spread to rural areas, which is a precondition for using technology to improve forest governance. (Castren and Pillai, 2011).

Increased use of technologies has increased public access to information and led to the development of e-government and e-governance initiatives to improve interaction between governments and citizens. While e-government services through the Internet were well intentioned, the lack of access to computers and the Internet in many rural areas initially slowed progress of these services. However, the introduction of mobile phone services has transformed the landscape, making technology more accessible to people and expanding the possibilities for the use of ICTs in development.

The increased use of ICT in public administration can also be linked to a wider structural change in how public administration works. ICTs can be used along with more responsive governance to serve the public as a stakeholder group rather than just as a customer to be satisfied, or even controlled. The use of ICTs can make decision making more dispersed yet, at the same time, more informed and transparent. However, many of the benefits of ICT and responsive governance will require a new kind of expertise and the development of more sophisticated knowledge management systems. Reforms will also require development of organizational climates that encourage openness and participation rather than control (United Nations 2005).

2.7 Theoretical framework



Source: <http://www.ihub.co.ke>

2.7.1 Independent and Dependent Variable

ICT according to this model is an independent variable which adds values such as real time access to information, participation and sustainability in facilitating development activities.

Governance is a dependent variable in the sense that in order to have good governance the government should be transparent to its people, being accountable, responsive and participate people in decision making processes and implementation of different policy strategies.

This can be measured through a total disclosure of data, access to relevant information, and explanation and justification of actions to the public which are fundamental enablers of public value creation.

The adoption of e-government and the use of ICT are strictly related to the development of accountability when they are aimed at providing citizens, organizations and society in general with accurate, complete, understandable and authentic information. The effective use of ICT poses two important questions: the first relates to the diffusion of technology; the second to the connections between stakeholders in an inter-connected environment (Werner, J. (2009).

From a technology point of view, capacity for both information and records creators and users/citizens to retrieve well organized information is a necessary requirement if ICT is to really support accountability and transparency.

Information and Communications Technologies (ICTs) are an integral part of digital economy in many countries. Individual organizations, both public and private, have deployed ICTs in all aspects of their operations. In so doing, they aimed to achieve efficiencies in their internal processes and improvements in how they interact with external entities, such as partners, customers or governments.

2.8 Conclusion

Effective implementation of ICT in public institutions is very important to enable employees' access to important information that they can share with internal and external customers for the growth, survival and sustainability of the entire organization. ICT opens up the sense of transparency and improving employee-employer relationship.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the various methods and techniques used by to collect and analyze the data gathered for the study to gain a deeper understanding of the topic under study.

The data collection stage is important since the result of the analysis is dependent on the quality of the data obtained. Therefore, the method selected for data collection must be the most appropriate to assist in achieving the objectives of the study:

In this case it is to be used to determine the role of ICT in governance in the Ministry of Natural Resources and Tourism.

It is also to be used to know the status of ICT implementation in relation to governance at the Ministry of Natural Resources and Tourism looks like.

It is also to be used to identify ways and means to improve quality of services provided by the Ministry of Natural Resources and Tourism in relation to ICT use in promoting public sector governance.

3.2 The Area of the study

The Ministry of Natural Resources and Tourism (MNRT) is one of the economic Ministries responsible for conservation of natural and cultural resources as well as development of tourism. The natural and cultural resources of Tanzania are unique heritage that are of great importance both nationally and globally. Its importance lies in the biological value of the species and habitats and cultural sites. Equally important is the socio-economic and cultural value of the resources and its

contribution to the sustainable development of the country. These valuable natural and cultural resources are the cornerstone for the tourism industry, which is experiencing steady growth and currently contributing over 16% of the national GDP.

3.3.1 The Roles and Functions of the Ministry

Following Government's redefinition of its roles in 1995, the Ministry devoted some of its responsibilities to local authorities and communities. Therefore, the Ministry is charged with the task of ensuring sustainable conservation of natural and cultural resources and development of tourism industry by promoting and enhancing participation of different stakeholders. Ministry's roles and functions are assigned to four sectoral divisions namely: Antiquities, Tourism, Wildlife, Forestry and Beekeeping, accompanying with two supportive divisions (Policy and Planning, and Administration and Human Resource Management) and six units (Accounts, Legal, Internal Audit, Procurement, ICT and Communications).

3.3.2 Vision Statement

Sustainable conservation of natural and cultural resources and development of responsible tourism.

3.3.3 Mission Statement

To conserve natural, cultural resources sustainably and develop tourism for national prosperity and benefit of mankind through development of appropriate policies, strategies and guidelines; formulation and enforcement of laws and regulations; monitoring and evaluation of policies and laws.

In Dar es Salaam, I selected this area for study because of the convenience in terms of cost of transport, accommodation and availability of place for research placement. The area also is sufficient enough to represent other public organizations for this study.

Therefore, this area is conveniently interesting for conducting the study on the role of ICT in promoting Good Governance as the results or findings from the study can be used to improve implementation of legal and policy frameworks and enhancing service delivery to customers. This area can also represent other public institutions due to its responsibilities and contribution to the country's GDP.

3.3 Research design

A case study design was used to conduct this study. This approach was selected because it could enable the researcher to analyze well the unit and the problem understudy and come up with better findings. Also the approach was less expensive in terms of time, money and energy.

This enabled me to find the facts and gather descriptive information with explanation on the barriers to implementing ICTs in public organizations. The data collected were qualified than being quantified.

3.4 Target Population

The population for the study consisted of all workers in the Ministry of Natural Resources and Tourism (headquarters) in Dar es Salaam which has three sectoral divisions namely: Antiquities, Tourism, and Wildlife, accompanying with two supportive divisions (Policy and Planning, and Administration and Human Resource Management) and six units (Accounts, Legal, Internal Audit, Procurement, ICT and Communications).

Table 1: Target population

S/N	Group of respondents (Departments and Units)	Total population
1.	Administration and HRM	65
2.	Policy and Planning	19
3.	Tourism	39
4.	Wildlife	56
5.	Antiquities	36
6.	Finance and Accounts Unit	44
7.	Internal Audit Unit	8
8.	Procurement Management Unit	20
9.	Legal Unit	3
10.	ICT Unit	5
11.	Communication Unit	2
Total		297

Source: Field Report March, 2013

3.5 Sampling Procedures and Sample size

This study used a simple random sampling technique to select a sample for study.

Firstly, I selected all departments and units staff members to provide all departments' members equal chance of being selected for the study. Then, from the selected departments a total number of ninety seven (97) respondents were selected out of two hundred ninety seven (297) departments' members as a sample for study. The selection based on simple random sampling procedure whereby members were give an equal opportunity or chance to participate in the study.

3.5.1 Sample Size

Basing on the systematic technique, the sample size of 32.7% of the total number of 297 staff in the Ministry was selected for study. This resulted into the sample size of 97 respondents

Table 2: Sampling and sample size

S/N	Group of respondents (Departments and Units)	Total population	Number of respondents selected	Percentage of total respondents
1.	Administration and HRM	65	23	35%
2.	Policy and Planning	19	6	31.6%
3.	Tourism	39	12	30.8%
4.	Wildlife	56	20	35.7%
5.	Antiquities	36	9	25%
6.	Finance and Accounts Unit	44	13	29.5%
7.	Internal Audit Unit	8	3	37.5%
8.	Procurement Management Unit	20	7	35%
9.	Legal Unit	3	1	33.3%
10.	ICT Unit	5	2	40%
11.	Communication Unit	2	1	50%
Total		297	97	

Source: Field Report March, 2013

3.6 Data collection Methods

Questionnaires and observation were used for data collection as they can be sent to a large number of people and serves the researcher's time and money. People are more truthful while responding to the questionnaires regarding controversial issues in particular due to the fact that their responses are anonymous.

3.7 Sources of Primary Data

Primary data on the problem understudy was obtained from officials and employees selected to participate in the study. This was done through administered questionnaires which were distributed to respondents who filled them and returned to the researcher.

3.8 Sources of Secondary Data

Secondary information for this research was mainly through various publications culled from the internet, textbooks, journals, reports prepared by various scholars and magazines. It has been scrutinized to assess its suitability, reliability, adequacy and accuracy.

3.9 Methods of Data Collection

3.9.1 Questionnaire

Under this method, self-administered questionnaires were distributed to the respondents. This method was used because it has less cost and serves time; self monitored and gives convenience to the respondents.

Set of questions that are logically related to the problem under study, was used as a tool to elicit responses from respondents. These questions were printed on papers with the spaces for respondents to either tick or write their views related to the problem.

3.9.2 Observation

This is the set of items (check list) written on a piece of paper that guided the researcher's observation. This method involved a direct observation on common barrier at the work place. This method was more useful in conducting field research at the area of study and allows the researcher to observe barriers to implementing ICTs at work place (in the real working environment)

3.9.3 Interviewing

This method of collecting data was used depending on the availability of time and data that were required to supplement the information missed in questionnaire and observation methods.

3.10 Data Analysis Methods

3.10.1 Data Processing

Data collected were processed through manual sorting, editing, coding, classification and compilation. Finally all data were summarized on data master sheet ready for analysis.

3.10.2 Data Analysis.

After data processing, the researcher analyzed data to get descriptions in percentage and frequencies which were the basis for discussion and recommendations. The computers Microsoft excel Program were used for this purpose.

CHAPTER FOUR

DATA PRESENTATION AND DISCUSSION

4.1 Introduction

The chapter intends to highlight the research findings which were obtained from the use of research methods developed for the purpose of fulfilling the objectives of the study. Mostly the data or information was obtained from questionnaires, interviews and observations. This chapter is organized in sections which cover the respondents' demographic narrations, depicting the role of ICT in governance at the MNRT and the quality of service provide as a way to indicate good governance at MNRT.

4.2 Socio Demographic Characteristics of Respondents

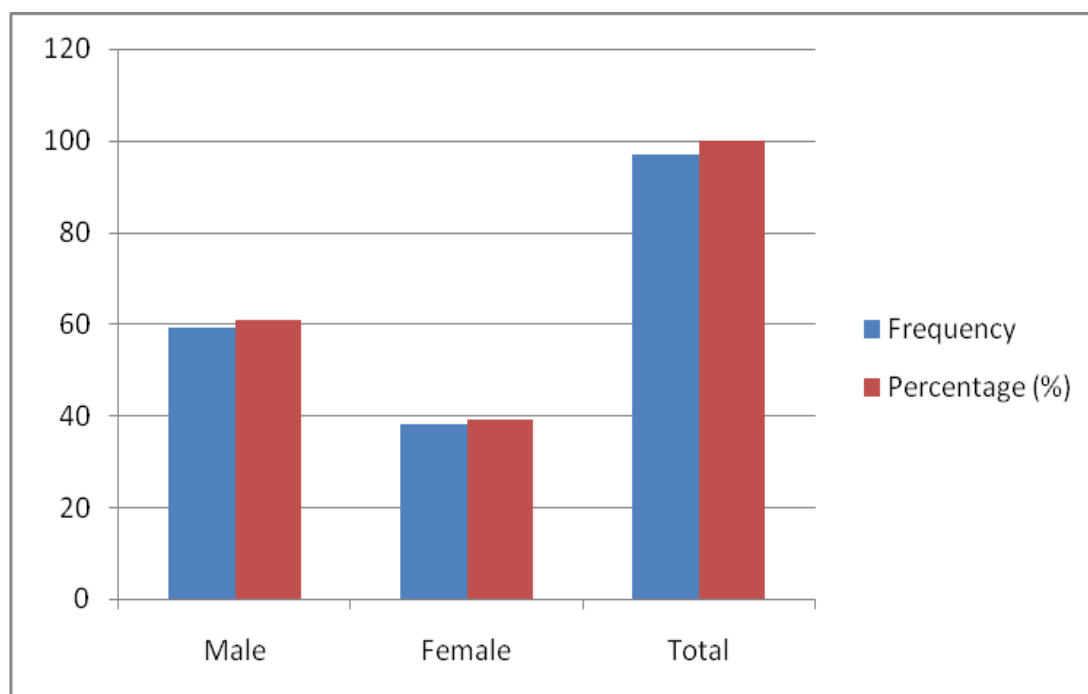
Table 4.1 below depicts that 61% and 39% of respondents of male and female respectively answered the questionnaires distributed.

Table 3 Gender of Respondents

Gender	Frequency	Percentage (%)
Male	59	61
Female	38	39
Total	97	100

Source: Field Report March, 2013

Both male and female respondents who participated in the study have a great contribution in the findings as they provided data that showed recognition and participation of all gender by the Ministry. It is also obvious that if employees can effectively be involved in development processes and enabled to full access and utilization of ICT without gender discrimination then the government will be in the better position to use its people for maximum production of goods and services.



Source: Field Report March, 2013

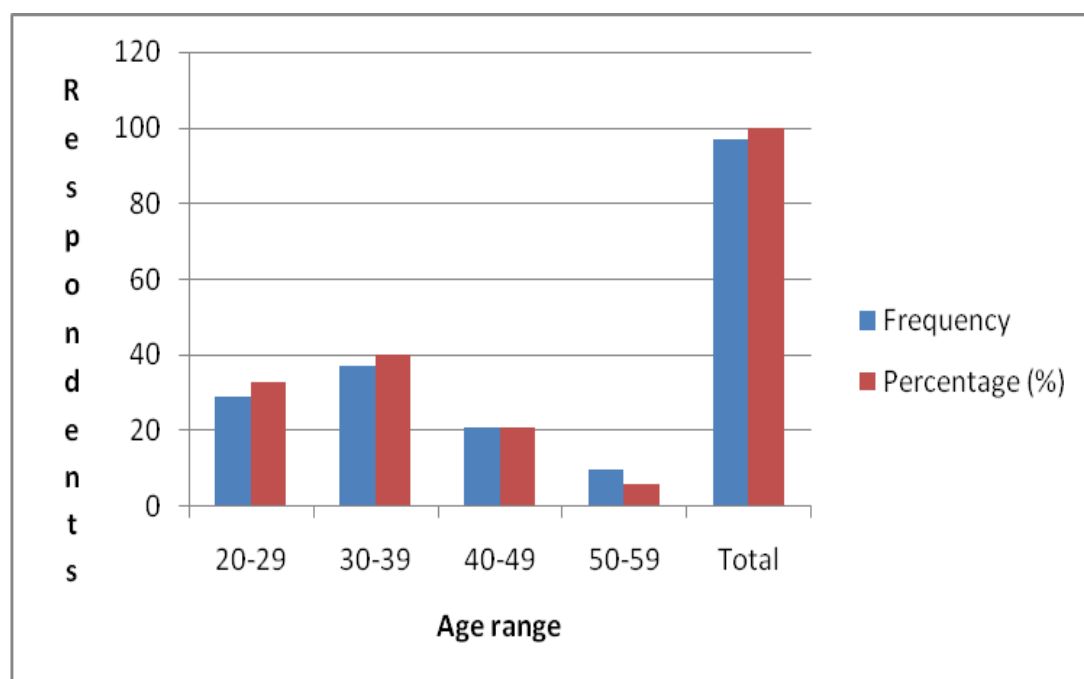
4.2.1 Age of Respondents

The 30-39 year group constituted 40% of respondents and was the highest number of respondents followed by 20-29 years with 33% and then the 40-49 year group which made up 21% of the respondents. The lowest number of respondents was within the 50-59 year group which constituted 6%. From the pattern that emerged, majority of employees are young adults who are very important to be well trained on newly adopted technologies particularly ICT as they are energetic and have strength and long duration to work for the public.

Table 4. Age

Distribution of Respondents by Age	Frequency	Percentage (%)
20-29	29	33
30-39	37	40
40-49	21	21
50-59	10	6
Total	97	100

Source: Field Report March, 2013



Source: Field Report March, 2013

4.2.2 Educational Level of Respondents

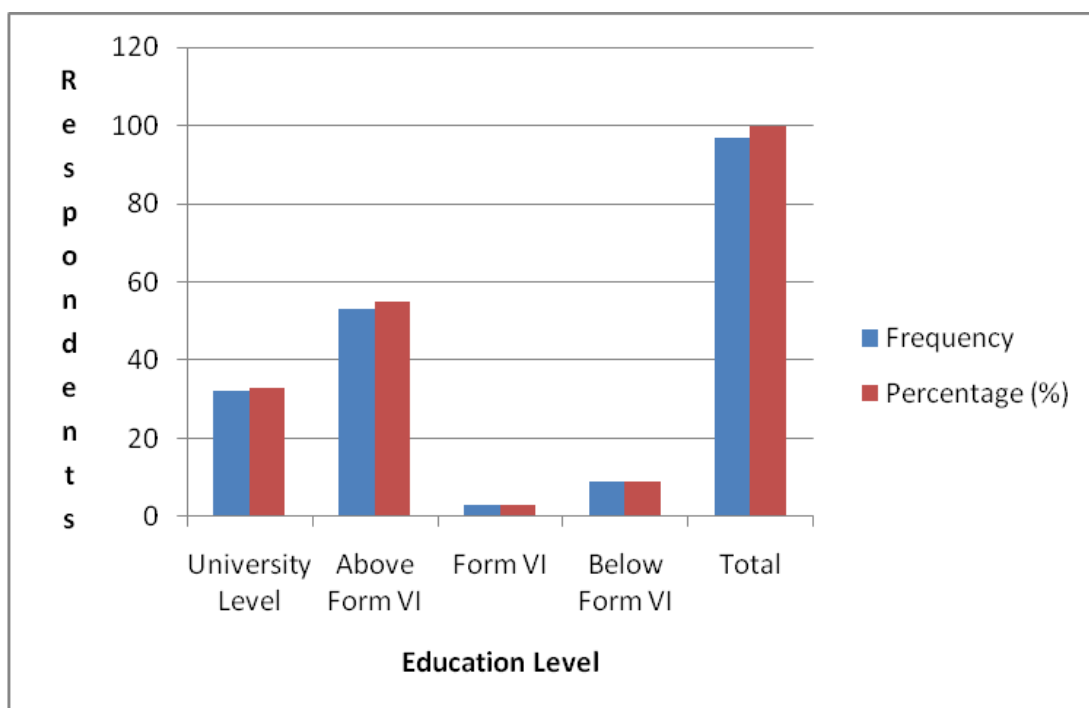
From Table 4.3, 55% of respondents hold level of education of above Form six whilst 33% holds degrees. The Ordinary Level category make up 3% each and 9% is made up of the Form IV and/or Certificate levels. It shows from the Table above that majority of the employees are highly educated making a total of 88% of the total

number of respondents. This is strength for the Ministry and it's in the position to make maximum use of its human resources while considering full adoption and utilization of ICT in improve service delivery to both internal and external customers.

Table 5. Educational Level

Level of Education	Frequency	Percentage (%)
University Level	32	33
Above Form VI	53	55
Form VI	3	3
Below Form VI	9	9
Total	97	100

Source: Field Report March, 2013



Source: Field Report March, 2013

4.2.3 Years of Service in the Organization

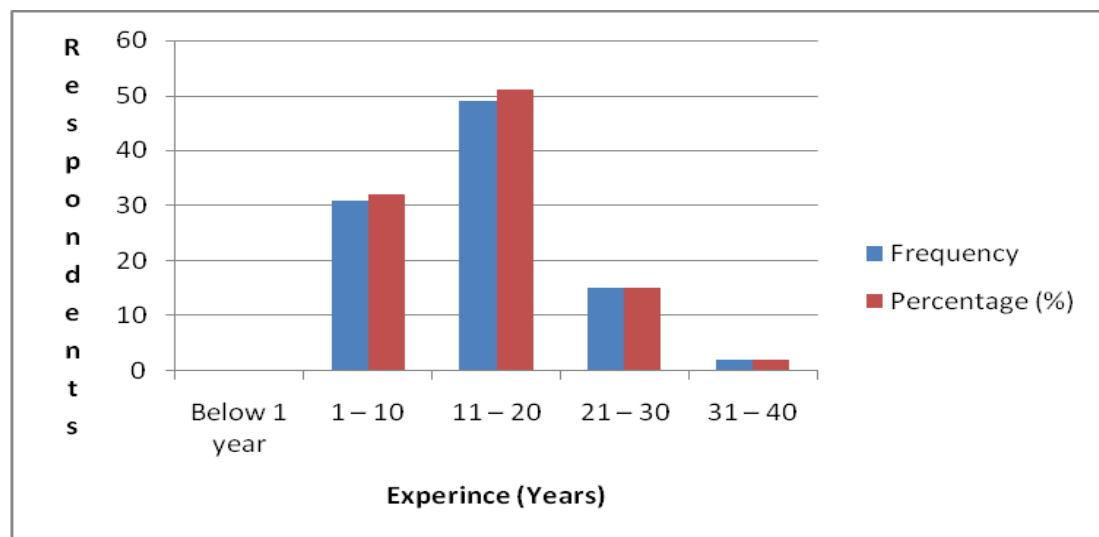
According to respondents, their length of stay in the organization ranged from a minimum of 1 year to a maximum of 40 years. Forty nine respondents making up 51% of the total has been in the service of the organization between 11-20 years. From Table 4.4 below, majority of respondents fell between the 1-40 years range forming a total of 98%. The rest of respondents fall in the category of 31-40 years. The longest serving respondents fell in the 31-40 years category.

This is an indication that MNRT employees had long duration to serve the public and if they were given an opportunity to training, access and full utilization of ICT then it could be possible for the Ministry to improve its performance and delivery of services.

Table 6. Experience with the Ministry

No. of Years	Frequency	Percentage (%)
Below 1 year	0	0
1 – 10	31	32
11 – 20	49	51
21 – 30	15	15
31 – 40	2	2
41 – 50	0	0
Total	97	100

Source: Field Report March, 2013



Source: Field Report March, 2013

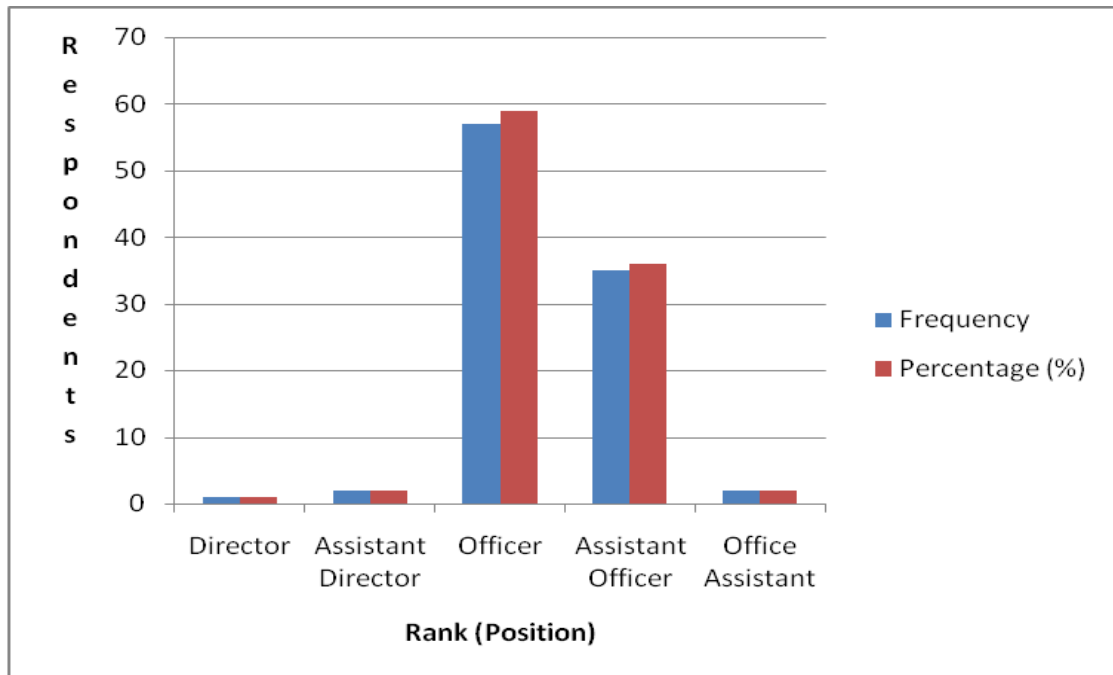
4.2.4 Position of Respondents

As it has been indicated in Table 4.5 below, 36% of respondents were Assistant Officers. However, majority of respondents fell in the Officer grade making up 59% of the total respondents.

Table 7. Position of Respondents

Position	Frequency	Percentage (%)
Director	1	1
Assistant Director	2	2
Officer	57	59
Assistant Officer	35	36
Office Assistant	2	2
Total	97	100

Source: Field Report March, 2013



Source: Field Report March, 2013

4.3 Role of ICT in Governance

The role of ICT is catalytic in the complex task of poverty reduction by leveraging the effects on earnings opportunities, on educational and health services, on good governance and on promoting democracy. Since information exchange is part of nearly every element of the economy, the impact of improvements in the capacity for information exchange will depend critically on how the rest of the economy functions. This suggests the centrality of a holistic approach in evaluating the impact of ICT. For example, the impact of improved ICT access on farm earnings through increased knowledge of market prices will be muted if there are no roads to carry crops to markets, or there are no markets because of an unreformed agricultural sector. (World Bank 2001).

Any approach using ICT in the interest of poverty reduction has to be broad-based and tailored to various sectors and build inter-linkages. (Ibid). According to a study carried out in India, Jamaica and South Africa the effectiveness of ICT in combating poverty depends on i) complementarities with other local level poverty reduction and development initiatives, ii) responding to the local community needs, and iii) involving stakeholders in applications development. (Millar and Mansell 1999).

They urged that proper implementation of ICT can enhance transparency, responsiveness, accountability, participation, data storage and retrieval, movement of files, information dissemination, and speeding up process of payments and reducing bureaucracy and unnecessary confidentialities.

According to Prof. Basir Chand (2011), citizen participation through social equity, ease and openness of access, and fairness in opportunities, without uncertainty is the main role of ICT in the democratization processes.

From the respondents' point of view, major roles of ICT include;

- i) Data storage and retrieval,
- ii) Communication and decision making,
- iii) Easier and fast payment and
- iv) Awareness creation and participation.

From the above facts, ICT roles have a great importance and if ICT can effectively be implemented with the regard to its roles, then public institutions will for sure improve their performance standards at all levels of work.

Some of the responses provided are as shown below:

Table 8 ICTs and its Roles

IC Technology	Governance / Empowerment Role
1. Computer data base	Data storage and retrieval
2. Internet	Communication and decision making
3. Epicor	Easier and fast payment
4. E-mails	Communication and decision making
5. Telephones/Mobile phones	Communication and decision making
6. Websites	Communication and decision making
7. Television	Awareness creation and participation
8. Radio	Awareness creation and participation

Source: Field Report March, 2013

However, some of the information at MNRT are accessible although the culture of confidentiality affects transparency in undertaking public duties. It is obvious that leaders at MNRT are responsive and accountable to their actions but employees' participation in different decision making process and implementation of policy strategies are not fully implemented.

4.3.1 Barriers to implement ICT in Governance

Respondents were asked to identify the barriers that hinder the effective implementation of ICT in governance. Most barriers that were repeatedly mentioned

by most respondents includes; i) adequate of well skilled technicians and/or computer system analysts, ii) unreliable power supply (electricity cut-outs), iii) lack of technical know-how, iv) lack of modern equipments, v) spare parts and anti viruses, vi) level of education of most employees (users), vii) poor technological infrastructure, viii) capital (cost of maintenance), ix) and lack of priorities (readiness) as the effect of bad politics.

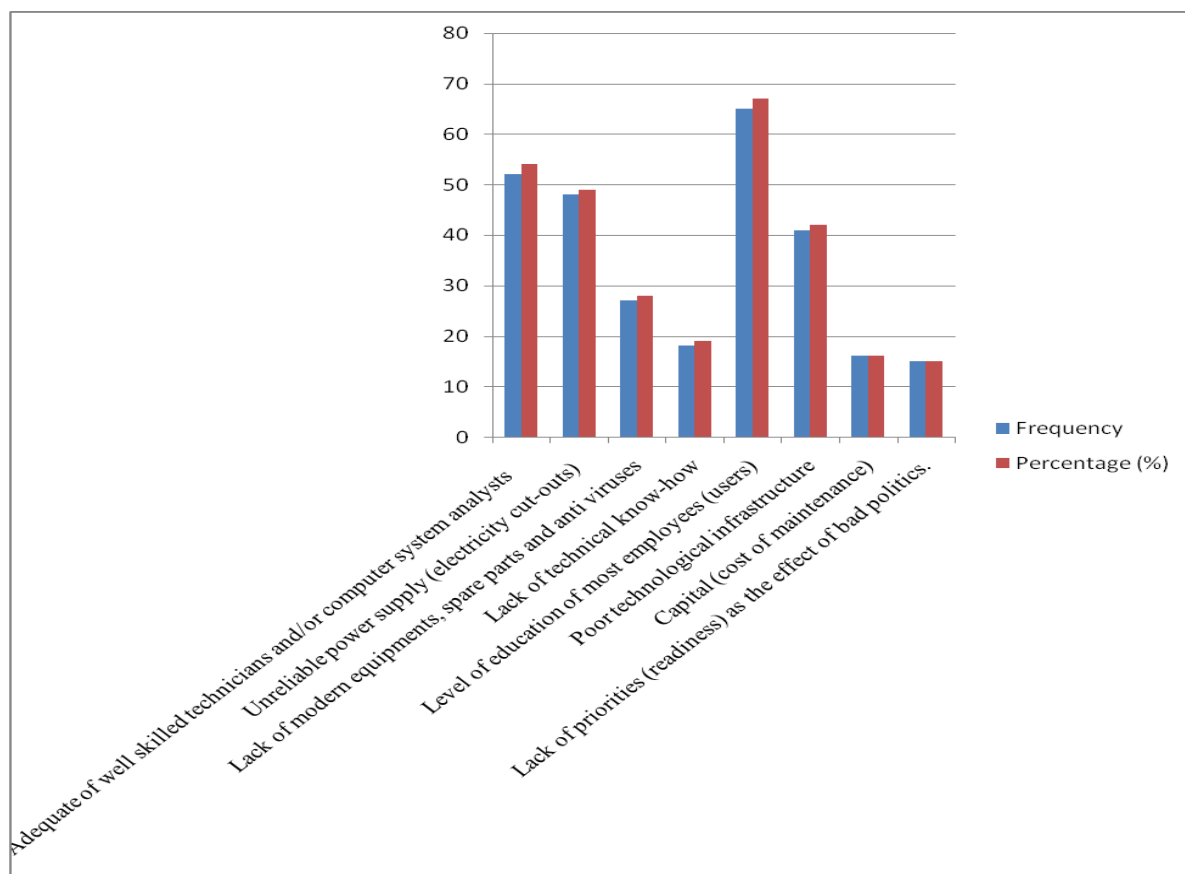
According to different researchers and scholars such as (Khaled 2003, Gakunu 2004, Aineruhanga 2004, Heeks 2003a, Ndou 2004, Bhatnagar 2003, Saul and Zulu 1994) failure for government ICT projects was caused by those occurrences that constraint proper/smooth implementation of ICT projects in government. Some of these factors for failure are listed below.

1. Infrastructure
2. Finance
3. Poor data systems and lack of compatibility
4. Skilled personnel
5. Leadership styles, culture, and bureaucracy
6. Attitudes

Table 9. Barriers to ICT Implementation

Barrier	Frequency	Percentage (%)
Inadequacy of well skilled technicians and/or computer system analysts	52	54
Unreliable power supply (electricity cut-outs)	48	49
Lack of modern equipments, spare parts and anti viruses	27	28
Lack of technical know-how	18	19
Level of education of most employees (users)	65	67
Poor technological infrastructure	41	42
Capital (cost of maintenance)	16	16
Lack of priorities (readiness) as the effect of bad politics.	15	15

Source: Field Report March, 2013



Source: Field Report March, 2013

4.3.2 Ways or means to overcome Barriers to implement ICT in Governance

Ways and means to overcome barriers in implementing ICT were examined using questionnaire and all employees (respondents) who participated in this study proposed means and ways that are favourable in overcoming these barriers and they include; i) training personnel on how to use these technologies, ii) stabilization of power supply and/or to have emergency power, iii) prioritization of ICT, iv) improving ICT infrastructure, v) investing on ICT and purchasing modern equipments and vi) training and/or employing well trained personnel on ICT.

According to Gichoya, D. (2005), the best way to achieve maximum benefit for ICT implementation is to have all the factors for success with no occurrence of the factors for failure. However, in real world that is not the case. Given such a situation, an action to increase the chances of success is required.

Clockwork (2004) suggests the following framework for implementing e-Government projects. The framework consists of five stages:

- i. Examine national e-Readiness
- ii. Identify and prioritize themes
- iii. Develop a program of action
- iv. Apply to target groups
- v. Implement solutions – the final stage of the framework, is to implement the solutions. A key factor in this implementation is to ensure that the organization is ready and in place to realize the new activities and corresponding changes.

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Some ICT best practices that have been “harvested” from a review of successful applications are suggested by Clockwork. Given their simple situation, developing countries are in a position to make effective and speedy use of such best practices for

their own purposes. This can be viewed from an angle of ‘technology leapfrog’ which can be achieved through appropriate technology transfer (Ifinedo 2005).

A training program in human resources for stimulating ICT use in order to improve local level governance should take into account how electronic or digital participation differs from processes of traditional participating within a political process.

The fundamental difference resides in the fact that digital processes are timeless and do not require the “physical presence” of those involved in the political process. This educational program should consider that individuals to be trained should be apt to participate in interaction projects online with the utilization of ICTs and communication tools such as educational programs through the radio and TV.

From the above facts, the government is required to ensure availability of well skilled personnel on ICT for effective implementation of its legal and policy frameworks and this can possibly be done by training employees. Investing in ICT by giving it priority and stabilization of power supply will make effective and speedy use of these technologies.

4.3.3 Roles of ICT and initiatives for empowering women

Various researches and studies have found that employee empowerment leads to a truly nurturing environment where the employees can learn, grow, improve and enhance their functioning or performance abilities. Employee empowerment also provides for creating an environment of trust, importance in the eyes of the employees and since it enhances the capability of the respective employees; the same also leads to the creation of a positive work environment within the organizational set up.

Empowerment means that all employees feel that they have the responsibility and authority to participate in decision-making and problem solving in their appropriate

operating levels. It is obvious that a whole company of skilled and capable problem solvers will have a distinct competitive advantage over an organization that only a few key distributors and an array of drones. (Apostolou, 2002 as cited in Theodosia Lamley Quagraine (Mrs.), 2010).

Empowerment involves decentralizing power within the organization to individual decision makers further down the line. Team working is a key part of the empowerment process and members are encouraged to make decisions for themselves in line with guidelines and frameworks established in self managing teams. Empowerment requires that management takes risks by turning over some control of the organ to the employees and this control must be planned and authorized.

It behoves management to appreciate that relinquishing control to the effected and skilled employees will result in a more productive organization with better teamwork and faster problem solution.

An empowered human resource that is employees will be able to respond more quickly to changes, improvements, new customer requirements as they begin to act independently in pursuit of their expectations and within the boundaries of their authority.

From the women empowerment point of view, below are recommendations from the respondents that can be used as initiatives and help women to participate fully in developmental activities and they said that women have been showing positive impact on socio-economic activities provided they are given opportunities and trained well.

However, most of the ICT initiatives are disseminating useful new information and knowledge; many women are not able to make use of it due to lack of access to complementary sources of support and services.

The Tanzania government has invested in strengthening the ICT infrastructure in recent years and one of its objectives is to give special attention to providing new learning and ICT access opportunities for women and youth, the disabled and disadvantaged, particularly disenfranchised and illiterate people, in order to address social inequities. The implementation of a variety of pilot projects and business initiatives to explore oriented ICT applications has revealed the potential to enhance the effectiveness and service delivery and improve transparency in government and business. However, the the scalability, sustainability and impact of many of these initiatives remain a matter of concern.

While only a few ICT initiatives have been explicitly focused on reaching women, recent studies have found some evidence of improved access to new information and employment opportunities for women. But their effectiveness is closely dependent on the extent of ownership and management by women in these initiatives and the agenda, focus and vision of organizations.

Roles and initiatives are shown below in the table provided:

Table 10 ICT Roles and Initiatives

ICT Roles	Initiatives for empowerment
Employment	Giving priorities to women
Improving their skills	Training women on ICT
Gaining experiences	Surfing various links
Communication	Training and involvement
Leadership	Giving chances whenever possible
Decision making	Involvement and participation

Source: Field Report March, 2013

4.4 Status of ICT Implementation in Relation to Governance at MNRT.

4.4.1 Bridging the gap between ICT haves and have-nots

Information and Communication Technology has the potential to realize better quality of life, including higher productivity and living standards, as well as improved community services (JICA, 2008). However, these benefits are not

available to those who are unable to use or learn ICT, especially in developing countries. The “digital divide” between people and countries that are able to reap the benefits of ICT and those that cannot is also reflected in widening economic disparity (JICA, 2008).

Information and Communication Technology (ICT) is believed to accelerate Sustainable Forest Management (SFM), which advocates for the management of forests according to the principles of sustainable development. SFM is latest in a progression of forest management concepts preceded by sustainable forestry and sustainable yield forestry which uses very broad social, economic and environmental goals. While the role of ICT is widely recognized, the level of ICT utilization in Tanzania particularly in the forest sector is not well known.

However, different efforts have been made by the Ministry to ensure employees’ access and use ICT in all subsectors although there are no remarkable developments compared to what policy expected from ICT.

Respondents who participated in this study suggested various initiatives that can help bridge the gap and these include; i) heavy investment on ICT, ii) training experts, iii) inclusion of ICT syllabi in Primary and Secondary schools and iv) reduction of prices and taxes. The use of ICT helps to store, retrieve and disseminate information faster and accurately. This serves time in the whole process of information gathering, analysis, storage, accessibility and dissemination.

It is obvious that from the respondents’ point of views ICT is very important in carrying out business transactions of any organization whether public or private.

In developing ICT at MNRT, already more servers were bought for every wing of the building and a number of employees were given training opportunities on computer application. For example some of Records Management Assistants were

taught “Easy Registry Software Program” which is used for files keeping and tracking.

However, this is not enough and the ministry needs to ensure that all employees are accessed to ICT and make full utilization of the technology for the success of its development projects.

4.4.2 Improving transparency and reducing corruption

Ways and means that ICT can help improve transparency and reducing corruption were examined using questionnaire and all employees (respondents) who participated in this study suggested that capacity building, reduction of taxes on ICT equipments, reduction of bureaucracies and unnecessary confidentialities, increase budget for ICT use, information sharing about business performance, plans, goals, and strategies, new technologies and competitors’ performance, establishment of new and strong laws and commitments from the executives and/or politicians are the key elements and ways that can improve transparency and reduce corruptive practices. Information sharing includes both information disclosure and open communication processes.

Promoting good governance through ICT at MNRT cannot easily be achieved because some of the information such as forms for registration of different forest, beekeeping, wildlife, antiquities and tourism products and/or services cannot be filled and accomplished through websites, internet and e-mails.

4.4.3 Areas where ICT can most help

This objective was examined using questionnaires and the number of respondents for each key area listed are shown in the bracket. Listed key areas where ICT can most help in governance include; tax payers’ records (28); employees’ records (47); land ownership records (7); health records (15); population records (20); judicial records (31); university records (26); employment records (68); tourism licensing records

(43), wildlife, forestry and beekeeping products records (86) and voter registration records (9).

4.4.4 Needs from ICT

Respondents were also asked to suggest on what they want from ICT.

Only 24 (25%) respondents out of 97 respondents suggested that government should provide ICT facilities to its institutions as well as their employees are concerned. The government should put more emphasis on the use of ICT for the benefit of all citizens as being the sole social services guarantor.

Other respondents had no comments under this objective.

4.5 I CT as a mean to promote good governance at MNRT

Possibilities: If ICT can effectively be implemented at MNRT there is a room for attaining good governance because employees will be aware of all important information and things will be done openly. Every employee need to be participated or involved whenever necessary to ensure transparency and accountability as a mean to have good governance. It is possible for services provided by MNRT to be improved in a transparent manner and this is through the use of ICT.

It is possible to attain good governance if all employees are given training opportunities on ICT and having well skilled personnel. This should also go with the purchases of modern and enough equipment.

Challenges: The following challenges have been contributing to difficulties in attaining good governance at MNRT: Adequate of well skilled technicians and/or computer system analysts, unreliable power supply (electricity cut-outs), lack of technical know-how, lack of modern equipments, spare parts and anti viruses, level of education of most employees (users), poor technological infrastructure, and capital (cost of maintenance).

4.6 Quality of services as a way to indicate good governance at MNRT Quality of services:

Some of the services provided by The Ministry of Natural Resources and Tourism include: Training on conservation and management of Forestry and Beekeeping, Wildlife, Cultural resources and development of responsible tourism in the country; Research and consultancy services on Forestry, Beekeeping and Wildlife issues; Issuing licenses for Forestry and Beekeeping, Wildlife, antiquities and Tourism products and/or services; Reception and attending internal and external customers; Making payments to dealers who provide goods and services to MNRT etc.

Services are done openly although there are delays in terms of time particularly when serving external customers. Services provided are good but there is a need to improve them so as to attain good governance.

Therefore, ICT can most help the Ministry as it provides new and faster ways of delivering and accessing information that can improve productivity and earning opportunities, provide effective ways for communication create new jobs and bring about improvement in the delivery of education, health and other social services.

Limitations: Adequate of well skilled technicians and/or computer system analysts, unreliable power supply (electricity cut-outs), lack of technical know-how, lack of modern equipments, level of education of most employees (users), poor technological infrastructure and confidentiality to some of the services have been an obstacle in the attainment of good governance at MNRT.

The Ministry of Natural Resources and Tourism has been trying to attain good governance and to some extent they have done well. If they really mean it they have to fully involve employees and ensure transparency to important information so that the sense of ownership, responsiveness and accountability can be cultivated and improved.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

I conclude from the study undertaken that effective implementation of Information and Communication Technologies would positively promote good governance in public institutions particularly in the Ministry of Natural Resources and Tourism as being charged with the responsibility of managing the country's natural and cultural resources as well as responsible tourism is concerned.

Transparency as one of the principles of good governance would make employees feel more responsible for their actions and see themselves as stakeholders who must do all in their power to ensure that decisions are implemented well for the benefit of all. Employees' involvement in decision making and implementation of different decisions made cultivates the sense of ownership and commitment and ensures organizational performance and increase in productivity.

Proper implementation of Information and Communication Technologies makes work easier, accurate and reliable. ICT implementation also reduces time wastage, bureaucracy and unnecessary confidentialities. These technologies make easy access to different information and helps employees to communicate and get feedback within a short time of period and also making things more open to almost all concerned.

5.2 Recommendations

It was found from the research that the adequacy of well skilled personnel have lead to poor performance of ICT particularly in the public institutions and as result things are not moving and the available few IT technicians are so reluctant about the slow move of ICT implementation. Therefore, it is being recommended that employees

should be well trained on these technologies so that they can use it for the organization benefit. It is important that they should have the requisite knowledge, skills and ability to use Information and Communication Technologies.

Lack of priority from the government has also been the sources of poor ICT implementation in its institutions. Therefore, the government should invest on ICT by giving it priority and increasing its budget so as to ensure effective implementation which would result to increase in performance of its institutions.

It is recommended that for the effective implementation of ICT the government should find other sources of power to overcome unreliable power supply which has been a problem all over the country regardless of rainy or sunny seasons.

It is also recommend that the government should reduce taxes on some specific ICTs to enable its institutions and employees to use them effectively and for the benefit of their organizations. This will automatically reduce the cost of purchases and hence enabling individuals to buy for official activities.

Lack of modern equipments is another problem, therefore the government is supposed to improve its ICT infrastructure by investing and purchasing modern and sophisticated equipments so as to meet international standards and making its people to compete in international labour markets.

Information Communication Technologies (ICT) has been facilitating the public sector managers to achieve good governance in terms of cost effectiveness and economic efficiency. Therefore, the government must lead other supporting members, such as the local administrators and individuals who will identify the biggest issues at the grassroots level and communicate these issues to the Government.

Information and Communication Technologies (ICTs) holds great potential to transform citizen participation and service delivery tracking and influence government decision-making and execution.

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APPENDICES

Appendix I

QUESTIONNAIRES DESIGNED FOR ALL RESPONDENTS

The purpose of this questionnaire is only to obtain your views and opinions on ICT use and processes at your work place.

Your answers will highly be appreciated and used as basis for writing my academic report on “Contribution of ICT to promote good governance in the public institution in Tanzania.

Please fill the questionnaire at your earliest convenience time and return it to me as early as possible.

A. Do not write your name anywhere on this paper.

B. Choose the answer by putting [√] and mention or explain where so needed.

Part A: Personal information

1. Present position or rank.....
2. Level of education
 - i. University level []
 - ii. Above Form six []
 - iii. Form six []
 - iv. Below Form six []
3. Gender
 - i. Male []
 - ii. Female []
4. Age
 - i. 20-29 []
 - ii. 30-39 []
 - iii. 40-49 []
 - iv. 50-59 []

5. Experience with the Ministry
- i. Below one year []
 - ii. 1-10 years []
 - iii. 11-20 years []
 - iv. 21-30 years []
 - v. 31-40 years []
 - vi. 41-50 years []
6. Language used to communicate with staff members and/or customers
- i. English []
 - ii. Kiswahili []
 - iii. Both Kiswahili and English []
 - iv. Any other (mention).....

Part B: The Role of ICT in Governance

1. Where do you think ICT can play a positive role in governance? Are you aware of any specific IC Technology that can enhance citizen empowerment?

IC Technology	Governance / Empowerment Role
1	
2	
3	
4	
5	

2. What are the barriers to implementing IC Technologies in governance?
- i.
 - ii.
 - iii.
 - iv.
 - v.

3. What are your suggestions to overcome these barriers?

- i.
- ii.
- iii.
- iv.

4. How do you see the role of ICT in empowering women? What initiatives do you recommend for such empowerment?

ICT Role	Initiatives
1	
2	
3	
4	
5	

5. How can we bridge the divide between ICT haves and have-nots? Do you have any specific suggestions for ensuring the “first-movers” do not increase their advantage?

- i.
- ii.
- iii.
- iv.

6. Can you suggest ways ICT can help improve transparency and reduce transaction costs/corruption (in decreasing order of importance)?

- i.
- ii.
- iii.

7. Please list (in decreasing order of importance) the areas where ICT can most help (e.g., voter registration, health records, land records, taxes, driver licensing, etc.)

- i.
- ii.
- iii.
- iv.
-

8. Do you have other suggestions on what you want from ICT?

- i.
- ii.
- iii.
- iv.
- v.

MANY THANKS

Appendix II

OBSERVATION FOR BARRIERS TO ICT IMPLEMENTATION

Name of the organization.....

Department.....

Time/date.....

Name of the observer..... Signature.....

Items to be observed

1. Common barriers to implement IC Technologies in governance.

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

2. Major causes of these barriers.

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

3. How is effective ICT implementation ensured in the Ministry?

- i. How sensitive are the organization members when implementing ICT?

.....
.....

- ii. Basic ICT skills possessed by key persons in the organization.

a. Low [] b. Average [] c. High []

- iii. The means of communication used in the organization.

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

- iv. (If there is any) National ICT policy or strategies guiding communication process in the public Ministry.

.....
.....

Appendix III

INTERVIEW GUIDE

The purpose of this interview guide is only to obtain views and opinions from the Head of Departments and their Assistants on the ICT implementation at the Ministry of Natural Resources and Tourism.

1. Date.....
 Time.....
2. Position of the interviewee.....
3. Department.....
4. How is effective ICT implementation ensured in the Ministry?
5. What are the common barriers to implement ICT in the Ministry?
6. What are your suggestions to overcome these barriers?
7. Where do you think ICT can play a positive role in governance?
8. Explain on the status of ICT implementation in the Ministry.

Chart II

**THE ORGANISATION STRUCTURE OF THE MINISTRY OF
NATURAL RESOURCES AND TOURISM**
(Approved by the President on 3rd June, 2011)

