

ICT Access and Use in Local Governance in Babati Town Council, Tanzania

Prof. Paul Akonaay Manda

Associate Professor

University of Dar es Salaam, Dar es Salaam

Address: P.O. Box 35092, Dar es Salaam, Tanzania

E-Mail: pmanda@hotmail.com

Mr. Emmanuel Mkhai

University of Dar es Salaam, Dar es Salaam

Address: P.O. Box 35092, Dar es Salaam, Tanzania

E-Mail: memaemmanuel@yahoo.com

Abstract

This research examined access and use of ICT resources and services in Babati Town Council, Manyara Region, Tanzania. The research addressed a number of key issues relating to access and use of ICT by the local government workers and officials. Among the major issues that were addressed in this study included, how ICT is used to meet the information needs of the local government workers and officials. The extent to which ICT has made positive impacts on the way the local government workers and officials seek and use information. The study assessed the ICT infrastructure in the Babati Town Council, human capacity and political will and levels of funding to implement ICT-related programmes. The overall research design integrated both qualitative and quantitative designs. Data for the study was collected through questionnaires, face-to-face and informant interviews, official records and feedback workshops. The findings of this study revealed that there is poor access and connectivity to access ICT services and resources in the council, especially at work places. Furthermore, the results revealed that local government officials and workers are neither adequately knowledgeable nor skilled in ICT use. The study makes the following recommendations: First, the internet connectivity at the Town Council offices be improved to increase accessibility, and use of the internet services by local governmental officials and workers. Second, training of local government officials and workers on the use of ICT facilities be planned and implemented so as to increase knowledge and skills on access and use of ICT services. Third, budgetary allocation for ICT related projects and programmes in the council for connectivity, training, equipment be increased. Finally, in order to improve accessibility of ICT services in the council, sources of power should be improved and a library should be built.

INTRODUCTION

Developments in information technology and its application have been expected to enhance the capacity of organizations to facilitate efficient and effective access and use of information through the internet. Specifically, it has been argued that the internet will improve the efficiency and effectiveness of the local governance and the democratic process. The concept of e- government for example has evolved over the years, among others, to imply the adoption of ICT platforms and applications in information communication and sharing. This includes the use of the internet and the World Wide Web in the delivery of governance information and communication to stakeholders and end-users in general.

To understand the extent to which the developments in ICT have contributed positively in local governance in Tanzania, there is a need to undertake a scientific study to assess the access and use of ICT in this process. This research project was therefore conceived in order to contribute to the overall understanding of the extent of internalization of these developments and generate new knowledge on the impacts of ICT in efficient and effective communication of the local governance issues and messages in Tanzania.

The increased and effective access and use of ICT in general by local government workers and officials will have ramification nation-wide in the use of ICT - related information resources and services since these are among the major decision makers at local levels. The decision makers are the key stakeholders who can either facilitate or stifle the adoption of ICT, including access to electronic information resources and services in other significant institutions in Tanzania such as schools.

Statement of the Problem

The enhancement of access and use of ICT among local government workers and officials in Tanzania is an uphill task because traditional (including oral) means of accessing and using information predominates. Despite the anticipated changes to have been brought by the ICT revolution and the internet in particular in local governance and in the democratization process, no significant improvements have been observed (Edejer, 2000; Kenny, 2000). This research therefore addressed a number of key issues relating to access and use of the internet by the local government officials. The study further investigated the challenges that the local government workers and officials face in accessing and using the internet. Additionally, the study asked questions such as whether the end-users (workers) are able to access official websites and the availability of interactive online services between the end-users and the local government officials. The study also assessed the state of ICT infrastructure in the Babati Town council, human capacity and political will and levels of funding to implement ICT-related programmes. Furthermore, it investigated whether ICT provision is part and parcel of the strategic plans of the Babati Town Council. Equally important, the study examined the impact of individual level variables such as attitudes of the local government officials towards the use of ICT.

Research Objectives

The purpose of this study was to examine the access and use of ICT in local governance at the Babati Town Council, Manyara Region, Tanzania. The study has the following general and specific objectives:

The general objective of this study is to understand the patterns of access and utilization of ICT by the local government workers and officials and show how these developments have contributed to the improvement in the local governance and democratization process.

Specific objectives

1. To find out the extent to which ICT is used to meet the information needs of the local government officials and workers.
2. To find out how ICT has made a positive impact on the way the local government officials and workers seek and use information.

3. To examine the existing ICT infrastructure, capacity and skill levels of the local government officials and workers.
4. To assess the contribution of ICT in the improvement of local governance and the democratization process.

Research Questions

1. To what extent is ICT used to meet information needs of the local government officials and workers?
2. How has ICT made a positive impact on the way the local government officials and workers seek and use information?
3. What is the state of the ICT infrastructure, capacity and skill levels of the local government officials and workers?
4. What is the contribution of ICT in the improvement of local governance and democratization?

LITERATURE REVIEW

The overview of ICT access by local governance

Literature review (Danish, 2006; Kaaya, 2004; Edejer, 2000) has revealed that the use of ICT, especially web-based internet applications, provide convenient access to government information and services. ICT therefore can lead to the improvement in the quality of services and provides opportunities for users to participate in decision making and the democratic process. This technology, it is argued, if adopted by large sections of communities, can bring citizens closer to their government.

E-government initiatives

E-government can be defined as transformation of the public sector internal and external relationships through the use of ICT. E-government is a tool to achieve better governance and enhance economic development. Many countries have adopted e-government strategies and are rapidly expanding the use of ICT knowledge by establishing publishing online, public services and digital collaboration among government ministries, although successful implementation of e-government remains a challenge (UN, 2005). In recent years, the centers of Asia and Pacific region have increasingly adopted e-government.

Access and Use of ICT in Economic Development

ICTs are crucial in facilitating communication and access to information in agricultural and rural development. Since agriculture is the most important economic sector in Tanzania, potentially it could benefit from the application of ICTs which in turn could have an impact on overall economic transformation. Development of networks and use of low-cost ICTs enhance timely access to accurate and reliable information (Kapange, 2010).

ICT Development in Tanzania

Since 2001, the government of Tanzania has promoted the use of ICT for development purposes. The Ministry of Communications and Transport was selected as the national focal point for all ICT-related matters, (ESRF, 2008). ESRF argues that ICT in Tanzania has been recognized as an important tool in accelerating poverty reduction, increasing productivity, generating economic growth, creating jobs and facilitating learning, knowledge-sharing and global information flows. The policy, legal and regulatory framework in Tanzania has been encouraging the private sector participation. As a result, there has been market revenue, telephone density, mobile growth and new products and service, paging, and payphones.

ICT Access in Rural-Tanzania

Access to the ICTs in the rural communities in Tanzania is provided through rural communication access centres (RCAs). Internet access is provided via access points in offices of the local government, schools and hospitals. Presently, via these RCAs, over one million end-users are reached directly or indirectly, amongst whom are the government officials, teachers, students, women, youth, farmers, health workers and small entrepreneurs, (Tan, L., 2007).

The Vice President's Office (VPO), (2005) argues that efforts need to be stepped up in support of increased access and publication of ICTs as the crucial 'soft' infrastructure that accelerates productivity in productive and service sectors, in government, business, teaching and SMEs' development.

The Importance of ICT and Livelihood for the Rural Poor

If appropriately adopted, ICTs will help to improve the livelihoods of the poor individuals, families and communities in the rural areas and increase the income opportunities, thereby improving their chances of upward mobility from persistent poverty. Proper use of ICT can enhance livelihoods of the rural poor by bridging the communication barrier with the government. With proper context for the rural poor, people can be empowered and their voice heard through the use of ICTs such as the internet, radio and phones (Economic and Social Research Foundation (ESRF), 2008).

Challenges of Adopting ICT in Government Operations

The literature (Edejer, 2000; Kenny, 2000) has identified numerous challenges in adopting ICT in the government operations in the developing countries such as Tanzania. Some of these challenges include: low quality of government information on the web, technical, cultural, cost, limited access and attitude challenges. These challenges have in many cases led to failure of e-government initiatives in the developing countries and thus limited use of the internet. However, significant potential of ICT in reducing poverty and promoting sustainable development especially in the rural areas has been emphasized in literature. According to VPO (2005), challenges to access ICT include: low literacy rates, incomes and limited number of service providers. According to Tomas, and Streib, (2010), in the developing countries ICT technology is transforming societies as e-governance is growing in popularity. The web pages are becoming the major vehicle for the citizens to contact the government, with increasing visits to governmental websites mainly seeking information.

The literature review has shown that while research has been conducted on the impact of ICT use in the rural areas and e-government has been the focus of most of these studies, limited

researches have focused on local governments. Empirical studies based on local context in Tanzania are almost non-existent.

RESEARCH METHODOLOGY

Study Area

This study was conducted among the local government workers and officials in Babati Town Council, Manyara Region, Tanzania. The local government officials are the major decision makers on district council activities and policies.

Overall Research Design

The overall research design integrated both qualitative and quantitative designs. This design enabled critical examination of issues raised in problem statement and objectives and ensured the participation of various stakeholders in the research process. The participation of various stakeholders led to making credible recommendations for the purposes of applications of these research findings.

Sampling Procedures

In selecting the final sample, multi-stage sampling procedures were followed. First, a survey of the status of ICT access in Babati Town Council was undertaken to include the assessment of ICT infrastructure, human capacity and skills, internet resources, etc. Second, a purposive sample of the local governmental workers and officials was selected for rapid appraisal of their use of ICT services and resources. The final sample was 40 officials.

Methods of Data Collection

Data for the study was collected through questionnaires, face to face and informant interviews, official records and feedback workshops. Questionnaires and face to face interviews were the major techniques of collecting primary data from respondents. This combination had the potential for higher response rate, quality and depth of information. In-depth interviews were conducted with key informants in the council.

Data Analysis Techniques

A combination of qualitative and quantitative data analysis was employed. Descriptive analysis was used to organize and summarize the data collected. Questions were coded and analyzed by using SPSS to derive frequencies and percentages. Content analysis was used to analyze qualitative data such as open-ended questions.

DATA PRESENTATION AND DISCUSSION

Demographic Characteristics of the Respondents

The target study population included local governmental officials and primary school teachers (workers) in Babati Town Council. The sample for the local government officials consisted of 65% male and 35% female. The sample of primary school teachers comprised 78.6% female and 21.4% male.

Age-wise, the majority of the respondents were young adults, as shown on table 1.

Table 1: Age of respondents

Age Category	Town Council Officials	Teachers	Total
20-29	5 (19%)	4 (29%)	9 (22%)
30-39	13 (50%)	5 (36%)	18 (45%)
40-49	6 (23%)	3 (21%)	9 (22%)
50-59	2 (8%)	2 (14%)	4 (10%)
Total	26 (100%)	14 (100%)	40 (100%)

The results show that Town Council officials have significantly high levels of education compared to the general population of the country, as 88% of these are first degree holders and the rest have obtained either a diploma (2) or a second degree (1). This is unlike the teachers as all of them are form four leavers, with a two-year training in certificate of education.

Access and use of ICT

Access and use of mobile phones and the internet

The research findings revealed that 96.2% of the government officials at Babati Town Council use mobile phones. All the interviewed teachers use mobile phones. 85.7% of the teachers neither access nor use the internet services, while 14.3% access and use the internet except for email service. On the other hand, 65.4% of the government officials use the internet services (excluding the email service), while 34.6% do not use the internet services. Mobile phones are accessible and relatively cheap. This could partly explain its high access and use in the study sample.

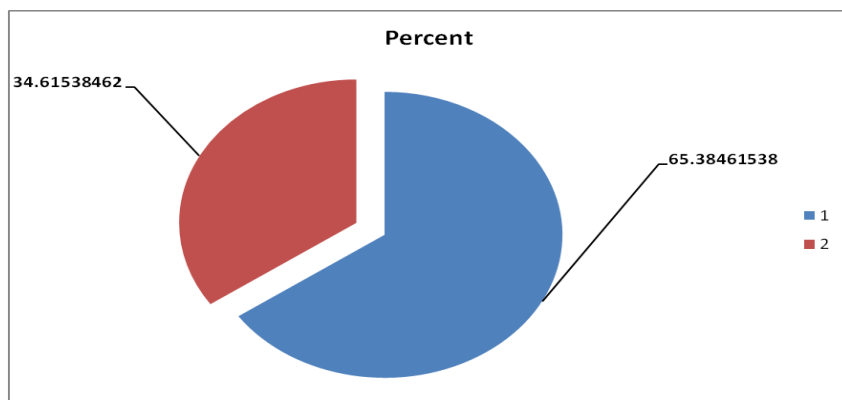
Table 2: Internet use by teachers

	Frequency	%
Use the Internet	2	14
Do not Use the Internet	12	86
Total	14	100

Source: Field data, 2011

Figure 2: The Percentage of the Internet Use by

Babati Town Council Officials



1. Use the internet 2. Do not Use the internet Source: Field data, 2011.

Access and Use of Radio

Findings revealed that the rate of using radio by the Town Council officials and primary school teachers is high. 78.6% of the primary school teachers in the study sample use radio for receiving information, while 50% of the local government officials use radio for information relating to various issues. In the rural areas, radio is cheaper than TV and the internet. As a result people living in the rural areas use radio for receiving information.

Table 3: Use of Radio by Primary Teachers

	Frequency	%
Use Radio	11	79
Do not Use Radio	3	21
Total	14	100

Source: Field data, 2011

Table 4: Use of Radio by Town Council Officials

	Frequency	%
Use Radio	13	50
Do not Use Radio	13	50
Total	26	100

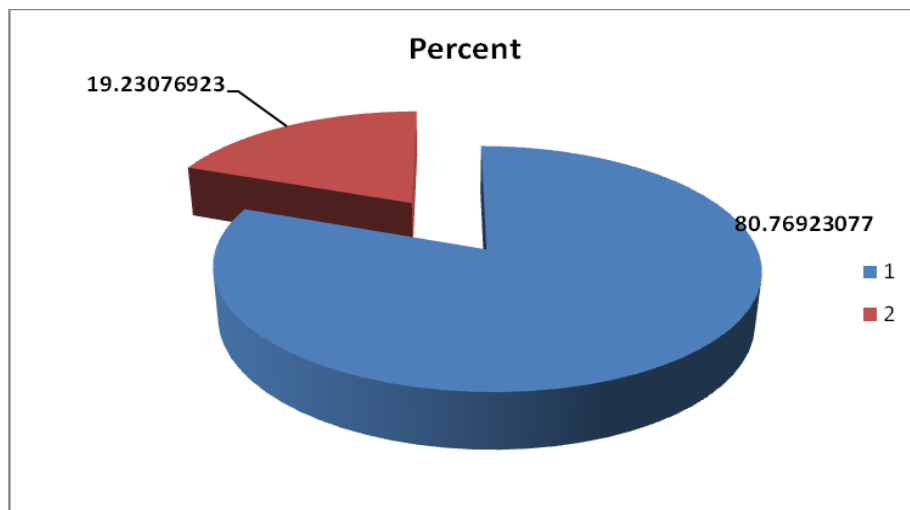
Source: Field Data, 2011

The above findings show some differences in access and use of radio between the local government officials and the primary school teachers. The difference between the local government officials and the teachers in the use of radio can be attributed to income differences, as the officials could afford to purchase more expensive information facilities.

Access and use of Television

This study examined access and use of TV by both local government officials and the primary school teachers. The findings show that 80.8% of the government officials have access to TV but only 50% actually watch television. 64.35% of primary schools teachers watch television.

Figure 3: Accessibility of TV at Babati Town Council Officials



1- Have Access 2- No Access Source: Field Data, 2011

Access and the Use of Landline Phones

The results from this study show that all primary school teachers do not have access to landline phones. On the other hand, 30% of local government officials have access to landline phones and use landline phones. On the whole, this shows that the local government offices are poorly connected to landline phones at the Council.

Use of email

Survey results indicate that the majority of Town Council officials and primary school teachers use

email for communication, especially for purposes of sending and receiving information. 92.3% of the local government officials and 71% of the primary school teachers use email services.

Table 5: Uses of Email by Primary School Teachers

	Frequency	%
Use Email	10	71
Do not Use Email	4	29
Total	14	100

Access and use of face book

The results revealed that only 30% of all the respondents use face book. 42% of Town Council officials use face. Among primary school teachers, only 7% use face book. There is therefore limited knowledge and skills in the use of the more recent social media and networking facilities.

Table 6: Use of Face book among officials and teachers

Respondents Category	Use Face book	Do Not Use Face book	Total
Officials	11 (42%)	15 (58%)	26 (100%)
Teachers	1 (7%)	13 (93%)	14 (100%)
Total	12 (30%)	28 (70%)	40 (100%)

Source: Field data, 2011.

Use of Twitter

Only one teacher and one official reported to use twitter for purposes of communication. The same applied to local government officials that 96.2% do not use twitter. Again there appears to be limited awareness and skills in the use of the more current social media and networking facilities.

Use of ‘my Space’ and LinkedIn

All Town Council officials do not use ‘my space’, and 92.3% of them do not use linkedin. All primary school teachers neither use ‘my space’ nor linkedin. Again there appears to be limited awareness and skills in the use of the new social media and networking facilities.

Use of Chat Services

All primary school teachers do not use the chat services in communication purposes. This implies low level of knowledge in using the chat services for communication purposes. Only 14% (3 respondents) of the local government officials reported to use the chat services for communication purposes.

Connectivity to Internet Services

The results of this study revealed that connectivity to the internet is a major problem in the council. All primary school teachers reported that they are not connected to the internet at their offices. On the other hand, 92% of town council officials revealed that they too are not connected to the internet services at their offices. Both primary school teachers and the local governmental officials use the internet services at the internet café and other places outside their offices.

Training of Town Council Officials and Teachers in the Internet Use

73% of Town Council officials reported to have been trained in how to use the internet services, while only 2 (14%) primary school teachers have been trained. There is a need for training primary school teachers to use the internet services, as the world of learning and teaching is changing fast, even at the primary school level.

Table 7: Training in the internet use

Respondent's Category	Trained in Internet Use	Not trained in internet use	Total
Officials	19 (73%)	7 (27%)	26 (100%)
Teachers	2 (4%)	12 (96%)	14 (100%)
Total	21 (53%)	19 (47%)	40 (100%)

How ICT impacts on work

The results from this study show a positive attitude toward ICT in terms of its impact on work. 69.2% of Town Council officials responded that ICT use facilitates efficiency and effectiveness at work. Among primary school teachers, 43% perceived ICT as having a positive impact on their work efficiency. The reasons provided for the positive impact in the use of ICT include: getting current information and timely access to information, and increasing new knowledge related to their work. For those who said that ICT does not impact on their work positively, gave reasons such as lack of ICT facilities in the offices.

Table 8: Impact of ICT on work

Respondents Category	Positive Impact	No impact	Total
Officials	18 (69%)	8 (31%)	26 (100%)
Teachers	6 (43%)	8 (57%)	14 (100%)
Total	24 (60%)	16 (40%)	40 (100%)

Challenges in Accessing and Using ICT Services

In response to an open-ended question on the major challenges relating to access and the use of ICT in Babati Town Council, the following issues were raised. The lack of the internet connectivity to many areas, especially at work places, inadequate ICT equipment, lack of ICT knowledge, unreliable power supply and cost of accessing and using ICT services. Suggested solutions were: provision of high internet connectivity especially in the Council's offices, provide funding for additional ICT equipment, training in ICT use, improving power supply and building a library at the council headquarters. Other suggestions include: government of Tanzania to allocate enough funds for building an ICT infrastructure and other ICT-related facilities in the councils and schools, and also training of local government officials on ICT matters.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The purpose of this study was to examine the access and use of ICT resources and services in Babati Town Council, among its officials and workers. The findings of this study revealed that there is poor access and connectivity to ICT services and resources in the Council, especially at the work places. Furthermore, the results revealed that there is shortage of ICT knowledge among the local government officials and workers. The government must address the challenges facing local the government officials in the access and use of ICT, to enhance work efficiency and effectiveness.

Recommendations

The following recommendations are made to facilitate effective access and utilization of ICT by the local government officials and workers at Babati Town Council: first, internet connectivity at the Town offices be improved to increase accessibility and use of the internet services by the local governmental officials and workers. Second, training of local government officials and workers on use of ICT facilities be planned and implemented so as to increase

knowledge and skills in access and use of ICT services. Third, increase budgetary allocation for ICT-related projects and programmes in the Council for connectivity, training, equipment, etc. Finally, while improving the sources of power, a library building should be built so as to improve accessibility of ICT services at the Council's offices.

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