

## Assessing the Implementation of Information Communication Technology (ICT) for Sustainable Development in NGOs in Zimbabwe

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**ABSTRACT** Over the past years, Non-Governmental Organizations (NGOs) have been actively engaging in local, regional, national and international matters with or against the public and private sectors ever since their genesis. This paper examines the role of NGOs in Zimbabwe by analyzing the dynamics of ICT on NGO relations and their direct causal effects on the promotion of sustainable development. Through a qualitative secondary study approach which was enabled through a content analysis, the paper illustrates various factors affecting the sustainability of ICT for NGOs in Zimbabwe. The paper explores the challenges being faced by NGOs in trying to maintain sustainable development through the usage of ICT and web-enhanced tools in Zimbabwe. The paper establishes that government interference, financial instability, poor infrastructure, low technical expertise among citizens, effects of HIV/AIDS, desire to maintain status quo constrained the implementation of ICT by NGOs to achieve sustainable development.

### INTRODUCTION

Information and communication technology (ICT), particularly as represented by the internet, has been praised as a potentially innovative factor in changes of social interaction and sustainable development. Attention has been given to ICT since the 1990s, when it was realized that the internet and web-technology were being used to positively and productively transform private business practices and processes (World Bank 2015). As the number of Internet users has been increasing, the ability of ICT to spread information theoretically anywhere in the world within the click of a button has become very prominent. ICT implies to any device or system that allows the storage, retrieval, manipulation, transmission and receipt of digital information (International Telecommunication Union 2015). This means that computers, scanners, systems software, databases and word processors all encompass ICT. It should be understood that ICT also broadly covers all forms of communication technology inclusive of Internet, global positioning systems and broadband. Non-Governmental Organizations (NGOs) have long recognized the potentiality of ICT and have searched and are still searching for how to utilize it more effectively. In Zimbabwe like anywhere in the world, NGOs are experiencing changes as ICT develops and consequently

becomes available at a cheap cost. Ultimately, NGOs are beginning to get insight of influence of ICT as an essential tool for efficiency and effectiveness in their existing activities. This involves the use of ICT and web-enhanced tools for publicizing and collecting information, interacting with the general public, mobilizing people's opinions and policy advocacy (International Telecommunication Union 2015). It, therefore, becomes necessary that NGOs address imminent issues that are brought about by the current information-oriented society. This is mainly because aspects of ICT fundamentally change the conditions and modes of lives driven through the NGOs. Finally, ICT promotes solidarity and alliances among NGOs themselves because the internet and other web-enhanced tools facilitate the mobilization of groups with shared goals, which strengthens the influencing power of NGOs.

### Objectives of the Study

The objective of this paper is to align the role of ICT as a support system for the social interaction of the public through the efforts of NGOs for sustainable development. Thus the application of ICT as facilitated by the web-technology is the primary tool that enables the objectives of NGOs to be driven into complete momentum. ICT has become increasingly ac-

knowledge over the last few years, and currently many organizations desire for online driven services. This paper therefore seeks to clarify that paperwork is slowly becoming a thing of the past since most organizations are adapting to an electronic administration system, for efficient and effective daily administration.

### **Conceptual Framework of NGO's and ICT Dynamics**

There is generally no agreed legal definition of an NGO; however a brief definition as espoused on by World Economic Forum (2014) implies that an NGO is a legally constituted institute created by natural or legal persons with the aim of functioning independently from any government. This study defines an NGO in the framework of its social interaction with the general public for sustainable development whilst focusing on the NGO activities which are humanitarian aid and policy advocacy. Understanding the essence and dynamics of ICT on NGOs has become imperative to understanding how they operate. African governments, notwithstanding the Zimbabwean government, have reacted incomprehensibly to the existence of these agencies. This is despite the fact that they recognize but choose to ignore the economic impact that NGOs have. This normally results in the government resisting the political pluralisation contingent to popular development action (International Finance Corporation 2015). NGOs have amazingly grown exponentially on a national scale and hence the size of some makes them significant players in the socio-economic development of the country. The funding they attract has also undoubtedly increased enormously and their visibility in policy-making for the media and with the general public has never been higher. Simultaneously, ICT functions as a catalyst of the socio-economic development process which is aimed at producing participation, empowerment and sustainability in terms of the development process for NGOs (World Economic Forum 2014).

In Zimbabwe, electronic fundraising strategies through various social network avenues have clearly demonstrated the relationship that can be promoted between the direct link of ICT and NGOs. E-Hurudza, a local private sector company developed a software package to support the government's agrarian reform program through disbursing agricultural information for all regions and tutorials on how to grow crops

which are specific to a region including land preparation (Kundishora 2015). The Red Chili Challenge was aimed at raising funds for the Zimbo-Love Foundation an NGO in Zimbabwe which was fighting to curb the high cost of blood for blood transfusion patients. The ALS ice water bucket challenge was aimed at raising awareness of motor-neuron diseases for charitable causes. The ALS ice water bucket challenge attracted more than ten thousand people in Zimbabwe through the social medial networks inclusive of YouTube, Whatsapp, Face book and other internet websites which were used and initiated by a few individuals and later joined by many NGOs. This proved to be successful and raised a sizeable amount of funding for charitable causes just through the use of web-enhanced technology, resultantly proving the momentum that ICT can drive for the policies, procedures and processes of NGOs. The visibility of NGOs among the general public through social network fundraising tremendously increased after these incidents and many other NGOs newly opened their webpages and others renewed them.

### **Characteristics of NGOs**

The diversity of NGOs in scale, in terms of size and money, their fields of action, their ways of activities, their structural forms and their target beneficiaries make it difficult for the general public to conceive what NGOs exactly connote. These factors directly affect how the NGOs achieve their intended objectives as exemplified below.

**Scale:** grass-root, local, national, regional and international.

**Fields:** human rights, development, environment, women, youth, peace movement, poverty reduction, international aid, refugee relief, disability, anti-corruption, economic justice, welfare, consumer rights.

**Activities:** service provision, monitoring, needs assessment, advocating, training, education, coordination, funding, policy assessment, campaign, petition and policy proposal (World Bank 2015).

### **Challenges Facing NGOs in ICT Development**

NGOs have certainly gained a very high status as the trailblazers of sustainable socio-economic development in Africa as exercised through information sharing to the public

through ICT. Despite the very high status there are also challenges which are hampering the solid correlation that exists between NGOs and the various dynamics which are existent within ICT. The argument is that utmost concentration on web-enhanced tools and initiatives as a main activity field have the potential to ultimately exclude those who cannot afford internet access and consequently expand the information gap and digital divide among the people (International Telecommunication Union 2015). The gap between big, affluent NGOs and small, poor NGOs is also negatively affected by digital divide (Harris 2001). It is essential to acknowledge that the manipulation of ICTs brings various relevant stakeholders onto the centre stage for sustainable socio-economic development for all (Tengende 2005). However an NGO cannot always represent the needs and wants of every individual, through the sole manipulation of ICT. This leaves to explain the issues of electronic readiness which imply an ecosystem that is receptive of the ICT and web-technology enhancement. NGOs have varying capacities to use ICT based on costs and internal expertise. Given the lack of data standards and technical standardization of ICT and web-enhanced tools, initiatives and packages, exchanging information efficiently can be very challenging for NGOs. This background therefore gives a clear indication of the significance and role played by ICT in sustaining NGOs through the essence of social interaction. However with the challenges emanating from the socio-economic meltdown in Zimbabwe, a problem arises on how the NGOs can efficiently harness ICT in full throttle in such a harsh economic environment. This in with regards to the expenses that come with ICT, which are inclusive of high electricity usage, network connection, training and development of human resources among other factors of software and hardware components (Ijeoma and Nwaodu 2013). In many developing countries including Zimbabwe, the role of ICT in NGOs has evolved in response to the market gaps left by the dilapidating economic status of the government. Hence impelled by the inadequacies of the state and the market, NGOs across the globe have attempted to deal with the diversity of the social needs.

The harnessing of ICT for NGOs is a well-needed attribute in Zimbabwe because it has

the vital mechanisms in rural and sustainable socio-economic development, since the general public benefit from the goodwill and reception of the ICT. The presence of ICTs for NGOs make a vast difference in a country like Zimbabwe, hence the evolving role of NGOs is more important through their ability to penetrate through to the grassroots level. This is despite the fact that their encounters vary from big international organizations like the United Nations to a household in a rural communal area of Zimbabwe. Consequently NGOs will always have many programs; functions and roles which support community empowerment aimed at the eventual attainment of sustainable socio-economic development. NGOs have turned out to be increasingly crucial agents of the development process in many developing countries for their work such as humanitarian relief, long-term development, policy formation and political advocacies (World Economic Forum 2014). It can be argued that, with ICT enhancements, tools and initiatives, it suffices to acknowledge that, NGOs can function as effective agents of sustainable socio-economic development in areas where the government has failed.

## METHODOLOGY

This study sought to assess the implementation of Information Communication Technology (ICT) for sustainable development in NGOs in Zimbabwe. A qualitative approach with secondary sources such as books, policy statements of NGOs, Annual Reports, Internet and past researches was used. These sources provided an overview of the current state of ICT development by NGOs in rural areas of Zimbabwe. The secondary analysis sought to answer the questions such as: What is the role of ICT in rural communities of Zimbabwe towards achieving sustainable development? What are the challenges facing NGOs in implementing ICT for rural sustainable development. To what extent has NGOs implementation of ICT in most vulnerable rural communities of Zimbabwe increase the technological literacy of rural people? The data obtained from secondary sources was analysed in a qualitative manner using thematic content analysis. The reliability was exercised through using papers which were peer reviewed and those papers form the basis of this study.

## OBSERVATIONS AND DISCUSSION

### **The Need to Improve on Network Infrastructure**

The pace at which countries develop in the world determines the development and use of ICTs. The study establishes that, weak or limited infrastructure to support the network for ICTs has been a growing problem not only in Zimbabwe but the developing countries as a whole. The study by Alam and Imran (2015) revealed that across many developing countries the limited network infrastructure compromised the level of internet literacy and its accessibility by many NGOs and citizens. The paper establishes that, NGOs in Zimbabwe have been implementing ICT in impoverished provinces with the aim of uplifting rural livelihoods; however they have not been successful due to natural barriers such as mountainous areas with high terrains hence the infrastructure does not support network connectivity. Ruhode et al. (2008) in their study reveal that in Zimbabwe steps have been taken to enhance network coverage to national levels. However, limited funding, lack of human and material resources, low levels of awareness acted against the successful achievement of ICTs. Other factors such as the effects of HIV/AIDS pandemic, lack of public private partnership as a result of poor government policies inhibited the advancement of ICT in Zimbabwe. The paper affirms further that poor management has crippled the growth of ICT both in NGOs and government. In the name of maintaining the status quo most senior managers are afraid to take risks in acquiring ICT citing reasons related to costs in advertising and educating staff and the employees. The reluctance by rural communities to learn on how to use modern technology results in NGOs failing to achieve sustainable development through ICT.

### **Improved Efforts to Curb Vandalism of Public Infrastructure**

The paper discovers that vandalism and theft of public infrastructure inhibit NGO plans to advance ICT in rural areas of Zimbabwe. Kaseke and Hosking (2012) in their study echo the same sentiments when they write that, government departments and municipalities in Zimbabwe lose various properties worth millions of dollars every

year as a result of vandalism and theft. The main form of vandalism is centered on electric and telephone communication cables which disrupts effective communication systems between NGO sector and most rural communities. The Confederation of Zimbabwe Industries (2012) endorses that the critical vandalism of Zimbabwe

Electricity Supply Authority (ZESA) infrastructure became rampant since 2001 whereby copper and aluminum was vandalized for export. Another study by Tsokota et al. (2013) revealed that serious vandalism was experienced between Dabuka and Harare whereby electric telephone cables that belonged to National Railway of Zimbabwe (NRZ) were stolen leading to various train accidents due to poor communication. This poses serious threats to NGOs that intend to improve on ICT development in rural areas because communication channels were heavily disrupted. These attempts explain that vandalism on its own became an enemy to ICT advancement in rural communities of Zimbabwe which calls for improved government efforts to launch restrictive legislation to control vandalism and cable theft.

### **The Need to Increase Awareness in ICT among Rural People**

The study revealed that the lack of awareness particularly in the socio-cultural context, little motivation and inability to understand the complex nature of ICT in problem solving proves to be a growing challenge for several communities in Zimbabwe. These findings correspond with a study conducted by Apendibadex and Koopman (2011) which reveals the limited knowledge on how to use ICTs in solving problems and the lack of desire to invest more in ICTs act as a drawback to NGOs in realizing the effective implementation of ICTs which is vital for sustainable development. Another study by Togola and Marcilly (2011) observes that lack of adequate information hinders the successful implementation of ICT projects especially at their infant stages. The efforts by NGOs in Zimbabwe to enhance sustainable development through ICT in rural communities are being thwarted by limited knowledge of the people. A study by Townsend et al. (2013) revealed that, despite huge efforts by NGOs to implement ICT, many rural areas lack enough resources and skills to take advantage of the benefits of the digital ini-

tiatives. In another study by Erdiaw-Kwasie et al. (2014) it has been revealed that rural communities have insufficient resources required to draw benefits from the digital connectivity.

The paper asserts further that most media houses in Zimbabwe are not at liberty to broadcast the programs from various NGOs due to government mistrust. This has been a hindrance to sustainable development in rural communities because they could not access or receive information concerning NGOs programs and what type of development they want to initiate in their communities. The NGOs lament over high government control in their daily operations which discourages ICT advancement. The paper acknowledges that, despite the abundance of cellphones and other traditional information dissemination techniques (pamphlets, posters, billboards, newspapers), most rural citizens still struggle to embrace the significance of ICT in NGO work. This results from the highly politicized environment in the country which disapproves NGO aid. Musiyandaka et al. (2013) in their study found out that, production and dissemination of information resources failed to reach communities due to fear by NGO agents and employees to reach several rural communities amidst perceived political persecution. Based on these assertions, limited awareness by rural community member's inhibit effective sustainable development in Zimbabwe through ICT.

### **The Need to Increase on Rural Electrification to Support ICTs**

The proliferation of NGOs worldwide calls for an increased use of ICTs across various countries they operate however past research suggests otherwise. This paper discovers that in Zimbabwe, the slow pace of rural electrification and the lack of information resources discourages the effective implementation of ICT in the country. It is imperative to observe that ICTs enable the transmission of information which can later be turned into knowledge for the upliftment of communities particularly in most vulnerable districts in the country which have low economic activities, socially and politically. It is a pity that the most rural areas of Zimbabwe are technically disadvantaged on how to use technology such as computers. Alam and Imran (2015) in their study argue that less technologically advanced rural communities are failing to

reap the benefits of ICT due to their socio-economic status and poor information dissemination. The paper concludes that, lack of rural electrification and low levels of awareness from NGOs operating in their communities hinder effective sustainable development. The paper reveals further that the youth in most rural communities of Zimbabwe are now able to use the Internet which is a positive move towards accessing vital information for economic and sustainable development.

### **The Fear of Change in Adopting ICTs**

The wave of technology can influence a positive turn around in the economies of different countries whereas in other nations it may not yield any results. The paper argues that in Zimbabwe, the desire to maintain a status quo among most established or upcoming NGOs has impacted negatively on the development and expansion of ICTs in the country. These findings correspond with the study by Howard (2008) which revealed that, retrogressive attitude which is a form of behavior that discourages progress has been illuminating among NGOs which resulted in poor service delivery and economic development in most vulnerable provinces in the country. Studies conducted by Phillip et al. (2015) and Wallace (2012) have shown that people in rural communities are afraid to adopt ICT on the grounds that, they can compromise their health. A study by Townsend et al. (2015) revealed that, whereas the advancement of ICTs is embraced it can cause serious health problems and impact negatively on social care systems in rural communities.

Besides, the potential threat to the health of rural people, techno-phobia and negative attitudes on modern ICT gadgets is constraining NGO efforts in implementing ICT for sustainable development. A study by Noorman (2012) supported the sentiments when it reveals that a significant number of rural people view computers as agents or as symbols of western imperialism seeking to discourage Africans from enjoying their own ways, ethics, and beliefs on how to disseminate information. In Zimbabwe this is worsened by the persistent attacks of the West and NGOs by the ruling government. NGOs are seen as colonial agents providing development in a mask to reverse the colonial gains hence ICTs are not growing.

### **The Need to Reduce Government Interference in NGO Development of ICT**

The advancement of ICTs in developing countries by NGOs is being widely embraced although in Zimbabwe it is being received with mixed feelings by the government. A study by Freedom on the Net (2013) reveals that, despite the history of political instability, the use of internet has become rampant and is being seen as turnaround strategy to boosting the investment sector which seems stagnant over the previous one and a half decade. The paper establishes that between 2012 and 2013, the use of internet was not heavily controlled by government although cases of political battles were fought on popular sites such as Facebook whereby opposition parties use the platform to criticize the present government. In response the government blamed the West and NGOs for enabling this political mockery which politicians claim can destroy the present government. However, the spread of ICTs remains out of government control due to the inability and lack of human material resources to do so. The paper argues that, NGOs in most vulnerable rural communities of Zimbabwe attempt to spearhead ICT development although they are often subjected to government regulation through signing memorandum of understanding (MoU) a way which many critics is government effort to control NGO activities in communities they offer services. The paper therefore; argues that if government remains neutral the provision of ICTs in rural areas of Zimbabwe can be greatly improved for effective sustainable development.

### **Increased Provision of Internet by NGOs**

The large-scale increase in the use of Internet by NGOs in Zimbabwe entails improvements in the quality of services rendered to vulnerable communities. The majority of NGOs under study reveal that they have access to Internet connectivity which is a positive step in acquiring and dispensing information to communities they serve. More importantly is the fact that these NGOs have created database management programs which are complicated by manageable for storing data of their clients' as well geographical locations of the communities they intend to serve. In the study it was discovered that very few people in rural areas could access internet

and browse through to see the programs being offered by NGOs. However, the researchers acknowledge the advancement of technology particularly the use of cellphone in rural communities which makes it easier for NGOs to spread information through their community contacts.

### **The Growth of Internet and Prevention of HIV/AIDS in Zimbabwe**

In Africa the effects of HIV/AIDS still have devastating consequences on the lives of many people from elderly guardians, governments, orphans and the private sector. With the growth of internet in Zimbabwe there has been a significant decline in number of people caught by this disease. The study by Chevo and Bhatasara (2012) established that Internet provision by NGOs in some rural areas especially at growth points and in schools contribute to the transformation of the lives of many citizens in NGOs under study. As a result it became easier for NGOs to disseminate information concerning the spread and effects and how to control the diseases. The introduction of computers in some strategic points in rural areas was embraced by local people the majority are notable to use the newest technology. The Internet provided a platform for NGOs to enhance communication with the international community, donor agencies as well as the general public. Remarkably also was the creation of interactive websites for the technologically able people to learn more on the issues related to HIV/AIDS and other disciplines.

### **Financial Instability and the Need for Collaborations in ICT Development**

The ICT development being spearheaded by NGOs in Zimbabwe is being affected by inadequate funding to enhance sustainable development. This emanates from lack of funding models and poor fundraising strategies coupled with heavy bureaucracy and accountability mechanisms in the Donor community. The paper observes that various NGOs in Zimbabwe collaborated on assisting each other to improve on ICTs. Joint meetings were held with NGOs where issues of common interest were tabled and the way forward to advance technology to the rural community they serve identified. Michael et al. (2016) in their study concur that partners need to find a common path for enhancing local ICT

development. The study urges government, private sector, local communities and international communities to foster relations since it is desirable for sustainable development. Furmankiewicz et al. (2014) reiterate that innovative collaborations in ICT improve rural livelihoods. The paper affirms further that, majority of NGOs in Zimbabwe indulge in networking with relevant stakeholders some social workers from the government, academics and Research Institutes which is imperative in sharing information on issues related to ICT development.

The paper reiterates that, the networking of NGOs marked a significant milestone in ICT development which is also crucial to the sustainable development of rural communities in Zimbabwe. In that regard, if NGOs persist with such great deeds it is a forgone conclusion that sustainable development in the field of ICTs in Zimbabwe can be realized. Greunen (2012) in his study on rural ICTs in the Eastern Cape Province of South Africa revealed that ICTs such as computers and cellphones are being used to monitor and manage home care based workers in delivering development programs to underserved communities. The findings reflected further that, ICTs were vital in dispensing information related to chronic diseases such as TB, Cancer and HIV/AIDs hence an improvement to health and education. To this end, therefore,

ICTs can be used in the study area as tools for improving the health and education standards of people in rural communities of Zimbabwe.

### CONCLUSION

The study depicted that, the development of ICTs in Zimbabwe through the NGO movement is still to be embraced by the government and local communities. The public still have negative attitudes towards NGO aid in the field of technology since the NGOs are viewed as agents of Western Imperialism. Such a notion has been popularized by media with other analysts regarding as politically motivated by the ruling government. Poor infrastructure is inhibiting NGOs to fully implement ICTs in most vulnerable rural areas in Zimbabwe. Some rural communities in Zimbabwe are inaccessible hence it is an obstacle for the NGOs that intend to provide ICTs such as computer services. The paper observes that, the lack of technical skills among rural peo-

ple to exploit modern technology remains a hindrance to ICT advancement and sustainable development. To that end, it remains the duty of local government in Zimbabwe to improve on the infrastructure of local growth points to facilitate effective erection of network cables. In schools the Internet has been fundamental in improving the grades of learners. However, some rural schools which do not have electricity were greatly disadvantaged since they could not see the benefits of using computers. The paper concludes that improved ICT development in rural areas of Zimbabwe can resonate to improvements in sustainable development.

### RECOMMENDATIONS

As the digital divide is fast enveloping the world of business and labor force, ICT advancement by NGOs in Zimbabwe is a necessity towards achieving sustainable development. Based on the findings of the study, the paper recommends the government of Zimbabwe to establish an enabling infrastructure which supports the establishment of ICT networks in most vulnerable rural communities. This is fundamental in improving information dissemination on development issues. The rural people should be trained to increase their ability to use modern technological devices. This can be done by NGOs through establishing vocational schools that cater for the illiterate so that they fully participate to achieve sustainable development in their communities. The paper recommends NGOs to enter into Public Private Partnerships (PPPs) and Multi-Stakeholder Partnerships (MSPs) with the government of Zimbabwe and other related stakeholders on ICT development in rural communities. Such collaboration enables NGOs need to improve on ICTs awareness campaigns in rural areas which can be realised through partnering with the state media mainly the Zimbabwe Broadcasting Corporation (ZBC). This is imperative to NGOs because programmes are aired to the benefit of the public. An improvement in Monitoring and Evaluation of ICT projects is crucial in curbing mismanagement and corruption which can arise in the projects. Information Technology experts need to be employed by NGOs to avoid poor connections in the establishment of ICTs.

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