BIDPA Working Paper 45

October 2016

# Technology and the Nature of Active Citizenship: *The Case of Botswana*

Molefe B. Phirinyane

BOTSWANA INSTITUTE FOR DEVELOPMENT POLICY ANALYSIS

# BIDPA Working Paper 45

October 2016

# Technology and the Nature of Active Citizenship:
## *The Case of Botswana*

**Molefe B. Phirinyane**

**Botswana Institute for Development Policy Analysis**

## BIDPA

The Botswana Institute for Development Policy Analysis (BIDPA) is an independent trust, which started operations in 1995 as a non-governmental policy research institution. BIDPA's mission is to inform policy and build capacity through research and consultancy services.

BIDPA is part-funded by the Government of Botswana.

## BIDPA Working Paper Series

The series comprises of papers which reflect work in progress, which may be of interest to researchers and policy makers, or of a public education character. Working papers may already be published elsewhere or may appear in other publications.

**Molefe B. Phirinyane** is Research Fellow at the Botswana Institute for Development Policy Analysis.

**ISBN: 978-99968-451-3-0**



**Disclaimer**
The views expressed in this document are entirely those of the authors and do not necessarily reflect the official opinion of BIDPA.

# TABLE OF CONTENTS

Abstract ..... iv
1.0 Introduction ..... 1
2.0 Models of Citizen-Government Interaction ..... 2
2.1 The Managerial Model ..... 3
2.2 The Consultative Model ..... 4
2.3 The Participatory Model ..... 4
3.0 ICT Initiatives and Citizen Participation in Botswana ..... 6
3.1 The Traditional Mode of Citizen Participation in Botswana ..... 6
3.2 ICT Policy, Regulatory and Institutional Framework ..... 7
3.3 E-Government Initiatives ..... 9
3.4 ICTs Infrastructure Development and Citizen Access and Usage ..... 11
4.0 4.0 Lessons Learnt ..... 16
5.0 5.0 Conclusion ..... 17
6.0 References ..... 18

## ABSTRACT

The use of technology in citizen participation has grown phenomenally in developed countries, but is emergent in most developing countries. Accessibility and the functionality of information and communication technologies such as telephone, cellular phone and internet have profound effect on citizen participation in politics, policy making and implementation. This study applies a case study methodology to understand the relationship between technology and the nature of active citizen participation in developing countries, using Botswana as a case example. The penetration and use of the information and communication technologies in politics and the policy-making process in Botswana remains low. Botswana first laid in place the policy, legal and institutional frameworks to guide its development of ICTs in her governance system. The country has since made significant gains on providing ICT infrastructure countrywide, and reducing the costs associated with accessing these where available. The country has registered improvements on all indicators on Technological readiness, further strengthening the country's path on the adoption ICTs in its governance process.The findings suggest that countries should take the responsibility for, and be committed to, creating a conducive environment for the ICT industry to thrive while not losing focus of the ultimate objective of citizen participation.


**Key words:** Botswana, citizen participation, e-government, Information and Communication Technologies.

# 1.0 INTRODUCTION

The meaning of citizenship is contentious, which perhaps indicates its multidimensionality. For the purpose of this paper we adopt the meaning of citizenship to imply the mutual expectation that the community or society and the members have on each other (Patterson, 1999). An active citizen would be one who is conscious of their rights and obligations to society and participates in the governance of his/her society. Participation on the other hand refers to various activities of individuals and/or groups related to lobbying, volunteering, voting, and demand for services at both national and local levels. Patterson (1999: 4) states that participation reflects one's view of their rights and obligations in a society and is closely associated with citizenship. The desirability of participation is in its promotion of "representativeness and responsiveness of ... administrative and political institutions, heightens citizens' sense of political efficacy, and acts as an important check on the abuse of administrative discretion" (Cupps, 1977: 478).

The nexus between technology and active citizenship or citizen participation is e-government. The definitions of e-government are varied (see Nkwe, 2012: 40; Lowery, p1), but all seem to agree on one thing - the use of Information and Communication Technologies (ICTs) to achieve good governance. The scope of e-government covers three key areas: service provision, digital democracy, and economic development (Lowery, undated). These three key areas cover a broad definition of e-government and include government-to-government, government-to-citizens, and government-to-business interactions (Nkwe 2012; Lowery) as well as government to its employees (Lowery). While government-to-government is the primary and fundamental requisite for efficient and seamless e-government, the government-to-citizens is often the primary objective or high order goal. This definition of the scope of e-government is in sync with Chadwick and May's (2003) three models of citizen-state interaction that underpins the practice of e-government. Chadwick and May's model is discussed in section 2 below.

With the end of the Cold War, many developing countries have adopted liberal democracy as evidenced by the widespread democratisation processes in much of the world's regions – Africa, Latin America, Eastern Europe, and Asia. However, liberal democracy has been criticized in particular for its shortcomings on participatory government in contrast to the Athenian ideal of democracy (Marinetto, 2003). Marinetto (2003: 106) aptly observes that 'Citizens in Western democracies, although regarded as sovereign, have only a passive role in the political and decision-making process.' The main participatory activity they are involved in is the intermittent opportunity to vote for their political leaders (ibid). To address this shortcoming, Western governments have adopted the use of information and communication technologies (ICTs). Participation has traditionally been through face-to-face interactions, writing, and the use of the telephone. Technological advancement brought in the internet, and Western governments have never been the same ever since. In the USA for instance, access to broadband internet as a tool for participation in the economy and politics is regarded as a public good similar

to water, electricity, gas and waste instead of a luxury (Tapia and Ortiz, 2010). Faced with similar challenges of poor participation in public affairs by their citizens, developing countries, with the active encouragement from the World Bank, are also adopting utopian attitudes towards communication technologies. Williams (2010: 1) observed that, "Access to advanced information and communication technology (ICT) is a key factor in the economic and social development of Sub-Saharan Africa."

The social and economic advantages of ICTs are compelling and attractive. This can be perceived from the ICT sector reforms African governments have embarked on and the public statements some of the African leaders have made. President Paul Kagame of Rwanda, cited in Williams (2010), stated that:

> We have high expectations of ICT and its transformative effects in all areas of the economy and society. Communications technology has fundamentally changed the way people live, work, and interact socially, and we in Rwanda have no intention of being left behind or standing still as the rest of the globe moves forward at an ever increasing pace (p. 1).

However, in spite of the stated objectives of, and/or commitment to, adopting ICTs by Sub-Saharan African leaders and governments, the broadband access gap between Sub-Saharan Africa and the rest of the World is widening except for basic voice communication access (see Williams, 2010). Because of the proliferation of the internet and the phenomenal growth of e-government, in discussing ICTs this paper takes a bias towards broadband internet.

This paper seeks to understand the extent of the use of ICTs in citizen participation using Botswana as a case study. There are two principal questions that this paper addresses. First, what strategies are being adopted to stimulate access to communication technology, especially broadband? Secondly, why does the use of broadband internet by citizens in the policy and decision making processes remain limited?

## 2.0 MODELS OF CITIZEN-GOVERNMENT INTERACTION

ICTs have long been adopted in the West. However, the advent of the internet with its advantages of 'interconnectedness' far outweighed what had come before it (Chadwick and May, 2003). The internet has become the most dominant utility in Western media (Quintelier and Vissers, 2008). All Western countries have long embarked on e-government and the internet has indeed become a "... new aspect of government ... virtually all large U.S. governments and their agencies – federal, state, local - now having their own Web sites" (Thomas and Streib, 2003: 83). The developing world has lagged behind, not surprisingly, because the internet is a Western technological development meant to address Western problems. In order to efficiently interpret the interface between technology and citizen participation this paper adopts Chadwick and May's (2003) models of interaction.

Chadwick and May have applied three overlapping models of interaction in appraising ICT use in the USA, UK and the European Union. These models are the 'managerial', 'consultative' and 'participatory' (ibid). The key tenets of the models are presented in Table 1 below.

**Table 1: The Managerial, Consultative and Participatory Models**

| Managerialism | Consultative | Participatory |
|---|---|---|
| · 'efficient' delivery of government/state information *to* citizens and other groups of 'users'/information dissemination<br>· improving flows of information within and around the state<br>· 'control' as defining logic<br>· importance of 'service delivery'<br>· speeding up of information provision *is* 'opening up' government<br>· regulatory, law making; responding to the needs of the 'new economy'<br>· user resource issues (ability to receive and interpret information) largely absent<br>· unilinear model of information | · polling, access of voters and other interested parties to government, representation of views,<br>· advisory referendums<br>· 'push-button democracy', 'e-voting' - direct democracy - instantaneous opinion polling<br>· access as a technical issue - problems of self-selection of citizen respondents<br>· direct and unmediated contact between citizen and state<br>· 'electronic town meetings'<br>· agenda framing as critical issue<br>· technological lag among citizens and their representatives<br>· unilinear model of information | · civil society exists away from the state and (will be) mediated electronically<br>· organic emergence of democracy<br>· voluntary associations, spontaneous interactions within cyber-space<br>· access is enough to encourage wider political participation<br>· state protects free speech and rights of expression<br>· participatory model will replace the other two through the *logic* of information society<br>· discursive model of information |

**Source:** Chadwick and May (2003).

## 2.1 The Managerial Model

In this model ICTs are seen as an incremental improvement on the previous technologies of service delivery. The concern is with the efficient delivery of services at a reduced cost. This is achieved through internetworked government which facilitates horizontal flows

of information. Horizontal flows of information collapse the departmental boundaries and the vertical hierarchies (Bellamy, et al in Chadwick and May, 2003).

ICTs will ensure that citizens' requests will be more accurately targeted and responded to faster. The model does not pay attention to the potential use of ICTs for democratic purposes. Information is provided to empower those who previously could not access it. The state is regarded as the authoritative provider of information in the society and other providers are sidelined. The managerial model treats information in a simple and unilinear fashion instead of a complex and discursive manner (Chadwick and May, 2003). It is the state that manages the activity and citizens, although regarded as part of the e-government network their role is subordinated to that of the state. The approach is a 'push' model of information dissemination in which the government provides information and it is the responsibility of the user to access it.

## 2.2 The Consultative Model

This model differs with the managerial model in its emphasis on ICTs being instruments that facilitate the communication of citizens' opinion to the government. In that sense this is a 'pull' model (Chadwick and May, 2003). The speed of ICTs is used to involve citizens in the policy making process. The interaction under this model often goes beyond passive information or opinion submission to the government. It has led to what sometimes may be referred to as e-democracy but not of a scale realised under the participatory model (see below). Although the model is perceived not to contain all the necessary factors needed for a fully developed e-democracy it facilitates greater democratic participation than the managerial model.

The model, however, is criticised for its self-selecting weakness. Not all citizens are computer literate, and those who are able to participate in the state-citizen interactions through the ICTs medium may not necessarily represent the views of those who do not. The other challenge noted is that associated with direct democracy that may lead to the difficulty in both government and civil society mobilising electronic campaigns or may lead to them only seeking consultation with certain groups or in particular policy areas only. Often the model may allow only consultations that fit within the parameters set by the policy-makers. Any opinions that may fall outside those parameters and those that challenge the policy-making itself are likely to be rejected.

## 2.3 The Participatory Model

The participatory model is based on the idea that knowledge is discursive, contingent and changeable (Chadwick and May, 2003). It is based on the tenets of liberal democracy in which freedom of speech and rights of expression are guaranteed. Access to information is universal and that the availability of information is not only the purview of the government but non-state sources also actively provide information

that citizens may use to influence policy and decision-making. The government has to provide infrastructure as well as regulation. Civil society interacts with government electronically through autonomous pluralist mechanisms such as bulletin boards, chat rooms, file sharing, and peer-to-peer networking (Chadwick and May, 2003). Citizen-state interaction is based on forums, virtual communities and groups. Civil society is strengthened through the development of these voluntary groups and the development of new communities of interest.

The first two models typify transitory stages of interaction with the ultimate goal being to build a "cyber civil society" that "will be participatory in its logic and practice" (ibid: 281). In this model the internet is perceived as enabling citizens to assert their demands in new and different ways. And the increasing availability of information is thought to compel the political elites to bow to pressure from citizens who now have a large measure of awareness.

The popularity of the internet as a versatile tool has spread globally. Its major appeal has especially been in sectors of the population, such as minorities, that have been left out by the traditional forms of participation. However, the utility of the internet in citizen participation is contested. In their study of Belgian youth Quintelier and Visser (2008) found that some form of internet use fosters political 'participation' offline. Problems about broadband access that common in developing countries are not only limited to universal availability, but even within developed countries there are issues of use and access between social classes. This poses more challenges for developing countries where poverty and inequality are widespread. Internet access and use often has unintended consequences of deepening the digital divide between social classes (Sylvester and McGlynn, 2010; Kim, 2008). Sylvester and McGlynn (2010) conclude that physical location matters with regard to levels of access to broadband technology and that increased home internet use is positively associated with contacting government officials in various ways. In South Korea, Kim (2008: 204-205) found that highly educated people are more likely to read newspapers and read the political websites considerably more often than those with less education. Kim further argues that people who are less educated are more likely not to have access to a computer or internet service as compared to university graduates. The main problem is that internet information use requires cognitive skills and literacy that the less educated lack. In many developing countries, where literacy rates and incomes are low, we expect to find low levels of internet use or penetration and limited populations that own computers, smart phones and tablets.

## 3.0 ICT Initiatives and Citizen Participation in Botswana

### 3.1 The Traditional Mode of Citizen Participation in Botswana

Botswana gained independence from the United Kingdom in 1966 and adopted a multiparty democracy. The country has successfully held free and fair elections uninterruptedly every five years since independence. Telecommunications infrastructure in Botswana was among the least developed in the region, if not in the whole world. Both politically and socially the *kgotla* (a traditional public forum presided over by the chief) played a central role. Interactions at the *kgotla* have always been a two-way process, between the citizens and their leaders. Commoners were allowed to freely express their views and/or concerns in public. At independence the *kgotla* was blended in with new forms of governance. This approach of blending both the traditional and modern elements of governance has been perceived as successful (Good, 1992). In modern Botswana, government Ministers and top public officials continue to hold *kgotla* meetings to consult citizens on matters of public policy and public affairs in general. The *kgotla* could be likened to the Athenian direct democracy, but this when compared to representative democracy has limitations in modern society.

Traditionally the *kgotla* was operated to assert social control by the leaders (Good, 1992: 70) and was not inclusive in that certain sections of society, such as women and the youth, were not allowed to participate in the discussions. The chiefs used it to subordinate the commoners. Maundeni (2001) argues that the *kgotla* were actually highly centralised institutions, and that the present leaders continue to operate it in the same fashion it was in the pre-independence period. However, under the new polity all adults (or those of majority age) irrespective of gender, creed, religion, race, etc., do freely participate in the proceedings of the *kgotla*. Notwithstanding that, the structure of the modern economy in which most of the educated and informed members of the society have jobs in the formal sector makes the *kgotla* inaccessible. *Kgotla* meetings are held during working hours when the informed members of the society who could intellectually engage with officials on complex policy matters are away at work or attending tertiary education. This has often created a situation in which more often than not discussions led by government officials do not discuss the merits of the policy/programme but instead inform the citizens about how a particular policy and/or programme will be implemented. These limitations make the *kgotla* to be inadequate as the main strategy for citizen participation.

Organised civil society in Botswana has remained weak. Kaunda, et al, (2008) concluded that civil society organisations in Botswana are ineffective partners of government in the development process due to their lack of skills, experience, organisational capabilities, creativity and funding to promote their interests. There are also structural problems that hamper the effectiveness of civil society. Access to information by civil society is constrained and inadequate for civil society functions (Kaunda, et al, 2008). Nevertheless, the radio phone-in programmes have also contributed significantly to citizen participation. Both

the government and privately owned radio stations have phone-in programmes where citizens do interact with policy-makers and service providers. However, radio phone-in programmes lack the same impact that organised civil society may have due to the uncoordinated manner in which issues discussed may be raised. In Botswana issues raised for discussion are usually dependent on the radio station programmers but not the public. The citizen-government interaction is characterised by information asymmetry, in which the government selectively releases public information and there are no laws that protect the right to information. The Freedom of Information Bill was presented to the 10th Parliament in 2010 but ever since it has not yet been passed.

## 3.2 ICT Policy, Regulatory and Institutional Framework

The Government of Botswana has taken some initiatives to bolster the application of ICTs in its dealings with the citizenry. These include the enactment of the National ICT Policy – *Maitlamo* Initiative of 2007, the Draft Universal Service and Access Policy and laws that govern and regulate ICTs, and the creation of an independent regulatory authority, the Botswana Communications Regulatory Authority (BOCRA). The National ICT policy establishes the policy, regulatory and service provision frameworks based on reforms that many developing countries have adopted (see The World Bank, 2000: 1-5). The adopted telecommunications sector reforms have also meant that Botswana adopted the standard institutional structure found in developed economies. The objective of the National ICT Policy is to foster digital inclusion and promote knowledge. One strategy to achieve this objective is the construction of public places known as *Kitsong* Centres (or Business Communications Centres) where citizens could access the internet and other business services (desktop publishing, photocopying, faxing, laminating, scanning, paper binding, typing and printing) across the country. The other strategy is the development of tele-centres as a means to achieve the objectives of the Draft Universal Service and Access Policy that seeks to ensure universal access to services by all Batswana wherever they are in the country and irrespective of their economic situation or income levels (Daily News, 2010). As the discussion under subsection 3.4 will show, the government of Botswana has adopted a similar strategy to that adopted by the Chilean government that relied on public funding to provide for the installation of telephony infrastructure in the rural areas (see World Bank, 2000) as well as internet. Listed below are the instruments that govern ICTs in Botswana.

The governance of the ICT sector is enshrined in the following instruments:

- Botswana Telecommunications Corporation Act (1980);
- Botswana Postal Services Act (1989);
- Telecommunication Policy (1995);
- Telecommunication Act (1996);
- National Information and Communication Technology Policy (2007);
- Cybercrime and Computer Related Crimes Act (2007);

- National e-Government Strategy (2011-2016), and
- Communications Regulatory Authority Act (2012).

The Botswana Telecommunications Corporation Act established the Botswana Telecommunications Corporation (BTC) as a public enterprise or parastatal organisation, and provides for its mandate. Since its establishment in 1980 BTC operated as a monopoly providing only fixed line service. The Telecommunications Act established the Botswana Telecommunications Authority (BTA) as a telecommunications regulatory body. The Telecommunications Act was repealed and replaced with the Communications Regulatory Authority Act of 2012 that transformed the BTA into Botswana Communications Regulatory Authority (BOCRA). However, this institutional structure in Botswana that separates responsibility for policy, implementation, and regulation is still nascent. BOCRA is the regulatory authority for telecommunications, postal, broadcasting, and internet services. Its powers are derived from the Communications Regulatory Authority Act within the framework of the Telecommunication Policy. The policy is effected through the National e-Government Strategy.

The National e-Government Strategy presents e-government as a critical tool for the development of the country. It is aimed at raising the public sector service quality, allowing citizens to access government information and services around the clock, and for cutting travel costs for citizens and queues at government offices (GoB, 2011: 3, 4). Following the establishment of the regulatory authority in 1997 private mobile phone service providers, Mascom Wireless and Vista (later bought over by Orange and changed the name to Orange), were licensed in 1998. With customer connections of 144,195 fixed lines in 1999, BTC reported just over 144,000 fixed lines in 2009 (BTC, 2009). Botswana's rankings on fixed telephone lines per 100 population improved from a ranking of 101 (144 countries) in 2012 to 89 (140 countries) in 2016 (see The Global Competitiveness Index, 2012; 2016). With a regulatory body in place the government liberalised the telecommunications industry in 2006. Both Orange and Mascom, which had hitherto been mobile telephone operators only, and BTC applied for (in various years), and were granted, Public Telecommunications Operator licences that allowed them to offer telephony, mobile phone, and internet services all at once. In 2008 BTC launched its own mobile phone service provider under the brand name 'beMobile'. The reform bore some positive results. In 2012 Botswana was ranked 19 and this improved to 8 in 2016 for mobile telephone subscriptions per 100 population. These gains are however negated by the absence of laws that protect the right of citizens to access public information. The Constitution of Botswana protects the freedom of speech but without the right to information this provision can only serve a limited purpose in as far as citizen-state interaction is concerned. While the government has put in place the necessary policy, legal, regulatory and institutional frameworks the game changer should be a robust e-government platform.

### 3.3 E-Government Initiatives

The most important part of the e-government development is the government portal through which public services, economic development, and e-democracy take place. The government of Botswana has demonstrated commitment to e-government by establishing a policy, legal and regulatory framework to ensure good governance. However, there is an absence of data protection or privacy laws to regulate data reuse (World Bank, 2014). The government states that "robust governance is a pivotal component of our e-Government agenda, and one which is to be strengthened in the coming years" (GoB, 2011: 4). The government fully understands her pivotal role in e-government, and has an ambitious agenda that envisions e-democracy even though the strategy at the moment is geared towards efficiency in service delivery. I quote from the e-government strategy:

> Our e-Government programme will allow us to further demonstrate our passion for inclusive and democratic participation. Using central government portal as a convenient meeting place, we will begin to ask citizens for their input on pressing national matters, government policies that are under consideration, the quality of public sector service delivery and a series of other important topics that merit debate. This will be achieved via a range of online polls and questionnaires. In addition, all Members of Parliament will be provided with an email address to allow their constituents to send their comments directly to the MP via the internet (GoB, 2011: 5).

The main objective of the e-government strategy is to make government services available electronically hence increasing government reach, rendering 24/7 service delivery. This objective is supported by five major programmes stated below:

1. The Portal Enhancement Programme (PEP) which comprises of 14 projects intended to develop and strengthen the portal as the primary service delivery vehicle for the government's services. The PEP will also be the main platform for implementing service delivery to cellular phones and mobile devices through the m-Gov initiative.

2. The Multiple Access Programme (MAP) that is intended to consolidate a number of ongoing initiatives to ensure consistent and effective approach for providing government information and services through multiple delivery channels. The programme consists of the following components:

    - assessing the feasibility to establish a central government call centre
    - the introduction of government service centres across the country
    - integrating and standardising e-government service delivery through community centres *Kitsong* Centres and telecentres
    - fastracking the introduction of important e-government services directly through ministries.

3. The Technical Rationalisation and Integration Programme (TRIP). The programme is aimed at the integration of seven projects under TRIP and building organisational capacity and capabilities of the Department of Information and Technology. The objective is to reduce duplication and operational costs. The TRIP programme is also intended to review the ICT Policy.

4. Botswana's e-Government, Service Transformation, Reform, Organisational and Network Governance (Be STRONG) Programme is an initiative aimed at ensuring effective governance of the e-government programme. The government places a premium on this programme to the extent it is led by the Permanent Secretary to the President. It is Botswana's tradition for any programme that they treasure most to place it under the Office of the President to give it some prestige and ensure its success. A Government Chief Information Officer was appointed to oversee the Be STRONG Programme.

5. The Skills Transformation in Support of E-Government Programme (STEP) - is overseen by the Directorate of Public Service Management (DPSM). The DPSM together with the private sector, training institutions and other government institutions are responsible for making a skills audit to see what is required for the public service to function in an e-government environment.

For a quick win the government decided to give some e-government programmes a priority as the services are commonly used by citizens, and are likely to bear visible improvements in service delivery. These include the following services:

- the passport office
- motor vehicle registration
- Statistics Botswana
- Vital Statistic Registration
- land and property registration
- business registration
- the National Identity Card - *Omang*

A number of these services have indeed been a success, such as the Passport Office's turnaround time on the processing and issuance of passports. Application for a passport used to take months but lately it can be done within a few days. Business registration has also been reduced to about a week from over a month in the past. Other programmes have not been completed, such as the ongoing land and property registration. Some of the completed services have not improved in terms of efficiency. For example, the motor vehicle registration is computerised but queues at the registration offices are still very long and computer system failures are common. The main challenge with the computerisation of government services has been the centralisation of the human resources responsible for IT. The availability of the staff at a particular department or Ministry is at the discretion

of the Ministry of Infrastructure and Technology that houses them, but not the user departments or Ministries. The human resource management decisions for government IT staff lie with the Ministry of Infrastructure and Technology as it is them responsible for promotions, transfers, training and so on. Other potential challenges are likely to emerge. For instance, operating systems for health and land are different, and require different expertise. An officer due for promotion may be transferred across to a totally different service provider or government ministry with a completely different operating system. Such an arrangement often disrupts service delivery before vacancies can be filled and also while training the new employee on new system that they will be using. The government of Botswana has made significant e-government initiatives aimed at supporting the e-government programme. What is of interest now is the extent to which these efforts have stimulated internet use and promoted citizen participation.

### 3.4 ICTs Infrastructure Development and Citizen Access and Usage

The telecommunications sector in Botswana has been dominated by the government through its parastatal organisation, the Botswana Telecommunications Corporation. Notwithstanding that, Botswana has one of the most advanced telecommunications infrastructure in Sub-Saharan Africa. At its inception in 1980 BTC had 6,500 access lines connected through electro mechanical switches linked by analogue radio microwave systems and today its access lines are connected by digital switches with thousands of kilometres of fibre optic and digital microwave technology (BTC, 2009). Charged with the responsibility of telecommunications infrastructure development is the Ministry of Transport and Communications. The Ministry has adopted a double pronged strategy in which it collaborates with the parastatals, the Botswana Post and BTC, and on the other hand pursues a public private partnership (PPP) approach in the development of the rural communications development programme. The PPP approach involved the Botswana Telecommunications Corporation and Mascom Wireless. The flagship programme in this strategy has been the ambitious *Nteletsa* Project that targeted villages to be connected to telephony and internet services. *Nteletsa* Project was divided into two phases, with *Ntelesa* 1 beginning in 1998-2004 and implemented in 235 villages across three districts. *Nteletsa* 2 was implemented in the remaining nine districts and was finalised in 2011 with a further 197 villages connected to telephony and internet services (Daily News, 2010).

BTC was engaged in 2002 by the Botswana Government to implement its *Nteletsa* Project (BTC, 2009). The Ministry of Transport and Communications in collaboration with the Botswana Post had by April 2010 constructed 43 of the planned 51 *Kitsong* Centres (rural telecommunications development programme) (Daily News, 2010). The *Kitsong* Centres are based on the European model (esp. Sweden and Denmark) of providing shared access points and are supported by the World Bank and the United Nations. Together *Nteletsa* 2 and *Kitsong* Centres projects provided 248 centres in addition to those in phase one of *Nteletsa*, making a total of 483 public centres. *Nteletsa* Project

provides at least one telephone line and internet access operated by the service provider in partnership with the local communities. It is reported that 16, 406 customers visited and accessed services at various *Kitsong* Centres (ibid). Internet access at the Centres cost P5.00 for 15 minutes, P7.50 for 30 minutes and P10.00 for one hour (Daily News, 2010). The price basket for internet in Botswana stood at a reasonable $29.7 against the Sub-Saharan Africa average of $42.3 per month in 2007 (The World Bank, 2010). For North Africa the average price was far below at $13.6 per month (ibid), showing that costs are way up high in the South. The cost for broadband internet has started to drop since Botswana connected to the West African Cable Systems (WACS), Eastern Africa Submarine Cable System (EASSy), and SEACOM. The cost of a 3-minute local call at peak hour from a fixed line in 2007 and mobile phones in 2006 were lower than the regional average at $0.17 and $0.20 respectively (The World Bank, 2010). Compared to North Africa with an average cost of $0.02 for fixed line local call, Sub-Saharan Africa does not compare favourably except for mobile phone local call which was $0.33 for North Africa. The centres provide some of the services that the private sector, for economic reasons, cannot provide on its own in rural areas. These include the charging of mobile phone batteries, photocopying, scanning, and printing. The connection charges for residential telephone in 2007, business telephone and mobile phone in 2006 for Botswana stood at $37.5, $55.0 and $3.4 respectively. The charges for residential telephone and mobile phone were significantly below the regional average and even better than in North Africa, except for business telephone. The Sub-Saharan connection charge averages were $46.3, 52.2 and $9.6 respectively, compared to North Africa's residential telephone $44.4, business telephone $25.7 and mobile phone $3.8 (The World Bank, 2010).

A major significant development by the Botswana Telecommunications Corporation came in 2005 through the adoption of Intelligent Network Platforms strategy and the roll out of broad band with Asymmetric Digital Subscriber Line (ADSL) in Gaborone (BTC, 2009). In 2009 BTC rolled out broad band service to the entire country and also successfully launched the converged product offering (ibid). The converged product offering strategy focuses on leveraging fixed, mobile, wireless and internet convergence. After the BTC initiative Botswana's performance on the Technological Readiness pillar has been improving steadily. In 2008 internet users per 100 people were 4.2, slightly below the Sub-Saharan Africa average of 4.5 (The World Bank, 2010). Although internet use in Botswana remains very low, 18.5% of individuals in the country used internet and was ranked at 105 out of 140 countries in 2015 (see The Global Competitiveness Index, 2016). The previous ranking for individuals using the internet in the country was 124 out of 144 countries in 2012. Broadband internet subscriptions per 100 population, stood at a low 105 in 2012 but slightly improved to 100 in 2016. Mobile broadband subscriptions was ranked 106 in 2012 and improved significantly to 56 in 2016. The ranking for international internet bandwidth, kb/s per user, stood at 91 in 2012 but improved to 88 in 2016. While Botswana made appreciable improvements on Technological readiness this did not translate into online citizen-government discourse.

The government has noted in its strategy the low level of ICTs use with the exception of mobile telephone and has expressed in its ICT Strategy the hope that e-government, if it could make life simpler for people, would stimulate individuals and businesses to go online to access government services (GoB, 2011). To improve service delivery and also stimulate interest in the use of ICTs the government has used the technology in various ways in the attempt to make services accessible to citizens. For instance, the 2009 Botswana General Certificate of Secondary Education (BGCSE) examinations results as well as those for Junior Certificate examinations results were accessible by both internet and mobile phone facility (Daily News, 2010). Those without internet at home or office could use the *Kitsong* Centres country wide. The Ministry of Education and Skills Development's long term strategy is to use SMS texting and website facility for a variety of services such as sponsorship applications and teacher employment notifications (ibid). Table 2 overleaf illustrates internet usage in Botswana.

In 2014, Statistics Botswana conducted the first ICT Household Survey that covered the whole country. A total of 1, 343, 822 individuals participated in the survey of whom 493, 784 (36.7%) used the internet in 2014. The proportion of individuals who used the internet is almost double that presented by the Global Competitiveness Index (2016). In spite of the 36.7% proportion being a significant difference from the low 18.5% it is still small and does not mean much difference, especially with citizen participation as reflected in Table 2. According to the ICT Survey 21.1% used the internet to get information from government organisations; 19.4% read and posted opinions online on civic or political issues; 10.4% interacted with government organisations; while only 4.8% took part in online consultations or voting to define civic or political issues (see Table 2). However, internet usage is bound to keep on improving in view of the strategy adopted by the government in which most services will be provided online and thereby stimulating usage. For instance, the Botswana Unified Revenue Service (BURS) has unrolled the online tax returns for individuals as well as the Value Added Tax returns for companies. The Public Procurement and Asset Disposal Board (PPADB) has also instituted compulsory online bidding for public tenders, with interested companies having to first register for the online service. The government also has an official Facebook page known as BWgovernment in which public announcements are made to citizens on various issues. Mostly the government posts notices and citizens can ask questions, and more often get responses. The page had over 231,000 likes as of mid-August 2016. Some of the parliamentary questions and answer sessions are presented on the page and citizens make comments.

**Table 2: Individual Internet Use By Activities Done, 2014**

| Internet Usage | Number | Percent |
|---|---|---|
| Participating in Social Networks | 386,921 | 78.4 |
| Sending or receiving email | 250,879 | 50.8 |
| Reading or downloading online news/newspaper/magazines, electronic books | 279,376 | 56.6 |
| Seeking health-related information (e.g. injury, disease, nutrition, improving health, etc) | 187,310 | 37.9 |
| Looking for information about education, training or course offers | 245,127 | 49.6 |
| Finding information about goods or services | 163,537 | 33.1 |
| Playing or downloading video games or computer games | 220,551 | 44.7 |
| Downloading movies, images, music, watching TV or video, or listening to radio or music | 145,854 | 29.5 |
| Downloading software (other than games software) | 94,236 | 19.1 |
| Reading and posting opinions on civic or political issues via websites (e.g. blogs, social networks, etc.) | 95,698 | 19.4 |
| Taking part in online consultations or voting to define civic or political issues (e.g. urban planning, signing or petition) | 23,789 | 4.8 |
| Getting information from government organisations | 104,276 | 21.1 |
| Interacting with government organisations | 51,152 | 10.4 |
| Doing an online course | 31,528 | 6.4 |
| Consulting wikis to obtain knowledge on any subject | 160,460 | 32.5 |
| Looking for a job or sending a job application | 116,778 | 23.6 |
| Participating in professional networks (creating user profile, posting messages or other contributions to LinkedIn, Xing, etc | 47,146 | 9.5 |
| Using services related to travel or travel related accommodation | 33,979 | 6.9 |
| Selling of goods or services | 15,386 | 3.1 |
| Purchasing or ordering goods or services | 36,695 | 7.4 |
| Telephoning over the internet | 47,834 | 9.7 |
| Internet banking | 42,308 | 8.6 |

**Source:** Statistics Botswana, 2016.

Using the internet for participating in social networks was the most popular form of use at 78%, followed by downloading or reading online newspapers, eBooks and magazines at 56.6% of users. The Survey further indicates that internet access from home accounted for 68.3%, with 33.9% accessing it at work and 20.1% accessing it through mobile telephones. Those accessing it at educational institutions accounted for 19% and internet cafés made 15.7% with other access points making single digit figures only. The high internet access from home indicates significant personal ownership of desktop computers and laptops and potential for increased internet usage as family members also would have access. However, access to ICTs in Botswana is largely influenced by level of educational attainment as indicated in Table 3.

**Table 3: Percentage Distribution of Households by Education Level of Household Head and Access to ICTs by Type, 2014.**

| Education Level Completed | Total Households | Households with Access to Electricity | Fixed Telephone | Mobile Cellular telephone | Desktop Computer | Laptop | Internet |
|---|---|---|---|---|---|---|---|
| Primary or Lower | 100 | 51.93 | 8.48 | 92.06 | 3.99 | 7.16 | 21.54 |
| Secondary | 100 | 64.83 | 6.01 | 96.47 | 8.36 | 13.39 | 38.62 |
| Non-formal | 100 | 38.49 | 9.08 | 97.14 | - | 1.70 | 29.94 |
| Tertiary | 100 | 92.86 | 18.69 | 100.00 | 26.56 | 52.20 | 75.83 |
| Not known | 100 | 30.20 | 3.10 | 81.24 | 1.51 | 5.14 | 14.56 |
| Total | 100 | 63.36 | 9.45 | 94.05 | 10.89 | 20.59 | 40.58 |

**Source:** Adapted from Statistics Botswana, 2016.

Note: Total households = 606, 071.

Table 3 indicates that only 40.58% of households had access to the internet in 2014. Of these slightly over 75% of the households with household head holding tertiary education had access to the internet and more of them than any other group owned ICT equipment and had access to electricity. These findings are consistent with Kim's (2008) that highly educated people in South Korea were more likely than the less educated to have access to the internet and own computers. On the other hand e-government use by individuals was very low at 7.5% (Statistics Botswana, 2016). Participation through the internet is therefore self-selecting and elitist compared to the traditional Tswana model of participation through the *kgotla*.

## 4.0 LESSONS LEARNT

There are lessons to be learnt from the Botswana experience by other developing countries. Botswana has made some visible improvements on internet usage despite e-government knowledge in Botswana remaining very low. The key strategy of the Government of Botswana is in making strategic services such as public procurement and tax returns to be accessed online. The Global Competitiveness Index rankings through the years show that internet access in Botswana is gradually improving despite it being low. Other Sub-Saharan African countries can take a leaf from the Botswana experience, that:

1. ICT infrastructure development and modernisation is essential for the successful introduction of e-government. Public Private Partnerships have worked well for Botswana and this indicates that an enabling environment for the private sector to play a meaningful role in ICT infrastructure development is beneficial;

2. The policy, regulatory and institutional frameworks as well as the legal framework are prerequisites for an efficient e-government and ICT development. The absence of freedom of information law, however, is a significant weakness as citizens do not have the right of access to public information. As a result the lack of transparency means that citizens cannot hold the Government to account, negatively affecting public confidence and trust in Government;

3. E-government is an enabler for citizen participation that developing countries have to ensure its successful implementation, and effective use by citizens. Devising strategies that stimulate online access to public services similar to what the government of Botswana uses can prove worthwhile in the long run. Botswana targets the elite such as tax payers and business owners the majority of whom are literate and can afford computers and the internet. As the use of the internet proliferates, costs are likely to drop and ordinary citizens afford the service as well. The introduction of ICTs in public schools will also create a culture of internet use among the young generations. Public education on the benefits of ICT is necessary also to spur e-government usage;

4. While the use of e-government is nascent and underdeveloped in developing countries such as Botswana, social networks have been effectively used to provide an alternative platform for discourse on governance issues where citizens have lost confidence with the government provided forums or lack thereof.

The Government of Botswana ICT policy intentions are to enhance service delivery, reduce service costs, and also foster democratic participation. In view of the data from Statistics Botswana national survey there might still be sometime before the objectives of the ICT policy are realised. Internet use in Botswana is evidently nascent and in relation to Chadwick and May's (2003) model, shows predominantly managerialist

characteristics. While unmediated interaction between citizens and government through facebook appears to emerge, it is still too early for it to have meaningful impact on policy agenda setting and be regarded as a credible form of citizen-government interaction. Information flow remains unilinear and online citizen-government interaction limited.

## 5.0 CONCLUSION

The Government of Botswana recognises the importance of e-government both as a tool for efficient service delivery, and also as a major factor in citizen-government interaction. Botswana alongside some developing countries has adopted the use of ICTs in their governance systems in anticipation of solving administrative and political challenges they are experiencing.

Botswana's use of ICTs in service delivery and engaging citizens in the development process is nascent and limited to the unilinear Managerialism model that is concerned mainly with service delivery. Government-citizen interaction is characterised by information asymmetry in which government dominates public information and there is no citizen rights to access information. On the other hand the institutional and regulatory frameworks are fairly developed in Botswana. There is a national ICT policy, laws and institutions that regulate the sector. The ambitious e-Government Strategy that seeks to allow citizens access to government information and services 24/7 is blunted by the lack of rights to public information. The telecommunications industry was liberalised in 2006 and the private sector was granted licenses to operate not only mobile telephone but fixed telephones and internet services as well. PPPs have worked successfully in ICT infrastructure development.

Botswana's international rankings on internet access, individuals using internet, fixed and mobile broadband subscriptions, internet bandwidth have all improved significantly as a result of committed investment on ICT infrastructure. The e-Government Strategy has a noble vision of inclusivity and looking beyond service delivery, however, enhancing democratic participation remains a challenge. The objectives of inclusivity and democratic participation through the use of ICTs are likely to remain a challenge due to the discriminatory nature of internet usage favouring the educated members of society. Access to electricity and other ICT services, public education will have to be strengthened to broaden internet access. Free access to information by civil society is one of the important ways of strengthening democratic participation that the Government of Botswana has to pay attention to.

## REFERENCES

Atkins, Stephen Kwamena., and Dale Krane (2010). Are public officials obstacles to citizen-centred e-Government? An examination of municipal adminstrators' motivations and actions. *State and Local Government Review,* Vol. 42 (2), pp. 87-103.

Best, Samuel J., and Brian S. Kruger. (2005). Analysing the representativeness of internet political participation. *Political Behaviour,* Vol. 27, No. 2, pp. 183-216.

BTC. (2009). *Botswana Telecommunications Corporation Annual Report 2009*. Gaborone. BTC.

Chadwick, Andrew., and Christopher May. (2003). Interaction between states and citizens in the age of the internet: "e-Government" in the United States, Britain and the European Union. *Governance: An International Journal of Policy, Administration, and Institutions.* Vol. 16, No. 2, pp. 271-300.

Cupps, Stephen D. (1977). The emerging problems of citizen participation. *Public Administration Review,* Vol. 37, No. 5, pp. 478-487.

Dagnino, Evelina. (2003). Citizenship in Latin America: An introduction. *Latin American Perspectives,* Vol. 30, No. 2, pp. 3-17.

Gaventa, John., and Rosemary McGee. (2010). *Citizen action and national policy reform: Making Change Happen.* London and New York. Zed Books.

Government of Botswana. (2015). ICT key to economic growth. *Daily News*. Gaborone. Government Printer.

Government of Botswana. (2011). *Botswana's National e-Government Strategy 2011-2016*. Gaborone. Government Printer.

Government of Botswana. (2010). *Daily News*. Gaborone. Government Printer.

Kaunda, J. M., Kaboyakgosi, G., Kamara, I., Balule, T., Mpule, K. and Mapena, K. (2008). *The progress of good governance in Botswana 2008: Final report of the UNECA project measuring and monitoring progress towards good governance in Africa*. Gaborone. UNECA and BIDPA.

Kim, Sei-Hill. (2008). Testing the knowledge gap hypothesis in South Korea: Traditional news media, the internet and political learning. *International Journal of Public Opinion Research,* Vol. 20, No. 2, pp. 193-210.

Lacey, Anita., and Susan Ilcan. (2006). Voluntary labour, responsible citizenship and international NGOs. *International Journal of Comparative Sociology,* Vol. 47 (1), pp. 34-53.

Lowery, Liza M. (Undated). *Developing a successful e-government strategy*. Department of Telecommunications and Information Services. City County of San Francisco, CA. http://unpan1.un.orgintradoc/groups/public/documents/apcity/unpan000343.pdf

Marinetto, Michael. (2003). Who wants to be an active citizen? The politics and practice of community involvement. *Sociology*, Vol. 37 (1), pp. 103-120.

Mathers, Jonathan., Jayne Parry and Susan Jones. (2008). Exploring resident (Non-) participation in the UK New Deal for Communities Regeneration Programme. *Urban Studies*. Vol. 45 (3), pp. 591-606.

Nevitte, Neil. (2000). Value change and reorientations in citizen-state relations. *Canadian Public Policy/Analyse de Politiques*, Vol. 26, Supplement, pp. S73-S94.

Nkwe, Nugi. (2012). E-Government: Challenges and opportunities in Botswana. *International Journal of Humanities and Social Science.* Vol. 2, No. 17, pp.39-48.

Patterson, Amy S. (1999). The dynamic nature of citizenship and participation: Lessons from three rural Senegalese case studies. *Africa Today,* Vol. 46, No. 1, pp. 3-27.

Rowe, Gene and Lynn J. Frewer. (2000). Pulic articipation methods: A framework for evaluation. *Science, Technology and Human Values*, Vol. 25, No. 1, pp. 3-29.

Statistics Botswana. (2016). *Botswana household access and individual use of information and communication technologies – 2014.* Stats Brief. Gaborone. Statistics Botswana.

Sylvester, Dari E and Adam J. McGlynn. (2010). The digital divide, participation, and place. *Social Science Computer Review*, Vol. 28, No. 1, pp. 64-74.

Tapia, Andrea H. and Julio Angel Ortiz. (2010). Network hopes: Municipalities deploying wireless internet to increase civic engagement. *Social Science Computer Review*, Vol. 28, No. 1, pp. 93-117.

The World Bank. (2014). *Draft open data readiness assessment: Prepared for the Government of Botswana. Draft for comments V0.4.0-12 September 2014*. Washington, DC. The World Bank Group.

The World Bank. (2010). *Africa Development Indicators 2010: Silent and lethal – how quiet corruption undermines Africa's development efforts*. Washington, DC. The World Bank.

The World Bank. (2000). *Telecommunications Regulation Handbook*. Washington, DC. The World Bank.

Thomas, John Clayton., and Gregory Streib. (2003). The new face of government: Citizen-initiated contacts in the era of e-Government. *Journal of Public Administration*

*Research and Theory*, Vol. 13, No. 1, pp. 83-102.

Thompson, Lisa and Chris Tapscott. (2010). *Citizenship and social movements: Perspectives from the Global South.* London and New York. Zed Books.

World Economic Forum. (2016). *The Global Competitiveness Report 2015-2016*. World Economic Forum. Geneva. World Economic Forum.

World Economic Forum. (2012). *The Global Competitiveness Report 2012-2013*. World Economic Forum. Geneva. World Economic Forum.

Quintelier, Ellen., and Sarah Vissers. (2008). The effect of internet use on political participation: An analysis of survey results for 16-year-olds in Belgium. *Social Science Computer Review*, Vol. 26, No. 4, pp. 411-427.

Wagle, Udaya. (2000). The policy science of democracy: The issues of methodology and citizen particpation. *Policy Sciences,* Vol. 33, No. 2, pp. 207-223.

Williams, Mark D. (2010). *Broad Band for Africa: Developing Backbone Communications Networks*. Washington, DC. The World Bank.

Worldwatch Institute. (2014). *State of the World 2014: Governing for Sustainability*. Washington, Covelo, and London. Island Press.

## OTHER BIDPA WORKING PAPERS

- **Working Paper No. 44:** Madala, Naledi C. and Phirinyane, Molefe B. (2016). *Strengthening Local Government Service Delivery Systems Through the Open Government Initiative: The Case of Botswana*
- **Working Paper No. 43:** Lekobane, Khaufelo R. and Mooketsane, Keneilwe S. (2015). *Examining Evidence of Feminization of Poverty in Botswana*
- **Working Paper No. 42:** Seleka, Tebogo B. and Kebakile Pinkie G. (2015). *Export Competitiveness of Botswana's Beef Industry.*
- **Working Paper No. 41:** Kaboyakgosi, Gape and Mookodi, Lillian. (2014). *Integrated Results Based Management in Botswana: Institutions, documentation and progress to date.*
- **Working Paper No. 40:** Sekakela, Kedibonye. (2014). *The Impact of Trading with China on Botswana's Economy.*
- **Working Paper No. 39:** Sengwaketse, Margaret. (2014). *Towards a Diversified Economy: A preliminary assessment of the potential, prospects and challenges for electricity exports from Botswana.*
- **Working Paper No. 38:** Lekobane, Khaufelo R. and Seleka, Tebogo B. (2014). *Determinants of Household Welfare and Poverty in Botswana, 2002/03 and 2009/10.*
- **Working Paper No. 37:** Seleka, Tebogo B. and Lekobane, Khaufelo R. (2014). *Public Transfers and Subsistence Producer Disincentives in Botswana.*
- **Working Paper No. 36:** Taye, Haile K. (2013). *Inflation Dynamics in Botswana and Bank of Botswana's Medium-Term Objective Range.*
- **Working Paper No. 35:** Grynberg, Roman and Sekakela, Kedibonye. (2013). *Water Pricing and Policy in Botswana.*
- **Working Paper No.34:** Motswapong, Masedi and Grynberg, Roman. (2013). *Key Issues in the Textile and Clothing Sector in Botswana.*
- **Working Paper No.33:** Taye, Haile K. (2013). *Is the Botswana Pula misaligned?*

- **Working Paper No. 32:** Grynberg, Roman and Motswapong, Masedi. (2012). *SACU Revenue Sharing Formula: Towards a Development Agreement.*

- **Working Paper No. 31:** Motswapong, Masedi and Grynberg, Roman. (2011). *Competition and Trade Policy: The case of the Botswana poultry industry.*

- **Working Paper No. 30:** Mmopelwa, David and Seleka, Tebogo. (2011). *Factors Underlying Communal Beef Cattle Marketing Decisions in Botswana: The role of public and private transfers.*


Botswana Institute for Development Policy Analysis (BIDPA)
BIDPA House, International Finance Park
Plot 134, Tshwene Drive, Kgale View
Private Bag BR-29
Gaborone, Botswana
Tel. 267 3971750, Fax: 267 3971748
URL: http://www.bidpa.bw, e-mail: webmaster@bidpa.bw

Associated Printers