

## **E-DEMOCRACY: A REQUIREMENT FOR A SUCCESSFUL E-VOTING AND E-GOVERNMENT IMPLEMENTATION IN NIGERIA**

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### **ABSTRACT**

Reducing poverty by 50% through the use of information and communication technology (ICT), which is the primary objective of the millennium development goals (MDGs) requires a lot of innovations such as the implementation of e-Government, e-Democracy, e-Learning, e-Voting, e-Judiciary, and e-Health to mention but a few. Participatory democracy is a major requirement for achieving the MDGs, particularly, where majority of the citizenry is disenchanting with the electioneering or democratic processes or governance. This paper reviews the rate of ICT diffusion and the global ranking of the e-Government initiatives of some African countries. The paper also presents the Nigerian National IT policy, the general views of some randomly selected electorates concerning e-Voting, the voting pattern in the past elections, and the likely motivating factors for e-Voting in the country as well as the necessary requirements that will facilitate the successful implementation of both e-Voting and e-Government initiatives. Similarly, the paper presents a model for e-Democracy implementation for increased trust and participation in government. Findings revealed that the apathy between electorates and government arose from lack of trust, probity, transparency and accountability. Although, a reasonable percentage of the respondents supported to the adoption of e-Voting, it is equally evident from the level of diffusion of IT facilities: Internet and telephone, that there is still need for improved infrastructure. The position of Nigeria in Africa and the world on global e-Government ranking is abysmally low and does not justify the enormity of material and human resources available in the country. For a successful adoption of e-Voting and e-Government, grassroot mobilization through e-Democracy should be encouraged. Government should as a matter of urgency look into the inadequate basic infrastructures that stimulates ICT diffusion and encourage interaction between the electorates and the elects through the adoption of e-Democracy, which in turn encourages probity, transparency, accountability and participation in governance.

**Keywords:** ICTs, MDGs, e-Democracy, e-Voting, e-Readiness, e-Government, m-Government

### **INTRODUCTION**

The world leaders gathered at the UN millennium summit in September 2000, to commit the member nations to strengthen global efforts for peace, human rights, democracy, governance, environment sustainability and poverty eradication, and to promote the principles of human dignity, equality and equity (UNDP, 2000). The Summit culminated into the millennium declaration that led to the pronouncement of eight (8) developmental goals called the millennium development goals (MDGs), with the overall objective of reducing poverty by 50% by the year 2015.

Recent developments in information and communication technologies (ICTs), particularly, the Internet, telecommunications and computing system have transformed the mode of business transactions and communications all over the world. Thus, business transactions through ICTs are prefixed, e-Business or electronic business, e-Commerce or electronic commerce, e-Government electronic government, etc (Ayo, 2007). However, there are further delineations among the various ICT facilities used. There are i-Business, i-Commerce, i-Voting, etc. if the platform of implementation is the Internet, while transactions on the platforms of mobile telecommunication devices are prefixed with 'm', such as m-Business, m-Commerce, m-Government and m-Democracy as the case may be.

ICTs have the potentials to engage people in all spheres of the political process such as information generation; enhanced deliberation among the citizenry; and enhanced participation in decision-making (Briony, 2003). This means that ICTs could help bridge the information gap between the government and the governed through website, telecoms and on-line news services.

E-government is the use of information and communication technology (ICT) in public administration, combined with organizational change and new skills to improve public services and

democratic processes and to strengthen support for public policies (Vassilios, 2004). ICT has been adopted in all the developed nations of the world, at all levels of administration and is a veritable tool for modernising public services, re-engineering administrative processes and empowering the citizens. Citizens all over the world are clamoring for better services, transparently at lower costs and enhanced interaction among the stakeholders (Janssen *et al.*, 2005). Accordingly, all the nations of the world are currently at one stage of implementation of e-Government or the other as contained in the MDGs.

Mobile devices have been the most widely used electronic gadgets with over two billion users world wide, hence, it offers a good platform for enhanced participatory democracy. Mobile government, referred to as mobile e-Government, involves the deployment of government's services and administration on mobile devices (Rossel *et al.*, 2006). It is defined as the newest channel in electronic government that provides a convenient way of performing government transactions through the wireless and mobile devices. The major distinction between the electronic and mobile government transaction prefixed as "e" and "m" is that the electronic medium offers "anytime access", while mobile medium offers "anytime and anywhere access" respectively to business and government processes.

The advent of the Internet as a medium of mass communication has equally enhanced interaction among the citizens in an inexpensive manner, instantaneously, and without bounds to geographical boundaries. Thus, the transformation of the Internet from a tool for academic, government, research, to a mass communication medium has made it a veritable tool for political communication (Jansen, 2006).

Similarly, through the Internet, government and various political actors are currently placing political information online for wider range of people; it opens up a number of avenues for decision making process among the citizenry; and it fosters regular interaction and deliberation among the citizens. Consequently, the Internet offers a number of fora for public political debate on issues of interest to the governed, with the possibilities of all the stakeholders having the opportunities of making contributions (Tsagarousianou, 1999).

E-government is seen as a route to better governance as it is open and transparent, and an enabler for participatory democracy; it is service-oriented, and it provides personalised and inclusive services to every citizen. It is a panacea for enhanced productivity and better utilization of the taxpayers' money. Agunloye (2004), defined e-government as an interaction between citizens, businesses organizations, government ministries and all the tiers of government. Thus, as against physical governance in the developing world, using ICT powered government will lead to transparency, accountability and efficiency in governance in order to deliver better services and wealth for the general well-being of citizens.

A very promising attribute of e-Government is its ability to connect citizens through ICT (e-Citizens) regardless of locations and time. E-citizen entails the ability to provide citizens with details of public sector activities; increase the input of citizens into public sector decisions and actions; and improve the services delivered to the generality of the populace (Heeks, 2002).

E-democracy is considered the development of digital citizenship (Flavio, 2005). That is, the use of ICT to support the participation of citizen in democratic decision making, such as elections, petitions, referendums and campaigns. The introduction of this new form of citizens' participation is considered an important element in the modernization of democratic institutions and social inclusion. Similarly, the application of ICT in elections particularly voting is referred to as e-Voting, while its use in electioneering campaign is referred to as e-Campaign.

Nigerian government is constantly making efforts at achieving the millennium development goals but lack of probity, accountability and transparency is a major hindrance. Similarly, the UN chief scribe, Ban ki-moon was reported to have called an emergency meeting having observed midway to 2015, that sub-Sahara Africa is unlikely to meet a single goal (Matthew, 2007). The department for international development (DFID) reported that Nigeria with 130 million population, about 75 million people lived with abject poverty; about 2 million AIDS orphans; about 12 million children were out of school; one in every 5 children died before age 5; and a per capital income of \$0.30 per person per day (DFID Nigeria, 2006).

Similarly, on a global trend, Africa was the lowest in 2005 ranking among the other continents of the world. However, within Africa, Nigeria was ranked 22 among the 45 nations (UN, 2005). Mauritius came first in Africa with an index of 0.5317 and world ranking of 52, followed by South Africa with an index of 0.5075 and world ranking of 58, while Nigeria occupies 22<sup>nd</sup> position in Africa, having an index of 0.2758 and world ranking of 139. The country trails behind Namibia, Lesotho, Cape Verde, Zimbabwe, Kenya, Uganda and Congo among others. This report on Nigeria is disheartening being the 6<sup>th</sup> largest oil producing nation in the world.

The Internet has become a major platform for business transaction all over the world. Therefore, access to this medium is very crucial to meeting the MDGs. South Africa has the highest figure (5.1 million). Nigeria and Egypt have 5 million Internet users each. However, computation of the rate of diffusion based on the population of the two countries shows the insignificance of the Nigerian data because its population is about twice the population of Egypt and thrice the population of South Africa.

The Nigerian National IT policy formulated in the year 2000 is responsible for the monumental developments in all sectors of the economy, particularly, telecoms, education, business and banking. The vision is to make Nigeria an IT capable country in Africa and a key player in the information society. Its primary mission is to "Use IT" for: education, creation of wealth, poverty eradication, job creation, governance, health, agriculture etc (Ajayi, 2005; Olubamise *et al.*, 2007).

There are various on-going projects that are aimed at spearheading meaningful ICT developments:

**Mobile Internet Units (MIUs):** As far back as 2004, government initiated a plan to design and extend ICT education to the rural communities. These include provision of buses equipped with ICT facilities such as PCs, peripheral devices and very small aperture terminals (VSATs) that are taken round the nooks and crannies of the country to teach ICT.

**WIN Project:** Government embarked on this project tagged "Wire Nigeria". It is intended to provide ICT infrastructure to all the nooks and crannies of the country by the end of the year 2005. Presently, the 774 local government areas in the country are equipped with VSAT for speedy diffusion of ICT facilities to the rural communities, as well as the installation of the necessary infrastructures particularly, fiber optic backbone across the nation.

**E-Government Project:** This is part of the civil service reforms, which is designed to make the Nigerian civil service proactive and respond quickly to the needs of the general populace. The project is a joint initiative between the public and private sector operators under the aegis of National e-Government Strategies (NeGST) and the National Information Technology Development Agency (NITDA).

The project was designed to reduce the bureaucracy that attends to government businesses in the country through the introduction of e-Tax, e-Learning, e-Traffic, e-Procurement, e-Pricing, e-Mail, e-Tourism, e-Payment, e-Revenue, e-Legislation, e-Policing, e-Judiciary, e-Health, e-Agriculture, e-Services, e-Kiosk, e-Buka (e-Cafeteria) etc (Isoun, 2004).

Presently the NeGST has online presence at <http://www.negst.com>. Similarly, all the federal ministries are online, and the country has commenced online payment for services in such areas as tax, company registration, online booking, e-banking etc.

**Rural Telephony:** The Nigeria communications commission Act 2003, provided a legal framework to facilitate widespread availability and usage of network services and applications throughout the nooks and crannies of the country particularly, the unserved and the underserved areas as well as the physically disadvantaged population (Nigeria Communication Act, 2003). The Act involves the universal service provision (USP) scheme that includes:

1. The universal access program. This is designed to create communications centers (CCC), provide wireless broadband and telecentres, and expand mobile networks in the rural areas.
2. The universal coverage program. This is designed to stimulate accelerated expansion of backbones nationwide.

There is a growing level of apathy between the elect and the electorate because of massive rigging and electoral manipulation in Nigeria. From the various elections conducted since independence about 50% of registered voters participated in elections (Ayo, 2006). Similarly, public officers do register for elections because of the insistence of government as the cards are often requested at their respective offices but refused to cast their votes because of lack of trust, probity and accountability.

The objectives of this research include to:

- i. Design an e-Democracy model for enhanced participation in decision making.
- ii. Emphasize the importance of e-Government as a panacea for transparency, probity and accountability.
- iii. Assess the e-Readiness of Nigeria based on the available infrastructures.
- iv. Encourage the level of e-Participation with a view to reducing the phobia concerning technology as well as enhance the adoption of e-Voting.
- v. Recommend solutions to bridge the divide.



The GSM is a major contributor to the growth. The transformation in this sector of the economy is monumental as the number of GSM subscribers by early 2007 had risen to over 30 million. If the platform is well harnessed, it could mark the beginning of m-Government, m-Democracy, m-Payment and m-Procurement, that is, the deployment of government, democracy, payment and procurement services on mobile devices respectively, which would improve the e-Inclusion or e-Participation in the polity.

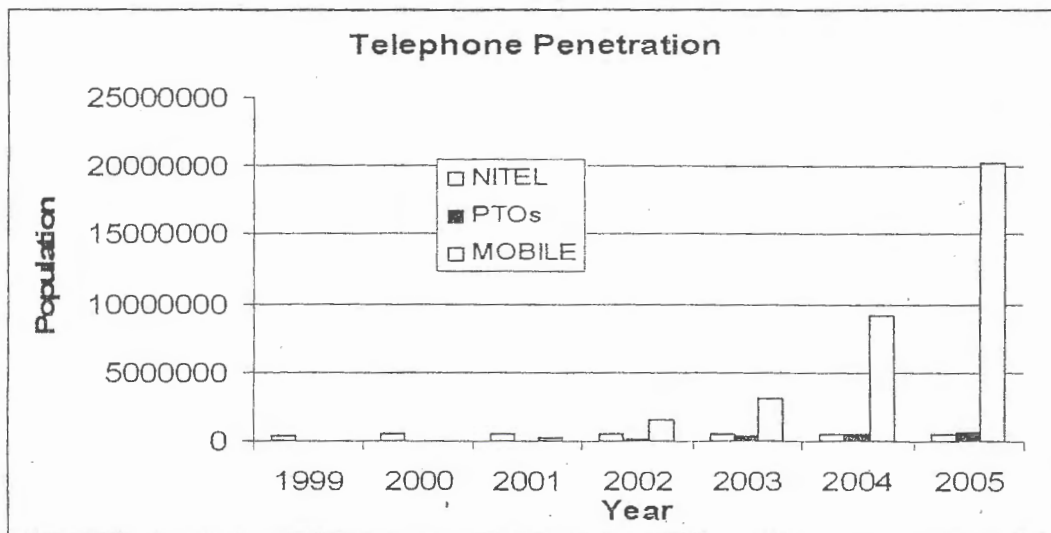


Fig. I: Telephone Penetration in Nigeria

**Internet usage in Nigeria:** Distribution of internet usage and Penetration in Nigeria are highlighted in table 6 and figure II respectively. There is a tremendous and encouraging growth between 2000 and 2003. However, the marginal growth between 2003 and 2004 could be attributed to lack of infrastructure and poverty. The operators do not have the infrastructure to serve the teeming populace and at the same time, the cost of the facilities has placed it beyond the reach of the common man. The monumental improvement between 2004 and 2005 may be attributed to further developments in the sector. The populace is becoming Internet-aware and increasingly using public Internet kiosks and mobile phones; however, additional infrastructure development is needed.

Table 6: Distribution of Internet Usage in Nigeria

Service category	Number of subscribers						
	1999	2000	2001	2002	2003	2004	2005
Internet Users	N/A	107,194	153,350	420,000	1,613,258	1,769,661	5,000,000
Internet Penetration	N/A	0.1%	0.1%	0.3%	1.3%	1.4%	4%

[Source: <http://www.ncc.gov.ng/subscriberdata.htm>]

From the above statistics, the level of facilities and participation is rather low but fair for a country of a population between 130 and 150 million. There is need for an awareness campaign to sensitize the populace, while government has the major task of making available the needed infrastructures for efficient and effective implementation. Another very important factor for the adoption of e-Voting is power supply. Electricity is prime to its implementation. Electricity supply in Nigeria is very epileptic and can mar the anticipated success if not in adequate supply. The experience of the national legislators during the e-Registration demonstration is another lesson, where the equipment malfunctioned on account of inadequate power supply.

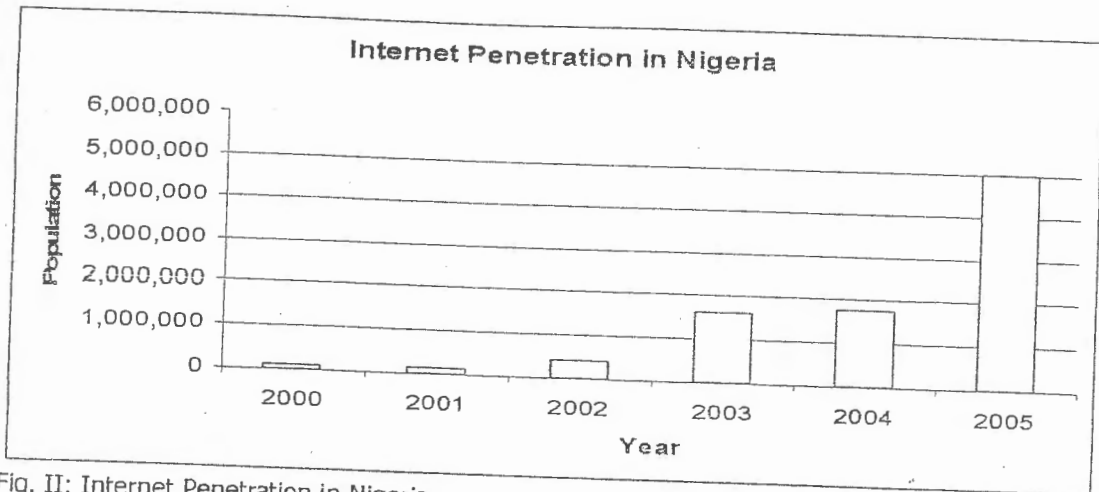


Fig. II: Internet Penetration in Nigeria

**E-democracy Model:** The use case diagram for e-Democracy in Nigeria is presented in Figure III. E-democracy is intended to encourage grassroots participation in the polity. It brings government to the grassroots thus enabling the electorates to participate in decisions that concern them. The proposed model is composed of a discussion forum, mail services, appointment booking, scheduling of zonal meetings as well as referendums.

The discussion forum creates an avenue for consultation between the elects and the electorates. Issues that affect the well-being of the electorates are discussed and decisions that are in the mutual interest of both parties are resolved. The mail services enable constant dialog between the elect and the populace in such a way that issues of interest are discussed. Similarly, the model affords the electorates the opportunity to book appointments with the elects as well as enabling the elects to schedule meetings in their respective domains.

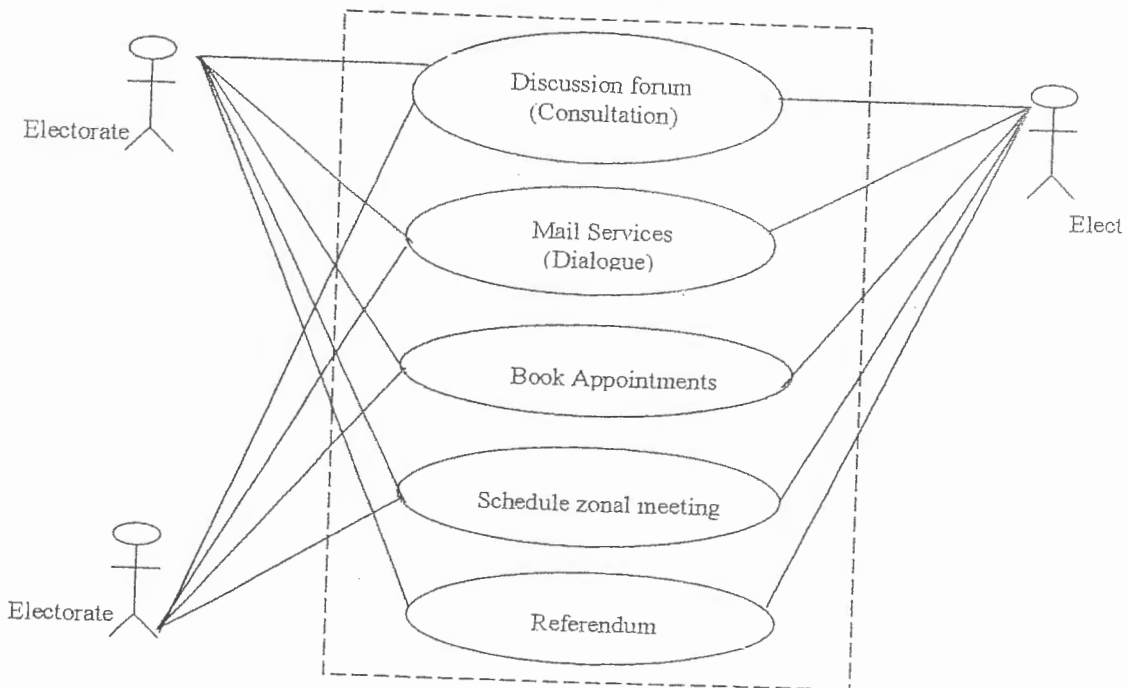


Fig. III: Use case diagram for e-Democracy

Furthermore, the beauty of democracy is collective participation. The electorates would be duly involved in issues that affect them. Consequently referendums are taken which presents the opinions of the electorates on an ongoing event. This model can be implemented on the Internet or the intranet that will result from the "Wire Nigeria" project, and to a greater extent the GSM network and call-in programs on the radio and the television set would help a great deal.

## CONCLUSION

The voting pattern revealed that voters are keenly interested in both Presidential and Gubernatorial elections, while other elections are not of much interest to them. This is one of the problems of ethnicity in politics, as electorates are interested in the tribe that occupies both the Central and State offices, with little or no interest in representative (local) offices, after all, voters are not relevant again after the elections until another election year.

Voters are disillusioned about participatory democracy on accounts of lack of trust, probity, transparency and accountability. Consequently, majority of the respondents are seeking solace in e-Voting as it is largely believed to have the capability to solve some of the problems associated with paper balloting. However, a major snag against its adoption is inadequate infrastructure particularly electricity among others. Thus the level of e-Readiness particularly, IT diffusion and literacy are another contending issues.

Therefore, it is evident that e-Democracy will bridge the gap between the elect and the electorate through constant dialogues and consultations. It brings government closer to the grassroot with a boost on the level of participation and involvement. Thus, with trust and confidence boosted, there will be increase in voters turn-out and enthronement of responsive and responsible government. For a successful adoption of e-Voting and e-Government, grassroot mobilization through e-Democracy must be encouraged. Only very little success can be recorded if the required infrastructure is not in place. However, it is one thing having the infrastructure, it is another if majority of the populace are illiterates. To participate in e-Government, it is imperative that participants are averagely literate and precisely, IT literate.

However, the Nigerian government has embarked on a project tagged "Wire Nigeria". It is intended to provide ICT infrastructure to all the nooks and crannies of the country. The project includes the provision of VSAT to the 774 local governments in the country, and the installation of the necessary infrastructures particularly, fiber optic backbone across the nation. This project is intended to provide rural telephony to the rural areas of the country and when completed will not only lead to increased teledensity but increased participation in e-Government and e-Voting. Furthermore, the current rate of diffusion of mobile telephony in the country, if well harnessed, could mark the beginning of m-Government, m-Democracy, m-Payment and m-Procurement, that is, the deployment of government, democracy, payment and procurement services on mobile devices respectively, which would improve the e-Inclusion or e-Participation in the polity. So, government must speed up the infrastructural development, particularly rural development and provisions of electricity, telephony to boost the diffusion of ICT in the country.

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