INFORMATION TECHNOLOGY POLICY IN NIGERIA: AN IMPLEMENTATION ASSESSEMENT

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ABSTRACT

This study attempts to assess the Information and Communication Technology policy implementation. The policy was adopted in 2001 due to a genuine and urgent need for the potential of the technology to bring about rapid socio-economic, educational, scientific and technological development in all sector of national development. The impact of ICTs in the development and upliftment of the people can never be underestimated. To ensure the effective implementation of the policy, government set up the National Information Technology Development Agency. In the last decade the agency has made efforts to ensure the policy is implementated. Using the documentary research method, the study assessed the policy implementation, the challenges of implementation as well as the efforts to overcome them.it concluded that no substantiial success were recorded and many aspects left more to be disire. It recommended the review of the policy objectives, establisment of policy funding mechanism and a stakeholders forum for collaborative efforts in policy implementation,

INTRODUCTION

The Information Technology (IT) or usually refer to as the Information and Communication Technologies (ICT) development in Nigeria has its roots in October 1999 in Addis Ababa, where African countries including Nigeria participated in the African Development Forum entitled: 'Challenges of Globalisation to Africa on the Information age'. The chalenges faced by the Nigerian delegation in Addis Ababa, when it discovered that the nation was fae behind in ICT world contributed to the hosting in March 2000 in Abuja the National Workshop on National Information anf Communication Infrastructure. Professional associations in the IT gave an impetus to the challenges shortly after the workshop by fowarding to the Federal government drafts on ICT policy for Nigeria. The associations that submitted the drafts included the Computer Association of Nigeria, the Information Technology Association of Nigeria and the Institute of Software Practitioners of Nigeria. The submission by the various associations encouraged government to improve on their initiatives which led to the approval of the nation's IT policy by the Federal Executive Council in March 2001. This development led to the establishment of the National Information Technology Development Agency (NITDA), charged with the implementation responsibility of the policy.

Information Technology Policy in Nigeria

NITDA under the policy is in charge of its implementation in collaboration with other stakeholders in the various sectors of the economy. Its major task is to ensure the

achievement of the nation's IT vision, coordinate and accelerate its development in Nigeria as well as advise government on IT development in Nigeria. It is also to exercise control, issue licenses to IT public and private institutions as well as exercise regulatory functions in IT systems and Services. The policy recognized the private sector as the driving engine of the IT sector. NITDA is to enter in strategic alliance, collaboration and joint ventures with the private sector for the actualization of the IT vision which is to make Nigeria an IT capable country as well as using IT as an engine for sustainable development and global competitive. It is also to be used for education, job creation, wealth creation, and poverty (FRN, 2012)

The main sector to focus attention include human resource development, IT infrastructure development, deploying IT in governance, health, agriculture, urban and rural development; trade and commerce, fiscal measures, arts, culture and tourism, legislation, national security and law enforcement. Emphasis is to be laid on development of national information infrastructure backbone (NIIB) as well as the human resources development (FRN, 2001).

The National Information Technology Policy has the following general Objectives including:

- Ensure that information Technology Resources are readily available to promote efficient national development.
- Guarantee that the country benefits maximally, and contributes meaningfully by providing the global solutions to the challenges of an information age.
- Empower Nigerians to participate in software and IT development.
- To ensure local production and manufacture of IT components in competitive manner.
- Empower the youth on IT skills prepare them for global competitiveness.
- Integrate IT into the main stream of education and training.
- Create IT awareness and ensure universal access in order to promote ICT diffusion in all sectors of our national life.
- Stimulate the private sector to become the driving force IT creativity and enhance productivity and competitiveness.

It was envisaged that there shall be a fund called the National Information Technology Development Fund to be managed by NITDA. The Federal Government was to contribute $150m as the seed fund as well 2 percent of the nation's annual budget and 3 percent taxes from all imported finished IT products and should be paid directly to the fund (www.uneca.org).

Objectives and Methodological issues

The study assessed the implementation of the policy of IT and evaluate its implementation strategies in the country. It also looked at the emerging challenges of implementation and efforts being made to overcome the challenges. The study relied on general assessment to make its case, especially using documentary research method. Current documents and archival materials from both primary and secondary sources in IT policy in Nigeria were used extensively in the study, especially the materials from the NITDA, such pamphlets, speeches and other publications. Relevant materials from other stakeholders, especially IT institutions were also consulted.

CONCEPTUAL AND THEORITICAL ISSUES

Information Technology (IT) means computers, anxilary equipment, software, hardwares, procedures, services, related resources and acquisition (www.uneca.org). It also involves all the infrastructure, including the backbone and all the services that guarantee privacy, integrity, accuracy and security of the systems. In other words the whole gamut of matters and issues that fall under the rubrics of IT depends on the software, hardware, equipment and their usage in any areas of human endeavours. It is also referred to the success recorded in the emergence and convergence of various forms of communication and telecommunication systems across the globe that provides wide ranging opportunities for development. It also connotes

> "the integration of telecommunications (telephone lines and wireless signals), computers, middle ware as well as necessary software, storage, and audio-visual systems, which enable users to create, access, store, transmit, and manipulate information. In other words, ICT consists of IT as well as telecommunication broadcast media, all types of audio and video processing and transmission and network based control and monitoring functions   (www.wikipedia.com)

ICT is a gamut that consists of any communication and telecommunication devices or applications, that include radio, television, cellular phones, computers and network hardwares and softwares, satellite systems among others. It also carries along with it the various services and usages associated video conferencing and distance telecommnications as well as cutting accross all sectors of human endeavours throughout the world. The importance and relevance of Information and Communication Technologies (ICTs) throughout the economy and society cannot be ignored by any country desirious of development. The former United Nations Secretary-General Kofi Annan, emphasised this in the following words

> "If harnessed properly, Information and Communication Technologies (ICTs) have the potential to improve all aspects of our social, economic and cultural life. ICT can serve as an engine for development in the twenty - first century" (Annan, 2003).

Of strategic concern to many nation especially in developing countries at this stage is how can they deploy ICTs policy to address at both national and international challenges in all sectors of development? Countries have also realised that there are other key areas of national development that collectively with IT development policies creates the complete web of national ICT growth oriented strategy for development. Adomi (2006), asserted that for the past two decades, most developed countries have witnessed significant changes that can be traced to information and communication technologies (ICTs). These multidimensional changes (technical, financial and economic, cultural, social and geo-political) have been observed in almost all aspects of life: economic, education, communications, leisure, and travel. Furthermore, the changes observed in these countries have led to what is now referred to as the knowledge society.

ICTs have made it possible to find fast access to, and distribution of information as well as new ways of doing business in real time at a cheaper cost. However, a considerable gap exists between developing countries, notably African countries, and developed ones in terms of the contribution of ICTs to the creation of wealth. The gap tends to widen between developed countries, the technology suppliers, and the receiving developing countries. At the same time, the gap between the elite and their values and the grassroots communities and their values within these developing countries is also expanding in terms of their access to ICTs. The question of digital divide has appeared in library and information science literature frequently as impacting negativity on the provision of library and information services (Mostert, 2001) . The digital divide, a disparity in access to ICTs between countries and communities is caused by many factors. They include; inadequate infrastructure, high cost of access, inappropriate or weak policy regimes, inefficiency in the provision of telecommunication network, language divides, and lack of locally created content (Mutula, 2004). The divide creates an environment where the disadvantage groups in society are unable to contribute and benefit from the information age and global communities created by the Internet. In most countries of Sub-Sahara Africa, the high cost of access to telecommunication services, is an impediment to access to ICTs. This is exacerbated by the fact that IT has not effectively been integrated in the development agenda of most countries as reflected in the lack of ICT policies (Mutula, 2004). The question of digital divide phenomenon and its implications for the provision of information services should be the concern of information professionals regarding how it should be addressed.

The digital divide, if is not properly addressed, has the negative impact on the provision of information services, under-utilization of information resources in libraries, and information sharing. The diffusion of ICT into Africa is at a snail's speed, such that the gap between the information-rich developed countries and Africa continues to increase everyday. Africa has 13 percent of the world population, but only 2 percent of world telephone lines and one percent of Internet connectivity measured in terms of number of Internet hosts and Internet users (Ogunsola, 2005). The advancement in technology has created so many ICT tools that are necessary and useful in the development process. These new technologies have become central to contemporary societies (Aswalap, 2005). Basic classifications of these modern technologies are:

- Information Technology: uses computers, which have become indispensable in modern societies to process data and to save time. The use of computers is so pervasive to modern development in commerce, education and government among others.
- Telecommunication Technologies: includes telephones-mobile, and broadcasting of radio and television-often through satellite etc.
- Networking Technologies: these includes the Internet, but which has extended to mobile phone technology, satellite communications, and other forms of communication that are still in their infancy.

All of these have come to dominate modern society and become the basis for the survival of the modern man. Olubamise (2006) remarked that "there are two issues that are critical to the diffusion of information technology - access and liberties". Access has to do with making it possible for everyone to use the Internet and other media. In societies where only minorities have telephones, ensuring affordable access to the Internet is a huge challenge. Much of the response would rely on social solutions such as community or public access centers. In developed countries, basic access to Internet is available almost to all, and faster broadband connections are widespread. And because the products of information Technology arose from the creativity of the developed world, it took maximum advantages of the new creativity which led to its application in the entire development process. The development is today the consumer of the Information Technology and there has to trail behind for a very long time to come. Since many development countries have adopted IT as major development policies, efforts to close the digital divide will be sustained and at the same time trying to cope with new technology and development in the field. This appears as one of the greatest challenge facing development countries in the information age.

Information Technology Policy Implementation in Nigeria

IT policy implementation rests on many shoulders, because of the divergent nature of stakeholders and their areas of callings. For this reason, not only is the NITDA involved in ensuring the implementation of the specific objectives which fall under its immediate mandate, but also those it has to achieve in collaboration with governmental and non-governmental institutions. These include among others training IT engineers, experts, technicians, hard and soft wares developers and fabricators of ICT equipments. In this respect, there two aspects of the implementation. The first is embarking directly on the training. The second is embarking on collaboration with training institutes among others. The first appears to be an unending mandate as NITDA role has to continue as long as new innovations and challenges continue to arise. On the second one, even without direct collaboration, institutions of higher learning including Nigerian universities have introduced one or other series of IT trainings. These are fullfiling the objectives of IT policy. However, this is being achieved at a collosal cost, beacuse, there is no standard and control over the content of IT training, or neither over curiculum development, or sanctioning of the equipment for the trainings as well as the licensing of training and equipment produced in Nigeria or imported. These in fact fall under NITDA under the IT policy. Training institutions have proliferated from low level levels of certifictes and diploma to higher level of training at the graduate and the post graduate levels. Today more than 250,000 training outfits in IT exist, with the majority outside the control and supervision of NITDA. Similarly the mandate to train 500,000 Nigerians in various aspects of IT by 2005 (FMST, 2003) has not been realised, neither it is achieved the much talk about ensuring every Nigerian civil servants to be computer literate and ensuring that every public servant has a labtop is materialised. With this hinsight, the major objective of promoting e-governance has not fully materialised. But the private sector has de taken the lead in investment in IT, especially the financial sector in banks, industries, aviation, hotels, telecommunication services through the Global System

Mobile (GSM) in which more 40m telephone line are functioning in the country along with other telephony services. Some governmental institutions are gradualy adopting e-governance and developing their infratructure. These include educational institutions, passport offices, financial services such as accounting, auditing etc. The fact that the implementation of the policy cut accross many sector has proved very difficult and almost impossible for NITDA to have control over the development of ICT development in the country. In the areas of Human Resource Development, the country is unable to develop the required technicians, scientists, IT experts. Soft and hard wares and computer components development are still in the infancy stages, with a serious challenges from imported equipment and other accessories that more cheaper, more qualitative and reliable. Internet connectivity still a major problem. Only major cities have epilectic service, leaving majority of the population out the internet world. There cost of access to the internet is still very high compared to other countries accross the globe. This has made access to the internet very low. This is also in addition to low level of computer literacy. Promoting patnership between the public and the private sector in the area of IT has not materialised. Partnership between national and international IT agencies is not gaining ground. The policy had also emphasised the need for the provision of infrastructure in the country as an important pillar of IT development. The envisaged programme for ensuring Local Information Infrastructure, State Information Infrastructure, National Information Infrastructure and a secure and reliable linkage or gateway to the Global Information Infrastruture. The efforts to ensure the implementation of the envisaged programmes are yet to take off except the national infrastructure. No efforts were made at the local and state levels to ensure the development and deployment of such infrastructure. At the national level, a company has been incoperated- Galaxy Nigeria Limited - to operate as such gateway, but maintain that position has proved difficult. The such success story is in the satellite sector, where Nigeria has launched two different satellites. Efforts to encourage investment in IT has not yielded desire results.

The provision of the It policy for the establishment of the National Information Technology Development Fund is yet to take off. It was envisaged that the fund will be used in promoting public investment in the IT infrastructure, training and development. The Federal govermnent was to provide the seed fund of $150m to be followed by the provision of two percent of the national budget to the fund. The fund was also to receive at three percent of the seven percent duties charged on imported IT products into the country. The import taxes were to be transferred directly to that account. However, the fund is yet to take effort, no seed fund has been released by the Federal Government, neither the two percent budget ever released and the import taxes have never come. Therefore no funds are available for investment. The implementation story is not different in the areas of commerce and trade; health, agriculture; urban and rural development; fiscal policies, legislations, law enforcement, culture and tourism as well the national security. Many agencies in the various sectors are working on their initiatives have no collaboration with NITDA, the implementing agency of IT, which created more challenges of implementation. Iin this regard and in many

others, the agency has no control over licenses, stantard, security and cannot gurantee privacy and integrity of the system in Nigeria.

Challenges of Policy Implementation and Efforts to Overcome them

The main challenges to policy implementation in the ICT in the country is the political will of government to make the policy or to integrate it into its development agenda. This by implication means that every aspect of national development must have a programme to ensure that concerted and collaborative efforts are embarked upon in the IT policy implementation. This also requires that local, states and national information infrastructure should worked out in collobaration with all tiers of government and all stakeholders from all sectors of the economy. These have proved to be the main challenges in the policy implementation. This more especially that the areas are wide and that the implementing agency NITDA has no adequate capacity to implement all the policy objectives. The agency is also seriously grappling with the efforts to ensure that licenses of programmes, equipment, facilities are carried out as well as ensure standard in the facilities being imported and fabricated in the country. Its efforts to promote training and development wide range of training and development of IT curriculum remained a major obstacle. Developing partnership among institutions and agencies and coordinating the IT development have also reaimed undaunting. It is more so because of the paucity of unding. The National Information Technology Development Fund envisaged in the nation's IT policy is yet to take off. And therefore promoting investment in the areas have proved very difficult. For this reason, private investment in ICT has substantially superceeded that of the government which is supposed to lead in the IT development in the country.

CONCLUSION

Nigeria has not made any substantial progress in terms of implementing the objectives of the National policy on IT. Right from the inception of the policy till date, Nigeria still dependent on foreign countries for importation of computer hardware, software packages, and depending on foreign experts for the development of its ICTs. Nigeria is still far behind in information technology development in all sectors of human endeavours in sharp contrast to other Africa countries. The IT policy has a mission statement envisaged making Nigeria an IT capable country in Africa and a key player in the Information Society, using IT as the engine for sustainable development. Nigeria today is a capable IT country. To put it glaringly, Nigeria is not yet an average ICT country in Africa. The desire is there, the awareness has been created, but the budget for sufficient funds to propel the ICT development has also been lacking. The policy implementation is lacking in the areas of coordination among various Science and Technology institutions and those from the private sector in order to satisfy the country's information technology need. The country has not yet succeeded in puting IT development in its development agenda in the various sectors of the economy.

RECOMMENDATIONS

- There is the need to review the nation IT policy objectives in order to ensure that the main agency implementing the mandate will continue to cope with the challenges of policy implementation.
- There is also the urgent need to mobilise resources for the development of the IT policy through ensuring that the National Information Technology Development Fund takes effect.
- There is also the need to have all stakeholders to cooperate, collaborate and harmonised efforts in the implementation of the IT policy. This can be realised by creating IT policy implementation forum with the stakeholders as member. This will allow NITDA to pursue and promote standard, provide licenses, and embarked on its mandatory role in the implementation of the IT policy.
- Measures must be taken to make ICTs both affordable, accessable and easy to use.

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