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Application of Information and Communication Technology in Management of Information in Local Government Areas of Nigeria

BY

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ABSTRACT

Information and Communications Technology strategy is pivotal to competitive survival for today's businesses. It has become a pervasive part of our working and living environments, and will continue to be an integral resource for education, business, government and society at large, ICT combines information, knowledge, processes, and technology to provide a foundation for driving efficiencies and fuelling innovation. This paper formulated research on application of information and communication technology in management of information in local government areas of Nigeria, highlighted general background of ICT in management of information, the state of ICT in local government in Nigeria, benefit of ICT, prospects application of ICT and some the challenges in Nigeria.

Keywords: Application, Information, Communication, Technology, Management, Local Government

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1 INTRODUCTION

Information is an important commodity in any society whether primitive, developing or developed. Information like knowledge is a self propagating resource; the more organization create and use of information, the more they increase their capacity and ability to further generate and use more information. In this regard, the role of information managers in the society is of great significant. Information centers serves as a collection, preservation and dissemination center for information since the development of the society depends largely on accurate and adequate utilization of information, (Ayeni, 2000). Managing the information involves identifying what should be kept, how it should be organized, where it should be held and who should have access to it. The quality of this management will dictate the quality of the decisions being taken and ultimately the organization's survival.

With the growth in the use of ICTs to support information handling within organizations, the political nature of information has come into sharper focus. In this regard, information professionals which librarians are one have become highly powerful and respected in the management of every organization. Today, information and records management has become a major issue in the 21st century in view of the fact that:

1. Information whether stored on paper or magnetic tape or CD or even human brain become fundamental requisite for ensuring rationality; validity and coherence in decision making in the organization.
2. Records are basic tools and instrument through which functions and processes are effectively carried out if only they are well arranged, managed and made accessible to the members of the organization; and
3. Modern administrative systems, like other contemporary socio-economic, technological, political, educational systems etc. have become increasingly complex and sophisticated, the reason why information and records management should move along the same line. (Ayeni, 2000).

The basic goal of information management is to harness the information resources and information capabilities of the organization in order to enable the organization to learn and adapt to its changing environment (Choo 1995, Auster and Choo 1995). Information creation, acquisition, storage, analysis and use therefore provide the intellectual latticework that supports the growth and development of the intelligent organization. The central actors in information management must be the information users themselves, working in partnership with a cast that includes information specialists and information technologists. Information management must address the social and situational contexts of information use -- information is given meaning and purpose through the sharing of mental and affective energies among a group of participants engaged in solving problems or making sense of unclear situations.

However, McGary (1993) argued that advances in information and communication technology have been very rapid in the last two decades. Its influence has been very pervasive to the extent that there is hardly any field of human endeavor that has not been touched. Since the mid-70s, mankind has witnessed a phenomenal growth in the number and variety of information products, services, systems and sources. The catalyst for the growth has been rapid innovations in information and communication technology for creating processing, communicating and using information, (Tiamiyu, 2000).

This technology rests on computer, computer components and telecommunications. Computer can be used for a number of different tasks. Use of the computer allows for a near perfect data-base management. It should be noted that data base management encompass information management. Extensive and comprehensive set of records collected can be organized electronically in a meaningful way for purposeful usage. There are software packages that can provide good records management services, they facilities the creation and maintenance of records in a database. Gookin (2000) observed that database management through the use of computer has helped immensely in maintaining order file.

The application and diffusion of information and communication technology cannot be viewed in isolation from development in telecommunication technology. Innovation in computer and telecommunication technology have resulted in major changes in basic library operations as well as managing information in different offices and organization, such as circulatory reference services, cataloguing and classification, collection development (ordering and acquisition). However, the innovation have prompted many organizations to employ the use of ICT devices to further manage information and records of the organization. On this note, many organizations, now adopt the use of computer systems, database management systems, development of network systems to create, store, preserve, secure and use information for effective decision making in the organization.

Brady (1991) explains that development in technology boost services of television and radio broadcasting which enables large number of viewers and listeners to receive information broadcast from a network of transmitting stations. It is essentially a one-way method of communication. He further stated that, the use of satellite links, optical fibre links, packet switching system, modems, teletex system, made radio and television services more cost-effective, speed in transmission, and allowed simultaneous reception of their services at a time. In the same vein, Everest (2002) asserts that interactive video, home computing, satellite transmission, cable, videodisk and electronic miniaturization are among current technological developments that could either greatly expand or diminish the social roles of libraries. The implication of all these, is the availability of new information products and services and their effect on the existing library and information services.

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Today technology has became strong force in information handling, it provide librarians and information scientists with wide range of tools to help us achieve our goal of improve service to users. Technology had shown a clear impact on the basic character of management information system. At the same time, the merging of computers, telephone, television and satellite has brought about rapid expansion of the information market place. What remains open to question is the extent to which libraries as traditional custodian of information would be in position to take advantage of an enhanced service that technology offered. Heathcole (2002).

According to Longe (2003) application of Information Communication Technology in information management had aid in capturing, storage, retrieval, analysis, and communication of information whether in the form of data, text, image or voice. The application and use of Information Communication Technology has brought about tremendous improvement in information management world wide. It also has the added advantage of making possible more services for both the management and users of the information services institution which would otherwise not have been possible under manual operations.

By and large, the ability of organizations to progress and excel is dependent upon the ability of the organization to process and use adequate, relevant, timely information as and when necessary. However, the relevance of any information and records in organizations cannot be realized or appreciated unless they are properly and adequately organized in such a way that their storage and preservation allow for easy accessibility. This means that for any institution or organizations to function effectively. It needs to have a well institutionalized information and records management programme.

2 STATEMENT OF RESEARCH PROBLEM

The rapid change of information and communication technology causes already uncertain business environment to be even more predictable. Organizations' ability to identify the relevant information needed to make important decisions is crucial, since the access to data used to generate information for decision making is no longer restricted by the manual systems of the organization. Today, the emergence of ICTs made it possible for organizations to record, synthesized, analyze and disseminate information quicker than any other time in history, (Galliers, 2003). He further argued that data can be collected from different parts of the company and its external environment and brought together to provide relevant, timely, concise and precise information at all levels of the organization to help it become more efficient, effective and competitive.

Also, over the years organizations generally have been accumulating heaps of information emanating from different departments and units within and outside the organizations. As a result of this scenario, these organizations are saddled with the tasks of managing the information and records for the purpose of effective and efficient decision making and improve productivity in the organization. The large volumes of different varieties of information generated and disseminated almost on daily basis require more sophisticated devices in its managements.

However, observations by the researcher revealed that management of information and records in Local Government Areas (LGAs) of Nigeria is ineffective and thereby rendered lots of information and records of the organization not retrievable, not accessible and to a large extent not useful to the organization. Since, more often information and data are found to be lost. Another resulting problem is information redundancy, poor data security and preservation measures and inability to share data/information among departments in the LGAs.

It is against this background that this research was designed to examine the application of Information Communication Technology in management of information in Local Government Areas (LGAs) of Nigeria.

3 THE STATE OF ICT IN LOCAL GOVERNMENTS IN NIGERIA

Adewale, et al. (2010). Observed that there is no way local government projections can advance without ICT. Whether e-government, e-commerce, e-health, e-procurement, and e-local government. Information and Communication Technology (ICT) refer as the integration and utilization of computer technologies for the purpose of disseminating information to a target destination or consumer without the constraint of time and space (Adekomi, 2004). Operationally ICTs comprise digital devices either in form of hardwares, or softwares for transferring information. It includes low cost means of communication like radio, GSM/mobile phones and digital television. ICT capacity and socio-economic index, UNDP (2001) explained that there are no African countries that fit into ICT leadership category. However, South African, Egypt, Algeria and Tunisia are able to find place on the index table, while countries like Ghana, Senegal, Kenya, Tanzania, Sudan and Mozambique are regarded as being marginalized. This is because their scores on the index table, reflects low skills or lack of technological diffusion. It is not sad to note that Nigeria does not appear at all, nor have any score on the index table because of lack of data. However, another setting, the World Bank classified Nigeria as low-patronage because of inadequate provision of ICT infrastructure such as access to computers and capacity to connect to internet (Sofowora, 2009). For local government projections to prosper in Nigeria, such projection should be towards ICT.

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4 POTENTIAL BENEFIT OF ICT

a) ICT as tools to e-government helps improve efficiency in government

ICTs are a necessary enabler of reforms to the ways in which public administrations work. Improving internal operating systems – financial systems, purchase and payment arrangements, internal communications and sharing of information – and programme processing and delivery arrangements can generate operating efficiencies and improve performance.

b) Enhanced quality of service

Quality of service has been a major component of public administration reform over the past two decades, and the use of ICTs to generate improvements in services has been a primary driver for e-government activity. In particular, the use of the Internet has given a major boost to customer-focused, seamless services, which aim to transcend the structure of public administrations. Online services are increasingly seen as part of a broader services strategy, with important customer and efficiency benefits. As users of public services are often obliged to interact with government, user dissatisfaction with the quality of government services can quickly become a major political issue ICTs can support more effective outcomes in key policy areas such as health, welfare services, security and education. Ultimately, governments and public administrations exist to deliver policy outcomes, and ICTs are a major enabler across all major policy areas. The use of the Internet to deliver value in these areas is a major preoccupation in member countries (OECD, 2003).

c) Better governance arrangements

Better governance arrangements in themselves will promote economic policy objectives. More specific effects may range from impacts on ICT production, e-commerce diffusion and business productivity to indirect effects such as reduced fiscal requirements owing to more effective programmes and efficiencies flowing through to the broader economy.

d) ICT can help forward the reform agenda

When aligned with modernisation goals, implementing e-government can help administrations focus on the additional changes needed to meet service delivery and good governance concerns. At the same time, it provides some valuable reform tools and builds support from high-level leaders and government employees for achieving those objectives.

e) Citizen Engagement

Citizen Engagement in e-government can improve the overall trust relationship between government and public administrations. Egovernment, by improving information flows and encouraging active participation by citizens, is increasingly seen as a valuable tool for building trust between governments and citizens (OECD, 2003)

5 APPLICATION OF ICT IN MANAGEMENT OF INFORMATION IN LOCAL GOVERNMENT AREAS OF NIGERIA

a) CONNECTION, COLLABORATION AND COMPETITION

A strong information and communications technology strategy is pivotal to competitive survival for today's businesses. It has become a pervasive part of our working and living environments, and will continue to be an integral resource for education, business, government and society at large. ICT combines information, knowledge, processes, and technology to provide a foundation for driving efficiencies and fuelling innovation. It is the key to helping organizations of all sizes to connect, collaborate and compete more effectively (University of east London, 2006). It can also:

1. Improve education, business performance, productivity and profitability through improved system performance, availability and security
2. Reduce administrative and back-office operational costs through the convergence of voice, data and video over IP
3. Enable and improve the quality, quantity and access to services from any location by allowing remote access, monitoring and management of systems and applications
4. Improve customer satisfaction, loyalty and service through the safe and secure deployment of customer-facing solutions
5. Enhance collaboration and networking among employees, customers and partners by removing the barriers to real-time communication and effective information sharing
6. Ensure enterprise security and compliance more efficiently at less cost
7. Provide opportunities for businesses to outsource non-core activities so they can focus on their core competencies and reduce in-house technical support requirements
8. Free up valuable funding resources that can be used to address other issues

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9. Enable the mobile workforce
10. Improve work/life balance for employees
11. Cross geographical and time zone boundaries to meet the demands of a global economy
12. Contribute to environmental responsibility
13. Meet expectations of the new generation of employees in adapting to their communication habits.

b) E-government

E-government solutions are prominently represented in efforts to improve the management and efficiency of government information technology resources. As such, e-government can be considered a process, or a means to an end, rather than an end in and of itself. E-government is still in the earliest stages of development and promises to evolve with advances in technology and increased acceptance and trust in electronic communications. The dynamic nature of e-government and its broad sectoral applications may sometimes contribute to a lack of a common understanding of its meaning and significance (Seifer, 2003). According to Janowski, (2001) explained that why government should embrace e-government; among the reasons:

1. E-government improves efficiency
2. E-government improves service quality
3. E-government helps achieve policy outcomes
4. E-government contributes to achieving economic objectives
5. E-government can be the major contributor to reform
6. E-government builds trust between citizens and government.

Moreover, e-government encompasses a wide range of activities and actors, three distinct sectors can be identified, these include government-to-government (G2G), government-to-business (G2B), and government-to-citizen (G2C) (Seifer, 2003). The adoption of e-Governance is expected to lead to government services becoming more available to citizens in a convenient, efficient and transparent manner, the three main target groups that can be distinguished in governance concepts are Government (Public/Civil servants), citizens and businesses/interest groups. The impact of ICT in the world today cannot be over-emphasized because it enhances productivity, growth and business performance and it is clear that no country today can hope to be globally competitive without leveraging the power of ICT. The realization of the transformative power of ICT has led Nigeria to adopt e-Governance as a part of government policy. This is gradually resulting in government delivering better services to its publics in a more efficient, cost-effective and transparent manner**.** The Federal Government currently spends close to $1bn on ICT infrastructure and services per annum. However, this spend is in functional or Ministerial silos and largely skewed towards hardware purchases and ICT infrastructure. The realization that savings could be made if such infrastructure is shared by various MDAs led to the creation of Galaxy Backbone Ltd. A government company set up for the sole purpose of providing ICT infrastructure and services to all Federal Government MDAs. The introduction of the "1-Gov.net" project by Galaxy Backbone (GBB) is to ensure that infrastructure and transversal applications are shared across MDAs, resulting in huge savings. This approach to providing shared infrastructure received validation from the highest level in 2013, with GBB winning the United Nations' Public Service award for "the promotion of whole-of-government approaches in the Information Age"(Olaopa, n. d.).

c) E-Record management

According to Cotter and Koehler (2002) observed that the ICT resources and services have four attributes:

1. Management of resources with a computer
2. The ability to link the information provider with the information seeker via electronic channels
3. The ability for staff to intervene in the electronic transaction when requester by the information seeker and
4. The ability to store, organize, and transmit information to the information seeker via electronic channels." An electronic library utilizes both electronic information resources and electronic means to manage and move those resources.

According to International Records Management Trust (n.d) observed that well managed records are a foundation for good government services; they serve both to document the policies, transactions and activities of government is to provide a trusted source of information to support decision-making and accountability. Government operations that traditionally depended on information derived from paper records have become partially or wholly automated. As government migrates to an on-line environment, records in electronic form are providing the basis for conducting business, serving the users, managing resources, measuring progress and outcomes, and protecting their own and others' rights. Records management is becoming increasingly dependent on technology. It is important therefore to have objective means of assessing the strengths and weaknesses of records systems and determining whether they are capable of capturing, maintaining and providing access to records over time.

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6 THE CHALLENGES OF FULLY IMPLEMENTATION ICT IN LG IN NIGERIA

Nigeria as the largest country and giant of Africa is still faced with poverty and limited social development. If this trend should continue, the country may not be able to meet with the future ICT technological goals (Adewale, et al. 2010). Here are some of the challenges:

a) Inequality in global distribution of resources

This can be likened to an effect of the uneven distribution of resources around the globe either internationally or nationally. This second line of reasoning helps explain why many people have much more than they need to live in comfort, while many others do not have enough resources to live.

b) Inadequate education

Illiteracy and lack of education are common in poor countries. Governments of developing countries often cannot afford to provide for good public schools, especially in rural areas. Whereas virtually all children in industrialized countries have access to education, only about 60 percent of children in sub-Saharan Africa even attend elementary school. Without education, people might not be able to use the new technology.

c) Past governments in Nigeria

Is another factor instead of focusing on delivering essential public services, assumed control of major sources of national income, In the process, corruption thrived in public service and gained a strong foothold in society. Money that should have been used for developing mobile technology in Nigeria has been embezzled by the bad ones in power.

d) Poor Economic Management

In Nigeria, the boom of economic management, encouraged by the dominance of oil in the economy can be considered to be one of the major hindrances. In the good olden days, the government's spending was from farm products. But when oil came, farming was abandoned and spending was shifted to oil income. When income was high, spending was high; and this made people to be lazy. The federal, state and local governments' establishments were not properly monitored. No government establishment is making profit. All depend on oil money (Adewale, et al. 2010).

e) Energy and Power Factors

During the study, it was clearly established that the failure of the government to implement ICT and E-Government is as a result of irregular power supply. In fact, a few of IT infrastructures have been reportedly damaged due to surges in the electricity distribution grid. A stable and regular power supply has been identified as a precondition for having ICT implementation in E-Government in Nigeria.

f) Cost of IT Equipment and Poor Maintenance Culture

The cost of IT equipment is another identified threat for the establishment of ICT and E-Government in Nigerian. A PC is considered exorbitant for procurement where the economy is very bad. More so, its maintenance culture is so bad that the few that are being procured are abandoned when they experience faults.

g) Limited involvement of local communities

Another major problem facing the Nigeria ICT industry is the poor involvement of local communities and previously neglected groups in the industry.

h) Low Budgetary Allocations for ICT

Infrastructures (Weak Commitment) this is another threat for the implementation of ICT and E-Government in the country. Government allocates very meager amounts budgetary allocations to the development of ICT in the country. This has limited the scope of government's commitment towards full scale implementation of ICT in Nigerian Corporation Libraries.

i) Lack of Government IT Regulatory Policy

The need for the government to come up with IT regulatory framework is very important. In developed countries like USA, UK, and Canada, their governments have IT regulatory frameworks which assist in implementing of E-Government. In Nigeria, the reverse is the case. There is no government position on implementation of ICT policies to assist the nation in developing her ICT framework, and most importantly, ICT in E-Government in Nigerian (Azeez, N.A. et al. 2012).

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CONCLUSION

Nigeria as the largest country and giant of Africa is still faced with poverty and limited social development. If this trend should continue, the country may not be able to meet with the future ICT technological goals; in order to overcome some of the challenges hindered the full implementation of ICT in local government in Nigeria the above problems or challenges must be solved accordingly.

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