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## Problems and Prospects of Using Information and Communication Technology for Record Keeping by Staff in Exams and Records Department in Delta State University, Abraka.

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### Abstract

*This study examined the Problems and Prospects of Using ICT for Record Keeping at DELSU," was to determine the significance, usefulness areas, and scope of use of ICT facilities at Delta State University. It is certain that every higher institution, particularly in the twenty-first century, must rigorously adhere to the use of ICT tools for the purpose of maintaining valid school records. The research was guided by three research questions. Due to the nature of their employment at the university, the study's population comprises of 50 non-academic university employees. The data was collected using a questionnaire, and the data was analysed using the descriptive technique of analysis. The results of this study showed that the respondents strongly agreed that ICT allows for searching using many criteria, resulting in the retrieval of particular relevant information ( $\bar{X} = 3.96$ ); irregular electricity/power supply is a major problem of using ICT facilities in record keeping in tertiary institutions of learning ( $\bar{X} = 3.94$ ); In the fields of examination, staff recruitment and promotion, publication, and student enrollment and admissions, the use of ICT may make maintaining correct records easier ( $\bar{X} = 3.9$ ); amongst others. The study concluded that in order to improve the use of ICT facilities at the university, strategies such as increased funding for ICT in schools, recruitment of more qualified staff, training of staff on ICT facilities, constant power supply, adequate technical support, internet connect, internet system, and procurement of a computer were needed. Based on the findings of the study, it was suggested that the university administration should offer sufficient ICT facilities in the offices to assist in document storage and retrieval*

**Key words: Problems, Prospects Information and Communication Technology**

### Introduction

It is unarguable that the importance of using information and communication technology in schools and other organisations for record keeping cannot be overstated. ICT is linked to globalisation, and in this era of globalisation, there is a shift in the global development agenda. As a result, the Nigerian government is implementing reforms in our educational system in order to reposition it in line with the vision of Information and Communication Technology (ICT) (Adamu in Ubogu, 2011). ICTs are computer-based technologies that help people and organisations fulfil their information and communication requirements. They are made up of computer hardware and software, as well as network and other devices (video, audio, photography, camera, and so on) that transform data, pictures, sound, and motion into a common digital format (Milken Exchange on Education Technology, 1999). ICT, according to Oliver (1999), is the science that studies the characteristics and behaviour of information, the force that governs information flow, and the methods for processing information for maximum accessibility and usefulness. Information is created, collected, stored, retrieved, interpreted, disseminated, and used in this process. ICT refers to the use of hardware, software, networks, and media to gather, store, process, transmit, and display data (voice, data, text, pictures), as well as associated

services (World Bank, 2007). It is a broad term that refers to harnessing the process, methods, and products of electronic communication-related technologies and other related resources in today's knowledge-based society in order to improve the productivity, spread, and efficiency of set programme activities aimed at achieving clearly defined goals (Obanya, 2002). Computing, communication, telephony, and satellite technology are all used in ICT (Yusuf, 2005). As a result, ICT may be described as an electronic device that converts, stores, manipulates, protects, transmits, manages, controls, and retrieves information for the improvement and productivity of personal and organisational activities via the use of soft and hard goods.

### **Statement of the Problem**

Information and communication technology (ICT) is undeniably important in all aspects of higher education, particularly when it comes to record keeping. The age of manually maintaining records is passed, and the world has become so globalised that any postsecondary institution that continues to keep records in this manner is considered antiquated and outdated. Because of the critical role records play in the efficient day-to-day operation of the school, school officials should see record keeping and management as a critical duty. School officials depend on information from records to make judgments about both immediate and long-term policy. However, most school districts do not have a strong record-keeping culture. The few records that are retained are typically not adequately saved, posing a retrieval difficulty for users when they require them. The few school districts that have implemented electronic record-keeping practises in their institutions' record management systems have overcome storage and retrieval issues, since ICT allows for a fast and simple access of all documents related to school operations. As a result, technological progress has contributed to the efficient preservation and administration of school records via contemporary data storage facilities such as computers, microfilm, CD-Rom, cassettes, e-mail, collaborative software and hardware. With a single click, ICT can provide an overview of the number of students who have enrolled, precise information on students' fees payment status, and a complete database of staff, students, and instructors. Because of the increased number of schools, computerization and a complete revamp of the current ICT system are required for simple record keeping and administration.

The issue germane to this study is that, has Delta State University, Abraka (DELSU) imbibe the culture of computerizing record keeping

### **Purpose of the Study**

This study is set out to:

- i. investigate the importance to computerize record keeping in DELSU
- ii. evaluate the problems of using ICT facilities in record keeping in DELSU
- iii. identify strategies for utilizing ICT application in DELSU

### **Research Questions**

The following research questions guided the study:

- i. Why is it important to computerize record keeping in DELSU?
- ii. What are the problems of using ICT facilities in record keeping in DELSU?
- iii. What are the prospects for utilizing ICT application in DELSU?

### **Scope of the Study**

This study is set out to investigate variables in the topic such as: important to computerize record keeping, problems of using ICT facilities in record keeping, as well as strategies for utilizing ICT application in Delta State University, Abraka. The scope of the study therefore, covers Delta State University, Abraka

## **Literature Review**

### **The Nature of Tertiary Institutions in Nigeria**

Tertiary institutions play an important role in human resource development and encourage high-quality education that may provide clear instructions in most endeavours aimed at achieving a high standard of life. They aid in the development, implementation, and promotion of knowledge-driven economic policies and citizen empowerment (Umo, 1999). Professional and non-professional certifications are awarded by tertiary institutions, which are classified as parastatals. They are engaged in offering chances for higher education. Nigerians benefited from British and American universities in the nineteenth century.

The first University College, however, was established in 1948 as the University College Ibadan, as a College of the University of London. Within four years of independence, the Nigerian government created five full-fledged universities in response to a series of concerns about severely restricted entrance possibilities. In the 1970s and 1980s, additional institutions, both federal and state-run, followed suit. Some institutions of education, polytechnics, and the Nigeria Defence Academy, which grant degrees, were added to the list. Since independence, the number of universities has steadily increased, from five in 1962 to thirty-six in 1992. (Akpochofo, 2005). Individuals and groups have been granted permission to create private tertiary institutions under the current regime, as long as they meet certain criteria. As a result, it is unsurprising that postsecondary institutions have expanded across the nation, with 117 universities, 64 colleges of education, and 43 polytechnics as of 2011. The increased number of higher institutions necessitates the provision of ICT facilities for record keeping.

### **The Need for Record Keeping in Tertiary Institutions**

Many businesses in Nigeria, especially educational institutions, still store documents in files and hide them away in dusty filing cabinets (Aduwa & Iyamu, 2005). Many of these files are consumed by rats and insects, making them unrecoverable. The State and the Federal Governments show little or no interest in adopting ICT, thus most ordinary administrative work at government establishments is still done manually. ICT can help government agencies and educational institutions better manage their official administrative duties. Educational administrative functions cover a wide range of activities, including educational governance, supervision, support services, infrastructure, finance, budgeting, accounting, personnel selection and training system monitoring and evaluation, facility procurement and management, equipment maintenance, research, and so on (Thomas, 1987). In most Nigerian schools, authorities still have to manually register students, keep track of their grades and performance, keep an inventory list of supplies, conduct cost accounting, pay bills, print reports, and sketch architectural plans (Aduwa & Iyamu, 2005). ICT may help improve overall management procedures by significantly reducing the number of man-hours spent on these activities. Computers, according to Thomas (1987), offer tremendous speed and precision to each of these activities, as well as the ease of storing huge amounts of data on tiny discs or tapes. The current state of school administration in Nigeria is disappointing and dismal. In terms of educational administration, Nigeria seems to be stuck in the Stone Age, whereas emerging African nations such as South Africa, Kenya, Uganda, and Tanzania are well ahead of Nigeria in terms of ICT applications (Aduwa & Iyamu, 2005). Despite its vast material

resources and population, Nigeria is not among the advanced countries that use ICT in educational administration, despite the fact that technology has become a key instrument for educational achievement. The necessity for technical advancement has resulted in a revolution in the creation of technology tools for storing and managing educational records. Using ICT for record keeping and administration will go a long way toward improving the quality of school records all around the globe. Educators are quickly recognising the need of utilising computers to preserve and manage school data. Administrators, academic and non-academic personnel at tertiary institutions might benefit from this. Organizations' lifeblood is their records and record keeping (Egwunyenga, 2006). It would be very impossible to successfully organise and run any institution, such as a school, if records were not properly maintained and handled. School records are papers, books, diskettes, and files that include information on what happens in the school (academic and extracurricular activities), school staff, students, and other school resources like instructional materials (Olagboye, 2004). ICT has the ability to not only improve the efficacy and efficiency of the teaching-learning process, but also to simplify record-keeping and administration tasks. Because of the important significance of information and communication technology in our lives, particularly in our educational activities, school administrators should be smart enough to utilise ICT to aid record keeping and administration. Most higher institutions' records are now maintained manually, and as the number of school activities increases, important data and information are lost over time. Many issues have been discovered as a result of manual record keeping and administration. They include a lack of expertise in interpreting results from instrument assessments, a lack of expertise in maintaining records and preparing reports, and a scarcity of specialists in record keeping. Information and communication technology must be used in any school system's operational system if it is to participate in acceptable record keeping and management operations. This is due to the fact that humans are capable of making errors. However, with the aid of these sophisticated technological equipment, errors will be eradicated or reduced to the absolute minimum. In light of the above, the following will be investigated in this study:

- The many types of records that tertiary institutions keep and maintain.
- Issues with utilising ICT for record keeping and how to solve them.
- Prospects for utilising ICT facilities in tertiary institutions for record keeping and management.

### **Types of Records Kept and Managed in Tertiary Institutions**

Management records, administrative records, reference records, and students' records are the types of records maintained and handled at higher institutions. Management records are recordings of meetings, processes, decisions, and resolutions maintained as essential reference materials through which institutions keep track of changes in their procedures and practises, as well as the transparency of their past and current operations. They also serve as a foundation for deciding what should be done next. Admissions records, personnel records, and physical resource records are examples of administrative records. Admission records are permanent records that reflect a student's information starting on the first day of school. They assist in keeping track of pupils' enrollment. They are a source of information on when a student entered the school, their course of study, and their expected graduation date, among other things. Personnel records include information about academic and non-academic staff employees' employment and duty histories. Staff disciplinary committee files, as well as detailed personal information (age, gender, qualification, previous experience, appraisal forms, certificates), detailed descriptions of tasks to be performed by staff in accordance with the employment conditions of service, and detailed descriptions of tasks to be performed by staff in accordance with the employment conditions of service are all contained in these records. Physical resource records are inventories of physical assets

such as classrooms, offices, labs, and workshops, as well as the equipment and furnishings that go with them (Salau, 2005; Oyedeji, Salau&Oluwalola, 2008). Institutions must have reference records, which are policy documents. They include government policies, governing council decisions, financing processes, and moral standards (Daramola, 1995). Students' personal information at the time of admission, such as their matriculation number, date/year of admission, department/course of study, degree sought, mode of entry, letter of recommendation/attestation, name of course adviser, academic records (transcripts, examination scripts), social records, and disciplinary committee file are all included in student records.

### **Problems of Using ICT Facilities in Record Keeping and their Solutions**

Information and communication technology (ICT) applications and services are critical to any significant growth in the education sector, particularly record keeping.

As a result, if the fundamental problems of ICT are not solved, the efficiency of using ICT systems in record keeping may seem to be challenging. Bad installation of ICT-related facilities, inconsistent electricity/power supply, and a poor maintenance culture, according to Oshodin&Idehen (2007), are all issues that ICT users face. Other issues associated with the use of ICT in record keeping, as modified from Emeteron (2001), Ibadin (2001), Osundina (2007), Otakhor (2007), and Ogunlade (2008):

- Inadequate and basic infrastructures/resources: The lack of basic and sufficient physical infrastructure, such as room for computers with internet access, electric generators, and suitable furniture, creates significant challenges in using ICT for record keeping.
- ICT Technicians and Personnel Shortage: There is a scarcity of competence in the installation, operation, and maintenance of ICT infrastructure. These are critical areas for the use of ICT in record keeping and management.
- Inadequate funding/financial crisis: Information and communication technology (ICT) facilities are out of reach for the ordinary Nigerian owing to hefty acquisition costs. This creates an impediment to limited people having simple access to these facilities for record-keeping reasons. The effective adoption and integration of ICT in record keeping and management is dependent on financial resources. The present amount of financing provided by tertiary institutions' owners, as well as the reduction in budgetary allocation to the education sector, are significant impediments to the deployment of ICT facilities for record keeping and administration.
- Lack of Basic Education and ICT Skills: This may cause problems with record keeping since many academic and non-academic personnel who should be utilising ICT facilities are not computer literate and therefore do not fully benefit from the advantages of ICT in record keeping and administration. Many academic and non-academic staff members also have conservative views and oppose change by sticking to their old methods of doing things.
- ICT facilities are disrupted due to power outages and computer network failures during record keeping.
- The following strategies are proposed to make efficient use of ICT facilities and talents in record keeping:
  - The institution's authorities should provide orientation programmes on how to utilise ICT facilities for record keeping to both academic and non-academic personnel.
  - For both academic and non-academic personnel engaged in record keeping, school authorities should arrange seminars and workshops on the use of ICT for record keeping.
  - The government should set up funds for the purchase of ICT-related equipment and facilities at higher institutions for record keeping.

- There should be a free and mandatory ICT series for both academic and non-academic staff, providing them with practical and functional understanding of computers, the internet, and related fields of ICT for record keeping; and • complete automation of school records should be implemented. This will undoubtedly allow institutions to fulfil their legal obligations. It will also help them to be more efficient in their administration (Olubusuyi 2008).
- Import tariffs on equipment and infrastructure linked to information and communication technology should be minimal. It is important to support local software creators.

### **Prospects of Using ICT Facilities for Record Keeping**

Tertiary institutions are centres of excellence, locations where individuals are educated to become professionals who contribute their knowledge and skills to the growth of their country. Students are also instilled with appropriate ideals that are necessary for the survival of society as a whole. Many individuals who are trained at these institutes are victims of information that is maintained manually. They've all suffered some kind of setback as a result of bad record keeping. Some students, for example, have had to carry over courses they had previously passed since their scores are not securely kept for simple retrieval and use when the need arises. Some students were forced to take additional courses when their scores were found to be missing owing to poor record keeping and administration. Such heinous acts, whether directly or indirectly, could lead to underdevelopment in one way or another. As a result, it is critical to completely use ICT in tertiary institutions' record keeping. Individual, institutional, and national growth will all benefit from this. Additionally, energy and time spent on manual record-keeping will be saved; mutual trust between academic staff, non-academic staff, and students will be strengthened; and sound judgement based on facts and statistics will prevail. ICT will also make it easier to prepare and distribute transcripts to graduates who want to continue their studies in a certain field. Officers in charge of transcript production are now finding it difficult to create them due to scores that cannot be located in their records.

However, the adoption of ICT has a good chance of filling the void left by human record-keeping. ICT may also make it easier to maintain accurate records in areas like as examinations, employee recruitment and promotion, publishing, and student enrolment and admissions.

### **Methods**

#### **Research Design**

The design employed for the study is the descriptive survey design. This design is considered appropriate and suitable as explained by Okorodudu (2013). It involves systematic collection of data about a given population or area of interest, group of persons, institutions, number of objects, method, and materials or class of events, in order to describe, compare, contrast, and interpret the existing phenomena or answering questions concerning the current status of the phenomena of interest.

#### **Population of the Study**

The population for the study comprises of 50 respondents. This figure consists of male and female workers of the record keeping department of the Delta State University, Abraka.

#### **Sample and Sampling Technique**

The sample for the study is 50 respondents. To get the true representation of the sample size, the total enumerative sampling technique was used because of the small population.

#### **Research Instrument**

The questionnaire is the tool that is used to gather data. The “Problems and Prospects of Using ICT in Delta State Questionnaire” is a fifteen (15) item questionnaire (PPUICTDS). The questionnaire was created in response to the study's three (3) research questions. Section A deals with biographical information, whereas Section B solicited responses and was created to learn more about the Problems and Prospects of Using ICT at DELSU. Each responder was required to tick the proper answers from a list of choices to complete the questionnaire questions.

### **Method of Data Collection**

The researcher who visited the rural exams and record department administered the questionnaire one-on-one to the respondents. The researcher employed research assistants who assisted in collecting the completed questionnaire and was well informed of the purpose and intentions of the research. This is to ensure that the research instrument was well collected, properly filled and also to ensure high return.

### **Method of Data Analysis**

Data retrieved from the field was analysed using mean and simple percentages. This method is considered adequate because of its simplicity.

## **Results**

### **Questionnaire Response Rate**

Data pertaining to the questionnaire response rate is presented in Table 1.

**Table 1: Questionnaire Response Rate**

Copies of Questionnaire Administered	Copies of Questionnaire Returned	Percentage of Copies of Questionnaire Returned
50	50	100%

### **Bio-data of the Respondents**

This section is focused on the discussion of the bio-data of the respondents in relation to their gender, educational qualification and working experience. These are presented in Table 3 to 5.

**Table 2: Demographic Profile of Respondents**

Variable	Frequency	Percentage
<b>Gender</b>		
Male	30	60
Female	20	40
Total	50	100
<b>Educational Qualification</b>		
ND/NCE	11	22
HND/BSc	30	60
Postgraduate Diploma	9	18
Total	50	100
<b>Experience of Staff</b>		
1-5 Years	9	18
6-10 Years	35	70
Above 10 Years	6	12
Total	50	100

The data presented in table 2 revealed that 30 males comprising of 60% of respondents participated in the study. Likewise, 20 females comprising of 40 % respondents participated. On the highest level of education attained by respondents, 11 comprising 22% had ND/NCE as the highest qualification while 30 comprising of 60% had HND/BSc as their highest qualification. 9 persons which made up 18% of the respondents had bagged various post graduate degrees. Relative to the experience level of staff, 9 making up 18% had an experience between 1-5 years while 35 of the respondents making up 70% had an experience of 6-10 years and 6 comprising of 12% had an experience above 10 years.

**Research Question One:** Why is it important to computerize record keeping in tertiary institutions of learning?

Data in Table 3 provides answer to this research question.

**Table 3: Reasons for ICT record keeping in tertiary institutions of learning**

S/N		N=50				
		SA	A	D	SD	Mean
1	Using ICT for record keeping and administration will help to improve the quality of school records all over the globe.	31	12	7	0	3.48
2	ICT has the ability to not only improve the efficacy and efficiency of the teaching-learning process, but also to simplify record-keeping and administration tasks.	40	7	3	0	3.74
3	Access to information quickly without having to go through reams of material	32	8	7	3	3.38
4	ICT allows for searching using many criteria, resulting in the retrieval of particular relevant information.	48	2	0	0	3.96

5	In a networked environment, users may access information remotely. As a result, time is saved by not having to go from one location to another.	42	2	4	2	3.68
<b>Grand Mean Score</b>						3.65

Table 3 reveals reasons for ICT record keeping in tertiary institutions of learning. Responses to the five (5) items raised revealed a high level of agreement by record keepers which are the non-academic staff of the university. They strongly agreed that using ICT for record keeping and management will go a long way toward raising the standard of school records anywhere in the world, and that ICT has the potential to not only ensure effectiveness and efficiency in the teaching-learning process, but also to ease administrative duties such as record keeping and management, as well as to provide quick access to information.

**Research Question Two:** What are the problems of using ICT facilities in record keeping in tertiary institutions of learning?

**Table 4: Problems of using ICT facilities in record keeping in tertiary institutions of learning**

		SA	A	D	SD	Mean
1	Poor installation of Information and Communication Technology	31	14	5	0	3.52
2	Irregular electricity/power supply	47	3	0	0	3.94
3	The lack of fundamental and sufficient physical amenities such as computer storage space with internet access, electricity generators, and suitable furnishings.	30	15	5	0	3.5
4	There is a scarcity of competence in the installation, operation, and maintenance of ICT infrastructure.	43	2	2	3	3.7
<b>Grand Mean Score</b>						3.69

Table 4. show responses on record keeping. All issues raised had acceptable mean scores. Responses to Item 6 shows that poor installation of Information and Communication Technology is one problem which is always envisaged in using ICT services. Regular electricity/power supply, as well as the lack of basic and adequate physical facilities such as accommodation space for computers with internet connectivity, electric generators, and adequate furniture, are some of the issues with using ICT facilities in storage, according to responses to items 7 and 8. Meanwhile, on item 9, we notice a scarcity of competence to manage the installation, operation, and maintenance of ICT facilities, as well as high purchase costs for managing ICT tools utilised in university storage.

**Research Question Three:** What are the prospects for utilizing ICT application in tertiary institution of higher learning?

**Table 5: Responses on prospects for utilizing ICT application in DELSU**

S/N		N=50				
		SA	A	D	SD	Mean
1	In the fields of examination, staff recruitment and promotion, publication, and student enrollment and admissions, the use of ICT may make maintaining correct records easier	45	5	0	0	3.9
2	The use of ICT for proper storage will enhance individual, institutional and national development tradition.	39	37	20	14	3.19
3	ICT will also make it easier to prepare and distribute transcripts to graduates who want to continue their studies in a certain field.	40	5	0	0	3.5
4	Academic personnel, non-academic employees, and students will have more mutual trust.	30	15	5	0	3.5
5	With the use of ICT, energy and time spent on manual record keeping will be saved, and sound judgement based on facts and statistics will prevail.	40	7	3	0	3.74
<b>Grand Mean Score</b>						<b>3.57</b>

Responses to table 5 show prospects for utilizing ICT application in tertiary institution of higher learning. They are good storage enhancing individual, institutional, and national development traditions, mutual confidence between academic staff, non-academic staff, and students being enhanced, energy and time spent on manual record keeping being saved through the use of ICT, and good judgement based on facts and figures that would prevail.

### Summary of Findings

Findings from the study showed that

A total of fifty (50) non-academic staff of the university (30 female and 20 male) participated in the answering of the constructed research questionnaire. The rationale behind this selection is because the non-academic staff of the university are the ones saddled with the responsibility of keeping vital information like those working in the Exams and Records office. The percentage for the male is 60% while that of the female is 40%.

One of the most important benefits of utilising ICT tools for school record keeping is that adopting ICT for record keeping and administration will go a long way toward improving the quality of school records everywhere in the world. ICT has the ability to ensure not just efficacy and efficiency in the teaching-learning process, but also to ease administrative tasks such as record keeping and administration, as well as quick access to information without having to sift through huge quantities of paper. The study's findings also show that one of the benefits of using ICT in record keeping in the institution is that it allows users to search by combining different criteria, resulting in the retrieval of specific relevant information, and it also allows users to access information remotely in a network environment, saving time from having to travel from one location to another. These are just a few of the reasons why utilising ICT to maintain records at the institution is so important. The results of the second study similarly reveal the many issues associated with the use of ICT for record keeping. They include poor ICT installation, irregular electricity/power supply, and the lack of basic and adequate physical facilities such as accommodation space for computers with internet connectivity, electric generators, and adequate

furniture, as well as a scarcity of expertise to handle the installation, operation, and maintenance of ICT facilities.

Finally, the study's results demonstrate the potential for using ICT applications in tertiary institutions of higher learning. They are: good storage enhancing individual, institutional, and national development traditions, mutual confidence between academic staff, non-academic staff, and students being enhanced, energy and time spent on manual record keeping being saved with the use of ICT, and good judgement based on facts and figures prevailing.

## Conclusion

The purpose of this study is to examine the challenges and opportunities of utilising ICT for record keeping in DELSU. It is unarguable that the utility of Information and Communication Technology for the purpose of record keeping in schools and any organisation cannot be overstated, as stated in the work's introduction. This may be deduced from the study's different results. Keeping records may be seen as a vital component of any organisation, and for any institution of higher learning to succeed in its daily endeavours, the necessity to preserve records must be prioritised. This research was also able to uncover some of the benefits of using ICT in a higher education institution. However, this study was able to identify the challenges that face the implementation of ICT in Delta State polytechnic libraries, including insufficient funding, a lack of infrastructural facilities, incompetent personnel, erratic power supply, management issues, high maintenance costs, software issues, and frequent technological changes. The paper concluded that in order to improve the use of ICT facilities at the university, strategies such as increased funding for ICT in schools, recruitment of more qualified staff, training of staff on ICT facilities, constant power supply, adequate technical support, internet connect, internet system, and procurement of a computer were needed.

## Recommendations

The following suggestions are given based on the study's findings:

- i. The university administration should offer sufficient ICT facilities in the offices to assist in document storage and retrieval.
- ii. Training programmes for employees to improve their ICT competence abilities should be conducted on a regular basis.
- iii. Appropriate funds and other sources of revenue should be created, since additional ICT facilities will not be bought without them.
- iv. Improving the school system's power supply is critical in order to maximise the usage of ICT facilities, which rely on light (electricity) to operate.
- v. More infrastructure facilities are required to accommodate more users and to assist alleviate the issue of providing users with a time period for using ICT services.

## References

- Aduwa-Ogiegbaen, E.S &Iyamu, S.O. (2005). *Using information and communication technology in secondary schools in Nigeria: Problems and prospects*. Educational Technology & Society, 10(7), 6-9.
- Akpochofo, W.F. (2005). *Higher Education in Nigeria Since 1842 to the present day*. History of Education, Abraka: DELSU Investment Limited, 20(8), 9-14.
- Daramola, J.B. (1995). *Conservation, Preservation and Management of Public Records. National Workshop Organised for Directors, Deputy and Assistant Directors*. Organised by the Presidency, Office of Establishment and Management Services, 15(8), 7-10.
- Dulle, F.W., Minish-Majannja, M.K., & Cloete, L.M. (2010). *Factors influencing the adoption of open access scholarly communication in Tanzanian public universities*. World Library and Information Congress: 76<sup>th</sup> IFLA General Conference, 13(6), 20-25.
- Egwunyenga, E.J. (2006). *Essentials of School Administration*. Justice-Jeco Publishers.

- Emetarom, U. (2001). Computer Based Management Information System (MIS) and the 21st Century University Administration in Nigeria.
- Ibadin, V.O. (2001). Computer in Educational Planning and Administration. *Current Issues in Educational Management in Nigeria*,18(11),17-20.
- Milken Exchange-Ort Education Technology (1999). Will new teachers be prepared to teach in a digital age? Santa Monica: Milken Family Foundation, <http://www.mff.org/pubs>
- Obanye, P.A. (2002). Revitalization of Education in Africa. Tiriling-Horden Publishers (Nig.) Ltd.
- Ogunlade, O.O. (2008). *Information Communication Technology in Educational Management and Development*. In Babalola J.B., Akpa G.O., Hauwa Imam, and Ayeni A.O. (Eds.) *Managing Education Sustainable Development in Developing Countries*. NAEAP Publications.
- Olagboye, A.A. (2004). Introduction to Educational Management in Nigeria. Ibadan: Daily Graphics Nigeria.
- Oliver, R. (1999). Exploring Strategies for Online Teaching and Learning. *Distance Education. An International Journal* 20(3), 240-241.
- Olubusuyi Adenipekun (2008). *Need for ICT in Keeping Schools' Records*. In Babalola J.B., Akpa G.O., Hauwa Imam, & Ayeni A.O. (Eds.) *Managing Education for Sustainable Development in Developing Countries*. NAEAP Publications.
- Osundina, D.O. (2007). *ICT and Occupational-Oriented Skills for People with Disabilities*. In *Managing Technical and Vocational Education in the Era of Globalization*. NAEAP Publications.
- Otakhor, E.O. (2007). *Facilitating Improved Education Service Delivery in Nigerian Universities: The Relevance of Information and Communication Technology (ICT) Revolution*. In *Managing Technical and Vocational Education in the Era of Globalization*. NAEAP Publications 20(6),9-12.
- Oyedeji, N.B., Salau, K.K. & Oluwalola F.K. (2008). *The Role of Information and Communication Technology (ICT) in Enhancing Learning Delivery and Development of Education in Nigeria*. In *Managing Education for Sustainable Development in Developing Countries*. NAEAP Publications 7(6),5-9.
- Salau, K.K. (2005). *Computer Application and Information Technology*. Nathadex Publishers.
- Thomas, R.M (1987). Computer technology: An example of decision-making in technology transfer in *Educational technology: Its creation, development and cross-cultural transfer* Oxford: Pergamon Press 10(9),6-11.
- Ubogu, R.E. (2011). Enhancing Entrepreneurship through Information Communication Technology (ICT). In *Education and Training for Entrepreneurship*. NAEAP Publications, Delta State Chapter.
- Umo, J.U. (1999). Reinvesting Human Capital: A Single Answer to Multiple Questions. *Keynote Address at Annual Conference of State Manpower Committee held in Abuja* 12(8),7-10.
- World Bank (2007). Education for All. <http://web.worldbank.org//WEBSITE/EXTERNAL/TOPICS/EXTED>.
- Yusuf, M.O. (2005). Information Technology. New Dimensions to the Development of Teacher Education Programme in Nigeria. *Nigeria Journal of Computer Literacy* 4(1),8-12