

**IMPACT OF INFORMATION COMMUNICATION TECHNOLOGY (ICT) ON THE  
MANAGEMENT AND PERFORMANCE OF SECONDARY SCHOOL TEACHERS IN  
KWARA STATE, NIGERIA**

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**ABSTRACT:** *This study was carried out to investigate the impact of ICT on the management and performance of secondary school teachers in Kwara State, Nigeria. Three (3) research questions and three (3) hypotheses guided the study. Three hundred (300) teachers who were sampled from three senatorial zones in the state i.e. Kwara Central, North and South were used for the data collection. The instrument utilized was researchers' designed structured 27 items questionnaire and mean scores were used to test the hypothesis. The findings showed that many schools do not have and teachers do not use the ICT tools in their instructional activities. It was also revealed that the ICT training(s) teachers received do not have desired impact on instructional usage. The study recommended that government should partner with private organizations to provide ICT tools for secondary schools in Kwara State and that needs assessment should be carried out to determine what and types of training teachers need before they are selected to go on ICT training.*

**KEYWORDS:** Teachers, Information, Technology, Management and Performance

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## **INTRODUCTION**

Most teachers leave teacher training institutions with limited knowledge of ways technology can be effectively used in their professional practice. In this age of digitization, being able to effectively apply technology should be high on the list of what teachers at all levels of our education should know and be able to do in any instructional transaction. There is substantial evidence that, if used appropriately for specific purposes in specific contexts, technology can be an effective tool in supporting teaching and learning. The way Information Communication Technology (ICT) has been used in the education can be divided into two broad categories (1) ICT for Education and (2) ICT in Education. ICT for education refers to the development of information and communication technology specifically for teaching/ learning purposes, while ICT in Education involves the adoption of general components of technologies in the teaching process, more specifically, often for the training of teachers in the use of technology for teaching (Olakulehin, 2007). Similarly, UNESCO (2004) classifies ICT in education into three broad categories: (1) pedagogy (2) training, and (3) continue education. Pedagogy is focused on the effective learning of subjects with the support of the various components of ICT. Olakulehin

(2007) emphasizes that the pedagogic application of ICT involves effective learning with the aid of computers and other information technologies as learning aids, which play complementary roles in the classroom, rather than supplementing the teacher.

Training is the transfer of knowledge, skills, and attitudes (KSAs) through structured learning and follow-up activities to solve job performance problems or fill identified performance gaps. Advance in science and technology creates the need for ICT training for teachers in secondary schools. Each of the major technological advancements in computer produces a whole generation of computers. This means new training for all people who use the computer. It has been observed that after teachers had attended professional development courses in ICT, they still did not know how to use ICT in their classrooms; instead they just know how to run a computer and set up a printer. Bello (2000), argued that if teachers are to be convinced of the value of using ICT in their training, their training should focus on the pedagogical issues. Providing pedagogical training for teachers rather than simply training them to use ICT tools is an important issue (Joseph, 2004). It is clear from these points that ICT can help teachers to teach and students to learn more effectively.

A cursory look into technology use in our school system, even when ICT facilities are available, shows that teachers do not make use of these tools. Sanusi (2008) remarked that there is still a long way to go before secondary school teachers in developing countries like Nigeria will be able to take advantage of the opportunity provided by the year 2020 technology. Findings of researches suggest that although ICT can improve leaning, there are a number of issues that need to be considered if such a technology is going to make a difference. Training of teachers in the use of ICT is one of the issues.

## **RELATED STUDIES**

\ Management is a comprehensive effort to direct, guide and integrate human striving which is focused towards some specific ends or aims. It involves planning activities which aim at fulfillment of the goals of a particular organization. In educational organization, the goals are teaching and learning. Effective management will then refer to the extent to which both human and material resources in such an organization are effectively coordinated for the attainment of these goals of teaching and learning. However, it is those who actually coordinate the resources that can be referred to as managers, and what they do as management.

In view of the above explanation, Dare (2006) defined resource management as the careful and systematic utilization of human, material and financial resources for attainment of specific objectives of a given organization. Furthermore, Sanusi (2008) also defined Resource management as intelligent arrangement and use of scarce, materials and capital resources for the accomplishment of the objectives of any organized system. From the definition of resources management highlighted above, it means that resources are very scarce and therefore, the limited ones available should be judiciously utilized and geared towards the attainment of organizational goals. Again, it could be said that in any institution, the major objectives is to achieve educational goals. Therefore, the administrators should be adequately equipped with modern administrative technique that will enable them face and cope with the challenges of efficient utilization of limited school resources for the purpose of achieving educational goals. Institutions' administrators are usually faced with the tedious tasks of managing staff, school facilities and funds, this refers to resources management in schools for effective result.

Information Communication Technology and globalization have greatly affected the Nigerian educational system generally. No meaningful progress will be made in educational sector without adjusting to scientific innovations and discoveries. National Policy on Education (2004) emphasized that the philosophy of education is to be geared towards self realization of national unity, as well as towards social, cultural, economic, political, scientific and technological progress. But in the research conducted by Nworgu and Ogin (2005), it was discovered that education sector is trailing behind other sectors such as industrial, business, aviation and administration. This may be attributed to the fact that substantial numbers of our schools still lack ICT resources/ infrastructure while our teachers lack the necessary skills required for the application in our classrooms.

Information technology is an organized combination of people, hardware, communication networks and data resources that collects, transfers and disseminates information in an organization, Lucy (1998). Information dissemination is very important in schools because, it is one of the major means by which members work together. Information is any fact or set of specific decisions among alternatives courses of action (Alabi,2000). The information potential of data is enhanced by refinements, which involves selection, processing, storing and reorganization of data into a useable form and transmission to the appropriate end users (Sanusi 2008). Information Technology occupies an important position in schools. This is because it makes for smooth planning, directing, organizing, staffing and controlling within the institutions. The ultimate aim of information Communication Technology is therefore to develop a viable system to maximize the effective use of modern data approach to institutions management practices. It also aimed at assisting management, and indeed operating personnel to produce timely and accurate information. It also answers the increasing needs of tertiary institution as it allows the academic staff to have access to all relevant organizational information which enables them to make quick decisions within a reasonable length of time.

### **Statement of the Problem**

Traditional educational practices no longer provide students with all the necessary skills to survive economically in today's work place. When ICT tools are widely used at all levels of education in developed countries, schools are yet to take maximum advantage of ICT in developing countries. Ajayi (2008) noted that 'today's schools are organized around yesterday's ideal, yesterday's needs, and yesterday resources (and they were not even doing very well yesterday'. Mallow (2009) in a study on assessment of secondary school teachers' use of ICT, found that teachers lack skills and knowledge in the use of computer and software and the result is lack of confidence in utilizing ICT tools for communication. Lack of effective ICT training remains one of the major obstacles for integration in instruction. Aramide (2004) study showed that there were not enough training opportunities for teachers in the use of ICT in a classroom environment. Many times, teachers are just sent for training without employing needs analysis of who among them need training, what type of training programme does he/she need; the duration for profitable training programme is usually long and teachers may not be allowed.

In the recent past, the state government has sent many of its workers including teachers on ICT training, but the trainings these teachers received seemed not to have impacted their use of these technologies. Fakomogbon (2005) opined that providing pedagogical training for teachers rather than simple training in ICT is an important issue.

### **Purpose of the Study**

The purpose of this study is to investigate the impact of ICT on the management and performance of secondary school teachers in Kwara State. Specifically, the study is to:

- i Investigate the availability of ICT facilities in Kwara State Secondary Schools
- ii Examine the extent of usage of ICT tools by Secondary school teachers in Kwara State.
- iii Determine the impact of ICT training programme on teachers' usage of the resources in Kwara state.

### **Research Questions**

- i Are ICT facilities readily available in Secondary school in Kwara State?
- ii. To what extent do teachers utilize the ICT facilities in their Schools within Kwara State?
- iii Do ICT trainings teachers receive influence their use of the resources in Kwara State?

### **Hypothesis**

- i There is no significant difference in the opinions of respondents on availability of ICT facilities for Secondary Schools Teachers in Kwara State
- ii There is no significant difference in the opinions of respondents on extent of usage of ICT facilities teachers of Secondary schools in Kwara state.
- iii There is no significant difference in the opinions of respondents on the impact of ICT training programme on the teachers usage in Kwara State.

### **Significance of the Study**

Researches in this area are very few when compared to other disciplines. In view of this, the finding of this study will be of immense values to the stakeholders like principals, teachers and students or managers of schools and colleges in Nigeria. It will also be of importance to other researchers in similar areas of study. The outcome of the study is expected to equip principals and managers of colleges with the potentials of efficient procurement, management and utilization of the limited available resources. The study is meant to call the attention of stake holders in education to current problems faced by secondary schools as they relate to dearth of facilities and use of ICT. The study aims at thinking of better ways of improving on the performance of school managers in the use of technological instruments like laptops, computers, androids, etc. in the management of teaching and learning as well proper keeping of records in Nigeria secondary schools.

### **METHODOLOGY**

The population of the study comprised of all the 300 Secondary School teachers in Kwara State. Through random sampling technique, 30 schools were selected comprising ten schools from each of the three senatorial zones of the State. From each school, ten teachers were randomly selected. In all, 300 teachers participated in the study and questionnaire was the only instrument used for data collection. The 27 item instrument was divided into three clusters according to the research variables. Each of the items was provided with four point rating scale of VA-Very Available, A- Available, FA- Fairly Available, NA – Never Available. Mean was used to answer research questions. The approach that was used is what Nworgu (1991) described as “a sample survey in which sample data in survey research are usually collected through questionnaire”.

### **Validation of the Instrument**

Face value content validity of the instrument was established by three lecturers and two of them are educational technologists while the third is an expert in computer science for necessary correction. The instrument was administered on ten teachers from another state, a positive results was satisfactorily recorded.

**RESULTS**

**H<sub>01</sub>:** *There is no significant difference in the opinions of respondents on availability of ICT facilities for secondary Schools Teachers in Kwara State.*

**Table 1:** Availability of ICT facilities in Kwara State

S/N	Item	Mean	Decision
1	Radio	1.50	NA
2	Satellite	1.25	NA
3	Interactive CDs	1.10	NA
4	Telephone	1.95	NA
5	Multimedia Projector	1.36	NA
6	Video Player	1.34	NA
7	Closed – Circuit Television	1.21	NA
8	Screen	1.41	NA
9	Functional computers	1.23	NA
10	Internet connected computers	1.24	NA
11	Standby generators	1.20	NA

Table 1 shows that none of the eleven items of ICT facilities was available.

**H<sub>02</sub>:** *There is no significance difference in the opinion of respondents on the extent of usage of ICT facilities by teachers of Secondary Schools in Kwara State.*

**Table 2:** Extent of Teachers' Usage of ICT for Instruction

S/N	Item	X	SD	Decision
1	Giving on-line organizational information about courses	1.93	0.63	Disagree
2	Subscription for on-line exam	0.83	1.23	Disagree
3	Online registration and follow of students learning activities	1.04	0.5	Disagree
4	Obtaining internet materials for research, and publications	2.85	0.72	Disagree
5	Using instructional packages in digital audios and CD-ROMS for instruction	2.32	0.31	Disagree
6	Giving students assignment to download internet materials	2.41	0.56	Disagree
7	Using e-mail to send information to students on assignment	2.34	0.39	Disagree
8	Distribution of learning materials tasks for students'	1.12	0.34	Disagree

Table 2 above indicated that Information and Communication Technology (ICT) facilities are not applied in all the pedagogical practices.

**H03:** *There is no significant difference in the opinions of respondents on the impact of ICT training programme on the teacher's usage in Kwara State.*

**Table 3: Impact of ICT training on the use of resources**

S/N	Item	X	Decision	X	Decision
1.	Training on information retrieval through the use of flash drives, CD-ROMS, etc	1.39	DA	2.57	A
2.	Training on how to locate, evaluate and use on-line materials for course designs	1.18	DA	1.66	DA
3.	Training on teleconferencing	1.10	DA	1.44	DA
4.	Training on the use of statistical software	1.18	DA	1.63	DA
5.	Training on development and use of software for ICT tutorials	1.53	DA	1.12	DA
6.	Training on access to PDF files	1.38	DA	1.96	DA
7.	Training on multi-media lesson delivery such as power-pint presentation	1.58	DA	1.18	DA
8.	Training on virtual library use	1.12	DA	1.43	DA

Table 3 reveals that all the items in the first column scored below 2.50. This can be interpreted to mean that the respondents disagreed that their schools have provided for the listed training programmes.

## DISCUSSION OF FINDINGS

To determine the first objective, the result of this study revealed that Information Technology is essential for efficient running of a school and learning. The study showed that almost all the required ICT facilities are not available in the schools. Table 1 showed that there are no functional computers. Specially trained personnel to expose teachers to ICT skills do not even exist in most cases. The few available computers are used for administrative purposes. Non availability of ICT facilities will continue to hinder teachers from using the resources. It is evident in the table 1 that Information Technology makes the world into global village and also bulldozes previous communication super highway but non availability of the facilities is a major setback in the teaching and learning in our schools. This is in agreement with views of Adesina in Arthur (2002) and Ngozi (2002) in their studies that lack of teaching material, apparatus and, teaching aids affect effective learning in the schools.

The study also showed on table 2 that ICT pedagogical practices are not used by teachers in the classroom instructions. Most of the literature concerned with ICT integration in Nigerian education system point to the inadequacy of ICT integration (Sanusi, 2008). This inadequacy might have adverse effects both on the mind of teachers and proficiencies necessary for ICT integration. It is also likely to limit the ability of teachers and students in secondary schools to benefit from digital and online courses, conference and seminars about what would prepare them for the world of work. This is in line with the ideas of Hargittai (1999) and Alabi (2000) that most teachers that do not introduce their students to the use of teaching facilities for practical experiences.

On table 3, the study revealed that majority of the teachers were not sponsored to acquire knowledge for new challenges in the teaching and learning of Information Communication Technology. If adequate training is given to all the teaching staff, it will provide opportunity to these teachers to pass the knowledge to student. In addition, it will also help to change the nature of work in education sector. Robson (2012) was of the opinion that Information Technology helps to direct class teaching, school broadcasting and general programming, over community, national and international stations, which provide general information education programme through training and re-training programme.

Therefore, the researcher opined that all management of secondary institutions in the state should make provision for types of hardware operating system and software that will be conducive to school environment. This may include any equipment or interconnected system or subsystem of equipment that is used in the automatic acquisition, storage, manipulation, management, control, displaying switching, interchanging, transmission or reception of data or information. The state government should provide ICT policy in order to identify ways of improving teachers' capacity in the use of pedagogical models.

The government and the school management should make provision for the availability of the Information Technology facilities for the use of students and teachers for effective teaching and learning and the teachers should be allowed to go for further training to update their knowledge and be equipped readily to face present challenges in the area of Information Communication Technology in Nigeria.

## CONCLUSION

The study seeks to find out the contributions of ICT to management of secondary schools in Kwara State, to ascertain the problems surrounding the development of ICT in secondary schools. Three hypotheses were formulated and tested. From the tables presented on frequencies, percentages and outcomes of the tested hypotheses of respondents on table 1-3, all the hypotheses formulated were rejected. The study shows that management of information system is essential for efficient running of schools or institutions of learning. This is based on responses of respondents above. There is also general consensus of opinions among the respondents who agreed that information technology solves the problems of receiving, storage and retrieval of vital data at any point in time if these facilities are available.

In line with table 3 above, the research revealed that vital information may be lost in a case of machine breakdown, lack of adequate trained manpower, cost of maintenance, installation and repairs and keeping information technology equipment but if provision is made for training and retraining of staff, the problem of trained manpower would be resolved.

## RECOMMENDATIONS

Based on the findings of the study, the following recommendations are made:

- i Government in partnership with organizations should strive to equip the schools with adequate ICT facilities.
- ii Government and school authority should reward any teacher who tries his/her hands on innovation ideas.
- iii Needs analysis should be employed whenever teachers are being sent for training so that maximum benefits can be derived from such training programmes.

**REFERENCES**

- Ajayi, P.K. (2008). *Managing Information for School System*. Lagos: University of Lagos.
- Alabi, A.T. (2000). Management Information System equipment utilization in federal and state universities in Nigeria. *Ilorin Journal of Education*, 20 (1) 105-112.
- Aramide, K.A. (2004). The use of Information and Commutation Technology (ICT) by Academics in Nigeria Tertiary Institution (Masters Thesis), Africa Regional Centre for Information Science. University of Ibadan, Nigeria.
- Arthur, D.A (2002). *Introduction to Educational administration and supervision in Nigeria*. Zaria: Spectrum Books Ltd.
- Bello J.B. (2000). Information and Communication Technologies; their role and value for science education in M. Maik & J.O. Osborne (Eds). *Good practice in Science Teaching-What Research Has to Say*. U.S.A: Open University Press.
- Dare, M. (2006). *A guide to effective management of public enterprises and education institutions in Nigeria*. Kano: Afomats de Printers.
- Emechebe, S.N. (2003). The effect of Management information (MIS) on planning and management of Nigeria Universities. Unpublished PhD Dissertation ABU Zaria.
- Fakomogbon, O.O (2005). *Using Information and Communication Technology in Secondary Schools in Nigeria: Problems and Prospects*: Ilorin Unilorin Press.
- Hargittai, E., (1999). Weaving the Western Web: explaining differences in internet connectivity among OECD countries. Telecommunications policy (online) Volume 23 No. 10, Pp. 701-718 (18). Elsevier science. Available at: Error! Hyperlink reference not valid.{assessed 12 December (2013)}
- Joseph M.M (2004). *Exploring the extent f ICT adoption among secondary school teachers in Malaysia*.
- Lucy, T. (1998). *Management Information System*. London: DP Publication Ltd.
- FGN (2004). *National Policy on Education*. Abuja: FGN Press
- Ngozi, E.E (2002). Information Technology. A source for Efficient Teaching and Learning of Business Education. *Book of Reading in Business Education* Vol. 1 Nigeria.
- Nworgu L.N. and Ogim, C. (2005). Application of ICT System in Secondary School: Biology Teaching. *Review of Education Journal*, 6 (1).
- Nworgu, B.G. (1991). *Education Research: Basic Issues and methodology*. Ibadan: Wisdom Publishers.
- Olakulehin, F.K. (2007). Information and Communication Technologies in teacher training and professional development in Nigeria Turkish. *Journal of Distance Education (TODJE)*, 8 (1) 133-142.
- Robson, W (2012). *Decision strategies management and information system: An integrated approach*. London: Pitman Publishing Co.
- Sanusi M. (2008). The Impact of Management Information System on the Administration of Tertiary Institution in Kaduna State. Unpublished M.Ed. Thesis.
- UNESCO. (2004). *ICT Pedagogy*: UNESCO Office.