



ASSESSMENT OF THE RELEVANCE OF INFORMATION COMMUNICATION AND TECHNOLOGY IN HIGHER INSTITUTION OF LEARNING, DELTA STATE

ESTHER ELO OTOMIEWO.

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Author(s):

ESTHER ELO OTOMIEWO..

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Corresponding Author:

OTOMIEWO E. E.

VOCATIONAL AND TECHNICAL
EDUCATION, FACULTY OF
EDUCATION, UNIVERSITY OF BENIN,
BENIN CITY.

E-mail: estherotomiewo@gmail.com

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Abstract

The study investigated the relevance of information and communication technology in business education tertiary institutions in Delta State. The study highlighted on the availability of ICT facilities for quality instructional services and delivery in tertiary institutions in Delta State. The study also revealed that availability of ICT in tertiary institutions in Delta State is significantly low except interconnected desktop computers and institution cybercafés, lecturers' utilization of ICT facilities is significantly low, thus, recommendations were made to enhance the provision and use of ICT which include: Government at all levels, should as matter of priority fund universities by increasing the annual budgeting allocation to the universities, modalities should be set in motion to enable university lecturer acquire ICT skills through training and retraining, there should be adequate provision of ICT facilities in tertiary institutions to facilitate the effective utilization by lecturers etc.

INTRODUCTION

Information and communication technology has become the role of the moment in the global socio-economic affairs. It has become so important that every country, organization or institutions no matter how highly or lowly placed wants to identify and embrace it. The world presently is knowledge driven and information age has taken the centre stage in virtually everything.

The utilization of ICT facilities is therefore a sine qua non for qualitative instructional service delivery in tertiary institutions. Milken Exchange on education technology (1999) defines ICT as computer based tools used by people to work with the information and communication processing needs of an organization. It encompasses the computer hardware and software, the network and several others devices (video, audio, photography camera e.t.c) that convert information (text), images, sound, motion, and so on into common digital form. ICT has a wider spectrum of applications, with enormous relevance to universities teaching and learning activities. ICT utilization is the presentation and distribution of instructional content through a web environment (Q-teaching) our systems offering an integrated range of tools (stand — alone computer instruction, CD ROM, amongst others) to support learning and communication (Yusuf, 2005). Instructional service delivery has to do

with teaching/learning activities that take place in the classrooms. Therefore, quality of instructional service delivery entails the extent of effectiveness to which lecturers carry their classroom teaching/learning process. According to Okebukolo (2006) quality judgment which determines the extent of preparation and efficiency of teacher's adequacy and accessibility of materials and facilities needed for effective teaching and learning and how the teachers can cope with the challenges ahead of their job. The principal contribution of a university to society turns out on the quality of knowledge, it generates and impacts the habits of critical thought and problem, solving it institutionalizes and inculcates into its graduates, and the values of openness and democratic governance it promotes and demonstrates. The easiest way to ascertain those contributions is the calibre and commitment of lecturers to the continuous improvement in teaching, research and community interactions, the range and quality of the curriculum and pedagogy, the quality and extent of educational facilities, commitment to evaluation and review of the activities to seek continuous improvements (Sawyer 2004, Liston, 1999).

The utilization of ICT in instructional service delivery among lecturers in Nigerian universities has been more of a departmental affair, rather than institutional, and

these departments are in the sciences, medical, and computer sciences where the synergy between research and teaching is strongest, and the essential infrastructure for course development and delivery were more accessible (Bassey, Akuegwu & Udida, 2009). Even at that, what was obtainable was the lowest aspects of ICT such as print, audio/video tapes and digital radios (World Bank, 2002). The awareness of ICT started gathering momentum in universities in Delta State in 2004 when Delta State University entered into a partnership with socket works to process stuck one record in the aspects of registration and school charges. Thereafter, other universities followed suit and since then, the evaluation of ICT has grown in leaps and bounds. To encourage this development, national universities commission (NUC), the government agency responsible for registering and regulating universities have prescribed personal computer ownership as follows: 1 PC to 2 lecturers below the rank of lecturer 1, 1 PC per lecturer 1/senior lecturer, and 1 notebook per professor/reader O.K Hirio, (2007). This is yet to be implemented in the universities under study.

Bamiro and Liverpool (2002) observed that the computer (ICT) has already invaded and dominated universities in the developed world, while in Nigeria it has been painfully slow. Akin to this report that no real effort has been made in ICT development, both at individual and corporate levels, and that most universities still process results manually (The Guardian Editorial, 2006). More so, most lecturers are yet to acquire the requisite ICT skills, and where opportunities exist for them to do so, they shun them because of the phobia they have developed over ICT. Perhaps, this explains why Okogie (2008) the NUC executive secretary declared that most varsity teachers are incompetent. One may add that incompetent varsity teachers can only produce incompetent graduates (Akuegwu, Nwiue & Agba, 2008). Lecturers can only pass skills and ideas to their students if they themselves are masters of their trade (Bamiro & Liverpool, 2002). The quality of lecturers' instructional services which Aginom (2006) put at less than 5 percent. According to him, most Nigerian universities have little or no infrastructure for cyber centers, computer equipped classrooms or high speed internet and do not even have the funds to implement such infrastructures on their own. In addition to these are the problems of no regular power supply, dysfunctional telephone lines, lack of requisite telecommunications infrastructure, and low level of internet connectivity amongst others. Worse still, Nigeria has no specific policy for ICT in education. It was in February, 2007 that the federal ministry of education created its ICT department (Wiki Educator, 2007). All these acts to play down the utilization of ICT in instructional service in the last two years show that lecturers have access to a wide variety of facilities and texts to improve their content knowledge and instructional pedagogy. It is yet to be seen the extent this development has impacted on the quality of lecturers'

instructional services delivery.

INFORMATION AND COMMUNICATION TECHNOLOGY

Information and communication technology is an invention of which its impact is being felt globally, as it has led to various innovations in science, technology and management of institutions. There is no universally acceptable definition of ICT because the concept, methods, and applications involved in ICT are constantly evolving almost on a daily basis. However, Nwoke (2013) has posited that ICT is the whole range of technologies involved in information processing and electronic communication. The Economics and Social Commission for Asia and the Pacific (ESCAP). Agholor and Ovbiagolo (2014) define ICT as referring to techniques people use to share, distribute, and gather information. According to UNESCO (2004) ICT is defined in three ways: - first as the technology, application of information technology to society, secondly as the science dealing with the design, realization, evaluation use and maintenance of information processing systems, including hardware, software, organizational and human aspects, and the industrial, commercial government and political implication of these, and third as the combination of information technology with other related technologies.

Brenna and Malian (2000) assert that ICT is a term commonly used to describe the use of computers and related equipment to produce, store, manipulate, print, receive and transmit information in electronic form, whether it is text pictures, sound, video or other data. Milken exchange on education technology (1999) defines ICT as electronic technologies for collecting, storing, processing and outputting communication and information.

According to Iloanusi and Osuagwu (2009), they opined that information communication technology (ICT) is the processing and maintenance of information and the use of all forms of computer, communication, network and mobile technologies to mediate information. Similarly, Adebayo in Egbe (2010) posited that ICT covers the use of computers, radio, satellites, online self learning packages, telepresence system interactive CDS, video, internet, optical fibre, technologies and all types of information technology (IT) hardware and software.

The role of technology in teaching and learning is rapidly becoming one of the most important and widely discussed issues in contemporary education policy (Rosen and Michelle, 1995 and Ihierer, 2000). At every level of education, technology is perceived as a vehicle for curriculum enhancement, ICT provides teachers and students with vast, qualities of information in an easily, accessible, non sequential format that can be used as a teaching tool. According to Aduwa, Ogiegbeon and Iyanu (2005) they posited that most experts in the field of education agreed that, when properly used, information and communication technology hold great promise to

teaching and learning in addition to shaping workforce opportunities.

CONCEPT OF BUSINESS EDUCATION

Business education means different things to different people. Agwumezie (1999) sees business education as a programme in education that prepares students for entry into and advancement in the world of work. Aliyu (1999) has it as a programme, one needs to be proud of, if properly designed, adequately prepared and religiously harmonized. Aliyu further affirms that business education is an educational programme which involves acquisition of skills, knowledge and competencies which makes the recipient, beneficiary proficient. It is an umbrella under which all business programmed takes a shield, such as marketing, business administration, secretarial studies and accounting.

Business education as a discipline is expected to expose its recipients to diversity curricula, hence it is that type of education that inculcate in its recipients, attitudes, knowledge, skills, values that is required in the business world. This is a means of producing a healthy, literate, self reliant citizen that would create wealth for human development, when they become self employed, thereby resulting in sustainable nation's development at large. Business education must have impacted accounting skills and correct knowledge required for employment generation opportunities, such entrepreneurial skills and accounting competencies that would also make the business graduates to adopt some strategic survival instincts (Ezeani, 2012).

To Igboke (2000), business education is a dynamic field of study geared towards preparing youths and adults for and about business. It is a preparation for career in business when instruction is designed to prepare youths and adults for actual practice in the world of business. On the other hand, education about business involves preparation of youths and adults for intelligent and effective consumption of economic goods and services offered to society in our free enterprise economy.

However business education is intended to produce responsible, productive and self reliant citizen). The highlights and the importance of business education inculcating in the recipients knowledge, attitudes, and skills needed in the business world. The objectives of business education cannot be over emphasized, hence, business education generally are born out of the needs of industry, commerce, and society. In addition, it is career oriented that aims at preparing people for gainful employment (Ezeani, 2012).

RELEVANCE OF ICT AND EDUCATION

The various packages used in the teaching learning process in school is according to Ofodu (2007) include

radio, television, computers, overhead projectors, optical fibres, fax machines, CD Rom, internet, electronics notice board, slides, digital multimedia, video/VCD machines, optical discs, disks, flash memories, video books, multimedia, projectors, interactive electronic boards, and continuously emerging state of the arts PCs, mobile phones, PDAs, palmtops and so on.

ICT is an umbrella term that includes any communication device or application encompassing the aforementioned. The educational sector is one of the many beneficiaries of ICT. The introduction of ICT packages have revolutionalized the way we teach and learn.

The education sector is one of the many beneficiaries of ICT. The introduction of ICT facilities such as computers, radio (tape recorders), and television sets, video, disc players, bullet board, multimedia etc have revolutionalized the way we teach and learn. ICT role in education sector cannot be overstressed. Aman (2005) referred to the internet as holding the greatest promise humanity has ever known for long distance and universal access to quality education. The United Nation Education and scientific children organization (UNESCO, 2009) opined that the use of ICT in education is rapidly expanding in many countries and is equally seen worldwide as both a necessary and on opportunity. ICT is therefore any part of the world. "Information and communication technology (ICT) have made a very significant and quality of teaching, learning and research in educational institutions".

THE USES OF ICT PACKAGES

- Makes the students to be more independent in their learning resources.
- Be challenged in their learning activities.
- Be dependently and actively involved in the learning process.
- Be more creative in the way that they respond to the learning process (UNESCO, 2009).

ENHANCING BUSINESS EDUCATION THROUGH ICT PACKAGES

Information technology is the art and science that is applicable to relevant data collection, organization, analysis and processing of these data by a computer based programme so as to produce meaningful and useful knowledge to the receiver(s). There is a no acceptable definition of the term ICTs, this is because it is a new concept. According to Laudan in Ikelegbe (2007), information technology and systems include all the different means, methods, and tools that humans have used throughout history to help manage information, conduct businesses, communicate with others and better understanding of the world. Butcher in Ikelegbe (2007) defines ICTs, as electronic technologies

that is used for collecting, storing, processing and communicating information. According to him, they can be separated into 2 main categories;

1. Those that possess information such as computers and
2. Those that disseminate information, such as telecommunication system.

Osuala (2004) remarked that ICT deals with the handling and processing of information using all kinds of electronic devices. Information and communication technology (ICT) is a communication process in which information (input) is recorded, stored, retrieved, processed for decision making (output) on planning, operating and controlling Ajoma, (2009) this guarantees effective and for immediate use in planning, implementation and evaluation process in educational programme after Mukoro (2007) citing Williams and Sawyer observed that ICT to be computer auxiliary equipment software's and hardware's and similar procedures, services and related resources. It includes any equipment or interconnected system or subsystem of acquisition, storage manipulation management, movement, control display, switching, interchange, transmission or reception of data or information.

Laudon in Ikelogbe (2007) categorized the different types of information and communication technologies into five (5) basic types;

1. Sensing Technologies: These are devices that help us to gather information from the environment and translate that into a form that can be understood by the computers. Examples are: data collection, devices, such as scanners, computers, keyboards, mouse, or trackballs, electronic pens, touch screens etc.

2. Communication Technologies: These are technologies that tie together and communicate information between the various kinds of technologies. Examples, land, cellular telephones, computer networks, telecommunication networks, television, radio, video, computers. A network is a group of devices that is linked together. The internet is today the most famous and largest wide area network. It connects thousands of smaller networks and millions of users all around the world.

3. Analyzing Technologies: The computer hardware and software comes within this category computers take in information from sensing and communication devices and then store and process the information, analysis technologies are classified into:

- Small (micro computers) - PCs, desktop, laptops and notebooks, handheld or palmtop computer.
- Medium (work station and mini computers).
- Large (mainframe and supercomputers).

4. Storage Technologies: This is another important category. They help to store quantities of information in a form that can be easily accessed. This is made up of the secondary storage devices such as magnetic tape, magnetic disk, floppy disk or diskettes and hard disc, optical discs, CCD, Roms — read on memory, VCDs, video, compact discs etc).

The information society today demands a workforce

that can use technology as a tool to increase productivity and creativity. This involves identifying reliable sources of information, effectively accessing sources of information, synthesizing and communicating that information to colleagues and associates.

Robinson (1991) says that the use of new information technology can serve three main functions:

- To deliver all or part of learning content to learners.
- To supplement and extend content provided in a different form, e.g (print) and
- Provide a two way channel of communication of exchange between tutors and students with their peers for feedback or for learning, problem solving advices, debates and support.

Other ways in which ICT can be used in business education areas are listed below:

- It supports conventional classroom. The teacher could ask his students to use ICT.

- It helps in the design and development of learning materials, so much material can be downloaded from the internet. Such materials must however be adapted to suit specific instructional objectives.

- It enhances electronic teaching materials such as books, journals, etc through ICT, we can access, store, analyze information in electronic form.

- It is particularly useful in research as it gives access to world of resources especially in electronic form.

- It can play a key role in administration, students' data, personal administration, purchasing and suppliers, advertisement etc all these can be handled with ease using ICT.

- It encourages independent study and individualized instructions are facilitated by ICT especially on the open distance learning programmes.

- ICT makes learning more vivid and engaging.

- ICT can assist the teacher in assessment and testing of business education students (Ikelegbe, 2007). NBTE (2004) recommended that for effective teaching and learning of business education subjects, the departments should be equipped with the following:

- One (1) electronic/electric typewriting laboratory with 35 computer and their accessories.

- One (1) laboratory for shorthand speed development should be equipped with a central transmitting unit and transistor and receivers or any other suitable media with 2-4 multi selection channels, 31 cubicles to accommodate 30 students a time. It should be furnished with rug and air conditioners

- Office practice room should be equipped with five (5) different variety of the writers (electronic electric, manual, long short etc), 2 pieces with word processing equipment, 1 fax machine, 1 duplicating machine, 1 photocopier, 2 electronic calculator, 1 telephone set, 1 handset and refill card, 1 scanners, 1 radio cassette player, 1 coloured television, 1 video machine and video CD, 1 magic board, 1 multimedia projector system, slides, microfilming camera plus 12 digital camera, floppy diskettes, compact disc etc according to Onwuzo

(2009) he posited that in the developed countries like Europe and America, ICT has almost replaced conventional way of teaching and learning evidence in the use of interactive assisted instruction (CAT), computer assisted learning (CAL), e-mail, use of interactive computer display that can incorporate graphics, film sound and internet links in teaching and learning. The relevance of ICT facilities utilization in training of business education students cannot be overstressed. It is pertinent to note that business education students cannot be taught efficiently and effectively without the use of ICT equipment. Considering the practical nature of the course business education. As a matter of fact, Oduma (2008) opines that all instruction requiring the acquisition of skill and use of instructional facilities should be necessary, be taught in a well equipped laboratory. A well furnished and highly equipped ICT laboratory will no doubt facilitate teaching and learning of business education that is practical oriented. ICT provides teachers with useful teaching aids in teaching and learning process. It is worthy that any equipment used in instruction and learning business education skills must as a matter of fact be a replication of actual equipment used in the industries such as computer, multimedia, internet, video conferencing etc.

It is evident to say the state of business education departments in the higher institutions under study is quite appalling; facilities, personal and equipments are grossly inadequate to take care of the number of students in the departments. Even when the required facilities are the demands due to so many factors. The gross under utilization of available ICT facilities for training students is quite visible, students poor performance shows a vivid picture of ineffective use of limited available ICT facilities due to a number of reasons.

HINDRANCE TO ICT UTILIZATION IN TRAINING OF BUSINESS EDUCATION STUDENTS

The use of ICT in training business education cannot be overstressed. The emergency of automation and most importantly the computer system as an example has had a profound effects on the role of teacher learner skills, level and productivity. Developed nations, most people who work in offices and factories rely much on office automation and teachers and most often involved in the making of meaning out of the maze of information surrounding them.

The state of automation in Nigeria is not particularly encouraging in view of the fact that office automation is no way a new phenomenon, yet so many teachers do not avail themselves of the knowledge. Some problems militating against the effective and efficient use of ICT in training business education students in Nigeria's tertiary institutions are: teachers, equipment, classroom and money to purchase the needed facilities are grossly inadequate. Some of the factors working against the utilization of ICT facilities in training business education

students in Nigeria institutions are”

□ **Short Supply of Competent Lecturers:** Automated machines are complex to handle, it needs adequate and competent experts to operate and handle them to say the least, there is inadequate business educators who are knowledgeable enough in the first place research was revealed that this is a grossly inadequate supply of proficient personnel in information and communication technology (ICT) to handle proper teaching/training of students in business education programme (Iredia et al, 2009). It is very unfortunate that most of the institution offering business education or business education programme have no equipped computer laboratories to affect the teaching/learning of information and communication technology. And in most cases, there is nothing like video conferencing, television and telephones. Similarly, Azuka (2010) posited that ICT are swiftly evolving technologies that even the most efficient ICT teacher need to continuously upgrade their skills and keep abreast of the latest development and best practices.

□ **Inadequate Physical Facilities:** One major problem facing most institution offering business education in Nigeria today is inadequacies in the facilities for their academic programmes. The realities are that those facilities are not in existence and when they are in existence, they are grossly inadequate or obsolete for their academic programmes, laboratories and workshops are required in science/technology based like business education programmes. This has affected the delivery of business education subjects. There is gross insufficiency of ICT facilities like computers, internet connections projectors, telephones and application software that are needed for the teaching-learning of business education students and office managers.

Azuka (2010) commented that before any ICT based programme like business education is launched, policy makers and planners must carefully consider the followings:

1. In the first place, are appropriate rooms or building available to house the technology?
2. Secondly, the availability of electricity and telephones.
3. And lastly policy makers should also look at the different types of ICT in the country and in the educational system.

□ **Recruitment and Selection of Staff:** Generally, recruitment and selection of staff is undertaken to man workshops, laboratories and classrooms. The recruitment is tied to criteria such as political favoritism, geographical area or quota system. The situation has given birth to having square pegs in round holes. It is only a technician that can produce another technician, training starts, and continues, where education stops. In the technical training, it is “not do as I say but as I do” thus, the teacher must have a practical knowledge of the course he or she teaches. (Mform and Ezeani, 2008).

□ **Inadequate Funding:** To realize the objectives of

business education, one of which is to equip the graduate with the right skills which are required for self reliance, adequate fund needs to be provided. The education trust fund intervention has been of great assistance whereby many institutions that use their funds judiciously and make remittance on time always have their next allocation of funds for further educational development. The use of ICT in training students is capital intensive; the cost of purchasing the ICT facilities is quite high considering the financial allocation given to the school in the face of other pressing needs and demands.

□ Inadequate Power Supply: The basic infrastructures such as the supply of electricity in Nigeria is an epileptic low voltage power supply. The incessant blackout as being behind the closing down of many businesses. It is obvious that there is no way production lines can be stimulated when thereof no power to run production lines or where the epileptic power supplied lot to the breakdown of many office machines or facilities. Many ICT facilities use electricity and in Nigeria, the power situation is quite appalling, so during the classroom instruction, students will not be able to perform as they are faced with frustration resulting from poor electricity supply or voltage.

CONCLUSION

This study has explored the concept of ICT and its importance to education especially business education. It goes on to reveal the concept of ICT facilities to business educators. It went further to consider the concept of business education as a programme of study packaged for higher institutions in Nigeria. The study also reveals that ICTs have highly evolved technologies, hence educators are urged to upgrade their skills and keep abreast of the latest development and best performance with the impression ICT has created, it is yet to create significant impact in enhancing the instructional service delivery in tertiary institutions in Delta State of Nigeria.

RECOMMENDATIONS

It is thus recommended that:

- ICT facilities should be made adequately available by tertiary institutions administrators such that lecturers can utilize them in their offices and classrooms.
- The government at the federal and state levels should as a matter of priority, fund universities very well according to the recommendations of UNESCO. This will enable the university administrators to provide more of those ICT facilities and properly maintain the existing ones.
- Modalities should be set in motion to enable university lecturers acquire ICT skills through training.

This has the tendency of enabling them to enrich their content knowledge through searching for more and new materials makes learning more meaningful and improve students' learning outcomes.

- The financial outlay required in procuring ICT facilities are enormous to the extent that individual university administrators may not be able to provide it alone. It, therefore, becomes necessary/imperative.

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