



AVAILABILITY, ACCESSIBILITY AND UTILIZATION OF ICT FACILITIES FOR INSTRUCTIONAL DELIVERY IN BUSINESS EDUCATION IN TERTIARY INSTITUTIONS IN CROSS RIVER STATE, NIGERIA

Ushie Anthonia Agede

Department of Vocational Education, University of Calabar, Calabar

Abstract: *The study investigated availability, accessibility and utilization of ICT facilities for instructional delivery in Business Education in tertiary institutions in Cross River State, Nigeria. Two specific objectives were formulated and two research questions were posed. Descriptive survey research design was used for this study. The population of the study consisted of 65 business educators, who equally formed the sample. Two instruments were used for data collection; a checklist and a structured questionnaire named “Accessibility and Utilization of ICT facilities Questionnaire”. The questionnaire was validated by three experts. A trial test was carried out on 15 business educators in University of Uyo and the data collected were subjected to Cronbach Alpha reliability method with a co-efficient of .75 to .80. Data was analyzed using frequency and simple percentages to answer the research questions and the findings revealed that; ICT facilities are slightly available in the institutions under study and lecturers have access to ICT facilities very often. It was recommended among others that government should partner with private organizations to provide tertiary institutions with hi-tech information and communication facilities such as electronic and interactive white boards to aid teachers in delivering instructions.*

Keywords: Availability, Accessibility, Utilization, Facilities, and Instructional Delivery

Introduction

Tertiary education plays a key role in the economic and social development of any nation. In today's life-long learning framework, tertiary education provides not only high level skilled manpower necessary for every market but also the training essential for teachers, doctors, nurses, civil servants, engineers, scientists and other personnel. It is these trained individuals that help to develop every sector of the economy and make important decisions which affect the entire society. For tertiary education in Nigeria to play the above role, especially in this 21st century, attention must be paid to

the effective implementation of tertiary education programmes, of which Business Education is an essential aspect. Business education is seen as a programme that has promoted skills which enable individual to function effectively and efficiently as an employee or employer. Business education according to Olumese in Onasanya, Shehu and Shehu (2010) is a comprehensive discipline whose instructional programme encompasses the knowledge, attitudes and skills needed by all persons in order to effectively manage their personal business and economic system



and also the skills needed for entry into employment and advancement in a broad range of career.

However, the researcher had observed that some business educators have not been delivering the content the way they ought to for the realization of the programme set objectives. Content deals with knowledge of the subject matter or the course skills, principles, concepts, attitudes and values to be delivered (Mac-Ikemenjima, 2005). Business Education content delivery is a process whereby the business educator clarifies and establishes what he or she intends to achieve with the students with regards to his or her teaching, then decides how best to do it and finally considers how successful he or she has been in the process.

Effective instructional delivery is seen as the quality of instructional service delivery which entails the extent of effectiveness to which lecturers and teachers generally carry their classroom teaching and learning process. Uzodinma (2006) asserted that the unprecedented increased in students' enrolment in Business Education has witnessed large classes that is cumbersome to deliver lessons effectively. He added that some teachers do not observe effective organization of learning experiences, continuity, sequences and integration of the course content during lesson delivery. Some business educators still practice the traditional classroom method, which has the characteristics of teachers' domination, where learners are passive. It has also been observed that some teachers introduce the day's lesson uninterestingly and instructional materials haphazardly. Most times they do not summarize the main points after the lesson, they use few examples or illustrations while teaching, they are authoritarian in nature as they limit class discussion during lesson delivery. Furthermore, through the researcher's discussion with students, she observed that most business educators rarely give notes during classes and they sometimes do not provide feedback on their student's progress.

This has resulted to failure of Business Education students in some of their examinations conducted within the schools, lack of skill acquisition and the culmination of antisocial behaviours among students, which have become a serious problem to the society. However, ineffective content delivery has been attributed to a number of factors ranging from issues of enrolment, funding, infrastructure, teaching personnel and curriculum provisions (Effiong, 2015 & Akinola, 2015). However, the issue of ineffective delivery of the content still lingers. Such a growing impression informs a compelling need to investigate whether this is not unconnected with the availability and utilization of ICT facilities.

ICT is the acquisition, processing, storage and dissemination of vocal, textual, pictorial and numerical information by micro-electronic-based combination of computers and telecommunication. It is seen as the product of the marriage between computer technology (essentially for information acquisition storage and processing) and telecommunication technology which is for information distribution. ICT facilities are computer system and telecommunication equipment in information processing. It is made up of three basic components namely; electronic processing using the computer transmission of information using telecommunication equipment, and dissemination of information in multimedia. ICT utilization is the presentation and distribution of instructional content through web environment (e-teaching) to support learning and communication (Yusuf, 2005). Some of the examples of ICT tools according to Akuegwu, Ntukidem and Jaga (2011) are computer tap tops, video machines, multimedia projectors or power points, digital cameras, internet facilities, computer network, telephone (GSM and land phones), e-library, television programmes, data base among others.

Akawu (2010) stated that ICT facilities as tools for addressing challenges in teaching and learning. It is equally good for geographical dispersed of audiences. As a change, it catalyzes various other changes in



content methods and overall quality of teaching and learning. ICT provide a variety of tools to support and facilitate teacher's professional competence, it transforms teaching and helps teachers to be more efficient and effective, thereby increasing their interest in teaching. ICT has the potential to accelerate, enrich and deepen teachers' skills; motivate and engage students in learning; helps to relate school experiences to work practices; contributes to radical changes in schools and strengthens teaching.

Akuegwu, Ntukidem and Jaga (2011) wrote that, the awareness of ICT started gathering momentum in universities in Akwa Ibom and Cross River States in 2004 when University of Calabar entered into a partnership with socket works to process students' records in the aspect of registration and school charges. Thereafter, other universities followed suit and since then, the evolution of ICT has grown in leaps and bounds. To encourage this development, National University Commission (NUC), the Government Agency responsible for registration and regulation of universities has prescribed personal computer ownership. This is yet to be implemented in the universities and Colleges of Education under study.

It has been observed that the computer and ICT generally has already invaded and dominated universities in the developed world, while in Nigeria it has been painfully slow. Akin to this is the report that no real effort has been made in ICT development both at the individual and corporate levels, and that most universities still process results manually (The Guardian Editorial, 2006). Moreso, most university lecturers are yet to acquire the requisite ICT skills, even when the opportunities exist according to Akuegwu, Ntukidem and Jaga (2011) for them to do so they shun them because of the ICT phobia they have developed. Perhaps, this explained why Okogie (2008) the National Universities Commission (NUC) Executive Secretary declared that most university lecturers are incompetent. And of course incompetent lecturers will definitely produce incompetent graduates.

The quality of lecturers' instructional service delivery cannot be divorced from their utilization of ICT facilities in our universities. According to Aginam (2006), most Nigerian universities have little or no infrastructure for cyber cafes, computer equipped classrooms or high speed internet. In most cases do not even have the funds to implement such infrastructures on their own. The problems of no regular power supply, internet connectivity, telephones dysfunctional nature, no specific policy for ICT in education among others. What looks like a ray of hope is the fact that the federal governments have introduced Universal Mandatory Information Technology Training (UMITT) which is being embraced by universities. In the same vein, the Cross River State Ministry of Education is mandatorily acquiring lap tops computers to all her primary and secondary school teachers for effective instructional delivery and competency. The development in ICT in the last two years show that lecturers have access to a wide variety of ICT facilities, materials and texts to improve their content knowledge and instructional pedagogy. But the impact of this development is yet to be seen on the quality of lecturers' instructional service delivery.

Beside, many lecturers have been unable to find effective ways to utilise technology in their content delivery or any other aspect of their teaching. The possible explanation for this lack of success by teachers is not only that the utilization of technology in the classroom has not been encouraging and teachers are not trained in using ICT in teaching as a means for educational sustainability, but the level of the teachers' exposure and proficiency to ICT facilities has been very minimal.

Moreover, as knowledge explorers, lecturers must as a matter of necessity be abreast with current ingestions, research network and innovations in instruction and instructional development. This knowledge can only be enhanced through adequate utilization of ICT facilities which will also lead to quality instructional delivery among lecturers. It is obvious that there are few studies



that have looked at this phenomenon. Most of these studies were undertaken in primary schools, secondary schools or in tertiary institutions. Therefore, there is need for a study on this sector of education in order to ascertain the feelings or opinions of teachers on ICTs availability, accessibility, utilization, proficiency, and its possible benefits and problems as it relates to content delivery. The utilization of ICT facilities in content delivery is still a mirage in Nigeria; hence the need to investigate the availability, accessibility, degree of utilization and the level of competence of business educators in the use of ICT facilities for instructional delivery in tertiary institutions in Cross River State.

Collaborating Alu (2011), observed that graduates of business education have problems in using technologies in a work environment due to their inadequate exposure to information and communication technologies. He stressed that lack of these office technologies affects the nature of programme offered to learners.

Business education laboratories in most tertiary institution lack the basic ICT facilities. Therefore, there is need for improvement in the quality and quality of ICT tools for effective teaching and learning of ICT course especially those related to office administration. In a study carried out by Mandara (2012) on the utilization of information and communication technology (ICT) in the teaching of office education graduates in Adamawa state tertiary institutions, the population of the study comprise of 15 teachers of business education programme. The study found that the teachers of business education office management option are not making adequate and effectively use of ICT tools and facilities in learning of office education due to its unavailability.

Umoeshiet, (2015) carried out a study on assessment of adequacy of available new technologies in business education for instructional delivery in state owned university delta, Nigeria. A survey research design was adopted. The area of the study was state-owned universities in Delta state of Nigeria. The population comprised 25 business educators in the institutions.

Two research question and two null hypotheses guided the study. The study used a four likert rating scale questionnaire with 20 items each in two cluster data collected were analyzed using mean and standard deviation for answering the researcher question and t-test for testing the null hypothesis at 0.05 level of significance. Result of the study revealed that new technology in business education for instructional delivery are not adequately provide for and as such discouraging business educators for effective utilization of these new technologies in teaching business education.

Egomo, Enyi and Tah (2012) conducted on availability and utilization of ICT tools for effective instructional delivery in tertiary institutions in cross river state Nigeria. Lecturers selected for the study 300 using sample random sampling. Four research question were formulated to guide the study. The instrument for data collection was questionnaire the questions were statistically analyze using simple percentage. The results obtained revealed that availability and utilization of ICT for effective delivery is significantly low. Cyber cafes, internet connectivity and use of laptops is a common phenomenon among institutions and lecturer competence in the use of ICT tools among lecturers is discouraging.

Similarly, Emeasoba and Nweke (2016) study on the level of availability and utilization of ICT facilities in teaching and learning of office technology and management in polytechnics in South Eastern states Nigeria, with a population of 88 office technology and management lecturers and the hypothesis were tested at 0.05 level of significance t-test was used to test the hypothesis the study found that ICT tools for teaching Office Technology Management (OTM) course are available at low extent. Item by item analyses of the items shows that, computer facilities, telecommunication facilities, multimedia facilities and internet facilities were utilized at low extent. It was also observed that OTM lecturers differ in their opinion on the availability of ICT facilities in their institution. The



grand mean of 3.18 shows that ICT facilities for teaching OTM course are available at low extent. Standard deviation ranging from 0.72-09, show disparity in the opinion of OTM lecturers on the extent of ICT facilities availability.

Utware (2014) asserted that convergence of tools of ICT with the education process has brought to the fore emerging competencies which are not present in the various curricula for producing office workers. Emerging technologies under ICTs, such as e-learning, e-commerce, e-banking, the internet, peach trees, multimedia system and other digital communication means are positively impacting on the ways of educational instructions. The paucity of ICT in Nigeria educational system appear to make her a poor ICT based educational instruction country. In a study carried out by Oluwatumbi and Olubunmi (2017) on the availability and utilization of internet facilities among undergraduate students of Ekiti State University and College of education Ikere-Ekiti, the population of the study consisted of all the undergraduate students of Ekiti State University and College of education, Ikere-Ekiti and the sample was make up of 180 male and female students selected randomly from the class of the final year from the two institution. With a calculated-t of 0.126 and a table value of 1.96 at 0.05 alpha level of significance hence the null hypothesis is accepted. This shows that there is no significant difference in availability and utilization of internet facilities in college of education and university, Ikere-Ekiti. The study also revealed that the facilities were not adequately available hence the low utilization.

The various ICT facilities used in the teaching and learning process in higher institution according to researchers include; radio, television, computers, overhead projectors, optical fibres, fax machine, CD Rom, internet, electronic notice board, slides, digital multimedia, video/VCD machine among others. It appears some of the facilities are not sufficiently provided for teaching and learning process in the tertiary institutions. This might account for why

teachers are not making use of them in teaching (Apagu & Wakili, 2015). Vocational and technical education as a discipline which business education falls under requires adequate instructional facilities such as the ICT so as to make teaching and learning more effective. Use of ICT will break the barrier existing between theory and practice as more concepts would be presented on slides for the learners.

Accessibility to ICTs can be explained as the availability of equipment. Using ICT requires not only the availability of equipment but also their proper maintenance including other accessories such as computers, printers, multimedia projectors and scanners. Accessibility of information and communication technologies include mobile. ICTs are integrated into many aspects of global society today are essential to education, business and public services. Communication, television, computer, digital interfaces, ATM and internet. Amua-Sekyi and Asare (2016) stressed that the inaccessibility of ICT resources is not only due to the non-availability of the hardware and software or other ICT materials within an institution but a result of poor organization of resources, poor quality hardware, inappropriate software, or lack of personal access for teachers. High-speed internet connection is also a prerequisite for integrating ICT into teaching and learning. Poor internet access hampers lecturers' goals in integrating ICT in teaching and learning pedagogies.

Similarly, most of the respondents had access to Internet and computers at home and cyber café. However, the challenges faced by the science students on use of ICT facilities in Ibadan Township were: fear of using ICT tools, time constrains, complexity of operating ICT tools and lack of electricity to power the tool(s). He further asserted that in modern society ICT is ever-present, with over three billion people having access to the Internet. With approximately 8 out of 10 Internet users owning a smartphone, information and data are increasing by leaps and bounds. This rapid growth, especially in developing countries, has led ICT



to become a keystone of everyday life, in which life without some facet of technology renders most of clerical, work and routine tasks dysfunctional (Murray, 2011). The most recent authoritative data, released in 2014, shows that access to ICT and Internet use continues to grow steadily, at 6.6% globally in 2014 (3.3% in developed countries, 8.7% in the developing world); the number of Internet users in developing countries has doubled in five years (2009-2014), with two thirds of all people online now living in the developing world (Cantoni & Danowski, 2015).

Federal Republic Nigeria (2004) stated that “in recognition of the prominent role of information and communication technology in advancing knowledge and skills necessary for effective functioning in the modern world there is urgent need to integrate information and communication technology (ICT) into education in Nigeria”. However, despite the position of this official document with regards to the need for ICTs integration into education, there seem to be some degree of lackadaisical attitudes and negligence by school, teachers, students, administrators and university lecturers. Also recognizing the importance of ICT in every human endeavor, as well as technological development of a country like Nigeria, it is surprising to notice that both students and lecturers, in most Nigerian higher institutions do not have access to these important ICT components.

Nwiyi (2016) conducted a study on availability and accessibility of information and communication technology (ICT) facilities in the management of secondary schools in Port Harcourt Local Government Areas of rivers State. The design of the study is a descriptive survey research. The area of the study is Port Harcourt Local Government Area of Rivers State. The population for the study was made up of 1440 teachers and principal from the 15 public secondary schools in Port Harcourt L.G.A. of Rivers stat. Three research questions guided the study. 220 teachers and principals from 15 public secondary schools in Port Harcourt constituted the sample for the study through

simple random sampling technique. The researchers made a fifteen item questionnaire for the collection of data for the study. Simple mean was used in analyzing the data collected. The result reviewed that there is no available and accessible ICT facilities in the management of secondary schools in Port Harcourt. He further emphasis Successful integration of ICT in the school system depends largely on the availability and competence and the attitude of teachers towards the role of modern technologies in teaching

Similarly, Gumah, Obeng and Mustapha (2016), carried out a study the availability, accessibility and utilization of ICT facilities by Extension Agents and Farmers in the Northern Region of Ghana. A sample size of 180 respondents consisting of ninety (90) Agricultural Extension Agents (AEAs) and ninety (90) farmers were interviewed and the results analyzed. Simple random and stratified sampling techniques were used in selecting respondents. The data were analyzed using appropriate descriptive statistics. The results of the study revealed that phone and radio were the most available, accessible and commonly used ICTs by AEAs and farmers for extension service delivery in the Northern Region of Ghana. The result of the study also indicated a direct relationship between the level of education of AEAs and the use of ICTs in providing extension service to farmers. This relationship calls for the Ministry of Food and Agriculture (MoFA) to put into action its existing ICT policy which includes training of AEAs in the use of ICTs.

Similarly, Oriogu, Ogbuiyi and Ogbuiyi (2014) investigated availability and accessibility of ICT in the provision of information resources to undergraduate students in Babcock university library in Ogun State, Nigeria. Survey research method was adopted for the study and structured questionnaire was used to collect data. A total of hundred (100) undergraduate students of Babcock University library users were sampled, out of which ninety one was completed for analysis using frequency counts, simple percentage, mean, standard deviation, to answer the research questions. Thus,



random sampling technique was used to administer the questionnaire. Three research questions guided the study and the data collection instrument used was the questionnaire. The findings of the study revealed that most of the ICT facilities in the university library are available and accessible, except scanner, CD-ROM and projector that are not available, accessible and use by the students. The provision and use of ICT is an integral part of student learning and research.

Supporting this view, Esu in Ihechu and Ugwoji (2017) noted that most of our students who passed through university do not see or practice with the equipment, that are equipment involving ICT. The Organization's Intersectoral Platform for ICT in education focuses on these issues through the joint work of three of its sectors: Communication and Information, Education and Science (Cantoni & Danowski, 2015).

Okoro (2013) assessed strategies for enhancing the teaching of ICT in business education programmes as perceived by business education lecturers in university in south-south Nigeria. Three research questions and three hypotheses guided the study. The design of this study was descriptive survey. The population which also served as sample comprised 134 business education lecturers in universities in the south-south geo-political zone in Nigeria. The instrument for data collection was 66 items questionnaire. The data were analyzed using means and standard deviation. The study revealed the prospects of teaching of ICT; ICT facilities interaction between lecturers and students ICT enhances effective storage of business information; ICT facilitates the retrieval of business information. The study also revealed constraints facing the teaching of ICT such as inadequate ICT facilities equipment frequent electricity interruption of ICT facilities and poor implementation of ICT facilities. Moreover the study, revealed some strategies for enhancing the teaching of ICT: adequate funding of ICT, provision of adequate ICT equipment, provision of ICT facilities among others.

Statement of the problem

Productive instructional delivery enhances learners' creative and intellectual development through the use of ICT resources, for instance, in the use of multimedia images, graphics, audio, text and motion for high quality learning. However, the researcher had observed overtime that some teachers do not observe effective organization of learning experiences, continuity, sequences and integration of the course content during lesson delivery. Some business educators still practice the traditional classroom method, which has the characteristics of teachers' domination, where learners are passive. It has also been observed that some teachers introduce the day's lesson uninterestingly and instructional materials haphazardly. Most times they do not summarize the main points after the lesson, they use few examples or illustrations while teaching, they are authoritarian in nature as they limit class discussion during lesson delivery. Furthermore, through the researcher's discussion with students, she observed that most business educators rarely give notes during classes and they sometimes do not provide feedback on their student's progress. This has resulted to failure of Business Education students in some of their examinations conducted within the schools, lack of skill acquisition and the culmination of antisocial behaviours among students, which have become a serious problem to the society.

In order to build on existing knowledge, ICT today offers new tools for easy content delivery. However, this depends on the availability and utilization of ICT facilities. A major gap in most tertiary institutions in the onset of the 21st century is the gap in the availability, accessibility and utilization of ICT facilities. It is on this note that the researcher was prompted to carry out this study on availability and utilization of ICT facilities for instructional delivery in Business Education in tertiary institutions in Cross River State, Nigeria.

Purpose of the study

The main purpose of this study was to investigate the availability, accessibility and utilization of ICT



facilities for instructional delivery in Business Education in tertiary institutions in Cross River State, Nigeria. The study specifically sought to find out:

- 1 The extent of availability of ICT facilities for instructional delivery in Business Education in tertiary institutions.
- 2 Accessibility of ICT facilities for instructional delivery of Business Education in tertiary institutions.

Research questions

The following research questions were raised to guide the study

- 1 To what extent are ICT facilities available for instructional delivery in Business Education in tertiary institutions?
- 2 To what extent do business educators have access to ICT facilities in tertiary institutions for instructional delivery?

Research design

The research design adopted in the study was descriptive survey. According to Idaka and German (2012), descriptive survey research is a research approach specifically designed to systematically collect data about a group of individual who have same characteristic, through the use of written or oral data collection instrument such as; interview, questionnaire, telephone interview, mails and the internet, concerning participants responses on facts, opinions, attitude among others. This is to enable the researcher study them as a group. Descriptive survey design is a subset of survey research that seek to find out what situations, events, attitude or opinion are occurring in a population. It tries to address the issues of distribution of some phenomena or among sub groups of population. It seeks to describe distribution or make comparison between distribution and focus on ascertaining facts not to establish or test theories. This design was considered ideal because the study sought to collect data from business educators in public tertiary institutions in Cross River State on their opinion on the use of ICT facilities through the use of questionnaire for the purpose of making comparison between these

institutions. All the sixty five (65) business educators in all the public tertiary institutions in Cross River State participated in the study

Two instruments were used for data collection in the study (checklist and questionnaire). The purpose of the checklist is to help the researcher identify and take inventory of available ICT facilities in the tertiary institutions in Cross River State. However, the questionnaire which was named “Accessibility and Utilization of ICT Facilities Questionnaire” (AUICTFQ) was used to get responses from respondents on access to ICT facilities, utilization of ICT facilities and lecturers’ ICT competence in the use of ICT for instructional delivery. Items in the questionnaire were generated during the course of reviewing literature. The questionnaire was divided into two sections: section A and B. Section A was designed to collect information on the respondents’ personal data while section B has twenty (15) items on a four point rating scale. Each item require the respondents to tick one response which best correspond to his or her very best honest self with response options of Very Often (VO), Often (O), Rarely (R) and None At All (NAA); Much Help Needed Moderate Help Needed, Little Help Needed and No Help Needed. The questionnaire as designed demanded of the respondents to check (✓) the appropriate option for each of the items as they applied. In the checklist, Item 1-10 measures the availability of ICT facilities for instructional delivery in tertiary institutions, in the AUICTFQ item 11-15 measures accessibility of ICT facilities for instructional delivery in tertiary institutions, 16-20 measures utilization of ICT facilities for instructional delivery in tertiary institutions, 21-25 measures lecturers’ competence in the use of ICT facilities for instructional delivery in tertiary institutions.

The validity of the instrument for data collection for this study was done by three experts; two lecturers in business education unit and a research expert from Measurement and Evaluation all from the University of Calabar. The questionnaire was initially a twenty item,



questionnaire (5 items for each variable) having response of Very Often (VO), Often (O), Rarely (R) and None At All (NAA) for all the research variables. However, the three (3) experts agreed that availability of ICT facilities should be measured with a checklist to know the extent of availability while 6 items (2 items each from the other three research variables) were modified to reflect the variable it purports to measure. All observations were duly effected by the researcher, before producing the final copy that was used for the main study.

The researcher conducted a trial test on 15 lecturers in the University of Uyo, Akwa Ibom State using the instrument. The data obtained were analyzed using Cronbach Alpha reliability and the result showed a

reliability range of 0.75-0.80 indicating that the instrument is moderately reliable. The reliability Table is presented in Table 2. The researcher choose University of Uyo because it outside the study area and shares the same characteristics with the study population.

The population of this study consists of 65 business educators in all the public tertiary institutions in Cross River State. The institutions are: University of Calabar, Cross River University of Technology, Calabar, Federal College of Education, Obudu, and College of Education, Akamkpa. The population distribution is presented in Table 1.

TABLE 1
Population distribution of the study

S/N	Institution	No of Business Educators
1.	University of Calabar, Calabar	15
2.	Cross River University of Technology, Calabar	8
3.	F.C. E., Obudu	32
4.	COE, Akamkpa	10
	Total	65

Source: Records from the office of the Head of Department/unit of various institutions under study for 2017/2018 academic session

Presentation of results

In this section, each of the research questions was restated in its original state. The variables were identified, as well as the statistical tool used to answer the research questions. Frequency and simple percentages of each item in line with the responses gathered was given in Tables 2.

Research question one

To what extent are ICT facilities available for instructional delivery in Business Education in tertiary institutions?

To answer this research question, data were extracted from the data bank and summarized into frequency and simple percentages. A summary of the result is presented in Table 2.

TABLE 2
Frequency and simple percentages of responses on the extent of availability of ICT facilities



ITEMS	Minimum Requirements Per institution	Total Expected Quantity Available in the Institutions Under Survey	Total Quantity Actually Available	% Available	Remarks
Computer Lab	1	4	3	75	Available
Computer Set	50	200	75	37.50	Available
Overhead projector	2	8	4	50	Available
Printer	4	16	12	75	Very Available
Scanner	3	12	3	25	Slightly Available
Modem	10	40	3	7.5	Slightly Available
Photocopying machine	2	8	4	50	Available
CD ROM	100	400	70	17.5	Slightly Available
Intranet	1	4	1	25	Slightly Available
Flash Drive	3	12	7	58.33	Very Available

Key: 0% - Not Available
 1% - 25% - Slightly Available
 26% - 50% - Available
 51% - 100% - Very Available

Results in Table 2 showed the extent to which ICT facilities are available in the four tertiary institutions in under study. Using the key above, it can be seen that scanner, modem, CD ROM and intranet were slightly available, having 25%, 7.5%, 17.5% and 25% respectively. These percentages fall within the range of 1-25%; this indicated that they were slightly available. In the same vein, responses on computer set, overhead projector and photocopying machine indicated that they were available in the institutions under study. These items had percentages of 37.50%, 50% and



50% respectively, which fall within the range of 26%-50% indicating their availability. Surprisingly, computer lab, printer and flash drive were very available with 75%, 75% and 58.33% respectively. These percentages fall within the range of 51%-100%.

Research question two

To what extent do business educators have access to ICT facilities in tertiary institutions for instructional delivery?

To answer this research question, data were extracted from the data bank and summarized into frequency and simple percentages. A summary of the result is presented in Table 3.

TABLE 3

Frequency and simple percentages of responses on the extent of accessibility to ICT facilities

S/No	Items	Very Often	Often	Rarely	Not At All
1	I have access to computer	15(23%)	21(32%)	10(15%)	19(30%)
2	I have access to interactive white board	- (0%)	- (0%)	1(2%)	64(98%)
3	I have access to multi-media projector	20(31%)	17(26%)	11(17%)	17(26%)
4	I have access to the Internet	31(48%)	24(37%)	8(12%)	2(3%)
5	I have access to social media	55(85%)	4(6%)	2(3%)	4(6%)

Table 3 present responses on the extent of accessibility to ICT facilities in tertiary institutions for instructional delivery. From the Table, 98% of the respondents opined that they do not have access to interactive white board at all; 85% agreed that they have access to social media very often while 48% of the respondents opined that they have access to the internet very often. Similarly, 32% of the respondents agreed that they often have access to computer while 31% opined that they have access to multi-media projector very often.

Discussion of findings

The findings of the study were discussed as follows:

Availability of information and communication technology facilities in tertiary institutions in Cross River State

The finding in this aspect of the study revealed that scanner, Modem, CD ROM and Intranet were slightly available; computer set, overhead projector and photocopying machine were available; only computer lab, printer and flash drive were very available in the

institutions under study. From the percentages reflected in the opinion of respondents, it can be deduced that adequacy of ICT facilities in tertiary institutions in Cross River State is drifting gradually between Slightly Available and Available. This implied that most ICT items were not highly available in the institutions under study.

The various ICT facilities used in the teaching and learning process in higher institution include; radio, television, computers, overhead projectors, optical fibres, fax machine, CD Rom, internet, electronic notice



board, slides, digital multimedia, video/VCD machine among others. It appears some of the facilities are not sufficiently provided for teaching and learning process in the tertiary institutions.

This finding is in consonance with Mandara's (2012) result on the utilization of information and communication technology (ICT) in the teaching of office education graduates in Adamawa state tertiary institutions. The study found that the teachers of business education office management option are not making adequate and effectively use of ICT tools and facilities in learning of office education due to its unavailability.

Similarly, Umoeshiet (2015) carried out a study on assessment of adequacy of available new technologies in business education for instructional delivery in state owned university Delta, Nigeria. Result of the study revealed that new technology in Business Education for instructional delivery are not adequately provide for and as such discouraging business educators for effective utilization of these new technologies in teaching business education.

In line with the study, Utoware (2014), asserted that convergence of tools of ICT with the education process has brought to the fore emerging competencies which are not present in the various curricula for producing office workers. Emerging technologies under ICTs, such as e-learning, e-commerce, e-banking, the internet, peach trees, multimedia system and other digital communication means are positively impacting on the ways of educational instructions. The paucity of ICT in Nigeria educational system appear to make her a poor ICT based educational instruction country.

The finding agrees with the results of Egomo, Enyi and Tah (2012), who revealed that availability and utilization of ICT for effective delivery is significantly low. Cyber cafes, internet connectivity and use of lap tops is a common phenomenon among institutions and lecturer competence in the use of ICT tools among lecturers is discouraging. Collaborating this, Alu (2011) observed that graduates of Business Education have

problems in using technologies in a work environment due to their inadequate exposure to information and communication technologies. He stressed that lack of these office technologies affects the nature of programme offered to learners. Business education laboratories in most tertiary institution lack the basic ICT facilities. Therefore, there is need for improvement in the quality and quality of ICT tools for effective teaching and learning of ICT course especially those related to office administration.

This might account for why teachers are not making use of them in teaching. Vocational and technical education as a discipline which Business Education fall under, requires adequate instructional facilities such as the ICT so as to make teaching and learning more effective. Use of ICT will break the barrier existing between theory and practice as more concept would be presented on slides for the learners.

Accessibility of information and communication technology facilities in tertiary institutions in Cross River State

The finding in this aspect of the study revealed that lecturers' have no access to interactive white board for teaching; they have access to social media, internet and multi-media projector very often. However, they often have access to computers. From the percentages reflected in the opinion of respondents, it can be deduced that accessibility to ICT facilities in tertiary institutions in Cross River State is drifting gradually between Not all All and Rarely. This implied that most ICT items were not very accessible in the institutions under study.

Rapid growth, especially in developing countries, has led ICT to become a keystone of everyday life, in which life without some facet of technology renders most of clerical, work and routine tasks dysfunctional. In line with the finding, Oyoboade and Ajibola (2017) examined the availability, access points and use of Information and Communication Technologies (ICT) by science students in selected private secondary



schools in Ibadan, Oyo State, Nigeria. Findings revealed that most respondents frequently used interactive white board for learning 101(64.7%), television 98(62.8%), and mobile phone 98(62.8%). Similarly, the science students had access to television at school, home and cyber café. There was access to interactive white board at school and home. Similarly, most of the respondents had access to Internet and computers at home and cyber café. The author further asserted that in modern society ICT is ever-present, with over three billion people having access to the Internet. With approximately 8 out of 10 Internet users owning a smart phone, information and data are increasing by leaps and bounds.

Cantoni and Danowski, (2015) supported the finding, they stated that the most recent authoritative data, released in 2014, showed that access to ICT and Internet use continues to grow steadily, at 6.6% globally in 2014 (3.3% in developed countries, 8.7% in the developing world); the number of Internet users in developing countries has doubled in five years (2009-2014), with two thirds of all people online now living in the developing world.

Agreeing with the finding, the Federal Republic Nigeria (2004) stated that in recognition of the prominent role of information and communication technology in advancing knowledge and skills necessary for effective functioning in the modern world, there is urgent need to integrate information and communication technology (ICT) into education in Nigeria. However, despite this position, there seem to be some degree of lackadaisical attitudes and negligence by school, teachers, students, administrators and university lecturers. Also recognizing the importance of ICT in every human endeavor, as well as technological development of a country like Nigeria, it is surprising to notice that both students and lecturers, in most Nigerian higher institutions do not have access to these important ICT components.

In consonance with the finding, Nwiyi (2016) conducted a study on availability and accessibility of

information and communication technology (ICT) facilities in the management of secondary schools in Port Harcourt Local Government Areas of Rivers State and found that there is no available and accessible ICT facilities in the management of secondary schools in Port Harcourt. In another study by Nwiyi (2005), it was revealed that unavailability of some ICT components in school hampers teachers' use of ICTs. Teachers who are computer illiterate and cannot support and manage the internet connectivity or application of computing in the teaching learning process. High cost of ICT equipment as a challenge to the availability and accessibility of the materials. The problems might not be the funds nor the technology but rather the will on the part of the government to include it in the budget for education, in the country or state. It is also noted that epileptic nature of electric power supply in most parts of the country and also inadequate telephone networks impede the use of ICT, even if they are provided.

Gumah, Obeng and Mustapha's (2016) results is in line with the finding. They carried out a study the availability, accessibility and utilization of ICT facilities by Extension Agents and Farmers in the Northern Region of Ghana and the study revealed that phone and radio were the most available, accessible and commonly used ICTs by AEAs and farmers for extension service delivery in the Northern Region of Ghana. The study also indicated a direct relationship between the level of education of AEAs and the use of ICTs in providing extension service to farmers. Similarly, Oriogu, Ogbuiyi and Ogbuiyi (2014) investigated availability and accessibility of ICT in the provision of information resources to undergraduate students in Babcock university library in Ogun State, Nigeria and the findings of the study revealed that most of the ICT facilities in the university library are available and accessible, except scanner, CD-ROM and projector that are not available, accessible and used by the students and staff.



Supporting this view, Esu in Ihechu and Ugwoji (2017) noted that most of our students who passed through university do not see or practice with the equipment, that are equipment involving ICT. In addition, Inibechen and Dankaro (2012), carried out an investigation on ICT utilization, availability and accessibility by teacher's educators for instructional development in college of education Katsina-Ala and revealed that ICT resources were not available and for that reason, teacher educators could not access them for instructional development purpose. The availability of e-mail and internet facilities in academic institutions offers a wide range of access to information globally without geographical barrier and timely too.

The use of ICT is assumed to enhance improved service delivery by lecturers in Nigeria. ICT besides speeding up information delivery facilitates teaching, learning and research. The finding is supported by Emeasoba and Nweke (2016) who assess the level of availability and utilization of ICT facilities in teaching and learning of OTM in Polytechnics of South Eastern States, Nigeria. It was found that ICT facilities for teaching OTM courses are available at low extent. The computer facilities, telecommunication facilities, multimedia facilities and internet facilities were utilized at low extent. There was no significant difference between the mean ratings of male and female polytechnic OTM lecturers on their extent of computer facilities utilization and a significant difference in the mean rating of polytechnic OTM lecturers in rural and urban location on the extent of telecommunication facilities utilization in teaching OTM courses. It was revealed, based on the findings of the study that ICT for implementation of OTM programme in polytechnic of south eastern states, Nigeria are available and utilized at low extent.

Conclusion

Based on the findings of the study, it was concluded that Business Education is a comprehensive discipline whose instructional programme encompasses the knowledge, attitudes and skills needed by all persons in

order to effectively manage their personal business and economic system. It also provides the skills needed for entry into employment and advancement in a broad range of career. To achieve this objective, the availability, accessibility and utilization of information and communication technology (ICT) is of paramount importance to business educators who are competent in using them for enhancing their instructional delivery.

Recommendations

Based on the conclusion drawn, the following recommendations are made:

1. Government should partner with private organizations to provide tertiary institutions with hi-tech Information and Communication facilities such as electronic and interactive white boards to aid teachers in delivering instructions.
2. Students and staff should be allowed access to use the available ICT facilities during the teaching and learning process.
3. Business educators should utilize available ICT facilities such as projectors and personal computers whenever they are teaching as this would keep students abreast of how these facilities are use in the real world.
4. Seminars and workshops should be organized on ICT for business educators who are not ICT oriented, as this would enable them utilize ICT facilities more often during instructional delivery

References

- Aginam, E. (2006). *Nigeria higher education has less 5% ICT application*. <http://www.vanguardng.com/article/html> Retrieved 9th April 2018
- Akawu, A. B. (2010). *Educational communication technology media and utilization*. Calabar: University of Calabar Printing Press.
- Akuegwu, B. A., Ntukidem, P. J., Ntukjidem, E. P. & Jaga, G. (2011). *Information and Communication Technology (ICT) facilities Utilization for Quality Instructional Service*



delivery Among University lecturers in Nigeria. *International Journal of Global Business*, 2(1), 181–204.

Alu, N, C (2011). Utilization of E-learning in science and technology education: Problems and prospects. *International Journal, Shannon Research Press*, 5(5), 1-14

Cantoni, L. & Danowski, J. A.(2015). *Communication and technology*. Berlin: De Gruyter Mouton

Effiong, J. E. (2015). Business Education in the era of information and communication technology: Issues, problems and prospects. *Business Education Journal*, 5(1), 3 – 7.

Egomo, J. E., Enyi, B. I. & Tah, M. M. (2012). Availability and utilization of ICT tools are effective instructional delivery in tertiary institution in Cross River State Nigeria. *Journal Education and Review*, 1(8), 190-100

Emeasoba, N., C. & Nweke, O. M., (2016). Level of availability and utilization of ICT facilities in teaching and learning of Office Technology and Management in polytechnics of South-Eastern States in Nigeria. *Journal of Emerging Trends in Educational Research and Policy Study*, 7 (6), 404-413.

Federal Republic of Nigeria (2004). *National policy on education*. Yaba, Lagos: NERDC

Gumah, S. Obeng, F. & Mustapha, M. (2016). Accessibility and utilization of ICT Facilities by extension agents and farmers in the Northern Region of Ghana. *International Journal of Agricultural Education and Extension*, 2(1), 17-25

Mandara, B. (2012). Utilization of information and communication technologies (ICT) in the

teaching of office education graduates in Adamawa state tertiary institutions. *Journal of Education and Policy Review*, 4 (1), 1-9.

Nwiyi, G. U. 2016). Availability and accessibility of information and communication technology facilities in management of secondary schools in Port Harcourt Local Government Area. *International Journal of Innovative and Science Education Research*, 4(2), 25-29

Okoro, S. (2013). Strategies for enhancing the teaching of ICT in Business Education programmes as perceived by Business Education Lecturers in university in South-South Nigeria. *International Journal of Learning*, 1(3), 12-22

Onasanya, S. A., Shehu, R. A. & Shehu, L. A. (2010). Higher institutions lecturers' attitude towards integrating ICT into teaching and research in Nigeria. *Research Journal of Information Technology*, 2(1), 1-10.

Oriogu, C. D., Ogbuiyi B. S. U. & Ogbuiyi, D. C. (2014). Availability and accessibility of ICT in the provision of information resources to undergraduate students in Babcock university library. *Research on Humanities and Social Sciences*, 4, 29-33.

Umoeshiet, F. (2015). Assessment of adequacy of available new technologies business education for instructional delivery in state-owned universities in Delta and Edo States. *International Journal of Innovation Education Research*, 3(4), 31-37

Utoware, J. D. A. (2014). Extent of utilization of information and communication technology in Business Education: Implication for effective instructional delivery. *Educational Research International*, 3 (4), 65-72.



Uzodimma, U. (2006). The use of information, communication technology in secondary schools in Nigeria problems and prospect: In D. N. Eze & N. Onyegegbu (Eds.) *Information communication technology in the service of education* (pp. 23-34). Nsukka: Timex

Yusuf, M. O. (2005). Integrating ICTs in Nigeria tertiary education. *The African Symposium. Journal of African Educational Research Networks*, 5 (2), 43-50.