ASSESSMENT OF ELECTRONIC RESOURCE-BASED LEARNING IN BUSINESS EDUCATION IN TERTIARY INSTITUTIONS IN ANAMBRA STATE, NIGERIA

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Abstract

This study was an assessment of electronic resource-based learning in business education in tertiary institutions in Anambra State, Nigeria. Three research questions were answered while 3 null hypotheses were tested at 0.05 level of significance. The population of the study consisted of 88 business educators and 904 undergraduate business education students from levels 200 – 400 in the 2017/2018 academic session across the four tertiary institutions. A validated 63 item questionnaire on a 4-point scale was used for data collection. It was subjected to face and content validity by experts. The overall reliability index yielded a value of 0.81 which shows the instrument was reliable. Mean and standard deviation were used to answer the research the questions while t-test was used to test the null hypotheses. The findings of the study revealed that the availability and utilization of electronic based resources in teaching and learning in undergraduate business education programme is low in the institutions. Based on the findings, it was recommended among others that the National Universities Commission (NUC) should come up with a comprehensive list of electronic-based resources to be used as benchmark for minimum academic standard (BMAS) in business education and use it as one of the criteria for future accreditations and government and institutions' authorities should support lecturers and students to develop the capacity to utilize internet and other electronic-based resources in teaching and learning.

Keywords: Electronic-based Resources, Information and Communication Technology, Business Education, Availability and Utilization.

Introduction

The use of computers and Internet in teaching and learning applications has grown rapidly in recent times. In the recent past sitting in a classroom and listening to the teachers-lecture and making notes on paper used to be the common practice in teaching and learning. Then slowly with the adoption of computers the methods shifted towards more technological ways like the use of PowerPoint slides in the classroom or using pdf files to share notes with the students. The world is now in the era of electronic resource based learning. Electronic resource based learning simply means teaching and learning that are mediated by information and communication technology (ICT). In other words it refers to electronic teaching (e-teaching) and electronic learning (e-learning). E-teaching and e-learning refer to the use of different kind of ICT and electronic devices in education. It is a broad term for teaching and learning activity that use any electronic devices or network completely or only partially (Guragain, 2016). E-teaching and e-learning are construed in this context to describe teaching and learning that utilize ICT to promote educational interaction between students, lecturers and learning communities.

Information and communication technology on the other hand refers to all devices, networking components, applications and systems that combined to allow people and organizations to interact in the digital world. (Margaret, 2018). It encompasses both the internet-enable sphere as well as the mobile one empowered by wireless networks. Ifueko in Akinfolarin and Rufai (2017) refers to ICT as technologies that are used in creating, accumulating, storing, editing and disseminating information in various forms. ICT in education implies the adoption and utilization of modern technological facilities to ensure effective flow of information among teachers, students and administrators for better communication within the education system (Akinfolarin and Rufai 2017).

The Nigerian Government has identified ICT as areas that can enable her citizens have a great deal of leverage in the delivery of quality education. This led to the production of Nigerian National Policy for Information Technology (IT) in 2002 whose strategies for education include to ensure that ICT resources are readily available to promote efficient national development, the integration of IT into the mainstream of education and training and establishing facilities for electronic learning networks and effective Internet connectivity among others (Federal Republic of Nigeria, FRN, 2002).

One of the reasons for the Government and private sectors' huge investment in ICT is to use it to support teaching and learning. The role of ICT in education cannot be over emphasized as it plays active role in educational process. Electronic resource based learning offers considerable benefits including increase access to learning opportunities, convenience of time and place, ease and quick share of educational material and improved collaboration and interactivity among students, improved opportunities for individualized learning and opportunities for active participation of students (Khan, 1996;Yaghoubi, Mohammed, Iravani, Affaram and Gheidi, 2008; Olaore, 2014 and Delic-Zimic and Gadzo 2018).

Electronic-based resources can be applied in various ways by teachers to store information such as planned lessons, diagrams, and pictures of objects relevant to their teaching for retrieval when needed (Kanno and Onyeachu and 2009)). They can also be applied in test administration and scoring. To that end, Ibiam (2007) emphasized that computer helps teachers to administer and guide the instructional process by administering diagnostic test, scoring them, presenting appropriate next steps and monitoring the progress of each student all the way along the learning process.

The attraction of substantial benefit of electronic-based resources in teaching and learning is dependent on the availability and utilization of ICT facilities. ICT facilities are the equipment, gadgets and materials that make up the ICT superstructure. They include radio set, video and audio cassettes, audio tape player/recorder, video player, computer, facsimile (fax) machine, global system for mobile communication (GSM), photocopier, reprographic machines, projector, television, public address system, Intranet, Internet, and Internet facilities (Adelakin, 2009; Salami, 2009; and Nwaiwu, 2009). Others are scanner, printer, satellite connection, digital video disk (DVD), video compact disk (VCD), flash drive, interactive whiteboard (IWB), white board, voice recognition system, video conferencing utilities, virtual library, digital camera, applications software, multi media messaging system (MMS), personal area network, local area network, wide area network, discussion forum among others (Adedoja and Oyekola, 2008, Emeasoba and Nweke, 2016, Siddiquah and Salim, 2017).

Similar previous studies show non availability of essential ICT facilities in schools especially in Africa and Nigeria in particular. Onwuzo's (2009) study on the utilization of ICT gadget in teaching and learning of Fine and Applied Arts in tertiary institutions in Anambra state, Nigeria revealed that majority of ICT gadgets like digital audio, video disc, hyper media, DVD/VCD and others are not available. Similarly, Emeasoba and Nweke (2016) carried out a study on the level of availability and utilization of ICT facilities in teaching and learning of Office Technology and Management (OTM) in Polytechnics in South eastern states of Nigeria and found that ICT facilities are available at low extent. In the same token,Nwana, Ofoegbu and Egbe (2017) in a study on availability and utilization of ICT resources in teaching computer education in secondary schools in Anambra State, Nigeria found that many of the ICT resoruces needed for teaching computer education are not available. However, Agim, Iroeze, Osuji and Obasi-Haco(2018) in their study on the level of availability and utilization of ICT facilities by students in Federal Polytechnics, Nekede, Imo State, Nigeria reveal that scanning machines, printers, CD-

ROM, computers, flash drives, local area network (LAN) and inverter were available but few. This informs their lamentation to the effect that many developing countries especially in Africa like Nigeria, are still low in ICT application and use.

It is obvious that the usefulness of electronic resource-based learning cannot be actualized if the ICT resources are not available and fully utilized. Much of the literature on utilization of ICT in teaching and learning suggests that in the teaching profession generally there is an inherent resistance to change and this poses barrier to teachers' use of ICT in teaching and learning (Campbell, 2001). In a related study by Onasanya, Shehu, Ogunlade and Adefuye (2011) on the teachers awareness and extent of utilization of ICT for effective education in Nigeria, found that level of ICT utilization is very low. Okafor and Okafor (2013) also found that ICT in Secondary schools is not yet adequate and the available ICT gadgets are not effectively used. Nwana, Ofoegbu and Egbe (2017) also reveal that majority of the resources needed for the teaching of computer education are not being used by teachers. In corroboration to the above finding, Okolocha and Nwadiani (2015) conducted a study on the utilization of ICT resources in teaching among business educators in tertiary instructions in South Nigeria and found that the few available ICT resources are rarely utilized in the teaching of business education.

Purpose of the Study

The main purpose of the study is to assess the extent of electronic resource based learning in undergraduate business education programme in tertiary institutions in Anambra State, Nigeria specifically the study seeks to

1   Ascertain the extent of availability of ICT facilities for teaching and learning in undergraduate business education programme in tertiary institutions in Anambra State, Nigeria.

2   Find out the extent of utilization of electronic-based resources in teaching and learning in undergraduate business education programme in the area of study.

3   Suggest ways of improving the utilization of electronic based resources in teaching and learning in undergraduate business education programme in the area of study.

Research Questions

The following research questions guided the study.

1. What is the extent of availability of electronic-based resources for teaching and learning in undergraduate business education programme in tertiary institutions in Anambra State, Nigeria.?

2. What is the extent of utilization of electronic based resources for teaching and learning in undergraduate business education programme in the area of study?

3. What measures could be adopted to improve the utilization of electronic based resources in teaching and learning in undergraduate business education programme in the area of study?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance

Ho$_1$ There is no significant difference between the mean responses of business educators students on the extent of availability of electronic-based resources for teaching and learning in undergraduate business education programme in the area of study.

Ho$_2$ There is no significant difference in the mean responses of the respondents on the extent of availability of electronic-based resources for teaching and learning in

        undergraduate business education programme based on ownership of institution in the area of study.

Ho₃   There is no significant difference between the mean responses of business educators and students on the extent of utilization of electronic based resources for teaching and learning in undergraduate business education programme in the area of study.

Method

    This study adopted a descriptive survey design. The design is considered appropriate because it is a design that a group of people are studied by collecting and analyzing data from such a group of people who are considered to be a representative of the population (Nworgu, 2015).

      The study was carried out in Anambra State, South East Nigeria Anambra State. The State has four tertiary institutions that offer business education at undergraduate level. They are Nnamdi Azikiwe University (NAU), Awka; Chukwuemeka Odumegwu Ojukwu University (COOU), Igboariam; Federal College of Education (Technical) Umunze (FECETU) (Affiliated to NAU for her undergraduate programme) and Nwafor Orizu College of Education, Nsugbe (NOCEN) Affiliated to University of Nigeria, Nsukka, Enugu State for her undergraduate programme). NAU and FECETU are owned by the federal government while COOU and NOCEN are owned by the state government.

      The population of the study is made up of 88 business educators and 904 levels 200-400 undergraduate business education students in the 2017/2018 academic session across the four institutions. Level 100 students were not part of the study because they were new and would not have acquired the necessary experience needed for the study. The sample of the study is 485 comprised all the 88 business educators and 397 students. TaroYammane formula was used in arriving at the students' sample. Stratified random sampling technique was used to select 397 students.

      The instrument for data collection was a structured questionnaire titled "Assessment of Electronic Resource Based Learning in Business Education Questionnaire (AERBLBEQ)." The questionnaire contained 63 items according to the research questions on a 4-point rating scale of Very High Extent/Very Highly Utilized/Strongly Agree (VHE/VHU/SA = 4 points), High Extent/Highly Utilized/Agree (HE/HU/A = 3 points), Low Extent/Rarely Utilized/Disagree (LE/RU/D = 2 points) and Very Low Extent/Very Rarely Utilized/Strongly Disagree (VLE/VRU/SD = 1 point). Content and face validity of the instrument was determined by three experts, one in measurement and evaluation and two in business education.

      The reliability of the instrument was ensured by trail-testing the validated instrument on a selected group of 10 business education lecturers and 30 business education students outside the population of the study. The Cronbach alpha was used to determine the internal consistency of the questionnaire. The calculated Combach alpha was 0.81 which indicated a high reliability. A total of 486 copies of questionnaires were distributed and a total of 449 copies were retrieved giving 93% return rate. Decision on the research questions were based on the average mean in relations to the real limits of numbers. Therefore items with mean ratings of 0.50-1.49 are rated very low extent/very rarely utilized/strongly disagree, those with 1.50 – 2.49 are rated low extent/rarely utilized/disagree. Items with mean ratings of 2.50-3.49 are rated high extent/highly utilized/agree. While items with mean ratings of 3.50.4.00 are rated very high extent/very highly utilized/strongly agree. The null hypotheses were analyzed with t-test statistics. Null hypotheses is accepted if the t-calculated value is equal or less than the t-critical value if not it is not accepted. All the hypotheses were tested at 0.05 level of significance.

Presentation of Results
Research Question 1: What is the extent of availability of ICT facilities for teaching and learning in undergraduate business education programme in tertiary institutions in Anambra State, Nigeria?

Table 1: Business educators and students' mean ratings on the extent of availability of electronic-based resources for teaching and learning in undergraduate business education programme in the area of study.

S/N	Item	X	SD	Remark
1.	Computers	2.67	0.58	High Extent
2.	Internet Connectivity	2.17	0.83	Low Extent
3.	Class website	1.29	0.39	Very Low Extent
4.	Class blogs and wikis	1.18	0.79	Very low Extent
5.	Virtual library	2.18	0.93	Low Extent
6.	Video players	0.93	0.84	Very Low Extent
7.	Tape recorder/player	1.23	0.38	Very low Extent
8.	Television	2.43	0.92	Low Extent
9.	Educational DVD/VCD	2.16	0.94	Low Extent
10.	Educational CD Rom	2.23	0.99	Low Extent
11.	Interactive Whiteboard.	1.48	0.89	Very Low Extent
12.	Printers.	3.39	0.93	High Extent
13.	Scanners.	1.94	0.39	Low Extent
14.	Photocopying Machines.	3.17	0.96	High Extent
15.	Projects.	2.23	0.88	Low Extent
16.	Facsimiles (fax) machine.	0.63	0.92	Very Low Extent
17.	Local area networking.	3.17	0.92	High Extent
18.	MsWord Package.	3.89	0.84	Very High Extent
19.	Excel Package.	3.62	1.02	Very High Extent
20.	PowerPoint Package.	3.61	0.85	Very High Extent
21.	GSM.	3.88	0.88	Very High Extent
22.	Hypermedia.	1.26	0.82	Very High Extent
23.	ICT support personnel.	2.33	0.78	Low Extent
24.	Computer laboratory.	3.14	0.91	High Extent
25.	Video conferencing utilities.	0.72	0.93	Very Low Extent
26	Digital camera.	1.19	0.45	Very Low Extent
27.	Scorebatt software.	0.77	0.47	Very Low Extent
28	Radio/television broadcast lecturer delivery.	0.59	0.39	Very Low Extent

Cluster mean   **2.12**   **Low Extent**

Data in table 1 reveal the extent of availability of ICT facilities/resources in business education departments in the area of study. Four items with mean ratings ranging from 3.61 – 3.89 are available to a very high extent. These are 3 application software and GSM. Five items namely computers, printers, photocopying machines, local area networking and computer laboratory with mean ratings ranging from 2.67-3.39 are available to a high extent. Eight items with mean ratings ranging from 1.94-2.43 are available at low extent. The remaining 11 items with mean ratings

ranging from 0.59-1.48 are available at a very low extent. The average mean of 2.12 indicates that the ICT facilities/resources are available at a low extent. The standard deviation ranging from 0.38 – 1.02 indicate that the respondents were homogenous in their responses.

Research Question 2: What is the extent of utilization of electronic based resources for teaching and learning in undergraduate business education programme in the area of study?

Table 2: Business educators and students' mean ratings on the extent of utilization of electronic based resources for teaching and learning in undergraduate business education programme.

S/N	Item/Statements	X	SD	Remarks
29.	Computers are used in lecture delivery.	1.98	0.49	Rarely Utilized
30.	Use internet facilities in the institution to upload and download materials.	1.79	0.93	Rarely utilized
31.	Upload course materials for.	0.94	0.39	Very Rarely Utilized
32	Use blogs and wikis in interacting with students.	0.61	0.94	Very Rarely Utilized
33.	Use virtual library for access to information.	3.33	0.95	Highly Utilized
34.	Make use of video players.	1.41	0.87	Very Rarely Utilized
35.	Record and play back lecturers with tape recorders and players.	0.82	0.84	Very Rarely Utilized
36.	Make use of educational DVD/VCD.	2.17	0.39	Rarely Utilized
37.	Make use of educational CD Rom.	2.11	0.77	Rarely Utilized
38.	Use interactive whiteboard for lecture presentation	2.33	0.92	Rarely Utilized
39.	Use networked printers to print during lectures and to make materials available to students.	1.41	1.04	Very Rarely Utilized
40.	Peripherals such a scanners are utilized.	2.18	0.98	Rarely Utilized
41.	Use photocopying machines to reproduce course materials.	3.88	0.69	Very Highly utilized
42.	Use multimedia projectors for visual transmission of lecturers.	2.41	0.72	Rarely Utilized
43.	Make use of class website.	2.88	0.81	Highly utilized
44.	Use local Area networked computers within the department.	2.13	0.75	Rarely Utilized
45.	Make use of Msword application package	3.89	0.90	Very Highly Utilized
46.	Make use of excel application package	3.16	0.86	Highly Utilized
47.	Make use of power point presentation in lecture delivery.	2.97	0.53	Very Highly utilized
48.	Use GSM service for communication in the institution	3.90	0.39	Very highly utilized
49.	Make use of class blogs.	1.29	1.04	Very rarely Utilized
50.	Utilized the services of ICT support personnel.	1.63	0.77	Very rarely Utilized
51.	Use video conferencing hall to deliver lecturers to students.	0.71	0.88	Very Rarely Utilized
52.	Digital Camera is utilized.	1.13	0.89	Very Rarely Utilized
53.	Scorebatt software is used in marking student scripts	0.59	0.56	Very Rarely Utilized

54.	Use recorded radio broadcast for lecture delivery.	0.71	0.47	Very Rarely Utilized
55.	Use recorded television broadcast for lecture delivery	0.67	0.80	Very Rarely Utilized
56.	Utilize public address systems for audibility during Lectures.	3.62	0.31	Very Highly Utilized

	Cluster Mean	**2.02**		**Rarely Utilized**

Table 2 shows the extent lecturers and students utilize ICT facilities in teaching and learning in business education department in the area of study. Photocopying machines, MsWord application, GSM and public address system with mean ratings ranging from 3.62 - 3.90 are very highly utilized. Four items with mean ratings ranging from 2.88 – 3.33 are highly utilized. Eight items with mean scores ranging from 1.79 – 2.81 are rarely utilized while the remaining 12 items with mean scores ranging from 0.59 - 1.63 are very rarely utilized. The clusters mean of 2.02 shows that ICT facilities are rarely utilized. The standard deviation ranging from 0.31 - 1.04 is an indication of homogeneity in the respondents opinion

Research Question 3: What measures could be adopted to improve the utilization of electronic based resources in teaching and learning in undergraduate business education programme in the area of study?

Table 3: The mean ratings of business educators and students on measures to improve the utilization of electronic based resources in teaching and learning in undergraduate business education programme in the area of study

S/N	Item/Statements	X	SD	Remarks
113.	Lecturers should be supported to acquire the necessary digital skills to facilitate teaching in the digital knowledge society.	3.61	0.64	Strongly Agree
114.	Students should be supported to acquire the information literacy and critical awareness so that they can productivity engage with the digital and knowledge society.	3.17	0.83	Agree
115.	Institutions should facilitate the availability of connectivity, internet-enable devices, software and electronic education resources for all staff and students, on and off campus.	3.52	0.48	Strongly Agree
116.	ICT should be integrated into the pedagogy of learning and teaching.	2.88	0.88	Agree
117.	Possession of ICT skill should be a pre-requisite for future engagement of lecturers	3.69	0.59	Strongly Agree
118.	Ownership of a laptop should be made compulsory for all business education students.	2.98	0.99	Agree
119.	Business education department should engage competent ICT support personnel.	3.06	0.71	Agree

	Cluster Mean	**3.27**		**Agree**

Data in Table 3 show that all the 7 items had a mean ratings ranging from 2.88 – 3.69 with average mean of 3.27. This indicates that all the items were accepted as measures to improve the utilization of ICT in teaching and learning in business education programme. The standard deviation ranging from 0.48 – 0.99 show that the respondents were homogenous in their opinions.
Hypothesis 1: There is no significant difference between the mean responses of business educators students on the extent of availability of ICT facilities for teaching and learning in undergraduate business education programme in the area of study.

Table 4: The t-test summary of the mean ratings between business educators and students on the extent of availability of ICT facilities for teaching and learning in undergraduate business education programme.

Category	N	X	SD	Df	t-cal	t-critical	Remark
Business Educators	81	2.18	0.97				
				447	1.76	1.96	Accepted
Students	368	2.06	1.01				

Table 4 shows that t-calculated value is 1.76 while t-critical value is 1.96 at 0.05 level of significance. T-calculated value is less than t-critical value, the null hypothesis is accepted. This means that no significant difference exists between the mean rating of business educators and students on the extent of availability of ICT facilities for teaching and learning business education at undergraduate level in tertiary institutions in Anambra State, Nigeria.
Hypothesis 2: There is no significant difference in the mean responses of the respondents on the extent of availability of ICT facilities for teaching and learning in undergraduate business education programme based on ownership of institution in the area of study.

Table 5: The t-test comparison of the mean ratings of the respondents on the extent of availability of ICT facilities for teaching and learning in undergraduate business education based on ownership of institution.

Category	N	X	SD	Df	t-cal	t-critical	Remark
Federal Institutions	328	2.25	1.18				
				447	6.18	1.96	Not Accepted
State Institutions	121	1.99	1.15				

Table 5 reveals that the t-calculated value is 6.18 while the t-critical is 1.96 at 0.05 level of significance. As the t-calculated is higher than the t-critical value, the null hypothesis is therefore not accepted. That indicates that the mean ratings of respondents on the extent of availability of ICT facilities in business education departments differ significantly based on ownership of institution (i.e federal and state)
Hypothesis 3: There is no significant difference between the mean responses of business educators and students on the extent of utilization of electronic based resources for teaching and learning in undergraduate business education programme in the area of study.

Table 6: The t-test comparison between the mean ratings of business educators and students on the extent of utilization of electronic based resources for teaching and learning in undergraduate business education programme in the area of study.

Category	N	X	SD	Df	t-cal	t-critical	Remark
Business Educators	81	1.96	0.66				
				447	1.06	1.97	Accepted
Students	368	2.16	0.81				

Table 6 shows that the calculated t-value of 1.06 is less than the t-critical value of 1.97 at 0.05 level of significance. The hypothesis is therefore accepted. This means that there is no significant difference in the mean ratings of business educators and students on the extent of utilization of electronic based resources in teaching and learning in undergraduate business education programme in the area of study.

Discussion of Findings
The study reveals that ICT facilities are available at a low extent. Though items like computer, printers, photocopying machine and computer laboratory are available at high extent, important ICT facilities like internet connectivity, class website, virtual library, educational CD ROM and DVD/VCD, interactive white board, facsimile (fax) machine, ICT support personnel, video conferencing utilities and scorebatt software are available at low extent. The focus now should not just be on mere availability but on the extent of availability for the items to be meaningfully and adequately deployed for teaching and learning. Ugwuogo (2013) notes that the availability of ICT facilities does not mean that they are adequate. They have to be available in adequate number to have meaningful impact on teaching and learning. The above finding corroborates the finding of Hart, Emeli and Okorogba (2016) to the effect that ICT facilities such as multimedia/online system, computerized classrooms, online computers, internet connected lecture halls, fax machine, computerized boardrooms, educational television, videos and tape recorders were not available and therefore not used by lecturers and students in teaching and learning in Isaac Jasper AdakarBoro College of Education Sagbama, Bayelsa State, Nigeria. Similarly Wisdom and Dannkaro (2012) found that ICT resources were not available and for that reason, teacher educators could not access them for instructional development purposes.

However, the finding of this study does not agree with the work of Nwanmewezi and Isifeh-Okpokwu (2008) who discovered that audio tapes, audio-visual cassettes, educational DVD and CD ROMs are available in tertiary institutions in Niger state, though the extent of availability is not made known. By and large, the adequate availability and proper management of ICT facilities will enable institutions to take the advantages of wider access to business education and efficient delivery of business education courses.

The findings of the study also reveals that on the average, ICT facilities are rated to be rarely utilized by business educators and students. Although the low level of utilization could be attributed to low extent of their availability but that could not be said of items like computers, projectors and local area networking. The above finding agrees with the findings of Onasanya, Shehu, Ogunlade and Adefuya (2011) which reveals that the level of ICT utilization by science teachers is low. Similarly, Okolocha and Nwadiani (2015) in their study found that the few available ICT resources in business education departments in tertiary institutions in South Nigeria are rarely utilized.

Low level of utilization of ICT facilities has been attributed to a number of factors such as non-availability and inadequacy of the facilities, lack of the necessary skills by the lecturers and students, lack of ICT support personnel and epileptic power supply (Okolocha and Nwaiani, 2015 and Ogbu, 2016).

The findings of the study also shows that there is no significant difference between the mean ratings of business educators and students on the extent of availability of ICT facilities for teaching and learning in the area of study. However, there is significant difference in the mean ratings of respondents from federal owned institutions and state owned institutions on the extent of availability of ICT facilities. A closer analysis of the responses indicate that federal owned institutions have a slight edge on the availability of some of the ICT facilities such as computers, internet connectivity, virtual library, interactive whiteboard, printers and ICT support personnel. This disparity could be attributed partly to the issue of funding. Ahmed's (2015) study reveals that federal institutions are better funded than state owned institutions.

Conclusion

In the light of the findings of the study, it is concluded that the extent of availability of electronic-based resources for teaching and learning business education at undergraduate level in tertiary institutions in Anambra State, Nigeria is low. There is a significant difference in the extent of availability of the facilities based on ownership of the institutions.

Similarly, the available electronic based resources are rarely utilized. In order words, the utilization level of the available facilities is low. Finally there is no significant difference in the level of utilization between the business educators and students.

Recommendations

Based on the findings the following recommendations were made.
1. The National Universities Commission (NUC) should come up with a comprehensive list of electronic based resources to be used as benchmark for minimum academic standard (BMAS) in business education programme and use it as one of the criteria for future accreditations.
2. Ownership of a laptop should be made compulsory for all business education students.
3. Government and educational managers should often encourage proper utilization of electronic based resources to enhance students' learning.
4. Business educators and students should be supported by Government and institutions authorities to develop the capacity to utilize internet and other electronic based resources in teaching, learning and research.

References

Adedoja, G.O. and Oyekola, A.U. (2008). M-Learning: An emerging trend in e-learning and its implication in Nigeria (Retrieved 20/1/2009 from www.non.edu.ng/noun/acde2008/acde-   en/abstracts/odi-dn.htnl.

Adelakin, R. T. (2009). Issues and trends m teaching and learning of office technology and management. *Business Education Book of Reading* 1(9), 54 – 60.

Agim, N.C., Iroeze, P.C., Osuji,C.E and Obasi-Haco,C. (2018). Level of availability and utilization of ICT facilities by students: A case study of Federal Polytechnic Nekede, Owerri, Imo state, Nigeria. *International Journal of Library and Information Science Studies*, 4(3) 22-39. Retrieved on 7/6/2018 from https://www.eajournals.org>uploads>

Akinfolarin, A.V. and Rufai, R.B. (2017). Information and Communication Technology (ICT) utilization for students learning in tertiary institutions in Ondo State, Nigeria. International *Journal of Advanced Research and Innovative Ideas in Education*. Retrieved on 21/9/2018 from https://www.researchgate.net/publication/318946873.

Campbell, N. (2001). E-teaching, e-learning and e-education. A paper to inform the development of ICT strategy in New Zealand for the Ministry of Education. Retrieved 9th February 2009 fromhttp://ems.steo.govt.nz/NR/rdonlyres/c113150E.804A-4831.

Delic-Zimic,A.andGadzo,N.(2018). Implementation of ICT in Education. A conference paper presented at International Symposium on Innovative and Interdisciplinary Application of Advanced Technologies.215-222 Retrieved on 7/8/2018 from https://www.link.springer.com/chapter/10.1007/978-3-319-7132-2-18.

Emeasoba, N.C. and Nweke, O.M. (2016)_. Level of availability and utilization of ICT facilities in teaching and learning OTM in Polytechnics of South Eastern States of Nigeria. *Journal of Emerging Trends in Educational Research and Policy Studies*, 7(6). Retrieved on 6/7/2018 fromhttps://jeteraps.scholarlinkresearch.com.

Federal Republic of Nigeria (2002). *Nigeria National Policy for Information Technology*, Abuja: Federal Ministry of Science and Technology.

Guragain, N. (2016). E-Learning benefits and applications. Bachelor of Engineering Information Technology. Helsinki Metropolia University of Applied Sciences. Retrieved 12/7/2018 from: https//www.ILeseus,fi>Guragain Nischal.

Hart, T. U., Emeli, E. and Okorogba, L.J. (2016). The availability and utilization of ICT facilities and materials in teaching and learning in Isaac Jasper AdakarBoro College of Education, Sagbama. Bayelsa State, Nigeria. *International Journal of Advanced Academic Research* 2(5). Retrieved on 6/7/2018 from www.ifaar.org>volume2-

Ibiam, U.J. (2007). Primary School Teachers Information and Communication Technology (ICT) Competencies in Kogi State. Nigeria Journal of Curriculum Studies, 14(3).291-298.

Kanno, T. N. and Onyeachu, J. A. E. (2009). Curriculum and information technology. A paper presented at the 21st annual conference of curriculum organization of Nigeria at the Nigeria Educational Research Council, Shedda, Abuja. 17th – 20th September.

Kham, A. (1996). Utilization of Communication technologies for distance education. In K.M. Manohar (ed). *Distance Education Theory and Practice*. Hyderabad: Media and Communication Technology.

Margaret, R. (2018). Information and Communication technology or technologies. Retrieved On 15/6/2018 from https://searchio.techtarget.com/definition/ICT-information-and-communications-technology-or-technologies.

Nwaiwu, B. N. (2009). The imperatives of information and communication technology in business teacher education in the 21st century. *Business Education Book of Readings,* 1 (8). 97 – 103.

Nwana, S.E, Ofoegbu,T and Egbe, C.I. (2017). Availability and Utilization of ICT resources in teaching computer education in secondary schools in Anambra State. *Mediterranian Journal of Social Sciences* 8(5) Sep. Retrieved 6/6/2018 from https://www.researchgate.net/publication/319872630.

Okafor, U.M. and Okafor, P.S (2013). Extent of availability and usage of information and communication technology (ICT) in secondary schools in Njikoka L.G.A. of Anambra State. *Umunze Journal of Education and Technology*,2(1).134-142.

Okolocha, C.C. and Nwadini, C.. (2015). Assessment of Utilization of ICT resources in teaching among tertiary institutions business educators in South Nigeria. *Journal of Education and Learning*, 4(1). Retrieved on 7/4/2018 from http://files.eric.ed.gov>.

Olaore, I.B. (2014). The impact (positive and negative) of ICT on education in Nigeria, developing countries studies (online) 4(23) 1-3. Retrieved on 8/7/2018 from https.//www.iistenorg> article>view.

Onasanya, S. A.; Shehu, R. A.; Ogunlade, O. O. and Adefuye A. L. (2011). Teachers awareness and extent of utilization of ICT for effective science and health education in Nigeria. *Singapore Journal of Scientific Research.* Retrieved on 7/6/2018 from https://www.researchgate.net

Onwuzo, O.G. (2009). Utilization level of ICT gadgets in teaching and learning of fine and applied arts in tertiary institutions in Anambra State. *Journal of Business and General Education,* 3(1). Umunze: School of Business Education, Federal College of Education (Technical), 49-56.

Onyeachu, J.A.E. (2009).   The use of information and communication technology in implementation of secondary education curriculum in Nigeria. *Journal of Business and General Education* implementation of secondary education curriculum in Nigeria., 3(1). Umunze. School of Business Education, Federal College of Education (Technical). 73-82.

Salami, L. T. (2009). Professional secretary in an era of ICT: Challenges and implication for job performance. *Business Education Book of Readings.* 1(9). 186 – 193.

Siddiquah, A. and Salim, Z. (2012). The ICT facilities, skills, Usage and problems faced by students of higher education. EURASIA Journal of Mathematics Science and Technology Education (online) Retrieved on 7/6/2018 from https.//www.com/pdf-76347-12804? File.

Yaghoubi, J., Mohammadi,I.M.; Iravan, H.,Attaran,M. and Gheidi A. (2008). Virtual students perceptions of e-learning in Iran. *The Turkish Online Journal of Education Technology*, 7(3). Retrieved 9/11/2009 from http://www.toget.net/articles/7310.htm.