



USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGY AND ONLINE DATABASE FACILITIES BY BUSINESS EDUCATION LECTURERS FOR TEACHING AND RESEARCH

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Abstract

The study investigates the extent to which business education lecturers use ICT and online database resources for both teaching and research in Nigeria's North Eastern Zone schools of education. Two established research questions were answered by the study. A 0.05 alpha level was used to test two hypotheses. The study's research methodology was a descriptive survey. The population for the study was made up of one hundred ten (110) business education instructors from institutions of education that offered business education programs in North Eastern Zone. Since the complete population was used, there was no sampling done. An organized survey titled Level of ICT and Online Database Questionnaire (LUIDQ) was created by the researcher, and a Cronbach reliability coefficient of 0.86 was found. The results of the data collection were analyzed and showed that Business Education lecturers in colleges of education in the north-eastern zone are only minimally aware of ICT and database facilities for teaching and research; Mean rating and standard deviation were used to analyze the data collected to answer the research questions; Independent sample t-test was used to test the hypothesis at 0.05 level of significance. The study found that, despite the greater accessibility of high-quality electronic content, business education lecturers appear to have relatively negative attitudes toward using information and communication technology and online databases for their research and instructional delivery. According to the findings, the management of colleges of education is advised to seriously pursue the following recommendations, among others: awareness, accessibility, usability, and training. This could be accomplished by making computers available, establishing the required modern facilities, and ensuring internet connectivity, which will give lecturers the chance to stay up to date as well as educational development.

Keyword: *Information and Communication Technology facilities, Online Database, level and usage*



Introduction

One vital aim of business education is to provide students with knowledge and skills that will make them functional members of the society. The basic way to do this is through the use of Information and Communication Technology (ICT). Olakulehin (2017) defines ICT as a collection of technologies used in the process of gathering, storing, modifying, retrieving, and sharing information in different forms. Additionally, the term describes the methodical use of computers and other technologies to gather, organize, process, store, retrieve, and broadcast information in order to facilitate an efficient interchange of information. ICT resources facilitate student learning, excite a variety of scientific phenomena, and generally inspire instructors and students. They also assist students become more adept at solving problems and promote deeper understanding (Selinger, 2014). The facilities comprise computer hardware, specialized software and application packages, peripherals, databases, and data banks. ICTs, electronic mail (e-mail), the World Wide Web (WWW), diskettes, video cameras, microphones, fax machines, audio and video recorders, and players are examples of ICT's (Andural & Ikyumen, 2016). The ICT facilities can be used in the classroom, particularly at the higher level of the educational system. In Nigeria, the Colleges of Education is a branch of higher learning tasked with preparing teachers for non-degree but high-quality professional certificates in education. It was noted that a large number of lecturers lacked ICT training and certification. Following this observation, a recommendation for a broader extension of intermediate education for intermediate lecturers was made with the intention of improving the quality of the current teaching staff (Isyaku, 2017). Computer education is now required in the new curriculum, which was introduced in October 2010 as a result of a review of the NCE curriculum. As part of their pre-service training, all education students are obliged to meet minimal technology criteria.

The National Commission for Colleges of Education (NCCE) has identified lecturers in colleges of education as the major players in the growth of ICT skills and database use in research and teaching. ICT in the educational system is a vast, in-depth, and rapidly expanding topic of study, and it has the ability to provide users with greater interaction potential to develop their unique, intellectual, and creative abilities. Since the academic year 2004–2005, all lecturers in Nigerian institutes of education are required to be literate and proficient in ICTs and online databases. The right to work as a lecturer in the business education department of various institutions of education is granted legally by an ICT certificate, which serves as documentation of a person's professional qualification.

A vital component of vocational technical education that prepares students for careers in business is business education. To be good members of society, one must have both the business knowledge and the personal responsibility to manage one's affairs (Odunaike & Amoda, 2013). In a nation with few or no job possibilities, business education provides students with marketable skills. Business education is a course of study that provides a variety of management, office technology, and marketing skills (Edokpolor & Owenvbiugie, 2016). At the top institutions, business education has aspirational objectives like producing lecturers who will teach business and related courses in our colleges of education and universities, as well as producing managers who are efficient and effective in management, secretarial, marketing, and accounting. promote the growth of business thought and philosophy in business and management; help people learn how to work for themselves when there are no paid employment opportunities; expose students to the vast world of business through available courses; and help them get ready for jobs as qualified administrators and managers in business organizations; create in the student the necessary abilities and knowledge for managing both public and private businesses, and equip them with the analytical capabilities required to handle the escalating difficulties of the current and future environments in Nigeria and beyond; as outlined by Obi and Otamiri (2018), prepare



and equip students who complete the program to be able to develop business centers of information and communication technology and online database centers (cafe) or manage their own private business venture as self-employed members of society.

It is crucial to note that a lack of knowledge of ICT and electronic database resources among business education lecturers in colleges of education poses a significant challenge to the teaching and learning of business education program. This is because many lecturers continue to use the traditional method of instruction even in the jet age and computer era, when teaching and understanding are made easier, better, and faster by ICT and database facilities. The research on ICT in business education programs demonstrates that it can play a significant role in the complex of better involving students in the learning process and good future of ICT and databases. One finding of this research is that male lecturers are more adept at using it than female lecturers. Therefore, in the upcoming generations of business education programs, male lecturers will be more master and secure than female lecturers. Electronic resources make research easier and supplement traditional library materials.

In order to integrate the use of ICT and database facilities into the teaching and learning process, it is necessary for both male and female lecturers to have access to ICT facilities. This creates new and additional time for all lecturers to learn how to use new technologies, such as ICT and database facilities, so that business education lecturers can learn to create new things for teaching to keep up with current trends. Business education lecturers need to be trained and retrained in order to confidently integrate information and communication technologies and databases into teaching and learning activities in tertiary institutions. This will promote professional development in integrating ICT and data base into teaching and learning process.

Information and communication technology (ICT) provides resources and services to support the educational, research, and public service missions of all tertiary institutions. Higher education institutions, such as colleges of education, can use these tools to facilitate training, pre-service teachers, and student learning. It improves the creation and application of the policies and practices required to guarantee the efficient, secure, and responsible use of information resources and services. Through the internet, instructors and students can access the pertinent materials they require. These high-quality resources are used to provide students with the tools they need to succeed in their studies, to advance their knowledge in those fields, and to prepare them for use of current ICT infrastructures (Twining et al. 2015). Business education lecturers in colleges of education predict a direct proportional relationship between ICT infrastructures available in the school and teacher preparation whereby there are more and new infrastructures which proven to be a valuable aid to solve problems and accomplish tasks in education, industry, science, and many other human endeavors. In the modern world, ICT offers systems for knowledge acquisition, knowledge incubation, knowledge amplification, and knowledge distribution. Information and communication technology (ICT) is undoubtedly a crucial resource that permeates instruction, learning, research, and publication. (Henry and Twining, 2014). To this end, Okeh and Opone (2016) noted that the use of ICT can perform three main functions in the national educational growth, namely: a. Deliver all or part of the learning experiences to learners; b. Supplement and extend content provided in different forms other than printed (hard copy); and c. Provide a two-way channel of communication for exchange between tutors and students with their peers for feedback or for learning, problem solving, advice, debate and report.

It has been extensively discussed what information and communication technology (ICT) is. ICT, according to Andural and Ikyumen (2016), is the systematic use of computers and other technologies for the collection, organization, processing, archiving, dissemination, and retrieval of information in order to facilitate effective information exchange and communication. ICT was defined as the electronic technologies used for information storage and retrieval (Amassoma et al., 2018). According to the Federal Republic of Nigeria, FRN (2014), information and



communication technologies (ICT) include all apparatuses and tools, from older ones like radio, video, and television to more modern ones like computers and concepts that are used in the conduct of information and communication activities. Facilities and parts of information and communication technology are numerous and diverse. They consist of scanners, computers, satellite television, radio telephony, duplicating machines, photocopiers, and duplicating machines (Dahiru, 2015). Computer gear, specialist software and application packages, databases, and data banks are also included in the facilities. ICT includes electric typewriters, diskettes, video desks, CD ROMs, video cameras, microphones, fax machines, electronic mail (e-mail), the internet, and video desks (Andural and Ikyumen 2016). The performance of students in tertiary institutions tends to increase when these facilities are used efficiently. ICT can be applied in e-learning in a number of different ways. According to Paraton and Creed (2019), from the 1915s and 1920s, direct classroom instruction, school broadcasts, and general educational programming have all made extensive use of radio and television.

However, the strategy comprises educational radio and television programming intended for communal enlightenment. It includes fresh programming, shows, documentaries, cartoons, and quizzes. Teleconferencing is an ICT strategy used in online education. The strategy, according to Rao (2018), entails interactive communication with individuals stationed at two or more locations. There are now four forms of teleconferencing. They are web-based conferencing, audio teleconferencing, video conferencing, and audio graphic conferencing. In audio conferencing, audio messages are exchanged and sent via the phone network. Transmitting text and still images like graphs, diagrams, and photos is known as audio graphic. Voice and image transmission are both a part of video conferencing (Paraton and Creed, 2019). Web-based conferencing, according to Rao (2018), comprises sending voice, text, video, and graphic messages over the internet.

Computer is a necessary piece of equipment for online learning. It can be used to track grades and communicate with students (Ekpenyong, 2018). In computer-assisted instruction (CAI), the computer serves as the teacher (Iwu, 2014). The Jagboro (2003) defined the internet as a rich, multi-layered, complicated, and dynamic textual ecosystem. Amassoma, et al. (2018) referred to the internet as a global library where anyone may access books, journal papers, and other materials from the comfort of their own home. In higher education, researchers and students frequently communicate via computers.

Wikinson et al (2013) 's analysis revealed that the majority of linkages between university home pages were related to data on education or research. In general, the internet has had a positive impact on lecturers' and students' networking, critical thinking, and problem-solving skills. Inadequate ICTs infrastructure facilities, such as computer hardware and software, high and medium band, and access to the facilities, are just a few of the problems that have hindered the use of ICTs in schools, (Mac-Ikemenjima 2015).

Online databases, on the other hand, are collections of electronic sources of information from publishers across a range of fields and disciplines that may be printed, searched, and stored and then repeated or consulted in the future (Afolabi, 2017). Through their numerous search engine strategies, database resources are continuously updated, giving users access to current information. They also offer broad links to explore related or supplementary resources. Electronic resources are also regarded as significant resources for training, research, and teaching. The majority of libraries in today's colleges of education offer electronic resources for research in higher education, so in order for lecturers and students to take advantage of the expanding selection of electronic resources, they must develop and hone the skills necessary to do so. According to Angello (2016), the digitization of information has significantly improved the accessibility and availability of information. The amount of literature in libraries that is now available in digital form makes it easier for researchers to find the resources they need. This



growth has swiftly extended the academics' exposure to a larger range of literature than would otherwise be possible. There are various signs that the electronic information environment has altered how researchers access books for their work (Tenopir 2015). More information is available in greater volumes than ever before, and new information collection methods, information containers, and working tools are now available. Through a range of technologies, researchers can access electronic data. These include Compact Disk Read Only Memory (CD-ROMs), electronic journals, and the internet, which offers a wide variety of resources via search engines like ProQuest, Research Gate, Educational Full Text, and others.

Oiao and Wang (2011) conducted a study titled "An Investigation of Lecturers' Needs in Using ICT for Teaching and Learning." A return rate of 94 percent was achieved by the study, which found 128 legitimate copies of a 28-item structured questionnaire. Analysis of the data showed that the majority of respondents had to learn computer skills for site design tools, learning management systems, and electronic teaching resources. Only a small number of respondents had to master internet and email basics, however, many more respondents expressed a desire to find out how to successfully use ICT into classroom instruction. According to the study's findings, teacher education should give top attention to pedagogy that integrates classroom instruction and online learning.

Miller (2017) conducted a study to ascertain the extent to which technical teachers used 18 specific computer resources. 282 vocational technical instructors were chosen for the study's population from six distinct vocational disciplines: home economics education, agricultural education, business education, industrial education, marketing education, and health occupation education. A scale measuring resource utilization was included of the data collection tool. Respondents were asked to rate how frequently they used each resource connected to computers. The questionnaire's items, which covered the following ICT competency areas—productivity software (word processing, spreadsheets, database administration), graphic applications (graphics presentations, desktop publishing software), and interactive technologies—were graded on a 4-point scale (authority software, multimedia and CD-ROM), Telecommunications tools (Internet, email, paid online services, etc.), as well as computer-assisted instruction (Simulation and games, drilling and practice, tutorials, etc.). To respond to the research questions, mean and standard deviation were used. The hypotheses underwent a multivariate analysis of variance test. Findings showed that business education teachers were not integrating modern technology into their curriculum while using well-known forms of computer resources. The study also discovered that neither the overall nor category use of computers varied significantly between groups.

Lawal and Lawal 2015 investigated what made databases accessible to instructors and undergraduate students at the Umaru Musa Yaradua University in Katsina, Nigeria. One study finding was that undergraduate students and lecturers did not have enough knowledge about database accessibility, which has an impact on database accessibility. The study discusses the requirement to make database subscriptions in the university library more widely known. The study asserts that database utilization, whether online or offline, will expand as a result of increased awareness, accessibility, and usage.

Ani and Edem (2012) reported the results of a survey done to determine the extent to which academic employees at the University of Calabar, Nigeria, used internet databases. The study's findings showed that although the great majority of (96.3 percent) The majority of respondents (48.1 percent) indicated that they used these databases "sometimes" when asked how often academic staff members access and use pertinent internet databases in teaching and research. According to the findings, the university library's lack of a subscription to a pertinent online database, the cost of access and usage, the lack of access to the pertinent database, and



a lack of adequate internet skills for proper access in the university library are the main factors that obstruct academics' access to and use of online databases.

Statement of the Problem

The significance of information and communication technology and electronic databases is based on how well users of academic institutions are aware of, able to access, utilise, and exploit resources. But as stated by Baurer and Kemton (2015), business education instructors in colleges of education have not been able to successfully incorporate ICT and Database facilities into routine instruction. Amassoma, et al. (2018) claimed that the low level of ICT and database usage in the North Eastern Zone of Nigeria, as well as the lecturers' inability to use them in the classroom at tertiary institutions, particularly in colleges of education, is a warning sign that the region will produce students who lack the necessary ICT and database skills to function effectively and efficiently in this technologically advanced society. Because of improper use of electronic resources, business education lecturers in colleges of education confront a serious issue in meeting the new demands of the twenty-first century. The researcher was prompted to speculate as to why this would be the case, including whether it is due to a lack of understanding and utilization of these tools or a lack of awareness of them among educators in universities. In light of this, the study looked at the extent to which ICT and database resources were used for both teaching and research in institutions of education in the North Eastern Zone.

Research Questions

The following research questions are raised for the study:

1. To what extent do Business Education lecturers use information and communication technology facilities for teaching in colleges of education?
2. To what extent do Business Education lecturers use online database facilities for research in colleges of education?

Research Hypotheses

For the purpose of this study, two null hypotheses were tested at alpha level of 0.05

H₀¹: There is no significant difference between the mean responses of male and female Business Education lecturers regarding the level of usage of information and communication technology for teaching in colleges of education.

H₀²: There is no significant difference between the mean responses of male and female Business Education lecturers on the extent of usage of online database facilities for research in colleges of education.

Methods

Descriptive survey research design was adopted for the study. Descriptive survey deal with opinions perceptions and attitudes are being sought (Agboola, 2018). The study was a survey of Business Education lecturers in colleges of education in North Eastern Zone. The population of the study consisted of 110 Business Education lecturers, since the population was neither too large nor too dispersed; no sampling was drawn as the entire population was studied. This is in consonance with the opinion of Agboola, (2018) stated that whenever possible, it is ideal to study the entire population. A structured questionnaire tagged Level of Usage of ICT and Online Database Questionnaire (LUIDQ) was constructed by the researcher, and was dully validated by three experts from Kwara State University, Maletete, after which, It was trial tested on 30 respondents outside the study area, and a Cronbach Alpha reliability coefficient of 0.86 was achieved, indicating that the instrument was highly reliable for data collection.



The confirmation of the outcome is consistent with Sambo's (2017) contention that an instrument is dependable and stable when the stability coefficient is extremely near to one. A two-part survey created by the researcher served as the data collection tool. The first section sought demographic information on the respondents; the second section structured on the 4-point rating scale pattern, comprised of 90 questions designed to elicit responses on the formulated research questions. The items were placed on the 4point rating scale of Very high extent (VHE) = 4, High extent (HE) = 3, moderately extent (ME) = 2 Low extent (LE) = 1. The instrument was administered to the respondents by the researcher and with the help of four research assistants. All the copies of the questionnaire were retrieved and usable for analysis from eight colleges of education in North-Eastern Zone, namely, 16 from Federal College of Education, Yola, 11 from College of Education Hong, seven from College of Education Zing, 18 from Kashim Ibrahim College of Education Borno, Federal College of Education Potiskum, 20 from Umar Suleiman College of Education Gashua, seven from College of Education Azare, and 10 from Federal College of Education (Tech), Gombe. The research assistants received training in preparation for the exercise; this training was in line with Nwana's (2017) observations that complete training of research assistants was necessary to successfully accomplish the exercise's goals. Respondents were required to tick the option which best described their usage of ICT and database facilities. For the analysis of data collected, mean rating and standard deviation were used to answer the research questions, while the analysis of independent t-test was used to test the hypothesis at 0.05 level of significance. For the research questions, items equal to 2.50 and above were accepted as highly extend while items with 2.49 and below were taken as low extent and used for decision regarding the research questions. If the probability value for the hypothesis test exceeded or was equal to the set probability value (0.05), the hypothesis was rejected; otherwise, the hypothesis was accepted. (2015) Uzoagulu

Results

Research Question one: To what extent do Business Education Lecturers use ICT facilities for teaching in colleges of education?

Table 1 Legend: Mean and standard deviation of responses on the extent to which business education lecturers use ICT facilities for teaching in colleges of education

S/N	Items	Mean	SD	Remark
1.	Competencies in creating document in Microsoft word	2.21	0.56	Low extent
2.	Editing materials using new modern computers	2.12	0.65	Low extent
3.	Working with menus like file, view and edit	2.21	0.67	Low extent
4.	Using spreadsheet packages	2.68	0.85	High extent
5.	Understand the structure of the spreadsheet	2.67	0.72	High extent
6.	Enter data (Labels and values) in a cell	2.70	0.58	High extent
7.	Format data in a cell e.g. Bold, alignment	2.78	0.65	High extent
8.	Generate appropriate graphs like bar, column and line	3.03	0.68	High extent
9.	Use formula and undertake calculations	2.17	0.62	Low extent
10.	Using spreadsheet packages to make predictions	2.07	0.59	Low extent
11.	Competencies in sorting out data	1.99	0.76	Low extent
12.	Saving and opening of documents	2.88	0.69	High extent
13.	Add and delete records	2.14	0.67	Low extent



14.	Edits data in an existing record	3.01	0.78	High extent
15.	Filtering data	2.28	0.94	Low extent
16.	Entering data in a base	3.26	0.64	High extent
17.	Setting up a data in a base	3.12	0.72	High extent
18.	Video library	1.96	0.72	Low extent
19.	Creating a basic power point presentation	2.86	0.65	High extent
20.	Introducing animation into slide	2.01	0.65	Low extent
21.	Modification of colours	2.03	0.87	Low extent
22.	Creating an e-mail addresses	1.95	0.92	Low extent
23.	Sending e-mail messages	3.21	0.80	High extent
24.	Mail merging competencies	3.13	0.91	High extent
25.	Receiving e-mail messages	2.75	0.71	High extent
26.	Attaching files to outgoing e-mails	3.12	0.78	High extent
27.	Retrieves and replies to an e-mail	3.09	0.52	High extent
S/N	Items	Mean	SD	Remark
28.	Spell checking, thesaurus, proof reading competencies	1.92	0.41	Low extent
29.	Assessing an internet site via its website address	3.05	0.56	High extent
30.	Downloading and uploading files from internet	3.17	0.53	High extent
31.	Saving a downloaded file from internet	3.04	0.58	High extent
32.	Internet enable phones and hybrid devices	2.21	0.63	Low extent
33.	Saving a document in various file format like html	2.04	0.68	Low extent
34.	Use of USB drives	3.22	0.58	High extent
35.	Use of web authorizing tools	2.20	0.73	Low extent
36.	Use of web search engine(Google)	3.11	0.69	High extent
37.	Deep web searching using met search engines	1.97	0.59	Low extent
38.	Using a liquid crystal display chatting on the internet	1.67	0.47	Low extent
39.	Using message tools (yahoo, Skype and MSN)	1.70	0.55	Low extent
40.	Online communication with students (through assignment)	2.16	0.48	Low extent
41.	Sorting messages in created folders	3.09	0.66	High extent
42.	Using digital camera to create a graphic file	1.88	0.75	Low extent
43.	Using web camera to communicate on the internet	2.14	0.51	Low extent
44.	Teleconferencing competencies	2.16	0.80	Low extent
45.	Video conferencing	1.82	0.58	Low extent
46.	Using scanner to copy images and capture pictures	1.97	0.70	Low extent
47.	Using scanner to convert a picture into a graphic file	2.24	0.85	Low extent
48.	Use drawing tools	1.80	0.64	Low extent
49.	Use of laser printer	1.91	0.48	Low extent
50.	Setting up a liquid crystal display	1.64	0.42	Low extent
51.	Using a liquid crystal display chatting on the internet	2.07	0.79	Low extent
52.	Setting up a multimedia projector	2.13	0.56	Low extent



53	Using multimedia projector (power point presentation)	1.76	0.49	Low extent
54	Instructional software (tutorial, drills and practice)	2.18	0.47	Low extent
55	Interactive whiteboard	2.17	0.58	Low extent
	Weighted Average	2.40	0.66	Low Extent

The data in Table 1 shows the mean and standard deviation of responses on the extent to which Business Education lecturer's used ICT facilities for teaching in colleges of education. The respondents indicated high extent for 21 items with mean ranging from 2.67 to 3.26 and indicated low extent for 34 items with mean ranges from 1.67 to 2.28. All the 55 items have standard deviation ranging from 0.41 to 0.87. This means that the responses of the respondents are not wide spread as they are close to the mean. Table 1 showed a calculated weighted average mean and standard deviation of 2.40 and 0.66, which indicated that all the constructs are used to low extent because both the aggregate/item calculated statistical mean are lower than the criterion mean of 2.50. This implied that business education lecturers in colleges of education in North Eastern zone used ICT facilities for teaching to low extent.

Research Question Two: To what extent do Business Education Lecturers use online database facilities for research in colleges of education?

Table 2 Legend: Mean and standard deviation of responses on the extent business education lecturers use online database facilities for research in colleges of education

S/N	Items	Mean	SD	Remark
1.	Research Gate	3.11	0.82	High extent
2.	Educational full tex	3.11	0.82	High extent
3.	Chicago Journals	2.04	0.78	Low extent
4.	Academic Library Online	2.95	0.80	High extent
5.	Sage Online Journal	2.17	0.77	Low extent
6.	Educational Resources Information Centre (ERIC)	3.09	0.77	High extent
7.	International Research Journal	3.03	0.79	High extent
8.	BioMed Centre	1.96	0.76	Low extent
9.	Digital Library for Earth System Education Online	2.12	0.79	Low extent
10.	Encyclopaedia of Life Support System	1.89	0.80	Low extent
11.	DOAJ (Directory of Open Access Journal)	2.24	0.79	Low extent
12.	National Virtual Library	2.21	0.78	Low extent
13.	Sage OARE	2.11	0.76	Low extent
14.	AJOL (African Journal Online)	2.00	0.72	Low extent
15.	Emerald insight	2.18	0.73	Low extent
16.	Science Direct	1.86	0.71	Low extent
17.	Emerald	1.71	0.74	Low extent
18.	Cambridge Journals	2.25	0.73	Low extent
19.	Ebscohost	1.82	0.72	Low extent
20.	ASCE Journal	1.99	0.73	Low extent
21.	ASME Journal	2.05	0.59	Low extent
22.	ABSCO	2.16	0.81	Low extent
23.	World Bank	1.74	0.77	Low extent
24.	Database of African Thesis and Dissertation (DATAD)	2.05	0.81	Low extent



25.	Bookboon	1.80	0.77	Low extent
26.	IEEE Explore	1.99	0.76	Low extent
27.	EBSCOHOST	1.59	0.73	Low extent
S/N	Items	Mean	SD	Remark
28.	OARE	1.74	0.68	Low extent
29.	AGORA	1.72	0.52	Low extent
30.	JSTOR	2.18	0.47	Low extent
31.	Springer	2.12	0.81	Low extent
32.	Hinari	2.12	0.81	Low extent
33.	TEEAL (The Essential Electronic Agricultural Libraries)	2.16	0.44	Low extent
34.	HINARI (Health Internet-Work Access Research Information)	2.01	0.48	Low extent
35.	INASP (International Network for the Availability of Scientific Publications)	2.13	0.51	Low extent
Weighted Average		2.15	0.72	Low Extent

The data in Table 2 shows the mean and standard deviation of responses on the extent to which Business Education lecturers use online database facilities for research in colleges of education. The respondents indicated high extent for 5 items with mean ranging from 2.95 to 3.11 and indicated low extent for 30 items with mean ranges from 1.59 to 2.25. All the 35 items have standard deviation ranging from 0.44 to 0.82. This means that the responses of the respondents are not wide spread as they are close to the mean. Table 2 shows a calculated weighted average mean and standard deviation of 2.15 and 0.72, which indicated that all the constructs are used to low extent, it shows that Business Education lecturers used electronic database for research to low extent because both the aggregate/item-calculated statistical mean are lower than the criterion mean of 2.50. This implied that Business Education lecturers in colleges of education utilize electronic database for research to low extent.

Hypotheses:

H₀₁. There is no significant difference between the mean responses of male and female Business Education lecturers regarding the extent of usage of Information and Communication Technology for teaching in colleges of education

Table 3 Legend: Independent Samples t-test result of the difference between the mean responses of male and female Business Education lecturers regarding the extent of usage of ICT for teaching in colleges of education

Group	N	Mean	SD	t-cal	Df	Sig (2tailed)	Decision
Male	70	2.32	0.65	1.380	108	0.173	Not Rejected
Female	40	2.42	0.70				



The analysis of data in Table 3 reveals that there are 70 male lecturers and 40 female lecturers. The male and female lecturers' responses showed that ICT facilities are used for teaching to low extent ($\bar{X} = 2.32$; SD = 0.65) and ($\bar{x} = 2.42$; SD = 0.70) with very low variability. The Table reveals that there was no significant difference between the mean responses of male and female Business Education lecturers regarding the extent of usage of Information and Communication Technology for teaching in colleges of education ($t_{108} = 1.380$, $P > 0.05$).

H₀₂. There is no significant difference between the mean responses of male and female Business Education lecturers on the extent of usage of online database facilities for research in colleges of education in North Eastern zone.

Table 4 Legend: Independent Samples t-test result of the difference between the mean responses of male and female Business Education lecturers regarding the extent of usage of online database facilities for research

Group	N	Mean	SD	t-cal	Df	Sig (2tailed)	Decision
Male	70	2.08	0.73				
				0.519	108	0.619	Not Rejected
Female	40	2.22	0.80				

The analysis of data in Table 4 reveals that there are 70 male lecturers and 40 female lecturers. The male and female lecturers' responses showed that online database facilities are used for research to low extent in colleges of education ($\bar{X} = 2.08$; SD = 0.73) and ($\bar{x} = 2.22$; SD = 0.80) with very low variability. The Table reveals that there was no significant difference between the mean responses of male and female Business Education lecturers regarding the extent of usage of online database facilities for research in colleges of education ($t_{108} = 0.519$, $P > 0.05$).

Discussion of Findings

The findings of this study in respect to research question one found that Business Education lecturers in colleges of education in North Eastern zone, the lecturers level of usage of ICT facilities for teaching is low. In agreement with this, Mac-Ikemenjima (2015), pointed out that generally, the use of ICTs facilities in schools has suffered a number of setbacks which include inadequate ICT facilities such as computer hardware and software, high and medium band and access to the facilities.

It was also found that there was no significant difference between the mean responses of male and female Business Education lecturers regarding the extent of usage of Information and Communication Technology (ICT) for teaching in colleges of education ($t_{108} = 1.380$, $P > 0.05$). Thus, the null hypothesis was not rejected. Furthermore, results as regards to research question two revealed that Business Education lecturers in colleges of education used electronic database for research to low extent and this supports the findings of Obuh (2010) who observed that there is a low level of skill fullness in the usage of ICTs and database resources among lecturers and students in tertiary institutions. He further pointed that lecturers and students do not often appreciate the skills required to search electronic sources stating that they are deceptively easy to use this, is in line with the opinion of Lawal and Lawal 2015 who investigated the factors of the accessibility of database among lecturers and students of Umaru Musa Yaradua, University, Katsina, Nigeria. One of the findings of his study was that awareness on the accessibility of



database among lecturers and students was inadequate and this affects the accessibility of the usage of electronic database. The finding is also in line with Maharana, Sethi and Panda (2012) who initiated the use of internet and e-resources by the lecturers and students of business management, Sambalpur University and found that majority of management lecturers and students rarely uses e-resources and services in varied forms. The results on table 4 reveals that there was no significant difference between the mean responses of male and female Business Education lecturers regarding the usage of online database facilities for research in colleges of education ($t_{108} = 0.519, P > 0.05$). The null hypothesis was not rejected. This means that the male and female business education lecturers are comparable in terms of their usage of electronic database in Business Education instructional delivery.

Conclusion

The study looked at how many business education lecturers used ICT and internet databases for instruction and research in North Eastern Zone colleges of education. This is concerning because information and communication technology and electronic databases are currently seen as being crucial tools for effective teaching and research at tertiary institutions. This study found that, despite the rising accessibility of high-quality electronic content, business education lecturers had relatively negative opinions toward using ICT and electronic database resources for their research and instructional delivery. This is a regrettable development, as it was noted that many business education professionals who may have played key roles in implementing these facilities have left the field..

Recommendations

The following recommendations were made based on the study's findings:

1. The management should organize and sponsor conferences, workshops, seminars, and other information-dissemination platforms on information and communication technology facilities for the purpose of training and retraining Business Education lecturers through the authorities of colleges of education.
2. Management of colleges of education is advised to seriously pursue the following recommendations, among others: awareness, accessibility, usability, and training. This could be accomplished by making computers available, establishing the required modern facilities, and ensuring internet connectivity, which will give lecturers the chance to stay up to date as well as educational development..

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