



AWARENESS AND UTILIZATION OF ICT IN LEARNING AMONG BUSINESS EDUCATION STUDENTS IN TERTIARY INSTITUTIONS IN RIVERS STATE

DAMBO, BOMA ISABELLA (Ph.D)

*Department of Business Education
Rivers State University of Science and Technology,
Nkpolu-Port Harcourt.
E-mail:damboboma@yahoo.com*

URANTA, AKIEBIE BENNETH

*Department of Business Education
Rivers State University of Science and Technology,
Nkpolu-Port Harcourt.
E-mail: kiebie4luv@yahoo.com*

Abstract

This study examined the awareness and utilization of Information and Communication Technology (ICT) in learning among Business Education students in tertiary institutions in Rivers State. The study employed the descriptive survey design. Two research questions raised and two null hypotheses were formulated to guide the study. The population for this study was 400 registered Final Year Business Education students drawn from Rivers State University of Science and Technology, Port Harcourt and Ignatius Ajuru University of Education, Port Harcourt. A sample size of 176 Final Year Business Education students was randomly selected from the population. Data were collected through a 29-item structured questionnaire on a four-point response scale. The questionnaire was validated by three experts and the reliability test conducted showed a co-efficient of .86, making which was high enough for the instrument to be deemed reliable. The analysis of data collected was done using the mean and standard deviation, and t-test at .05 level of significance. The study found out that the level of awareness of ICT in tertiary institutions in Rivers State was high. The study also revealed that students utilized ICT in learning. The findings showed that there was no significant difference between awareness and utilization of ICT in learning among Business Education students in tertiary institutions in Rivers State. Based on the findings of the study, it was recommended that Government should see the need to translate ICT policies into action by providing ICT equipment for students in tertiary institutions.

Keywords: *Awareness, Utilization, ICT, Learning, Business Education.*

Introduction

The recent advancement in scientific discoveries has made the world a global village. New technologies are invented today that would have never been thought of a few years ago. Tinio (2003) noted that globalization, once thought just as a concept, has become a reality. This has led to the advancement in Information and Communication Technologies (ICT) which is also revolutionizing business as well as the educational institutions across the globe. Globalization and technological change have created a new global economy powered by technology, fueled by information and driven by knowledge. The drive for more information within the shortest period of times has led to the



development of modern technologies. This includes the advent of the computer in the 1950's and the internet in the 1990's which paved the way for the current revolution in information and communication technology. Okereke (2005) observed that modern computers have the capability of reading, processing and storing millions of instructions per second. The internet which is called the "information super-highway" has also caused an indescribable expansion in the way information is transferred from one place to another.

Awareness of ICT refers to having knowledge and understanding the potential opportunities inherent in using any new technology like internet. The awareness of ICT by Business Education students is proved by their level of computer literacy. Computer literacy has to do with the degree of proficiency of students in basic computer in the general use of computers. Learning is a change in human disposition and capability which persists over a period of time, which is not simply ascribed to the process of growth (Gagne, 1981). Business Education, as a programme of study, equips students with the knowledge and skills needed to make them self-reliant and self-employed. It is education "for" and "about" business, and as such, should be concerned with the modern trends in business. The modern trends in business which include the digitalization of business operations, e-banking; e-commerce, management information system (MIS) etc, form the basis for encouraging the use of ICT in today's business education training programme.

Utilization is the act of using something, the manner in which something is used and also the state of being used. Information and communication technologies (ICT) as defined by the Information Technology Association (ITAA) is the study design, development, implementation, support or management of computer-based information system, particularly software application and computer hardware. Information Communication Technologies (ICTs) are information handling tools that are used to produce, store, process, distribute and exchange information. It is an increasingly powerful tool for participating in global markets, promoting political accountability, improving the delivery of basic services, and enhancing local development opportunities (UNDP, 2006). According to Ogunsola (2005), ICT is an electronic based system of information, reception, processing and retrieval which has drastically changed the way we think, the way we live and the environment in which we live. It can be used to access global knowledge and communication with other people.

Information and communications technology (ICT) is a combination of advanced technology that provides a rich global resource and collaborative environment for dissemination of knowledge and information. ICT comprises computer and ICT materials and applications, which aid in information collection and dissemination, research and global exchange of ideals force, and understanding issues related to global development, (Adesoji (2012). ICT is used to indicate the whole range of technologies involved in

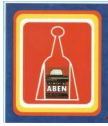


information processing and electronic communications, including the computers, internet, e-mail, world wide web, word processors, satellite, global system mobile communication (GSM), and other allied electronic ICT is needed for more efficient curriculum delivery in schools. According to Ologo Adeniumni, Ajisolam (2012), the introduction of information technology to the education system is aimed at improving educational delivery and preparing children for a role in an information economy. In the world at large, it is acknowledged that ICT is growing at a rapid pace with emerging technologies continuing to develop. Information and communication technology (ICT) plays a vital role in the development of any nation. It has been an instrument for achieving social, economic, educational, scientific and technological development (Adedegi, 2010). ICT has greatly influenced the educational sector especially on curriculum delivery, learning and research.

For both social and economic reasons, students will need computer and communication technology skills if they are to live successfully in a knowledge based society. Students who use ICTs gain deeper understanding of complex topics and concepts and are more likely to recall information and use it to solve problems outside the classroom. Information and communication constitute an indispensable part of contemporary world. The field of education has certainly been affected by the penetrating influence of information and communications technology in the world; particularly in the developed countries. ICT has made impact on the quality and quantity of teaching, learning and research in the traditional and/or distance education in developed countries. ICT is a wide range of activities and equipment including all the tools, applications and information which are available and accessible via computers. It encompasses various forms of information delivery systems such as televisions, radios, newspapers, computers, the internet's (Okwudishu, 2004).

The advancements in technology have created so many information and communications technology (ICT) tools that are necessary and useful in the development process. These new technologies, according to Chris Nicol Association for Progressive Communication (2007) have become central to contemporary societies. He classified these modern technologies (ICT) as follows:

- a. Information Technology (computers), which have become indispensable in modern societies to process data and save time. The uses of computers are so pervasive to modern development in commerce, communication and governances amongst others.
- b. Telecommunication technologies which include telephones, mobiles, fixed (with fax), and broadcasting of radio and television through satellites.
- c. Networking Technologies of which the best known is the internet, but which has extended to mobile phone technology, satellite communication, and other forms of communications.



These, according to the association, have come to dominate modern society, thus defining what now called information age is. ICT in higher education encompasses an array of academic perspective; training and education, learning and knowledge and also technology. ICT focuses on the crucial issue of how people communicate and learn in an electronic environment. Many of the recent advances in ICT in education have been driven by expansion of fixed-line network capacity and the growth in Internet use, of particular interest to many e-learning fields has been the emergence of the World Wide Web, which offers a user friendly graphical interface through which learners can gain access to a huge range of information, including image, data files and sound as well as text. Infact, it has been observed that internet facilities are springing up in many universities. The ICT infrastructure like CD-Rom, radio, tape, television, mobile phones are available and adequate but they are rarely recognized as ICT infrastructure that can be put into educational values (Agyeman, 2007).

The field of education has certainly been affected by the penetrating influence of ICT Worldwide and in particular developed countries. ICT has made a very profound and remarkable impact on the quality and quantity of teaching and learning in our higher institutions. Information and communications technology has the potentials to accelerate, enrich and deepen skill to motivate and engage students in learning to help relate school experience to work practices, to help create economic viability for tomorrow's opportunities for connection between the school and the world (Achugbue, 2011).

Manir (2009) in his study on e-learning (ICT) in Nigerian universities highlighted that it is obvious that the concept of ICT is considered to be very attractive as a new learning paradigm whose effect will be a positive one to the development of education in developing countries especially Nigeria. According to him, the awareness of ICT among the higher institutions is very high but investment and commitment to developing an e-learning application is very poor and below expectation. Most of the staff and students in the higher institutions only use internet related e-learning sites just for the sake of finding related information for their research, since their libraries cannot afford to provide them with adequate and current materials, but not for the sake of real online learning. From the primary school level to the tertiary level, the application of ICT in the teaching and learning process must not be undermined if truly effectiveness and efficiency are to be achieved. According to Nwidum (2006), the application of ICT does not only enable the educational researcher to manipulate time and distance through mere touching of a button, but also enhances his knowledge, acquisition and ability to input the knowledge easier and faster with greater enthusiasm than in the past.

Adebayo (2008) noted with dismay that Nigerian Educational system has not yet adequately exposed students, teachers and institutions of learning to the realities of ICT tools and skills that will enable them face the challenges of the global world of internet and knowledge sharing. It is, therefore, pertinent to state that the use of Internet and



advanced form of information technology be fully entrenched in the teaching and learning process in Nigerian schools for functionality and self-reliance. Hence, this study analyzed the extent of awareness and utilization of ICT in learning among Business Education students in tertiary institutions in Rivers State.

Purpose of the Study

The main purpose of the study was to determine the awareness and utilization of ICT in learning among Business Education students in tertiary institutions in Rivers State. Specifically this study sought to:

1. Determine the extent of awareness of ICT in learning among Business Education students in tertiary institutions in Rivers State.
2. Determine the extent to which Business Education students in tertiary institutions in Rivers State utilize ICT in learning.

Research Questions

The following research questions are raised to guide the study:

1. To what extent are Business Education students aware of ICT in tertiary institutions in Rivers State?
2. To what extent do Business Education students utilize ICT in learning in tertiary institutions in Rivers State?

Hypotheses

The following null hypotheses were tested at .05 level of significance:

- 1) There is no significant difference between the mean ratings of Business Education students in Rivers State University Science and Technology (RSUST) and Ignatius Ajuru University of Education (IAUOE) on the extent to which they are aware of ICT in learning.
- 2) There is no significant difference between the mean ratings of Business Education students in Rivers State University of Science and Technology (RSUST) and Ignatius Ajuru University of Education (IAUOE) on the extent to which they utilize ICT in learning.

Method

The research design employed in this study was the descriptive survey design. This design was adopted because it is suitable for the systematic determination of the awareness and utilization of ICT in learning among Business Education students. The population comprised 400 registered Final Year students of Business Education in the 2014/2015 academic session from Rivers State University of Science and Technology, Port Harcourt and Ignatius Ajuru University of Education, Port Harcourt. The researchers used simple random sampling technique to choose 176 students to form the sample size. The instrument used for data collection was a 29-item structured questionnaire titled



Awareness and Utilization of ICT in Learning among Business Education Students in Tertiary Institutions in Rivers State (AU-ICT-LBESTIQ). The instrument adopted a 4-point response scale of “Very High Extent” (VHE)-4, “High Extent” (3)-3, “Low Extent” (LE)-2, and “Very Low Extent” (VLE)-1. The benchmark of the weighted responses was 2.50 in analyzing the responses. A mean score above 2.50 indicated a positive response, while a mean score below 2.50 indicated a negative response. The initial copy of the instrument for data collection in the study was presented to three Lecturers in the Faculty of Technical and Science Education, Rivers State University of Science and Technology, Port Harcourt for face validity. A reliability coefficient of .86 was obtained, an indication that the instrument was reliable for data collection. The administration of the instrument was personally carried out by the researchers and two research assistants.

Results

Research Question 1

To what extent are Business Education students aware of ICT in learning in tertiary institutions in Rivers State?

Table 1: Mean ratings on the level of awareness of ICT in learning in tertiary institutions.

N = 174					
S/NO	Levels of awareness	x ₁	x ₂	Mean set	Remark
1	Partaking in online decision forum	2.44	2.27	2.36	LE
2	Undertaking a course on the internet with interactive features	2.39	2.20	2.29	LE
3	Getting educational information from television programmes	2.84	2.90	2.87	HE
4	Getting advice and support from a teacher by e-mail	2.84	2.94	2.89	HE
5	Listening to educative programmes on the radio	3.24	3.07	3.16	VHE
6	Undertaking online examinations	3.29	3.11	3.20	VHE
7	Searching for academic information on the internet	3.09	3.09	3.09	VHE
8	Checking results online	3.29	3.17	3.23	VHE
9	Chatting online with classmates and teachers	3.40	3.06	3.23	VHE
10	Assessing online libraries for research materials	2.91	2.51	2.71	HE
Total				29.03	
Cluster Mean				2.90	

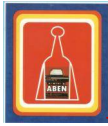


Table 1 reveals the level at which Business Education students in Tertiary Institutions in Rivers State are aware of ICT in learning. The table reveals a summated mean (grand mean) of 2.90 which is above the average mean of 2.50. Therefore, it is generally concluded that students are aware of ICT in learning to a high extent.

Research Question 2

To what extent do Business Education students in tertiary institution in Rivers State utilize ICT in learning?

Table 2: Mean of ratings on the utilization of ICT in learning. N = 174

S/NO	Level of utilization	X ₁	X ₂	Mean set	Remark
11	Internet research site browsing	2.22	2.03	2.13	LE
12	File navigation	2.16	2.13	1.15	LE
13	Processing assignments with the computer	3.01	2.97	2.99	HE
14	Sending feedbacks to lecturers via e-mail	2.84	2.36	2.6	LE
15	Undertaking a course on the internet with interactive features	2.48	2.17	2.33	LE
16	Reading e-books, e-journals	2.27	2.41	2.34	LE
17	Undertaking online examinations	3.18	3.10	3.14	HE
18	Chatting online with course mates	2.21	3.18	2.69	HE
19	Use of programmed learning readymade DVDs	2.00	2.10	1.05	LE
20	Word processing	2.81	2.58	2.69	HE
21	Listening to educative programs on the radio	3.23	3.02	3.13	HE
22	Internet browsing	3.42	3.17	2.29	HE
23	e-mail, downloading	3.28	2.89	3.09	HE
24	Use of satellite receivers	2.87	2.64	2.81	HE
25	Use of records	2.78	2.76	2.77	HE
26	Use of instructional TV packages	2.06	2.07	2.07	LE
27	Use of re-writable DVDs	2.96	2.44	2.70	LE
28	Checking results online	3.41	3.51	3.46	VHE
29	Searching for educational materials online	3.03	2.75	2.89	HE
Total				51.32	
Cluster Mean				2.70	

Table 2 reveals the extent to which Business Education students in tertiary institutions in Rivers State utilize ICT in learning. The table above reveals a summated mean (grand mean) of 2.70 which is above the average mean of 2.50. Therefore, it is concluded that students utilize ICT in learning with a mean score of ($\bar{x}=2.70$) to a high extent.

Hypothesis 1

There is no significant difference between the mean ratings of Business Education Students in Rivers State University of Science and Technology (RSUST) and Ignatius Ajuru University of Education (IAUOE) on the extent to which they are aware of ICT in learning.

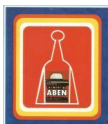


Table 3: t-test result for the difference in mean ratings of respondents on the awareness of ICT in learning

Group	N	Mean	SD	df	ιSignificance	t-cal	t-tab	Remark
Students (RSUST)	90	2.97	0.95	174	.05	0.96	1.98	Accepted
Students (IAUOE)	86	2.83	0.99					

As shown in Table 3, Business Education students in RSUST recorded a mean score of 2.97 on their awareness of ICT in learning. On the other hand, Business Education students in IAUOE had a mean score of 2.83 on their ratings of awareness of ICT in learning. The t-cal of 0.96 is less than the t-tab value of 1.97 at 0.05 level of significance; the hypothesis is, therefore, accepted. Which means there is no significant difference in the mean ratings of Business Education Students in RSUST and IAUOE on the extent to which they are aware of ICT in learning.

Hypothesis 2

There is no significant difference between the mean ratings of Business Education Students in Rivers State University of Science and Technology (RSUST) and Ignatius Ajuru University of Education (IAUOE) on the extent to which they utilize ICT in learning.

Table 4: t-test result for the difference in mean rating of respondents on the extent to which they utilize ICT in learning

Group	N	Mean	SD	df	ιSignificance	t-cal	t-tab	Remark
Students (RSUST)	90	2.75	0.97	174	.05	11.36	1.98	Rejected
Students (IAUOE)	86	1.09	0.98					

The data in Table 4 shows that at 05 level of significance with 176 degree of freedom, the calculated t-cal value of 11.36 is greater than the t-tab value of 1.97. Hence, the null hypothesis is rejected meaning that there is a significant difference in the mean ratings of Business Education students in Rivers State University of Science and Technology (RSUST) and Ignatius Ajuru University of Education (IAUOE) on the extent to which they utilize ICT in learning.

Discussion of Findings

The findings on Research Question 1 revealed that Business Education students in Rivers State tertiary institutions are aware of ICT in learning to a high extent. This is in line with Okiki (2011) who found that there is an increasing awareness of the use of Information and Communication Technologies (ICTs) in the teaching and learning process. In agreement with this, Manir (2009) pointed out that the awareness of ICT among students in higher institutions is very high but investment and commitment to developing an e-learning application is very poor and below expectation. Also the



findings show that students process their assignments using computers and get academic information from the internet, students check their results online and this supports the findings of Manir (2009) showing tremendous growth of computer equipment and internet utilization by staff and students of Nigerian Tertiary Institutions. The findings on Research Question 2 revealed that Business Education students in tertiary institutions in Rivers State utilize ICT in learning to a high extent. This is in line with Okiki (2011) who found that there is an increasing awareness of the use of Information and Communication Technologies (ICTs) in the teaching and learning process. The study also revealed that there is a significant difference between Business Education Students in the RSUST and IAUOE on their utilization of ICT in learning.

Conclusion

From the foregoing discussion, it is obvious that the utilization of ICT in education is an indispensable tool in modern teaching-learning process and so its adoption for students in tertiary institution will go a long way towards the enhancement of students' learning style. Based on the findings of the study, it was concluded that Business Education students in Rivers State tertiary institutions are aware of ICT and they also utilize it for learning purposes.

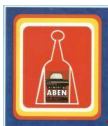
Recommendations

The following recommendations are proffered:

1. There should be a linkage between Multinational Companies and tertiary institutions to enhance more students' awareness of ICT.
2. The Federal Republic of Nigeria Policy on ICT which provided strong basis for modern human development should be translated into action by providing the necessary ICT equipment for both students and lecturers in Tertiary Institutions.
3. The issue of erratic power supply should be addressed by the Federal Government in stabilizing electricity supply in Nigeria.
4. There is the need to train and develop ICT experts to enhance the teaching and learning of ICT.

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