

# COMPETENCY OF BUSINESS EDUCATION STUDENTS IN INFORMATION COMMUNICATION TECHNOLOGY (ICT) FOR LEARNING IN TERTIARY INSTITUTIONS IN RIVERS STATE

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## Abstract

The study examined the competency of Business Education students in Information Communication Technology (ICT) for learning in tertiary institutions in Rivers State. The population of the study comprised of all final year Business Education students of Ignatius Ajuru University of Education (IAUOE) and Federal College of Education (Technical), Omoku (FCET). A sample size of 223 (122 students of IAUOE and 101 students of FCET) was used for the study. Simple random sampling technique was adopted to compose the sample. Three research questions were answered. CBESICT was used for data collection. CBESICT was objectively used to investigate the extent of utilization of ICT tools, students' level of competency of ICT tools and the challenges facing its utilization for learning. Mean with Standard Deviation was used to analyze the data obtained from the respondents while hypotheses were tested with z-test at 0.05 level of significance. It was found that Business Education students utilize some ICT tools while others were not utilized for learning. The findings also revealed that students were competent in using certain ICT tools for learning. However, high cost of maintenance, lack of ICT facilities were factors identified as challenges of using ICT for learning by students of Business Education. Based on the findings, it was recommended among others that; computer and internet studies need to be properly integrated into the Business Education curriculum. All semester assignment, examination and result should be done in electronic means so as to make students inculcate the interest of using ICT tools for learning and Business Education lecturers should produce their books in the e-book format so as to encourage the students in the reading of e-books and e-journals.

**Keywords:** Business Education, Competency and ICT.

## 1.0 Introduction

Education is the most important agent of change and the bed rock of industrial development as well as socio-economic growth. Education can be said to be the greatest investment a nation can make for the quick development of its social, economic, political, technological and human resources. The 21st Century education has witnessed the advancement of learning technology especially that of electronic learning. Developed countries like USA, China, Japan, France etc has attained a tremendous height in education since learning is made easier as a result of easy accessibility to computers, internet service and other electronic devices. These facilities spur up students' enthusiasm about the use of these devices in the learning process especially in tertiary institutions. There seems to be open access to information on a wide variety of subjects which include Business Education. According to Nwagwu and Azih (2016), the world is rapidly tending to a global digital society through the use of internet facilities and at the heart of this revolution is the ease through which information, ideas, innovations and life styles spread to nooks and crannies of the world. It has revolutionized the nature and manner of instructional preparation and delivery in education generally and Business Education programmes are bound to be affected by this rapid change of Information and Communication Technology (ICT).

Information Communication and Technology (ICT) according to Olakulehin (2007) refers to the range of technology that is applied in the process of collecting, storing, editing, retrieving, and transfer of information in various forms. Today's fast-paced world is becoming increasingly characterized by technology-driven communication, which has transformed the world into a large global connected community with ever-increasing outreach of information and communication technology (ICT). Information and Communication Technology (ICT) is defined as electronic media, devices and application used in the classroom to aid effective teaching and learning processes (Deebom & Zite, 2016). All such materials, media and devices provided by ICT which appeal to all the senses and feeling of learning constitute learning materials in tertiary institutions in Rivers State. The National Policy of Education for Information Communication and Technology (FRN, 2013) emphasizes the need for the implementation of ICT tools in education for three major objectives viz:

- ✓ to empower the students with ICT skills.
- ✓ to prepare the students for competitiveness in a global environment, integrate ICT into the mainstream of education and training and;
- ✓ establishment of multifaceted ICT institutions, as centres of excellence.

The document specifically noted the need for restructuring the educational system of all levels to respond effectively to the challenges of the 21st century where the global life is being digitalized. Inferring from above, Deebom and Zite (2016) stressed that for the above listed objectives to be meaningfully realized, it means that ICT tools must be effectively and judiciously utilized in learning processes in tertiary institutions in Rivers State.

Due to the rapid changes and development in Information Communication and Technology (ICT), there is need for Business Education programmes to embrace e-learning in this new technological age in order to enable the graduates of the programmes to fit in the modern office after graduation (Nwogu, Udoye & Oguejiorfor, 2014). This programme of Business Education which is the vehicle through which Business Education hopes to accomplish her objectives is susceptible to changes associated with the innovations in technology especially those used in modern offices and schools. These noble objectives of Business Education could not be achieved without utilizing this technology (ICT) in the training of their learners through the integration of e-learning. Business Education according to Nwagwu and Azih

(2016) is a vocational programme that equips the recipients with skills, attitudes, knowledge and understanding needed for effective participation and contribution as producers and/or consumers of business products. It therefore means that Business Education prepares individuals who will adequately participate in business activities and also equip individuals with business knowledge and skills.

One of the aims of Business Education is to produce graduates that are equipped with vocational skills and competency required in modern offices and schools, but the relevance of Business Education classrooms and laboratories in this regard are questionable. But this aim could be achieved when Business Education classroom and laboratories are modified to suit modern offices and schools' technological needs. To buttress the above, Amoor (2008) opined that graduates of Business Education have problems in using technology in a work environment due to their inadequate exposure to information system and incompetency in modern office technology and other rudiments of managing modern offices. This incompetency is caused due to students' inability to use them (ICT) when they were in tertiary institutions as undergraduates in learning. In line with the above, Achilike (2012) posited that Business Education studios and laboratories should be enhanced to equip students of the programme with relevant ICT skills expected of its learners. These skills include: telecommuting, e-cottage, storing and forwarding of voice system, teleconferencing, computer output microfilm, facsimile etc. These skills will help them in handling assignment, writing ICT-based examination, presenting seminars, effective in research and also packaging messages, disseminating message and receiving messages in modern offices. In light of the above, Business Education programmes should implement some ICT innovations to equip and improve the competency of its learners with modern learning techniques which could familiarize them with modern office technology in and outside tertiary institutions in Rivers State.

Competency according to the Adameji (2014) means the ability to be a competent, adequate possession of required skills and knowledge; qualification, or capacity. Competency in a cogent term that reflects the ability to do something in contrast with more traditional ability to demonstrate knowledge. In this study, competencies of Business Education students in Information and Communication Technology (ICT) is define as the ability of the students to use ICT devices in performing and appreciating academic activities, tasks, values to enhance learning.

### **Statement of the Problem**

Learning process in Business Education in tertiary institutions in Rivers State is still at its crudest form as students are still relying on textbooks information (hard copy), lecturers' class verbalisation, lecturers' manuscripts (Handout) due to the general poor attitude towards innovation. It is worrisome as many Business Education departments are yet to enjoy the benefits of e-learning because of lack or inadequacy of electronic resources...which makes Business Education seems to be delaying to effectively integrating e-learning into their programmes because of the doubt on availability of the needed resources (Nwagwu & Azih, 2016). This doubt is obvious as most Business Education classrooms and studios seem to be overcrowded with manual typewriters and other out-dated equipment which are not in tone with the modern technological prerequisites for e-learning integration. In most cases, students are asked to come with their private manual typewriter. Even some institutions that have computer laboratories seems to be lacking most of other technology needed in carrying out learning using electronic media. Cases abound where learners are exposed to notional pictures of technology they will use in modern offices without any practical skills. All these

negate the competency of students of Business Education in tertiary institutions in Rivers State and hence, render their students incompetent in learning with ICT devices. It is against this observation that this study is carried out to examine the competency of Business Education students in ICT for learning in tertiary institutions in Rivers State as the problem of the study.

### **Purpose of the Study**

The purpose of this study is to examine the competency of Business Education students in ICT for learning in tertiary institutions in Rivers State. Objectively, this study intends to;

- ✓ investigate the extent of utilization of ICT tools for learning by Business Education students in tertiary institutions in Rivers State.
- ✓ determine the level of competency of Business Education students for learning using ICT tools in tertiary institutions in Rivers State.
- ✓ describe the challenges of effective utilization of ICT tools by Business Education students for learning in tertiary institutions in Rivers State.

### **Research Questions**

The following questions were posed and answer to guide the study. They are:

- ✓ How do Business Education students use ICT tools for learning in tertiary institutions in Rivers State?
- ✓ How competent are Business Education students in tertiary institutions in Rivers State in using ICT for learning?
- ✓ What are the challenges facing Business Education students' competency in utilization of ICT tools for learning in tertiary institutions in Rivers State?

### **Hypotheses**

**H<sub>01</sub>:** There is no significant difference in the mean response of Business Education students in IAUOE and those of FCE (Technical), Omoku on the extent of utilization of ICT tools for learning in tertiary institutions in Rivers State.

**H<sub>02</sub>:** There is no significant difference in the mean response of Business Education students in IAUOE and those of FCE (Technical), Omoku on their level of competency of ICT tools for learning in tertiary institutions in Rivers State.

## **2.0 Methods**

Descriptive survey was used in this study. The population of this study comprised of all final year student of Business Education in Ignatius Ajuru University of Education (IAUOE), Port Harcourt and Federal College of Education (Technical), Omoku all in Rivers State. Simple random sampling technique was adopted in selecting 122 students from IAUOE while 101 were selected from FCET which gives a sample size of 223 students that were used for the study. The instrument for data collection was the researchers' self-constructed questionnaire titled "Competency of Business Education Students in Information and Communication Technology (CBESICT)". The CBESICT had four section A, B, C, and D. Section A sought personal information of the respondents while section B to D structured 40- items relevant for answering research questions that guided the study. Four point Modified Likert scale categories responses for the (CBESICT) items weighted and classified as follows: Strongly Agree (SA-4), Agree (A-3), Disagree (D-2) and Strongly Disagree (SD-1). The CBESICT was validated by three experts in Business Education from Ignatius Ajuru University of Education, Port Harcourt. The reliability of the instrument was established through Pearson Product Moment Correlation (PPMC) coefficient method on data collected through a pilot

test on 18 respondents selected from Federal College of Education (Technical), Omoku, Rivers State. A reliability coefficient of 0.84 was obtained which was high and above the recommended value of 0.7 for good reliability (Nunnally, 1978). Furthermore, the instrument was regarded reliable enough for use in data collection for the study.

Out of the 223 copies of the instrument that were distributed to the respondents directly by the researcher with the help of a research assistant, 208 were retrieved and completely filled representing 93 percent return rate. The number was considered adequate to be used for analysis of the study. Descriptive statistics of mean with standard deviation was used to answer the research questions that guided the study. It was arranged that an item with a calculated mean value equal to or greater than 2.50, [2.50 - 4.00] was accepted while item was considered rejected if calculated mean is less than or equal to 2.49, [0.00 -2.49]. A z-test statistics was used to test the null hypotheses in the study. A decision rule was taking that where the z- calculated value was equal to or greater than the table z- value, there is a significant difference; hence, the null hypothesis was rejected, but if otherwise, the null hypothesis is accepted.

### **3.0 Presentation of Result and Discussion**

#### **Research Question 1**

To what extent do Business Education students use ICT tools for learning in tertiary institutions in Rivers State?

**Table 1: Mean Scores of Respondents on the Extent of Utilization of ICT Tools**

S/NO	Item Statement How did you use the following ICT tools in learning?	IAUOE (N <sub>1</sub> =122)			FCET (N <sub>2</sub> =101)		
		X <sub>1</sub>	SD <sub>1</sub>	Decision	X <sub>2</sub>	SD <sub>2</sub>	Decision
1	Processing assignments with the computer.	2.63	1.18	Accepted	2.50	1.04	Accepted
2	Undertaking online examinations.	1.78	0.77	Rejected	1.25	0.72	Rejected
3	Checking results online.	2.18	0.69	Rejected	2.28	0.85	Rejected
4	E-library	1.01	0.80	Rejected	1.05	0.78	Rejected
5	E-mail and Fax	2.71	1.02	Accepted	2.69	1.08	Accepted
6	Internet and web browsing	3.61	0.79	Accepted	2.76	0.64	Accepted
7	E-presentation (power point)	2.04	0.82	Rejected	2.18	0.95	Rejected
8	Teleconferencing with classmates during a group work	1.52	0.59	Rejected	1.35	0.57	Rejected
9	Chatting online with classmates	2.68	0.72	Accepted	2.84	1.20	Accepted
10	Searching for educational materials online.	2.50	1.13	Accepted	2.64	0.99	Accepted
11	Audio tape	1.65	0.64	Rejected	2.33	1.02	Rejected
12	Video tapes	2.38	0.73	Rejected	2.43	0.84	Rejected
13	Local Area Network (LAN)	1.05	0.67	Rejected	2.03	0.71	Rejected
14	Wide Area Network (WAN)	1.32	1.10	Rejected	1.85	0.62	Rejected
15	Clever Board	1.78	0.80	Rejected	2.06	0.78	Rejected
16	Computer Software Packages	2.21	1.03	Rejected	1.27	0.58	Rejected
17	Film Strip Projectors	1.87	0.79	Rejected	2.07	1.01	Rejected
18	Personal Computer	2.74	0.82	Accepted	2.68	0.95	Accepted
19	CD Rom	2.81	0.74	Accepted	2.94	0.64	Accepted
20	Podcasts	1.16	0.52	Rejected	1.45	0.98	Rejected
<b>AVERAGE MEAN/SD</b>		<b>1.95</b>	<b>0.82</b>	<b>Rejected</b>	<b>2.16</b>	<b>0.83</b>	<b>Rejected</b>

Source: *Researcher's Field Work; 2017*

Table 1 shows the mean scores of respondents on the extent of utilization of ICT tools by Business Education students in tertiary institutions in Rivers State. The result revealed that item 1, 5, 6, 9, 10, 18 and 19 were unanimously accepted by IAUOE and FCET as ICT tools that they utilized in their learning. The result in the Table further shows that the respondents rejected all other items in the statement as ICT tools that are not utilized for learning by Business Education students in tertiary institutions in Rivers State. This was proved in the average mean score of the research question which shows 1.95 by IAUOE students and 2.16 by FCET students respectively.

### Research Question 2

How competent are Business Education students in tertiary institutions in Rivers State in using ICT for learning?

**Table 2: Mean Response of Respondents on the Level of Competency in Using ICT Tools**

S/NO	Item Statement Level of competency in using this tools	IAUOE (N <sub>1</sub> =122)			FCET (N <sub>2</sub> =101)		
		X <sub>1</sub>	SD <sub>1</sub>	Decision	X <sub>2</sub>	SD <sub>2</sub>	Decision
21	Using of search engine	2.71	0.76	Accepted	2.80	1.03	Accepted
22	Installing a software	2.15	0.86	Rejected	1.25	0.57	Rejected
23	Preparing power point slides	2.03	0.59	Rejected	1.23	0.61	Rejected
24	Use of teleconferencing gadgets	1.02	0.95	Rejected	2.11	0.66	Rejected
25	Attaching documents	2.68	0.73	Accepted	2.84	0.73	Accepted
26	Creating and modifying charts	2.41	0.68	Rejected	2.60	0.65	Accepted
27	Creating and naming a folder	2.87	1.09	Accepted	2.90	0.52	Accepted
28	Formatting cells	2.63	0.71	Accepted	3.01	0.71	Accepted
29	Inserting new cells	2.56	0.61	Accepted	2.88	1.04	Accepted
30	Entering data on excel	2.88	0.84	Accepted	3.07	0.83	Accepted
<b>TOTAL MEAN/SD</b>		<b>2.39</b>	<b>0.78</b>	<b>Rejected</b>	<b>2.47</b>	<b>0.74</b>	<b>Rejected</b>

Source: *Researcher's Field Work; 2017*

In analysing Table 2 on the level of competency of Business Education students in learning using ICT tools, result shows that Business Education students in tertiary institutions in Rivers State accepted that they were competent in learning with ICT tools of item 21, 25, 27, 28, 29 and 30. Although, result revealed that only FCET students were competent on item 26 (creating and modifying charts). The result in the Table further shows that the respondents rejected all other items in the statement as ICT tools that they are not competent for learning by Business Education students in tertiary institutions in Rivers State. This was made obvious in the average mean score of the research question which shows 2.39 by IAUOE students and 2.47 by FCET students respectively which is less than the reference point of 2.50.

### Research Question 3

What are the challenges facing Business Education students' competency in utilization of ICT tools for learning in tertiary institutions in Rivers State?

**Table 3: Mean Scores of Respondents on the Challenges of ICT Utilization in Learning**

S/NO	Item Statement	IAUOE (N <sub>1</sub> =122)		Decision	FCET (N <sub>2</sub> =101)		Decision
		X <sub>1</sub>	SD <sub>1</sub>		X <sub>1</sub>	SD <sub>2</sub>	
	<b>The following are challenges of Learning with ICT Tools</b>						
31	Lack of ICT facilities	3.34	0.49	Accepted	3.09	0.41	Accepted
32	Shortage of skilled manpower	2.51	0.55	Accepted	2.57	0.94	Accepted
33	Epileptic power supply	2.64	0.48	Accepted	2.74	0.44	Accepted
34	High cost of information transmission	2.95	0.98	Accepted	3.52	1.36	Accepted
35	Lack of well-designed ICT learning syllabus	2.60	0.98	Accepted	3.13	0.73	Accepted
36	Lack of skills to access online information	3.06	0.59	Accepted	2.98	0.76	Accepted
37	Lack of specialized ICT learning centres	2.92	1.04	Accepted	2.73	0.67	Accepted
38	High cost of procurement of ICT devices	2.57	0.60	Accepted	2.69	0.90	Accepted
39	Lack of government policies on ICT instructional delivery	2.91	0.50	Accepted	2.80	0.85	Accepted
40	Poor internet bandwidth	3.02	0.74	Accepted	2.75	0.57	Accepted
	<b>TOTAL MEAN/SD</b>	<b>2.85</b>	<b>0.69</b>	<b>Accepted</b>	<b>2.90</b>	<b>0.76</b>	<b>Accepted</b>

Source: *Researcher's Field Work; 2017*

Table 3 shows the mean scores of respondents on the challenges facing Business Education students' competency in utilization of ICT tools by Business Education students for learning in tertiary institutions in Rivers State. The result shows that all the items were unanimously accepted by IAUOE and FCET as challenges facing students' competency in ICT tools utilization of learning by Business Education students in tertiary institutions in Rivers State. This is shown in the average mean of 2.85 and 2.90 which is greater than the standard reference point of 2.50.

### Statistical Test of Hypotheses

**H<sub>01</sub>:** There is no significant difference in the mean response of Business Education students in IAUOE and those of FCE (Technical), Omoku on the extent of utilization of ICT tools for learning in tertiary institutions in Rivers State.



**Table 4: Z-test Analysis of Respondents on Extent of Utilization of ICT Tools**

Group	X	SD	N	Df	Zcal	Zcrit	$\alpha$	Decision
IAUOE	1.95	0.82	122	221	-1.89	1.96	0.05	Accepted
FCET	2.16	0.83	101					

Source: *Researcher's Field Work; 2017* If  $z\text{-cal} \leq z\text{-crit}$ ; Accept  $H_{01}$ , else Reject

The null hypothesis is accepted since the z-cal (-1.89) is less than the z-crit (1.96). This implies that there is no significant difference in the mean response of Business Education students of IAUOE and FCET on the utilization of ICT tools in learning.

**H<sub>02</sub>:** There is no significant difference in the mean response of Business Education students in IAUOE and those of FCE (Technical), Omoku on their level of competency of ICT tools for learning in tertiary institutions in Rivers State.

**Table 5: Z-test Analysis of Respondents on their Level of Competency of ICT Tools**

Group	X	SD	N	Df	Zcal	Zcrit	$\alpha$	Decision
IAUOE	2.39	0.78	122	221	-0.79	1.96	0.05	Accepted
FCET	2.47	0.74	101					

Source: *Researcher's Field Work; 2017* If  $z\text{cal} \leq z\text{crit}$ ; Accept  $H_{02}$ , else Reject

The null hypothesis is accepted since the z-cal (-0.79) is less than the z-crit (1.96). This implies that there is no significant difference in the mean response of Business Education students of IAUOE and FCET on their level of competency in ICT tools in learning.

### Discussion of Findings

Table 1 revealed that certain ICT tools are utilized for learning by Business Education students in tertiary institutions in Rivers State. The finding of the study shows that Business Education students in tertiary institutions in Rivers State utilises computer in processing assignments, chatting online with classmates, electronic communication (e-mail). This result is in collaboration with the finding of Ipaye (2011) who found that some e-learning platforms such as websites, wikis, email and online chatting are used in the developed countries for academic purposes. The result also shows that Business Education students in tertiary institutions in Rivers State use CD Rom, personal computer, internet and web browsing for their learning. This result is confirmed by Nwogu, Udoye and Oguejiofor (2014) in a study title "towards utilization of e-learning in preparing Business Education students for the world of work" and found that e-learning (CD Rom, internet and intranet) are tools for preparing business education students for the world of work especially now that the world had become a global village. This result also affirmed the assertion of Agomuo (2007) who opines that business education programmes at tertiary level must blend with the technological skills and this concerns students. Dabesaki (2005) is also of the opinion that e-learning ensures broad viability and availability of educational opportunities and that learning materials can be accessed irrespective of time and space. The result of the study is also in agreement with Bupo and Ndinechi (2015) as observed that Business Education students in Anambra State do assignments with computer, search educational materials online. The result further shows that Audio tapes, video tapes, Local Area Network (LAN), Wide Area Network (WAN), clever board and podcasts were not used by Business Education students for learning in tertiary institutions in Rivers State. This finding contradicts those of Nwogu, Udoye and Oguejiofor (2014).

Result in Table 2 shows that Business Education students in Rivers State tertiary institutions possesses competency in entering data on excel sheet, inserting and formatting of cells in excel, attaching documents, creating and naming a folder and using search engine. This finding is in tandem with Bupo and Ndinechi (2015) in a work title “Business Education students’ utilization of e-learning in Anambra State tertiary institutions” and found that the students were competent in merging cells, changing slide background, uploading information to the web, downloading information from the web, using a search engine, creating and modifying charts, opening and closing word documents.

Result in Table 3 shows that lack of ICT facilities, high cost of information transmission, lack of specialized ICT learning centres and high cost of procurement of ICT devices were some of the challenges faced by Business Education students for learning with ICT tools in tertiary institutions in Rivers State. This finding is in collaboration with Deebom and Zite (2016) who stressed that high cost of maintenance, lack of ICT facilities, shortage of skilled manpower, epileptic power supply and high cost of purchasing personal computer are challenges militating against the use of ICT tools by Business Education students in tertiary institutions for learning. The finding also agrees with Nwogu, Udoye and Oguejiofor (2014) that high cost of maintenance, lack of well-designed e-learning syllabus were identified as challenges of ICT in learning Business Education in tertiary institutions.

#### **4.0 Conclusion**

The study concludes that Business Education students in tertiary institutions in Rivers State utilize some ICT tools in learning while others are not utilized. In the same vein, the students were found competent in using certain ICT tools for learning. However, high cost of maintenance, lack of ICT facilities, shortage of skilled manpower, epileptic power supply and high cost of purchasing personal computer were identified as challenges militating against the use of ICT tools by Business Education students in tertiary institutions in Rivers State for learning. Business Education students need to be competent in ICT for the world of works after graduation.

#### **5.0 Recommendations**

Based on the findings of the study, the following recommendations are made:

- ✓ Tertiary institutions offering business education need to be provided with e-learning facilities by the appropriate authorities to enhance the preparation of business education students for the world of work.
- ✓ There should be a policy to ensure that all academic research study (project, thesis, dissertation, seminar, conference) are always presented in electronic form.
- ✓ Computer and internet studies need to be properly integrated into the business education curriculum.
- ✓ All semester assignment, examination and result should be done in electronic means so as to make students inculcate the interest of using ICT tools for learning.
- ✓ Students should be allowed to have access to the e-learning facilities provided in the departments without paying any fee.
- ✓ Business Education lecturers should produce their books in the e-book format so as to encourage the students in the reading of e-books and e-journals.

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