

# Challenges to Utilization of Information and Communication Technology in Teaching Business Education in Public Universities in South East States of Nigeria

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## Abstract

*This study identified the challenges to utilization of information and communication technology (ICT) in the teaching of business education in public universities in South East States of Nigeria. Survey research design was adopted. Two research questions were answered and two null hypotheses tested at .05 level of significance guided the study. The population for the study was 47 business educators in six public universities offering business education programme in South East states of Nigeria. The entire population for the study was used due to the manageable size. Therefore there was no sampling. Structured questionnaire comprising a total of 20 items was the instrument for data collection. The reliability of the instrument was determined using Cronbach Alpha coefficient method. A coefficient of .79 was obtained. It was found out that non availability of Information and Communication Technology (ICT) facilities pose challenges to utilization of ICT in teaching business education courses. Other challenges to utilization of the ICT facilities by lecturers include: non-possession of some ICT skills, frequent power failure, etc. Recommendations made among others include that: the Federal and State government should make every effort to provide public universities with ICT facilities; they should sponsor the production of ICT software bearing in mind the Nigerian culture for relatedness and effectiveness; lecturers should be trained and retrained on information and communication technologies.*

## Introduction

Information and communication technology (ICT) has been defined in various ways by various authors. Badru (2002) defined it as the science and activity of processing, storing and sending information by using computer. Kombol (2006) stated that ICT involves communication gadgets, equipment or facilities which improve and enhance the manner in which message is shared, relayed, disseminated, preserved and recalled for meaningful communication purpose. In other words, ICT involves computer and other technologies that helps

to acquire, organize, store, retrieve and disseminate information.

ICT is now used in all spheres of life including education. Onuma (2007) reported that ICT can be used to enhance teaching effectiveness, prepare lesson plan, collect and analyze students' achievement. Thus, curriculum contents could be enriched through search in the internet. Akpan (2008) noted that ICT can improve the quality of researches and publications in our universities through the use of information and quality materials from the internet and can also facilitate record-keeping by teachers. Invariably, ICT helps

to improve job performance on the part of teachers. ICT facilities when made use of will improve teachers effectiveness and students capacity of assimilation for educational success. For the achievement of any educational objective, the teacher needs to be effective and efficient in facilities utilization, teaching methodologies employed and course content covered.

In this era of ICT, for a teacher to be effective he has to employ information and communication technology. This goes a long way to help in the achievement of the desired educational objectives. This means that lecturers in public universities including those teaching business education courses should employ ICT in teaching. ICT enhances teaching and learning and provide students with the requisite skills needed to perform in the world of work. The acquisition of employable skills is also one of the objectives of Business Education and ICT has also diffused into Business Education.

Business education is taught in six public universities in South East States of Nigeria. The public universities are made up of three Federal and three State Universities. The Federal Universities are owned, financed and controlled by the Federal Government, while the State universities are owned, financed and controlled by the state government.

However, the lecturers in these public universities are supposed to utilize information communication technology (ICT) in teaching of their courses including business education bearing in mind the benefits therein. Okwuanaso (2004) posits that ICT is made up of three basic components, namely: electronic processing using computer, transmission of information using telecommunications equipment, and dissemination of information in multimedia. It is worthy to note that microelectronic technologies and their equipment configured over different channels of communication using suitable software have given birth to such facilities as the internet, e-mail, view data, video

conferencing intelligence network, integrated services digital network, a synchronous transfer mode, global positioning system, computer assisted telephony applications and telecommunication management network.

In essence, lecturers of business education are supposed to utilize the above in teaching their courses for desired outcome to be met. Hence, they can make use of power point in teaching and project defense, utilize e-mail for sending assignments to students, utilize video conferencing in teaching students at different campuses at the same time and use e-books for preparing lectures and giving of reference materials. They should be able to use the computer or laptops to teach and use the printer to print out the hard copy for students to make reference. However, some lecturers do not make use of the ICT facilities in teaching and this is not acceptable. Eze (2010) stated that many teachers lack some skills in some ICT component areas. Ojukwu (2009) noted that manpower is paramount to drive the use of ICT effectively in tertiary institutions.

Nevertheless, the utilization of these ICT gadgets are not without some challenges. Hornby (2006) defined challenge as a new or difficult task that tests somebody's ability or skill. In consideration of the challenges of utilization of ICT in teaching of business education, some questions come to mind. In the first place, were these business educators taught with ICT during their own training? Have they gone for retraining? Are the ICT facilities available for utilization? Is electricity available for utilization of ICT facilities? Are there other challenges negating the utilization of ICT in teaching of business education in public Universities in South East States of Nigeria? The thought of these prompted this research work.

### **Purpose of the Study**

The main purpose of this study was to determine the challenges to utilization of ICT in teaching of business education in

public universities in South East states of Nigeria. The study specifically sought to determine:

1. The extent of availability of ICT facilities for teaching business education courses in public universities in the South East States of Nigeria.
2. The utilization of ICT facilities challenges in the teaching of business education in public universities in South East states of Nigeria.

### **Research Questions**

The following research questions guided the study:

1. To what extent are ICT facilities available for the teaching of business education courses in public universities in South East states of Nigeria?
2. To what extent does utilization of ICT facilities pose as a challenge in teaching of business education courses in public universities in South East states of Nigeria?

### **Research Hypotheses**

The following null hypotheses tested at .05 level of significance guided the study:

- HO<sub>1</sub>. There is no significant difference between the mean ratings of business educators who teach in Federal Universities and those who teach in State Universities with respect to availability of ICT facilities for teaching of business education courses in public universities in South East states of Nigeria.
- HO<sub>2</sub>. A significant difference does not exist between the mean ratings of business educators who teach in Federal Universities and those who teach in state universities with respect to utilization of ICT facilities challenges in teaching of business education courses in public universities in South East States of Nigeria.

### **Method**

The descriptive survey research design was adopted in this study. A survey research design is one in which a group of people or items are studied by collecting and analyzing data from only a few people or entire group (Nworgu, 2006). The study was carried out in South East states of Nigeria.

The population for the study consisted of 47 business educators (26 from Federal Universities and 21 from State Universities). The public universities were made up of three federal universities and three state universities that offer business education in the zone. The entire population was studied since the size was manageable hence, there was no sampling.

A 20-item structured questionnaire developed by the researcher from literature review was the instrument for data collection. Four point rating scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE) was used. The instrument was face validated by three experts one from the department of Vocational Technical Education, University of Nigeria, Nsukka and two from the department of Technology and Vocational Education, Enugu State University of Science and Technology (ESUT), Enugu. Their corrections and suggestions were used to produce the final instrument.

To determine the reliability of the instrument, it was trial tested using 20 business educators from public universities in South South States of Nigeria. The data collected were analyzed using Cronbach Alpha coefficient. The overall Cronbach Alpha coefficient was .79 indicating high reliability of the instrument. The 47 copies of the questionnaire distributed were retrieved representing 100% return rate. Five research assistants conversant with the area were trained and used to administer and collect the questionnaire.

Two research questions and two nulls hypotheses guided the study. Weighted means and standard deviations

were used to answer the research questions. Decisions were made using principles of lower and upper limits of the scale values 1 to 4 on a four point scale. The four point scale was coded as follows: Very High Extent - 3.50 – 4.00, High Extent - 2.50 – 3.49, Low Extent - 1.50 – 2.49, and Very Low Extent - 1.00 – 1.49

The standard deviation was used to determine the homogeneity or otherwise of the opinions of the respondents. The t-test statistics of no significant difference was used to test the two null hypotheses at .05 level of significance and at appropriate

degree of freedom. The null hypothesis was not rejected for any item whose t-calculated value was less than that of the t-table value, otherwise it was rejected.

### Results

The results of the study were obtained from the research questions answered and hypotheses tested (see Tables 1-4)

#### Research Question 1

To what extent are ICT facilities available for teaching of business education courses in public universities in South East States of Nigeria?

**Table 1**

**Mean Ratings of Federal and State Universities Business Educators on extent of Availability of ICT Facilities for Teaching of Business Education courses in Public Universities in South East States of Nigeria**

S/No	Item Statement Facilities:	$\bar{x}_1$ n = 26	SD <sub>1</sub>	$\bar{x}_2$ n = 21	SD <sub>2</sub>	$\bar{X}_G$	SDG	Decision
1	Desktop computers	2.96	1.00	3.38	0.67	3.17	0.84	HE
2	Printer	3.23	0.71	3.67	0.48	3.45	0.50	HE
3	Laptops	3.38	0.70	3.05	0.80	3.22	0.75	HE
4	Internet connectivity in the computers	3.23	0.99	3.10	0.54	3.17	0.77	HE
5	Removable disk (flash drive, compact disk, external hard drive)	3.62	0.50	3.19	0.81	3.41	0.66	HE
6	Computer training software	3.31	0.47	3.86	0.36	3.59	0.42	VHE
7	PowerPoint	3.65	0.49	3.52	0.87	3.59	0.68	VHE
8	Multimedia projector	3.54	0.51	3.81	0.40	3.68	0.46	VHE
9	Spreadsheet	3.27	0.67	3.43	0.77	3.35	0.72	HE
10	E-books in the system	3.19	0.69	3.52	1.03	3.36	0.86	HE
	<b>Cluster mean/Standard deviation</b>	<b>3.34</b>	<b>0.67</b>	<b>3.45</b>	<b>0.67</b>	<b>3.74</b>	<b>0.68</b>	<b>VHE</b>

**Key:**  $x_1$  = Mean,  $SD_1$  = Standard Deviation,  $n_1$  &  $n_2$  = Number of business educators in Federal state Universities,  $XG$  = Pull mean,  $SDG$  = Pull Standard Deviation

The data presented in Table 1 reveal that the universities were experiencing ICT facility challenges to a high extent in seven items while to a very high extent in three items. Hence, their means ranges from 3.17 to 3.68. This shows that ICT facilities were not available for utilization in teaching business education courses. Also the grand

mean of 3.74 confirmed that. Secondly, the standard deviation ranges from 0.42 to 0.82 indicating homogeneity of their opinions.

#### Research Question 2

To what extent does utilization of ICT facilities pose as a challenge in teaching of business education courses in public universities in South East States of Nigeria?

**Mean ratings and standard deviations of Federal and State Universities business educators on extent of challenges in utilization of ICT facilities in teaching business education courses in public universities in South East States of Nigeria**

S/No	Item statement	$\bar{x}_1$ n = 26	SD <sub>1</sub>	$\bar{x}_2$ n = 21	SD <sub>2</sub>	$\bar{X}_G$	SD <sub>G</sub>	Decision
	<b>Challenges to Utilization of ICT Facilities by business educators</b>							
11	Lack of training on ICT during the training in the university	3.58	0.50	3.38	0.50	3.48	0.50	HE
12	Non possession of some ICT skills	3.35	0.63	3.52	0.68	3.44	0.66	HE
13	Lacks of manpower	3.38	0.94	3.43	0.55	3.41	0.75	HE
14	Frequent power failure	3.65	0.43	3.86	0.73	3.76	0.58	VHE
15	Lack of competent technicians for maintenance and repair of ICT gadgets	3.42	0.58	3.19	0.51	3.31	0.55	HE
16	Lack of ICT facilities	3.00	0.75	3.71	0.78	3.36	0.77	HE
17	Lack of high quality educational packages (software)	3.62	0.50	3.33	0.48	3.48	0.49	HE
18	Non relevance and unrelatedness of ICT software materials to Nigerian culture	3.15	0.78	3.62	0.80	3.39	0.79	HE
19	Non availability of ICT spare parts	2.96	0.66	3.52	0.51	3.24	0.59	HE
20	Laziness on the part of some lecturers in utilizing ICT facilities in teaching	3.54	0.51	3.14	0.49	3.34	0.50	HE
	<b>Cluster mean/Standard deviation</b>	<b>3.37</b>	<b>0.673</b>	<b>3.47</b>	<b>0.60</b>	<b>3.42</b>	<b>0.62</b>	<b>HE</b>

The data presented in Table 2 reveal that all the ten items had their means ranging from 3.24 to 3.76. Nine out of the ten items revealed challenges to utilization of ICT facilities in teaching of business education by lecturers to a high extent. One challenge which is frequent power failure (3.76) was to a very high extent. The grand mean of 3.42 confirmed the utilization challenge was to a high extent. Subsequently, the standard deviations

ranged from 0.49 to 0.79 indicating closeness of their opinions.

**H<sub>01</sub>:** There is no significant difference in the mean ratings of Federal and State respondents with respect to availability of ICT facilities as challenge in the use of ICT in teaching of business education in public universities in South East States of Nigeria.

**Table 3**

**The t-test comparison of the opinions of Federal and State respondents with respect to facility challenges in the use of ICT in teaching of business education in public universities in South East States of Nigeria**

Variable	$\bar{x}$	SD	N	df	t-cal	t-table	Decision
Federal	3.34	0.67	26	45	0.459	2.014	Do not reject
State	3.45	0.67	21				

t-cal (0.459) < t-table (2.014) Not Significant

The null hypothesis tested in Table 3 revealed that the t-calculated value of 0.459 was less than the t-tabulated value of 2.014 at 0.05 level of significance and 45 degree of freedom. This indicated that there is no significant difference in the mean ratings of Federal and State respondents with respect to availability of ICT facilities as challenges in the use of ICT in teaching of

**Table 4**

**t-test comparison of the opinions of federal and state respondents with respect to Utilization challenges of ICT in teaching of business education in public universities in South East states of Nigeria.**

Variable	$\bar{x}$	SD	n	df	t-cal	t-table	Decision
Federal	3.37	0.63	26	45	0.437	2.014	Do not reject
State	3.47	0.60	21				

t-cal (0.437) < t-table (2.014) Not Significant

The null hypothesis tested on Table 4 revealed that the t-calculated value of 0.437 was less than the t-table value of 2.014 at 0.05 level of significance and 45 degree of freedom. This implies that a significant difference does not exist in the mean ratings of Federal and State respondents with respect to utilization challenges in the use of ICT in teaching of business education in public universities in South East States of Nigeria.

**Discussion of Findings**

From the findings of this study, it was found out that most of the ICT facilities were not available to a high extent. Even computer training software, power point and multimedia projector were not available to a very high extent in these public universities. This confirms the findings of Wodi (2009) that many of these information and communication technology facilities are not available for use in our tertiary institutions. Ifejiolor and Nwankwo (2015) attributed the lack of ICT facilities to high cost of acquiring, maintaining and installing the ICT gadgets.

Furthermore the findings showed that all the ten items pointed at challenges to utilization of ICT facilities in teaching of

business education in public universities in South East States of Nigeria.

**Ho<sub>2</sub>:** A significant difference does not exist in the mean ratings of Federal and State respondents with respect to utilization challenges in the use of ICT in teaching of business education in public universities in South East States of Nigeria.

business education courses to a high extent. This is in line with the observations of Wodi (2009) that many of the software materials are inappropriate and ineffective for the educational programmes of an importing country like Nigeria since the materials were not specifically made with Nigeria in mind. Thus, unrelatedness of the educational materials sold to the Nigerian environment. Subsequently, Eze (2010) noted that ICT components are computer based, and many of these technologies were not in place when most of the teachers were trained. It appears that many teachers lack skills in some ICT component areas.

The findings of this study revealed frequent power failure as a great challenge to utilization of the ICT facilities. This confirms the words of Wodi (2009) that hard and software ICT materials are inappropriate and ineffective for use in our rural environment due to absence of electricity.

On hypothesis testing, the study found out that there is no significant difference in the mean ratings of the Federal and State business educators regarding facility challenges and utilization challenges to teaching of business

education in public universities in South East States of Nigeria. Hence, the opinions of the two groups are in agreement.

### Conclusion

The study investigated the challenges to utilization of information and communication technology (ICT) in the teaching of business education in public universities in South East States of Nigeria. In the process, it was found that most ICT facilities were not available to a high extent for teaching and those available were not utilized to a high extent by lecturers teaching business education courses. Subsequently, the study found out that there is no significant difference in the mean ratings of the federal and state business educators with respect to facility challenges and utilizations challenges to teaching of business education in public universities in South East states of Nigeria.

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### Recommendations

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

1. The Federal and State government should make every effort to provide public universities with ICT facilities.
2. The Federal and State government should sponsor the production of ICT software bearing in mind the Nigerian culture for relatedness and effectiveness.
3. Electricity generation of the country should be highly improved to avoid frequent power failure.
4. Business educators should be trained and retrained on information communication technology.

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