

**INFORMATION AND COMMUNICATION TECHNOLOGY
(ICT) PRODUCTIVITY AND PRESENTATION COMPETENCIES REQUIRED
FOR EFFECTIVE BUSINESS EDUCATION PROGRAMME AS PERCEIVED BY
BUSINESS EDUCATORS IN TERTIARY INSTITUTIONS
IN ANAMBRA STATE**

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Abstract

The study was carried out to determine the Information and Communication Technology (ICT) productivity competencies and presentation competencies required for effective business education programme as perceived by business educators in tertiary institutions in Anambra State. Design of the study was descriptive survey. The population of the study consisted of 96 business educators in five tertiary institutions in Anambra State that offer business education. Due to the manageable size, there was no sampling (Nwana, 2015). Two research questions guided the study and two null hypotheses formulated were tested at .05 level of significance using the t-test. The instrument used for the study was structured questionnaire. The questionnaires were administered to all business educators in the five tertiary institutions in Anambra State that offer business education programme. The instrument was validated by two experts and the reliability yielded 0.84 using Cronbach Alpha. Data collected were analyzed using mean and standard deviation. Findings from the study revealed that ICT productivity competencies and ICT presentation competencies are required to a very high extent for effective business education programme. Based on the findings of the study, the researcher concluded that Information and Communication Technology (ICT) productivity competencies and presentation competencies are required for effective business education programme in tertiary institutions in Anambra State. The researcher recommended among others that Nigerian Universities and Colleges of Education should introduce ICT literacy as a full fledge credit course at all levels of their curriculum programmes and make it a core course. This will go a long way to equip prospective teachers with requisite ICT productivity and presentation skills before employment. Government and school administrators should assist Universities and Colleges of Education with enough ICT facilities/tools which will enhance the teaching and learning and also create constant avenues of business educators attending on the job training, Workshops, Conferences on ICT staff development.

Keywords: Business Education, Information and Communication Technology, ICT Productivity Competencies, ICT Presentation Competencies

INTRODUCTION

Business education programme is a functional education programme that prepares individual for gainful employment and sustainable living in the society (Akaeze, Nebo and Akpan, 2016). Aliyu in Ugwuogo (2013) affirmed that business education is an educational programme which involves acquisition of skills, knowledge and competences which makes the recipient/beneficiary proficient. Asotibe and Nwabueze (2016) stated that business education leads to job creation, attitude change, skill and knowledge acquisition and technical competences. Business education is an education which provides individuals with the knowledge, skills and orientation necessary not only for paid employment but also for job creation and entrepreneurship development. Acquisition of skills, knowledge cannot be effective without the knowledge of Information and communication Technology (ICT)

Information and communication Technology (ICT) can be defined as the physical structure of network of computer based system (hardware, software and media) for the purpose of organizing, processing, communicating, assessing, presenting, storing, retrieving and simplifying information when needed and in the form it is needed (Anyanwu, 2014). ICT is generally accepted as a modern instrumental tool that enables business educators to modify the teaching and learning methods used in order to increase the students interest, which has resulted in the extensive use of ICTs that drove the society into a new knowledge-based where information plays an important role for the tertiary institutions enlargement and students satisfaction (Osakwe, 2012). So the integration of Information and Communication Technology (ICT) into business education curriculum is to help individuals; public and establishments meet with the innovations and global challenges. According to Akaeze, Nebo and Akpan (2016), ICT a sine quantum to business education is a powerful tool for educational change and a tool that gives access to quality education.

Business educators are challenged by the globalization trend following the advancement in technology and the need to meet acceptable standards in product quality and performance. This technology advancement involves having competencies in the use of ICT in teaching and learning. Business educators need ICT competencies to meet up with global trends. Osuala in Okoli (2012) saw business educators as professional teachers who have ICT competencies to impact knowledge, skills and attitude necessary for effective performance in the business field and in global economy. ICT competency is an integrated set of knowledge, skills and attitudes for functional use of ICT in an educational context (Torres-Gestelu, Kiss and Dominguez, 2015). In other words, ICT competencies are set of technology standards that defined proficiency in using computer technology in the classroom. ICT competences also include the specific abilities needed by professionals responsible for the development of software or communication products and services.

Olaitan in Uranta (2019) explained that the nature of business education as a form of education is primarily concerned with the development of occupational skills needed in an individual and therefore necessitated the need for lecturers to be competent in the application of ICT in order to attain predetermined objectives. Business educators develop competencies in using ICT for tasks associated with information access and management, problem solving, decision making, communicating, creating expressions and empirical reasoning. According to University of Connecticut (2013) the following standards *identify* essential ICT competencies: communication; productivity; management; research; problem solving and decision making. It is the responsibility of every Nigerian tertiary institution to groom their students in the required ICT competencies (training, abilities, attitudes, skills, attributes and knowledge) needed in the work place, business education in particular. Business educators are concern with teaching the skills, attitudes and knowledge needed for success in business career and adapt to the present technological advancement (ICT skills). Business educators also involve teaching the recipient the competencies and saleable skills for sustainable business career which embraces ICT competencies.

ICT competencies according to Kołodziejczak and Roszak (2017) are viewed as follows:

- **Communication competency** includes communicating using digital tools; collaborating online for learning and publishing learning resources online.
- **Productivity competency** involves producing and managing learning document; analyzing quantitative data and organizing information graphically.
- **Media competency** includes differentiating instruction with digital media; capturing and editing images, audio, and video; and producing digital multimedia education experiences.
- **Research competency** includes the use of effective online search strategies; evaluate, compare online information and sources; and to save, cite online information and sources.
- **Problem Solving includes** the use of ICT to analysis techniques, unfamiliar problems, perform statistical analysis and present their investigation through the use of wide range of ICT innovative including prototyping, cloud-based tools, report writing and presentations.
- **Presentation competency** includes creating effective digital presentation; delivery digital multimedia presentation; and employing new media devices for learning.

Productivity Competencies (Use of Computer competency)

ICT uses modern day technological devices mostly computer and relevant software package to store and retrieve information through communication network. Productivity is application of software used for producing information (such as documents, presentations, worksheets, databases, charts, graphs, digital paintings, electronic music and digital video). These competencies include to: create documents of various types and save in a desired location; retrieve an existing document from the saved location; select, copy, and paste text in a document or desired location; print a document; name, rename, copy and delete files; understand and know how to use Word Processing programs such as Ms Word and Word Perfect; understand basic computer hardware components and terminology; understand the concepts and basic functions of a Window or Macintosh Operating System; start up, log on and shutdown a computer properly; and

use a mouse pointing device and keyboard. The use of ICT has a positive influence on productivity growth — at least in industries that use ICT intensively — the observed differences across countries in the extent of ICT uptake and related productivity effects have continued to be a puzzle. A productivity competency is simply the use of computer for productivity. Ikemba (2017) stated that the ability to manipulate the computer is the most important ICT competency. Computer competency simply means having requisite skills, knowledge and ability to use and operate a computer efficiently and effectively (University of Connecticut, 2013).

Presentation Competencies

Presentation competencies are the competences needed in delivering effective and engaging presentations to a variety of areas such as the structure of individual presentation, the design of slides, the tone of voice and the body language to convey (Rommel, Las, Verrecio, Funcion, Quisumbing, Gotardo, Lauruente, and Cinco, 2017). Rommel et al defined presentation competency as a set of skills, knowledge, and abilities that enable an individual to: interact with the audience; transmit the message with clarity; engage the audience in the presentation and interpret and understand the mindsets of the listeners. ICT Presentation can be done using digital camera, PowerPoint and interactive board. The digital camera, PowerPoint and white boards are electronic tools that can be used for teaching and learning in classroom to replace the obsolete chalk and duster. These tools allow teachers to present lessons in an interesting and facilitating manner. Presentation tools such as PowerPoint and interactive white boards provide excellent opportunities for children to consolidate ownership of their learning engages in high level critical thinking and communicate their learning to peers.

Challenges of Information and Communication Technology (ICT) in Business Education

Business education as a programme faces a lot of ICT challenges especially in teaching and learning. Some of the challenges are: Inadequate facilities such as computers, laboratories etc, Lack of Competent Computer Literate Lecturers, Erratic/Epileptic/Irregular Power Supply, Paucity of Fund, Lack of Interest on the Part of the Lecturers, Lack of Technical Skilled Manpower & Technicians to Repair and Maintain the Already in Use ICT Facilities/Tools and Lack of Internet or Slow Connectivity:

Statement of the Problem

The present day survival challenges require business educators in tertiary institutions to possess ICT competences in order to be effective in teaching and learning business education programme. Today, the advancement of new technology has brought a big challenge to business educators. Business education lecturers were trained theoretically and with old machines and had been working in schools system for many years, particularly before the introduction of modern technologies in teaching and learning. Business education lecturers were not thought with modern ICT facilities/tools. Most business educators do not have the competency in the use of Power Point for presentation of lectures, use of common e-mail programme for communication, use of Word Processing Programmes such as Ms Word and Word Perfect for word production, setting

up an internet connection and connecting to the internet etc in teaching and learning business education programme. On this note, Aliyu in Akaeze, Nebo and Akpan (2016) lamented that modern business education cannot be carried out or function without ICT application and thus be implemented in schools without the provision of the tools related to what is currently in use in the modern offices. Poor acquisition of ICT competencies resulted in producing students with low level of ICT competencies which prevents them to fit well in global economy. This is a pertinent situation that has forced business educators to question further and to inquire more into the causes of these misfortunes. It is therefore worrisome to note that business educators do not possess all the needed ICT competencies in teaching and learning. The problem of this study therefore, is that business education graduates do not secure employment due to lack of skills and competencies required of them to function effectively in the present day innovative offices.

Purpose of the Study

The main purpose of the study is to determine Information and Communication Technology (ICT) Productivity and Presentation Competencies required for effective business education programme as perceived by business educators in tertiary institutions in Anambra State. Specifically, the study sought to ascertain the:

1. Extent productivity competencies are required for effective business education programme as perceived by business educators
2. Extent presentation competencies are required for effective business education programme as perceived by business educators

Research Questions

The following research questions were formulated to guide the study.

1. To what extent are productivity competencies required for effective business education programme as perceived by business educators?
2. To what extent are presentation competencies required for effective business education programme as perceived by business educators?

Hypotheses

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

Ho₁ There is no significant difference in the mean responses of business educators from Colleges of Education and business educators from Universities on the extent productivity competencies are required for effective business education programme.

Ho₂ There is no significant difference in the mean responses of male and female business educators on the extent presentation competencies are required for effective business education programme.

METHOD

The design used in the study was a survey research design. A survey design according to Nworgu, (2015) is one in which a group of people or items are studied by collecting and analyzing data from only a few people or items considered to be representative of the group. The study was carried out in Anambra State of South East Geopolitical Zone of Nigeria.

The population for this study is 96 business educators. The entire population was used as the number is manageable. This is in line with the views of Nwana (2015) where he noted that it is better to study the entire population when they are small and the time requirement for the execution of the exercise is enough. It comprised all the business education lecturers from the three universities and two colleges of education that offer business education in Anambra State. Structured questionnaire with 33 items development by the researcher was used as an instrument for data collection. The Likert scale response pattern was used in determining the level of business educators' acceptance of the items in the questionnaire. Two experts, one from Chukwuemeka Odumegwu Ojukwu University, Igbariam and one from Federal College of Education (Tech), Umuze subjected the instrument to face and content validity. The experts made some criticisms and the corrections they believed would be helpful to the study. Cronbach Alpha reliability method was used to ascertain the reliability of the instrument which yielded a coefficient of 0.84.

A total of 96 copies of the questionnaires were administered to the respondents personally by the researcher. The whole copies of the questionnaire instrument were filled and returned for the study. Statistical Mean and Standard Deviation were used to answer and analyze the data to research questions. Any item with the mean rating of 3.50 and above was considered as agreed otherwise disagreed. Hypotheses were tested using the t-test at .05 level of significance. A null hypothesis was accepted if the calculated t-value was equal or higher than the critical value at .05 level of significance and appropriate degrees of freedom. Otherwise, the null hypotheses were not accepted.

Research Question 1: To what extent are ICT Productivity competencies required for effective business education programme as perceived by business educators?

Table 1: Mean Ratings on ICT Productivity Competencies Required for Effective Business Education Programme

(N=96)				
S/N	Aspects of Productivity Competencies	X	SD	Remarks
1	Create documents of various types and save in a desired location.	4.81	0.41	VHE
2	Retrieve an existing document from the saved location.	4.82	0.43	VHE
3	Select, copy, and paste text in a document or desired location.	4.83	0.38	VHE
4	Print a document.	4.91	0.37	VHE
5	Name, rename, copy and delete files.	4.92	0.39	VHE
6	Understand and know how to use Word Processing programs such as MsWord and Word Perfect.	4.87	0.37	VHE
7	Understand basic computer hardware components and terminology.	4.83	0.36	VHE
8	Understand the concepts and basic functions of a Window or Macintosh Operating System.	4.81	0.35	VHE
9	Start up, log on and shutdown a computer properly.	4.88	0.42	VHE
10	Use a mouse pointing device and keyboard.	4.83	0.36	VHE
11	Use help and know how to troubleshoot routine problems.	4.81	0.38	VHE
12	Identify and use Icons (folders, files, applications and shortcuts, aliases).	4.90	0.41	VHE
13	Minimize, maximize and move windows.	4.83	0.36	VHE
14	Identify common types of file extension (e.g. doc, pdf, html, jpg, gif, xls, ppt, rtf, txt, etc).	4.82	0.38	VHE
15	Check how much space is left on a drive or other storage device.	4.82	0.38	VHE
16	Backup files.	4.83	0.36	VHE
17	Download and install software in a disk.	4.82	0.38	VHE
18	Understand and manage the file structure of a computer.	4.83	0.38	VHE
19	Check for and install operating System updates.	4.82	0.41	VHE
Cluster Mean		4.84	0.38	VHE

Table 1 shows the mean and standard deviation on ICT productivity competencies required for effective Business education programme. The cluster mean of 4.84 falls within the range of Very High Extent. This indicates that ICT productivity competencies are required to a very high extent for effective Business education programme. The

standard deviation of 0.38 which is relatively small shows that there is high degree of homogeneity in business educators' rating of ICT productivity competency requirements.

Research Question 1: To what extent are ICT Presentation competencies required for effective business education programme as perceived by business educators?

Table 2: Mean Ratings on ICT Presentation Competencies Required for Effective Business Education Programme

(N=96)

S/N	Aspects of ICT Presentation Competencies	X	SD	Remark
20	Interact with the audience.	4.56	0.61	VHE
21	Transmit the message with clarity.	4.88	0.65	VHE
22	Engage the audience in the presentation.	4.67	0.61	VHE
23	Interpret and understand the mindsets of the listeners.	4.66	0.62	VHE
24	Use a software package designed to create electronic presentations consisting of a series of separate pages or slides.	4.69	0.59	VHE
25	Present data and information by using text, images, diagrams with animations and transitional effects etc.	4.66	0.60	VHE
26	Make use of slides that helps to explain the topic or idea in front of audience easily and practically.	4.67	0.63	VHE
27	Use PowerPoint for data and information visualization.	4.56	0.61	VHE
28	Format text, graphics, pictures, sound and animations in presentation, create text and images for presentation	4.88	0.65	VHE
29	Use PowerPoint for presentation of students' projects; oral presentation class; lecture notes; group project, presentation of assignment.	4.56	0.61	VHE
30	Use Prezi to prepare presentation by inserting text, images and videos	4.88	0.61	VHE
31	Use Prezi to present ideas on a large and zoomable virtual canvas.	4.67	0.65	VHE
32	Use interactive whiteboard display on the board with the use of a digital projector.	4.66	0.61	VHE
33	Touch and move things around the interactive white board making notes and highlighting element.	4.69	0.62	VHE
Cluster Mean		4.69	0.62	VHE

Table 2 shows the mean and standard deviation on ICT presentation competencies required for effective Business education programme. The cluster mean of 4.69 falls within the range of Very High Extent. This indicates that ICT presentation competencies are required to a very high extent for effective Business education

programme. The standard deviation of 0.62 which is relatively large shows that there is less degree of homogeneity in business educators' rating of ICT presentation competency requirements.

Hypothesis 1

There is no significant difference in the mean responses of business educators from Colleges of Education and business educators from Universities on the extent productivity competencies are required for effective business education programme.

Table 1: Summary of t-test analysis of the significant difference between Business educators from Colleges of Education and Business educators from Universities on the extent productivity competencies are required for effective Business education programme

Institution	N	X	SD	Df	t-cal	t-crit	Decision
CoE	72	4.72	1.02	94	0.35	1.671	Accepted
Varsity	24	4.81	0.99				

From Table 3 the calculated t-value of 0.35 is less than the critical t-value of 1.67 at .05 level of significance and 94 degrees of freedom, the null hypothesis that there is no significant difference in the mean responses of business educators from Colleges of Education and business educators from Universities on the extent productivity competencies are required for effective business education programme is therefore accepted.

Hypothesis 2

There is no significant difference in the mean responses of male and female business educators on the extent presentation competencies are required for effective business education programme.

Table 4: Summary of t-test analysis of the significant difference between male and female business educators on the extent presentation competencies are required for effective Business Education Programme

Gender	N	X	SD	df	t-cal	t-crit
Male	43	4.68	0.55	94	0.65	1.671
Female	53	4.59	0.62			

Table 4 shows the t-test of mean difference between male and female business educators on presentation competencies required for business education programme. Since the calculated t-value of 0.65 is less than the critical t-value of 1.67 at .05 level of significance and 94 degrees of freedom, the null hypothesis that there is no significant difference in the mean responses of male and female business educators on

the extent presentation competencies are required for effective business education programme is therefore accepted.

Discussion of Findings

Findings of this study revealed that ICT productivity competencies for effective Business Education programme were required to a very high extent. These competencies include to: create documents of various types and save in a desired location; retrieve an existing document from the saved location; select, copy, and paste text in a document or desired location; print a document; name, rename, copy and delete files; understand and know how to use Word Processing programs such as Ms Word and Word Perfect; etc. The findings on ICT productivity competencies agreed with Ikemba (2017) who stated that the ability to manipulate the computer is the most important ICT competency.

The finding on hypothesis one is that there is no significant difference between colleges of education and universities on productivity competencies required for effective Business education programme. The lack of difference in perceptions could be as a result of uniformity in the ICT needs of the Business education programme of the institutions.

Findings of this study revealed that ICT presentation competencies required for effective Business Education programme as very high extent. ICT presentation competencies required include to: interact with the audience; transmit message with clarity; engage the audience in the presentation; interpret and understand the mindsets of the listeners; use a software package designed to create electronic presentations consisting of a series of separate pages or slides; present data and information by using text, images, diagrams with animations and transitional effects etc; and make use of slides that helps to explain the topic or idea in front of audience easily and practically. The result of the hypothesis also indicates that there was no significant difference in the mean ratings of male and female educators on presentation competencies requirements. The findings of the study are in agreement with Rommel et al (2017) who found presentation competency as an inevitable skill for business education teachers. He viewed presentation competency as a set of skills, knowledge, and abilities that enable an individual to interact with the audience, transmit the message with clarity, engage the audience in the presentation, and interpret and understand the mindsets of the listeners. These skills refine the way educators put forward their messages and enhance their persuasive powers.

Conclusion

Information and Communication Technology (ICT) productivity and presentation competencies are required for effective Business education programme in tertiary institutions in Anambra State. Though, there are variations in ICT competences based on gender and type of institution, there is general perception that ICT productivity and presentation competences are required for effective Business education programme.

Recommendations

In view of the findings of the study, the followings were recommended:

1. Nigerian Universities and Colleges of Educations should introduce ICT literacy as a full fledged credit course in all levels of their curriculum programmes and make it a core course. This will go a long way to equip prospective teachers with requisite ICT skills before employment and also make them competent in the use of ICTs.
2. The universities and Colleges of Education should also develop motivational strategies such as ICT scholarship award/grants to staff who distinguished themselves particularly in related areas of ICT to encourage them to be responsive to ICT literacy.
3. Business educators should avail themselves of opportunities offered by their professional bodies to enhance their ICT competency.
4. Government and school administrators should assist Universities and Colleges of Education with the provision of enough ICT facilities/tools which will enhance the teaching and learning as well as create avenues of business educators attending on the job training, Workshops, Conferences on ICT development.
5. Business educators should help themselves in upgrading their ICT knowledge and skills by devoting their times and resources in attending ICT training without waiting for government sponsorship for their professional advantage.

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