



# **C**HALLENGES AND PROSPECTS OF THE APPLICATION OF ICT IN THE TEACHING OF BUSINESS SUBJECTS

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**Olowookere, S.O.**

*Department of Business and Entrepreneurship Edu.  
Kwara State University, Malete  
olowookereomoniyi@gmail.com*

**Iyiola, M.A.**

*Department of Business & Entrepreneurship Edu.,  
Kwara State University, Malete  
iyiolaabiiodun@gmail.com*

## **ABSTRACT**

*This paper sought to discuss the impact of ICT on the teaching of business education subjects/courses. As we are now in an era of information explosion which is characterised by global competitiveness, it becomes expedient for every business educator and students to be ICT compliant so that the desirable changes in terms of acquisition of skills and competencies can be achieved. The roles played by ICT in the teaching and learning process were thoroughly extolled. It is recommended that as a matter of urgency, ICT centres should be established by governments in wards and constituencies to enhance the teaching and learning of ICT skills and make it free for all Nigerians.*

## **Introduction**

Teaching and learning involve purposeful and meaningful transfer of knowledge, skills, competencies and attitude formation in human beings either in the formal or informal educational set-up. The new era of information explosion popularly known as information age has changed the traditional way of rote learning in the classroom to more interesting and fascinating one characterized with; active, integrative and evaluative learning (Tinio, 2002). ICT brings about structural changes in the world economy. In view of this, no facet of human endeavour today including education and training is left unaffected by the challenges of these emerging technologies (Agumuo, 2005).

## **ICT: Meaning and Functions in Enhancing Quality Education**

Different people viewed ICT (Information and Communication Technology) in various ways. In the opinion of Ifeolu and Asimegbe (2015), ICT refers to the use of computer devices, software, development methods, technical skills, internet etc that have the ability to improve or optimize the performance and value creation of an organisational performance. It covers any product that stores, retrieves, manipulates, transmits or receives information.

Iyiola (2013) cited Atoyebi (2007) defined ICT as the technology for the generation, processing, dissemination and utilization of information to make meaningful impact on



human life. Oyagiri and Ekoh (2013) cited Agbamu (2005) viewed ICT as the technology that involves the use of electronic computers and computer software to convert, store, process, transmit and retrieve information. They further stated that ICT is concerned with the systems for creation, processing, storage, retrieval, selection, transformation, dissemination and use of vocal, pictorial, textual and numerical information.

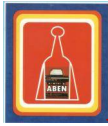
In their own opinion, Rejjsenbrig (1997) and Bamidele (2007) as cited by Iyiola (2013), stated that ICT comprises the technology that supports the communication and co-operation of human beings and their organisations and the creation and exchange of knowledge. It is the infrastructure that brings people together in different places and time zones with multimedia tools for data, information and knowledge management in order to expand the range of human capabilities.

In the same vein, Tinio (2002) defined ICT as a diverse set of technological tools and resources used to communicate, and to create, disseminate, store and manage information. These technologies include computers, the internet, broadcasting technologies (radio and television) and telephony. Bamidele (2007) cited Association of African Universities (2000) defined ICT as a shorthand for the computers, software, networks, satellite link and related systems that allow people to access, analyse, create, exchange and use data, information and knowledge in ways that until recently, were almost unimaginable. In a nutshell ICT is a concept which is used to describe the strength and divergent use of computer and telecommunication devices for data and information interchange.

### **Functions of ICT in Quality Education Delivery**

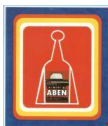
The following are the functions of ICT in increasing access to and improving the relevance of quality of education as exemplified by Tinio (2002):

- ICT greatly facilitates the acquisition and absorption of knowledge, offering unprecedented opportunities to enhance educational systems, improve policy formulation and execution and widen the range of opportunities for business and the poor.
- ICT is a potentially powerful tool for extending educational opportunities, both formal and informal to previously underserved constituencies – scattered and rural populations, groups traditionally excluded from education due to cultural or social reasons. It makes possible learning characterized by a time lag between the delivery of instruction and its reception by learners. For example, online course materials may be accessed 24 hours a day etc.
- ICT improves access to remote learning resources: teachers and students no longer have to rely solely on printed books and other materials in physical media housed in libraries for their educational needs. With the aid of internet and world



wide web, a wealth of learning materials in almost every subjects can now be accessed from anywhere in the world.

- One of the reasons for using ICT in classroom has been to better prepare the current generation of students for a workplace. Technological literacy or the ability to use ICT effectively and efficiently is seen as representing a competitive edge in an increasingly globalizing job market.
- ICT helps to motivate people to learn: equipment such as videos, television and multimedia computer that combine text, sound and colourful moving images can be used to provide challenging and authentic content that will engage the students in the learning process.
- ICT facilitates the acquisition of skills: it facilitates the transmission of basic skills, concepts and competencies that are the foundation of higher order thinking and creativity which can be facilitated through drill and practice (as it is done in shorthand and keyboarding).
- ICT enhances teacher training: it has helped to improve access to quality information and dissemination of such information to many recipients spread across the globe.
- ICT helps in transforming the learning environment into one that is learner-centred. This is achieved as ICT promotes:
  - Active learning: it mobilizes tools for examination, calculation and analysis of information, thus providing a platform for student's inquiry, analysis and construction of new information.
  - Collaborative learning: it supports interaction and co-operation among students, teachers and experts regardless of their location.
  - Creative learning: it promotes the manipulation of existing information and the creation of real-world products.
  - Integrative learning: it promotes a thematic, integrative approach to teaching and learning.
  - Evaluative learning: it allows learners to explore and discover rather than merely listen and remember as exemplified in the tables below:



### **Skills/Competencies Needed in Business Offices of ICT Age**

The following are the skills needed by potential business education graduates in ICT driven economy as exemplified by Tinio (2002):

#### ***Skills required in the workplace of the future***

#### **Digital Age Literacy**

Functional literacy media, this includes	Ability to decipher meaning and express ideas in a range of the use of images, graphics, video, chart or visual literacy
Scientific literacy science and	Understanding of both the theoretical and applied aspects of mathematics
Technological literacy Competence in the use of information and communication technologies	
Information literacy including via	Ability to find, evaluate and make appropriate use of information, the use of ICTs
Global awareness all over the world	Understanding of how nations, corporations, and communities are interrelated

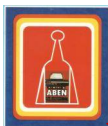
#### **Inventive Thinking**

daptability	Ability to adapt and manage in a complex, interdependent world	A
curiosity	Desire to know	C
creativity	Ability to use imagination to create new things	C
risk-taking	Ability to take risks	R

**Higher-Order Thinking** Creative problem-solving and logical thinking that result in sound judgments

#### **Effective Communication**

Teaming	Ability to work in a team	T
Collaboration and	Ability to interact smoothly and work effectively with others Interpersonal skills	C



Personal and social  
ICTs for the  
Responsibility public good

Be accountable for the way they use ICTs and to learn to use

Interactive communication

Competence in conveying, transmitting, accessing and understanding information

High Productivity

Ability to prioritize, plan and manage programs and projects to achieve the desired results, ability to apply what they learn in the classroom to real-life contexts to create relevant, high-quality products

Source: Adapted from EnGauge. North Central Regional Education Laboratory. Available Online at <http://www.ncrel.org/engauge/skills.htm>. accessed 31 May 2002.

### **Overview of pedagogy in the industrial versus the information society**

More

Less (emerging pedagogy)

Aspect (traditional pedagogy) for the information society)

Active	· Activities prescribed by teacher	· Activities determined by learners	..
Whole class instruction	· Small groups		
· Little variation in activities	· Many different activities		
· Pace determined by the programme	· Pace determined by learners		

Collaborative	· Individual	· working in teams
· Homogenous groups	· Heterogeneous groups	
· Everyone for him/herself	· Supporting each other	

Creative	· Productive learning	· productive learning
· Apply known solutions to problems	· Find new solution to problems	Integrative
· No link between theory and practice	· Integrating theory and practice	
· Separate subjects	· Relations between subjects	
· Discipline-based	· Thematic	
· Individual teachers	· Teams of teachers	

Evaluation	· Teacher-directed	· Student-directed
· Summative	· Diagnostic	

*Source: This, A., et al. Learning Through the Web.*

Available Online: <http://www.decidenet.nl/Publications/ Web-Based-Learning.pdf>  
Accessed 31 May 2002.



Iyiola (2013) added the following:

- ICT enhances provision of online access to current information on business and other areas of human endeavours.
- It saves cost and conserves money for future opportunities.
- It facilitates schedule of work within a social system and eliminates conflicts and reduces overlapping of duties among people.
- It promotes co-operation and friendship among individuals with the aid of social networks such as: Facebook, 2go, e-mail, WhatsApp etc.
- It can be used to make reservations most especially when booking for accommodation (students' hostels/hotels), travel tickets and applying for visas without necessarily being at the location.
- It enhances easy integration of various business activities within a social system through effective networking.

Others as opined by Adebayo (2013) in Iyiola, Ajala and Yusuf (2013) are that ICT promotes:

Digital economic transformation

Internet connectivity

World-wide competition readiness

Oyagiri and Ekoh (2013) added the following as part of the functions ICT performs in teaching and learning situation. They are:

Access to information because ICT is a technology that permeates all aspects of human endeavours be it schools, business, hospitals, industries, government establishments etc.

Speed in acquiring information: the speed at which huge amount of information are processed, stored, retrieved and transmitted over long distance within a very short time is quite amazing.

It is a powerful instrument for increasing productivity, generating economic growth, promoting job creating and employability, civilization and improving the quality of life for all.

It provides opportunities for all to access local and global markets, for example; e-banking, e-commerce, e-business etc.

ICT empowers both the poor and those in remote areas to access information and use it as a tool to support their efforts to lift themselves out of poverty.

### **Concept of Business Education**

Many scholars in this field defined business education in different ways but the central theme remains the same – acquisition of skills and competencies to make man a rational human being in his ever changing society. Ekpenyong (1995) stated that business



education in a generic sense, includes education which is intended for all who need education at high school or post-high school than for scientific and technical qualifications, to equip them with knowledge and skills for their work in any sector of economic activities, be it private or public.

Adeyemi (2008) citing Tonne and Nanassy (1997) defined business education as an aspect of the total education programme that provides knowledge, skills, understanding and attitudes needed to perform in the business world as producer and consumer of goods and services that business offers. Azuka (2000) cited by Komolafe (2007) defined business education as a programme of study which offers students who want to pursue a career in business, an opportunity to develop skills, abilities and understanding that will enable them to enter, perform and advance in business occupation after graduating from school. Anao (1986) described business education as a total knowledge, skills and attitudes that are required for successfully promoting and administering business enterprise.

### **Objectives of Business Education Programme**

Komolafe (2007) cited Aina (2001) highlighted the following as objectives of business education programme which are to:

- Acquire skills and competence required for the performance of basic business jobs;
- Apply the various business concepts required in class to real life situations;
- Keep simple records of financial and other transactions in the office and to operate office machines and equipment;
- Play productive roles in a free enterprise economy;
- Recognise and demonstrate their responsibilities and rights as customers.
- Agwumezie (1998) added, to:
- Improve their economic and personal qualities and build attitudes necessary for adjustment to personal and other employment situations;

Komolafe (2007) equally cited Osuala (1989) highlighted the following as objectives of business education programme:

- It helps people to become intelligent consumer of goods and services;
- It trains people for various activities common to many agricultural, distributions, home management, industrial and professional occupations;
- It provides people with important information which will enable them to explore and learn about the world of work and the relevant interest and career areas of their choice;
- It affords people with necessary occupational information to enable them to understand the various occupations existing in the world of work.



- It enables people to acquire saleable skills in their various field of choice;
- It provides training which results in developing people who are well adjusted so that they will be capable of coping with the world in which they live and provide appreciations and understanding of the actual functioning of the economic system.

### **Highlight of Business Subjects**

The following are the list of business subjects as identified by National Business and Technical Examinations Board (NABTEB) (1992):

- Commerce
- Economics
- Shorthand
- Keyboarding
- Office Practice
- Business Mathematics
- Marketing
- Principles of Accounts

### **The Uses of ICT in Teaching Business Education Courses**

Tinio (2002) identified the following as the ways by which ICT can be used in teaching business education courses. They are:

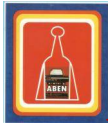
The use of radio, television and video broadcasting which involves the following three approaches:

- (a) Direct class teaching where broadcast programming substitutes for teachers on the temporary basis;
- (b) School broadcasting: here broadcast programming provides complementary teaching and learning resources not otherwise available;
- (c) General educational programming over community which involves national and international stations providing general and informal educational opportunities.

The Use of Computers in Promoting Learner-centered Pedagogy. Teaching and learning business courses using computers and the internet focuses on developing technological literacy in the following areas:

- (a) The use of productivity tools such as word processing, spreadsheets, database and graphic programs;
- (b) The use of the keyboard and mouse;
- (c) The teaching of fundamental basic terms, concepts and operations;
- (d) The use of research and collaboration tools such as search engines and e-mails;
- (e) The teaching of basic skills in using programming and authoring applications;
- (f) Developing an awareness of the social impact of technological change;





- (g) It involves the presentation, demonstration and the manipulation of data using productivity tools;
- (h) Teaching with computers equally involves the use of information and resources on CD-ROM or online such as encyclopedia, interactive maps, electronic journals and other references.

The use of ICT equipment in promoting education equally involves telecollaboration which is an online learning involving students logging into formal course online which is an application of internet in education.

Teleconferencing can be used to enhance teaching and learning which may not necessarily be in a specific classroom setting. Teleconferencing refers to interactive electronic communication among people located at two or more different places (Tinio, 2002). With this device a teacher can bring students together without necessarily being in a classroom setting for a formal discussion in terms of holding a meeting or delivering lectures.

Other uses of ICT are:

The use of mobile phones for both video and audio recordings of voices and events. It can equally be used as memory aids where events are recorded under reminder just to notify the user of an important events and programme etc.

Projectors are also an agent of facilitating teaching/learning situation. Academic papers and pictorial illustrations can be displayed to large group of students for them to see clearly.

DVD can equally be used in the teaching of business courses. This is done by playing already recorded lecture papers, graphical and pictorial illustrations to support active teaching by the teachers.

### **Challenges in Integrating ICT into the Teaching of Business Subjects**

There are so many problems that can hinder the integration of ICT into the teaching of business courses most especially in Nigeria. These problems are as opined by (Iyiola, 2013):

Resistance to change from traditional pedagogical methods to more innovative, technology-based teaching and learning is critical factor in education. Some people do not see reasons why they should be computer literate.

Inadequate ICT infrastructure including hardware, software, appropriate rooms or building to accommodate the technology, cooling and ventilation including safety and security of men and material resources.

Inadequate power supply: erratic power supply is a major source of damage to computer hardware system which leads to constant repairs and maintenance which in turn results in excessive spending. Where there is no alternative power



supply such as generator or inverter, lectures are distorted once the power is switched off.

Inadequate funding of business education programme leads to lack of ICT infrastructures in most institutions of higher learning. Where there is no enough ICT infrastructure for the teaching of students, they do more of theory than practical which may not enable them to be highly competitive in the labour market.

Lack of skilled manpower to manage the available resources in some institutions. Members of academic staff need to be sent for training and retraining on the use of ICT equipment because technology keeps improving on daily basis.

Cyber crimes and other social vices associated with the use of ICT in education generally is worrisome. Many criminal activities such as fraud, advanced 419 etc are perpetrated by ICT equipment.

Government policies and programmes on ICT may not be favourable for the education programmes. A good government policy should be geared towards the mobilization of required resources and political commitment at all levels.

Tinio (2002) equally identified the key challenges in integrating ICT in education as including: Educational policy and planning, Infrastructure, Language and content, Capacity building and Financing.

## **Conclusion**

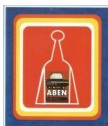
The general goal of education as an agent of change and social transformation can only be achieved when we “swim with the tide” (Malcolm, 1973). This implies that for success to be achieved in good and quality delivery of educational programmes, every stakeholder must be fully prepared to move in tune with the information age. Business education which is an essential element and key to economic growth and development is interconnected with information and communication technology.

The knowledge of ICT becomes expedient to every business educator because the success of business operations today revolves around both the acquisition of skills in business operations and ICT applications.

## **Recommendations**

In view of the positive impact ICT has on business education programme, the following recommendations are instructive:

1. The current government policy on ICT should be geared towards enhancing quality delivery of business education in terms of finance and supervision of the programme by various government agencies responsible for such supervision.



2. Teachers or Lecturers in business education programme should be connected to the internet through a cordless internet connectivity so that they can be connected to the whole world and display their own talents too. Students can equally be connected to the internet only when they are on campus to avoid abuse of privileges.
3. ICT centres should be made available everywhere in the country by the government. Senators and other political office holders should be admonished to build at least three or more ICT centres in wards and constituencies using their constituency allowance to achieve this laudable goal as this is one of the ways by which dividend of democracy can be spread across to all Nigerians.
4. Academic staff teaching business education subjects or courses at all levels should be sent for training and re-training on the use of ICT equipment as technology keeps changing every day.

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