



**ELECTRONIC-BASED LEARNING RESOURCES REQUIRED IN BUSINESS  
EDUCATION AND SKILL ACQUISITION FOR GLOBAL BUSINESS  
ENVIRONMENT**

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**Abstract**

*This study determined the influence of electronic-based learning resources requirements for undergraduate business education programme and skill acquisition for global business environment. The descriptive survey research design was adopted. The study was conducted in Cross River State using a population of 1, 311 undergraduates drawn from University of Calabar (UNICAL) and Cross River University of Technology (CRUTECH). A sample size of 200 respondents was used. The researcher designed two sets of duly validated questionnaires each for Electronic-based Learning Resources Requirements for Business Education Programme Questionnaire (EERBEPQ) and Undergraduates' Skill Acquisition for Global Business Environment Questionnaire (USAGBEQ). Descriptive statistics was used for answering the three research questions, while the independent t-test was used to test the only null hypothesis. Findings indicated that Networks with broadband connectivity were highly required by business education programme; Software tools and techniques for creation of data base were averagely required by business education programme; Business education curriculum contents in digital format was highly required by business education programme. Finding based on test of hypothesis was that there was no significant difference in mean responses of business education undergraduates in UNICAL and CRUTECH on the influence of electronic education on skill acquisition for global business environment. Based on the findings, it was concluded that business education requires electronic-based learning alongside the usual face-to-face classroom-bound learning for the enhancement of undergraduates' skills acquisition for the global business environment. It is recommended among others that: institutions offering business education should adequately provide Networks with Broadband connectivity for usage; adequately provide software tools and techniques for the creation of databases and train students to acquire the skills for their usage.*

**Keywords:** *Electronic education; skill acquisition; required; business education*

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**Introduction**

The era where schooling, and of course learning was basically to train graduates for workforce is already being interrupted with the emergence of an era where training in school



should not only prepare learners for self-reliance but keep them abreast and afloat with a globalised world enabled by the infusion of information and communication technology (ICT). Interestingly too, the old economy that was characterised with production of goods is seemingly being interrupted with a knowledge economy. Of course, the old economy was based on the industrial revolution and on managing manufacturing industries, thus there was high demand for workforce. This was the case during the industrial revolution in Europe and America. Featuring under this type of economy are: standardised products aimed at bringing down costs; market expansion to achieve economies of scale; replication of rules in different markets that were only possible through face-to-face interaction; effort was always made to achieve efficiency; hierarchical management of the firm always with a boss down to the least of worker. However, the emergence of ICT has brought about an economy that is globally digital in revolution with high need for information management that can be infinitely differentiated, customised and personalised; can be despatched to a great number of people who are on a network and it can reach them with great speed as observed by Kotler (2015).

Business now, is operating in a globalised economy where things are moving in a nanosecond pace; markets characterised by hyper-competition; disruptive technologies challenging every business; and that business must adapt to the empowered consumers (Kotler, 2015). The implication of this is that any educational programme which trains for self-reliance must adapt its training to the reality of today's era. Therefore, learning can be done electronically with the aid of ICT. This is where business education mandate revolves. It therefore means that business education programme must be redesigned to suit the contemporary business society. For instance, Kotler and Armstrong (2016:21) echoed this in their views of what a marketing course should be and put succinctly: “a successful marketing course requires more than a well written book. Today's classroom requires a dedicated teacher, well-prepared students, a fully integrated teaching system.

The mandate of business education is summarily described by the Association of Business Educators of Nigeria ABEN (2017:1) thus: “to ensure that students are educated for and about business”. Chiefly among the importance of business education, which ABEN explained as needed by students in the contemporary world include the development of life skills for economic success; provision of information and communication technology skills; helps the learner to acquire global business knowledge, among others. It will at this stage to raise some questions, especially in response to the assertion of Kotler who probed the potency of the teacher, the classroom, among others in meeting the demand of today's marketing course.

Electronic education is highly required by business education programme to equip the graduate with ICT skills to provide them with the competence for today's globalised business environment. E-world is real and business education undergraduates cannot afford to miss out. The areas of electronic education requirements for business education



programme and undergraduates' skill acquisition for global business environment considered as major issues which this research aims to address are: Network with Broadband Connectivity; Software tools and techniques for creation of Database; and Business education curriculum contents in digital formats.

The term broadband commonly referred to as high-speed Internet access that is always on and faster than the traditional dial-up access. Broadband includes several high-speed transmission technologies such as: Digital Subscriber Line (DSL) Cable Modem. *Broadband allows for Internet connection* with a high data transfer rate. Okon (2015a) averred that information technology has made teleconferencing possible. Here, teleconferencing is described as communication through an electronic meeting. It is a generic term for a whole range of electronic meeting aids. The range of electronics involved in teleconferencing has broadened and will continue to do so. Thus, business education programme needs to be equipped with technologies that will avail students the opportunity to acquire the skills to access the electronic world. Okon further explained that communication through computers was initially practised using text messaging via computer terminals. Today, there is electronic options for audio, video, and graphics therefore giving rise to teleconferencing. Okon (2015b) acknowledged the importance of emerging skills including ICT skills and remarked that business schools are expected to help create a learning environment conducive to building these emerging skills in their graduates. Thus, electronic-based learning is what educational institutions offering business education need to enhance skill acquisitions by business education students.

Internet works with a very high-speed and is essentially measured in how much data can be sent to the user, measured at a per second rate. Bandwidth is the ability a device sends and receive information. The more bandwidth that is available, the faster the data can be transferred. However, there could still be latency. The term 'latency' refers to delays in the processing of network data. For example, on a fibre network, data is transmitted at the speed of light which is tremendously fast. However even the smallest delay in that transmission, compounded over long distances, can be noticeable. In addition, the requested data rarely travels over one route and during its journey it will pass through multiple networks where bottlenecks can occur.

Software tools and techniques are needed for the creation of database, thus preparing graduates for the world of business. Business education computer. *Software tools and techniques*, including structured programming, can make *software* development more visible to management and more controllable. *Educational software* is computer *software*, the primary purpose of which is teaching. Others serve as management *software*, remote control and monitoring *software*, file transfer *software*, document camera and presenter. Some educational software could be designed for use in school classrooms. Typically, such software may be projected to a large whiteboard at the front of the class and/or run



simultaneously on a network of desktop computers in a classroom. This type of software is often called classroom management software. While teachers often choose to use educational software from other categories in their IT suites (reference works, children's software), a whole category of educational software has grown up specifically intended to assist classroom teaching.

The education industry is gradually being impacted greatly by the infusion of ICT. This view has been deciphered by Mishra (2015) that the pace at which the process of teaching, assessing and learning has evolved is enough to signify the impact (either impact of ICT). Hence, Mishra noted that books have moved to e-books, physical classrooms have turned into online classrooms, and paper-based tests have become online tests. *Assessment software* refers to software with a primary purpose of assessing and testing students in a virtual environment. Assessment software allows students to complete tests and examinations using a computer, usually networked. The software then scores each test transcript and outputs results for each student. Assessment software is available in various delivery methods, the most popular being self-hosted software, online software and hand-held voting systems. Proprietary software and open-source software systems are available. While technically falling into the *Courseware* category, skill evaluation lab is an example for Computer-based assessment software with PPA-2 (Plan, Prove, Assess) methodology to create and conduct computer based online examination. Moodle is an example of open-source software with an assessment component that is gaining popularity. Other popular international assessment systems include Assessment Master.

Earlier educational software for the important corporate and tertiary education markets was designed to run on a single desktop computer (or an equivalent user device). In the years immediately following 2000, planners decided to switch to server-based applications with a high degree of standardisation. This means that educational software runs primarily on servers which may be hundreds or thousands of miles from the actual user. The user only receives tiny pieces of a learning module or test, fed over the internet one by one. The server software decides on what learning material to distribute, collects results and displays progress to teaching staff. Another way of expressing this change is to say that educational software morphed into an online educational service. US Governmental endorsements and approval systems ensured the rapid switch to the new way of managing and distributing learning material.

Interesting, educational software and techniques enhance learning and acquisition of skills that can be applied in education, global markets' access, accounting applications, business forecasts and of course, personal and societal living. Therefore, the acquisition of software tools and techniques, their applications and development of skills in software applications among business education students will give these students confidence to survive in the ever-changing business and marketing landscape. Thus, Kotler and Armstrong

(2016) cautioned that the pace of change is so rapid that the ability to change has now become a competitive advantage. Kotler and Amstrong further deciphered that the explosive growth in digital technology has fundamentally changed the way we live how we communicate, share information, access entertainment and shop.

Another electronic education requirement for business education is keeping business education curriculum content in digital form. For business education to create an impact in the knowledge society, its contents irrespective of the country of domiciliation must be in digital form for accessibility for those who need it and can profit by it. This is equally important in measuring the competitiveness of business education nationally and across national and continental borders. Subramanyam (2008) reported that studies of ICT development in both developed and developing countries identify at least four broad approaches through which educational systems and individual institutions proceed in this adoption and use of ICT. These four approaches are emerging, applying, infusing and transforming as shown in Figure 1.

A	B	C	D
Emerging	Applying	Infusing	Transforming

*Fig. 1: Approaches to ICT development in educational institutions*

- A. Initial phase meant to explore the possibilities and consequences of using ICT in curriculum.
- B. Secondary phase, in which using ICT for tasks already carried out in management and curriculum.
- C. Level of integrating and embedding ICT across the curriculum, in laboratory, classrooms and administrative offices.
- D. The level at which ICT is used to rethink and renew institutional organisation in creative ways and ICT is taught as a separate subject at the professional level as well as vocational areas (Subramanyam, 2008).

These approaches rightly fit into business education programme, especially at the university level. Business education students aspire to go into business or any other facet of life as professionals need and must master basic and advance programming, planning information system designing process, among others. In effect, the three areas of interest in this investigation: Network with Broadband Connectivity; Software tools and techniques for creation of Database; and Business education curriculum contents in digital formats are fundamental to any electronic education, especially electronic business education in the e-world. Meanwhile, in Nigeria, business education operates under the general education system that is already facing serious criticisms and being ranked at the bottom of the ranking table internationally, continentally and regionally. Most reports point to poor funding as a major factor to the waning quality of education in Nigeria. For instance, Jegede (2017)



observed that in recent times, the amount being expended on education has been on the decrease both in real terms and in percentages. In a country where the educational sector has been decimated through poor funding, there is bound to be corresponding consequence. Thus, Azuka (2017) reported that graduates of tertiary institutions seem to be badly hit by unemployment, making up about 20 per cent of youths' unemployment. Why would a business education graduate who are trained to be self-reliant be constituting the challenge of unemployment in the society? Why is university education in Nigeria rated low in the global ranking table? Is business education curriculum visible to the global environment? These are a few questions that need answers. The brief review of literature subsumed in this introduction lacked research evidence that have provided answers to these questions; therefore, this investigation is apt and timely for business education as Nigeria struggles out of a state of educational decay.

The major purpose of this study was to determine the influence of electronic-based learning facilities in business education on undergraduate skill acquisition for global business environment. This study achieved three specific objectives.

1. To determine the influence of Network with broadband connectivity on skill acquisition among business education undergraduates for global business environment
2. To determine the influence of Software tools and techniques on skill acquisition among business education undergraduates for global business environment
3. To determine the influence digital format in learning on skill acquisition among business education undergraduates for global business environment

This study answered three research questions.

1. How is Network with broadband connectivity required for skill acquisition among business education undergraduates for global business environment?
2. How is Software tools and techniques for skill acquisition required among business education undergraduates for global business environment?
3. How is digital format in learning for skill acquisition required among business education undergraduates for global business environment?

The study tested three null hypotheses.

- H<sub>0</sub> There is no significant influence in mean responses of business education undergraduates in UNICAL and CRUTECH on the influence of electronic-based learning on skill acquisition for global business environment.

## **Method**

The descriptive survey research design was adopted in the study. The study was carried out in Cross River State of Nigeria. Cross River State has its headquarters in Calabar. The study has a population of 1, 311 business undergraduates - 481 in University of Calabar



(UNICAL) and 830 in Cross River University of Technology (CRUTECH). The stratified random sampling technique was applied to select 200 respondents (UNICAL, 73; CRUTECH, 127), representing 15 per cent. This sample size was deemed appropriate.

A researcher-designed questionnaire generated data for the study. The questionnaire tagged, “Electronic Education Requirements for Business Education Programme Questionnaire (EERBEPQ) and Undergraduates' Skill Acquisition for Global Business Environment Questionnaire (USAGBEQ)” were designed on a four-point scale. The independent t-test statistical analysis was used to test the null hypothesis.

## Results

### Research Question One

How is Network with broadband connectivity required for skill acquisition among business education undergraduates for global business environment?

**Table 1:** Descriptive statistics of Network with broadband connectivity for skill acquisition required by business education undergraduates for global business environment.

S/N		Weighted Means	Remark
1.	Broadband coverage in terms of number of users connected	3.60	Highly Required
2.	Data for continuous planning	3.70	Highly Require
3.	Upgraded of telephone lines to support DSL and, in combination with a broadband router	3.80	Highly Required
4.	Physical connection linking the computers in lab to broadband access	3.50	Highly Required
5.	Training in handling broadband	3.75	Highly Required
<b>Total</b>		<b>18.35</b>	
<b>Average</b>		<b>3.67</b>	<b>Highly Required</b>

The result presented in Table 1 indicates that Network with broadband connectivity is highly required for skill acquisition by business education undergraduates for global business environment. This revelation is based on a weighted mean 3.67 in a four-point scale.

### Research Question Two

How is Software tools and techniques for skill acquisition required among business education undergraduates for global business environment?

**Table 2:** Descriptive statistics of Software tools for skill acquisition required by business education undergraduates for global business environment.



S/N		Weighted Means	Remark
6.	Acquisition of software tools	3.50	Highly Required
7.	Techniques to be used in training	3.35	Highly Require
8.	Training to students using software tools	3.60	Highly Required
9.	Practical opportunities for mastery of skills by students	3.48	Averagely Required
10.	Using software tools to develop business programme	3.25	Averagely Required
<b>Total</b>		<b>17.18</b>	
<b>Average</b>		<b>3.44</b>	<b>Averagely Required</b>

The result presented in Table 2 indicates that Software tools and techniques for skill acquisition is averagely required by business education undergraduates for global business environment. This revelation is based on a weighted mean 3.44 in a four-point scale.

### Research Question Three

How is digital format in learning for skill acquisition required among business education undergraduates for global business environment?

S/N		Weighted Means	Remark
11.	Online curriculum for making presentation	3.87	Highly Required
12.	Online curriculum for personal study	3.65	Highly Require
13.	Online Curriculum for learners advanced learning	3.76	Highly Required
14.	Online Curriculum learner use outside the classroom	3.90	Highly Required
15.	Online Curriculum to allow for global comparison	3.60	Highly Required
<b>Total</b>		<b>18.78</b>	
<b>Average</b>		<b>3.76</b>	<b>Highly Required</b>

The result presented in Table 3 indicates that digital formats is highly required by business education undergraduates for global business environment. This revelation is based on a weighted mean 3.76 in a four-point scale.

H0: There is no significant influence in mean responses of business education undergraduates in UNICAL and CRUTECH on the influence of electronic education on skill acquisition for global business environment.

**Table 4:** Independent t-test statistical analysis of no significant difference in mean responses of business education undergraduates in UNICAL and CRUTECH on the influence of electronic education on skill acquisition for global business environment.



<b>Variable</b>	<b>n</b>	<b>Mean</b>	<b>SD</b>	<b>t-cal</b>
UNICAL	73	0.365	0.604	1.95
CRUTECH	127	3.255	1.80	

The result presented in Table 4 indicates that the calculated t-value of 1.95 is very slightly less than the critical t-value of 1.96 at degree of freedom of 198 at .05 significant level. Therefore, there is no significant difference in mean responses of business education undergraduates in UNICAL and CRUTECH on the influence of electronic education on skill acquisition for global business environment. Therefore, the null hypothesis is sustained.

### **Discussion of Findings**

The major findings emanating from this study based on answers to research questions are that: Network with broadband connectivity was highly required by business education programme; Software tools and techniques for creation of Data base was averagely required by business education programme; Business education curriculum contents in digital formats was highly required by business education programme; High skill acquired. Finding based on test of hypothesis was that there was no significant difference in mean responses of business education undergraduates in UNICAL and CRUTECH on the influence of electronic education on skill acquisition for global business environment.

Reports from other authors indicated that the changing world of technology requires adaptation to technological advancement. For instance, Kotler (2015) reported that business now, is operating in a globalised economy where things are moving in a nanosecond pace; markets characterised by hyper-competition; disruptive technologies challenging every business; and that business must adapt to the empowered consumers. Also, Kotler and Armstrong (2016) echoed this in their views of what a marketing course should be and put succinctly: “a successful marketing course requires more than a well written book. Today's classroom requires a dedicated teacher, well-prepared students, a fully integrated teaching system. Subramanyam (2008) reported that studies of ICT development in both developed and developing countries identify at least four broad approaches through which educational systems and individual institutions proceed in this adoption and use of ICT.

### **Conclusion**

Based on the findings made, it is concluded that business education requires electronic-based learning for the enhancement of undergraduates' skills acquisition for the global business environment. It is also concluded that electronic-based learning is most needed to compliment the usual face-to-face and classroom-based learning considering the global demand for knowledge economy as against the goods economy.

### **Recommendations**

Based on the conclusions drawn, it is recommended that:

1. Institutions offering business education should adequately provide Network with Broadband Connectivity for usage.



2. Institutions offering business education should adequately provide Software tools and techniques for creation of Database and train students to acquire the skills for usage;
3. Institutions offering business education should adequately provide Business education curriculum contents in digital formats and same utilised by students and lecturers.

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