

- maintain their standards of nurturing their students to ensure continued efficient performance of the graduates in employment.
- Constant revision of programme is recommended for the inculcation of new skills and competences as office demands change.

#### REFERENCES

- Agomuo, E.C. (2005). Business education graduates assessment of ICT skills needed in business teacher education programmes. *Business Education Journal*, 5(1), 105-1
- Amadi, U.P.N., Orikpe, C.A., & Osinem, C.E. (1998). *Introduction to vocational and technical education*. Owerri: Alphabet Nigerian Publishers.
- Bradford, B.B. (1976). *Management minded supervisor (second edition)*. New York: McGRAW-HILL BOOKCOMPANY.
- Ezeagu, E.S., & Ibe, F. U.O. (1987). *Senior secondary commerce. Onitsha: Jet Publishers.*
- Ezeobi, J.N. (2011). *Advance course on principles and practice of management: theory and application*. Enugu: SNAAP Press Limited.
- Federal Republic of Nigeria (FRN, 2004). *National Policy on Education (4<sup>th</sup> edition)*. Lagos:
- Ibgbami, D.B.O. (2004). Improving national standards for business education teachers. *Book of Readings in Business Education* 1(4), 1-10.
- Ile, C.M. & Okolocha, C.C. (2005). Employment opportunities for business education graduates in the information age. *Journal of Vocational and Adult Education* 4(1), 42-46.
- Iwuoha, C.C. (1999). Managing technological resources by today's secretaries for sustainable economy. *Business Education Review*, 1 (1), 44-51.
- National Commission for Colleges of Education (NCCE) (2008). *Minimum standards for Nigeria certificate in education, vocational and technical (Rev. Ed.)*. Kaduna: Author.
- National Commission for Colleges of Education (NCCE) (2012). *Minimum standards for Nigeria certificate in education, vocational and technical (Rev. Ed.)*. Kaduna: Author.
- Ogunfunminiyi, A.O., & Adedijo, C.M. (2010). Strategies for improving supervision of business education research in Osun State colleges of education. *Business Education Journal*, 7(2) 38-45
- Okoye, J.C. (2010). *Modern management techniques and development administration*. Onitsha: Abbot Boots Limited.
- Onah, B.I. & Okoro, F. (2010). Strategies for enhancing the accessibility and use of information and communication technology in the Colleges of education in Enugu State. *Nigerian Vocational Journal*, 14 (2), 104-113.
- Onwuchekwa, C.I. (1993). *Management theory and organizational analysis, a contingency theory approach*. Enugu: Obio (Nig) Enterprises.
- VOCED (Vocational Education Department), UNIZIK (2005) *Self-Study on Business Education for Accreditation, Awka: Author*

## BUSINESS EDUCATORS' ASSESSMENT OF AVAILABLE ICT RESOURCES FOR TEACHING BUSINESS EDUCATION COURSES IN TERTIARY INSTITUTIONS IN SOUTH SOUTH NIGERIA.

**Dr. (Mrs.) C.O. Nwadiani**

Department of Vocational and Technical Education  
University of Benin, Benin City

**Dr (Mrs) C.C. Okolocha**

Department of Vocational Education  
Nmamdi Azikiwe University, Awka

#### Abstract

*This study assessed available ICT resources for teaching business education courses in tertiary institutions in South South Nigeria. One research question was raised and answered while two null hypotheses were tested at 0.05 level of significance. The descriptive survey design was adopted for the study. The population comprised all 240 business educators in the colleges of education and universities in this area. The entire population was used. A structured questionnaire was used as instrument for data collection. Kuder Richardson statistics was used to establish the reliability; a reliability coefficient of 0.73 was obtained. Data collected were analyzed using percentage, mean and standard deviation to answer the research question and the null hypotheses were tested at 0.05 level of significance using t-test statistics. The findings showed there are no ICT resources for teaching business education courses and that college of education have more ICT have more ICT resources than the universities. Conclusions were drawn and relevant recommendations were made among others that government and relevant stake- holders should provide adequate and relevant ICT resources for the teaching of business education courses in tertiary institutions.*

#### Introduction

Availability according to the Random house dictionary of English language is the state of being available. For Information and Communication Technology (ICT) resources to be utilized in the teaching and learning of business education courses, those resources must be available in our tertiary institutions. Business education is that aspect of education that enhances students' work orientation and makes transition from school to the world of work less difficult. The emphasis is geared towards exposing the recipients to relevant knowledge and acquisition of skills necessary for gainful employment in any specific business. Business education according to Osuala (2004) is a programme of instruction which consists of two parts: office education, a vocational programme of office careers through initial, refresher and upgrading education; and general business education; a programme to provide students with information and competencies which are needed by all for managing personal business affairs using the services of the business. The world today has become a global village because of the advancement in Information and Communication Technology. For the educational system to produce graduates that are relevant in modern labour market, conscious efforts should be made to provide ICT resources in our educational system with

particular emphasis on tertiary institutions.

ICT is made up of three basic components namely; electronic processing using the computer, transmission of information telecommunication equipment and dissemination of information in multimedia (Okwuanaso, 2004). Wadi and Sonia (2002) asserted that ICT can enhance the quality of business education courses in several ways. These are increases learner's motivation and engagement; facilitate the acquisition of basic skills and enhance teacher training. With its tremendous potential, it is expected that ICT resources needed to effectively teach business education should be provided. However, Federal Republic of Nigeria (FRN,(2004) in the National Policy on Education recognized that without a well-established business education programme in our tertiary institutions, there will be no solid technological base for the production of goods and services for the citizens of any nation. According to Titiloye (2006), ICT globalization theories, principles and practices can only be transmitted through business education which is a sub-set of vocational and technical education in tertiary institutions. Therefore, the capacity of any society especially the developing world like Nigeria to fully appreciate and acquire necessary skills in globalized economy depends on the effectiveness and relevance of its business education programme.

Electronic learning commonly referred to as e-learning is gaining ground in our tertiary institutions because of its numerous benefits. Krarisddappa (2004) opined that for a sustainable development of any nation today, e-learning has become essential knowledge to every nation and more so to the developing nations. Hornby, (2002) and Ebijuwu, (2005) defined ICT as a tool for collecting, processing, storing, transmitting and dissemination of information. With advancement in ICT, electronic information resources such as electronic books, electronic journals, CD-ROMS, data bases, OPAC, online data bases and internet have launched the world into an information age.

The educational system in Nigeria has witnessed a drastic change in technological innovations which have in that process altered the nature, content and environment of the school in general and business education in particular. The effect of ICT resources availability in business education cannot be overemphasized as it has greatly impacted on business activities and procedures. A critical look at present business education courses shows that there is need to make ICT resources available for teaching and learning to produce graduates that will be productive members of the work-force in the automated office. ICT resources if available for teaching will make learning not only meaningful but also interesting and applicable to work. For the teacher to be effective, students' performances most improve after a period of instruction both within and outside the school system.

Availability of ICT resources for teaching business education is potentially powerful as enabling tools for educational advancement. It is one of the most viable interventions towards educational reforms. When different ICT resources are available for teaching it helps to expand access to education, strengthen the relevance of education to the increasing digital workplace and raise educational quality. This is done by helping to make teaching and learning an active process to real life (Okoro & Ndinechi, 2013). Not only do most schools

ensure that learners possess the competencies to cope with these new information and communication tools productively, they must also equip learners with critical and analytic tools necessary to live and survive in an information oriented environment through teaching and continuous learning. With the present popularization of ICT resources, business educators cannot afford to continue to train students with obsolete equipment such as manual typewriter, dictating machines, stopwatches, tape recorder and others. Otherwise on graduation it will be difficult for them to fit into the modern office that is automated.

Ezenwafor (2012) stated that the need for individuals of different ages, levels and vocation to possess competencies and skill in ICT resources for success in whatever endeavor can never be overemphasized. It is a common belief by educators like Ajayi and Ekundayo (2009) that the availability of interactive ICT based teaching is crucial to improved classroom learning. They asserted that advance ICT will fundamentally change the teaching process and structure. However, availability of ICT resources in teaching of business education courses is not automatic but requires conscious effort to acquire desired competencies. It also requires conscious planning for budgetary allocation for purchase of teaching and learning facilities. In addition with the advancement and increase in the application of ICT resources in contemporary times in colleges of education and universities where business education courses are offered, there seem to be lots of challenges with the provision.

The World Bank (2002) posited that ICT resources consist of hardware, software application, networks and media for collecting, storing, processing, transmitting and presenting information. From above the new ICT resources required to teach business education include computer, electronic media, internet, word processor, overhead projector, television, filmstrip, radio, electronic white board and others.

#### Statement of the Problem

With ICT resources availability, teaching and learning can be carried out without physical or face to face contact as is hitherto the case in the traditional approach. ICT has tremendously and positively affected developments in all facets of human endeavor. It is observed by stake-holders and employers of labour that most business education graduates employed could not manipulate proficiently ICT resources which are the main tools for working in any modern office. Studies by Bolaji, (2007) and Oladimi and Oladipo (2006) revealed that ICT resources availability fall below expectation. This may be connected with the fact that ICT resources are not available for teaching in colleges of education and universities.

Okoye (2010) asserted that most tertiary institutions appear to lack ICT resources for the teaching of business education courses. Aduwa-ogiegbean and Iyamu (2005) corroborated that student complained of being taught using obsolete equipment. This is however no empirical evidence to ascertain the actual situation regarding the availability of ICT resources in colleges of education and universities in south south Nigeria. The questions therefore are whether ICT resources are available? and what ICT resources are available for

the teaching of business education courses in colleges of education in universities?

**Purpose of the study**

The main purpose of the study was to assess available ICT resources for teaching business education courses as perceived by business educators in colleges of education and universities.

**Research Question**

The following research question guided the study

1. In the opinion of business educators what ICT are available for teaching in colleges of education and universities?

**Hypotheses**

The following null hypotheses were tested at 0.05 level of significance

1. There is no significant difference in the opinion of business educators in colleges of education and universities regarding the available ICT resources for business education courses.
2. There is no significant difference in the mean ratings of male and female business educators' regarding available ICT resources for teaching business courses.

**Method**

The design adopted for this study was descriptive survey. The population of the study comprised 240 business educators in colleges of education and universities in south south Nigeria. Data were collected with a structured questionnaire divided into two sections; Section A and Section B. Section A sought demographic information about the respondents while Section B sought information on items on available ICT resources for teaching business education courses with two point response option.

The instrument was subjected to face and content validity. Four experts validated the instrument while the reliability was determined by administering the questionnaire on twenty business educators outside the sample population. Data collected were analyzed using Kuder Richardson statistics and reliability coefficient of 0.73 was obtained. Copies of the questionnaire were administered by the researcher with the help of six research assistants. Out of the 240 copies of the questionnaire distributed, 213 copies representing 88% were retrieved and used for the study. Data collected with the questionnaire were analyzed using descriptive statistics of percentage, mean and standard deviation to answer the research questions while the null hypotheses were tested using inferential statistics of t-test at 0.05 level of significance.

**Research Question**

What ICT Resources are available for the teaching of business education courses in colleges

of education and universities in south south Nigeria as perceived by business educators?

**Table 1: Business educators' ratings on the available ICT resources for teaching business education courses in colleges of education and universities**

S/N	ICI Resources	Collages of Education		University		Total	
		Available	Not Available	Available	Not Available	Available	Not Available
1	Computer	105(81.4%)	24(19.6%)	76(90.5%)	8(9.5%)	181(84.9%)	32(15.1%)
2	Tele conferencing Machine	13(10.1%)	116(89.9%)	4(4.8%)	80(95.2%)	17(8.0%)	196(92%)
3	Film Strip	28(21.7%)	101(78.3%)	7(8.3%)	77(91.7%)	35(16.5%)	178(83.5%)
4	Video conferencing Machine	21(16.3%)	108(83.7%)	13(15.5%)	71(84.5%)	349(16%)	179(84.5%)
5	Overhead Projector	44(34.1%)	85(65.9%)	49(58.3%)	35(41.7%)	93(43.7%)	120(56.3%)
6	Radio Player	79(61.2%)	50(38.8%)	28(33.3%)	56(66.7%)	107(50.3%)	106(49.7%)
7	Tape recorder	83(64.3%)	46(35.7%)	28(33.3%)	56(66.7%)	107(50.3%)	106(49.7%)
8	Telephone	65(50.4%)	64(49.6%)	38(45.2%)	46(54.8%)	103(48.4%)	110(51.6%)
9	Internet	74(57.4%)	55(42.6%)	50(59.5%)	34(40.5%)	124(58.2%)	9(41.8%)
10	Electronic mail	51(39.5%)	78(60.5%)	37(44.0%)	47(56.0%)	88(41.4%)	125(58.6%)
11	Facsimile	22(17.1%)	107(82.9%)	7(8.3%)	77(91.7%)	29(13.7%)	84(86.3%)
12	Teleprocessing Machine	18(14.0%)	111(86.0%)	3(3.6%)	81(96.4%)	21(9.9%)	192(90.1%)
13	Multimedia and Hypermedia	20(15.5%)	109(84.5%)	9(10.7%)	76(89.3%)	34(16.0%)	179(84.0%)
14	Electronic Commerce	20(15.5%)	109(84.5%)	9(10.7%)	76(89.3%)	34(16.0%)	179(84.0%)
15	Electronic Banking	52(40.3%)	77(59.7%)	23(27.6%)	61(72.6%)	75(35.3%)	138(64.7%)

Results in Table 1 showed the data on the business educators' assessment of available ICT resources for teaching business education courses in colleges of education and universities in south south Nigeria. The data indicated that only four ICT resources were available for teaching business education in colleges of education and universities. The most available in the institutions was the computer with the highest rating of 84%, followed by internet with 58% and radio player 50%. telephone (48.4%); tape recorder (50.3%); overhead projector (43.7%) and electronic mail (41.4%) were moderately available in the institutions generally. The very low available ICT resources were electronic banking (35.3%); film strip (16.5%); video conferencing (16%); electronic commerce (16%); facsimile (13.7%); teleprocessing machine (9.9%) and teleconferencing machine (8%) respectively.

Specifically, in the colleges of education, while five ICT resources, computer (81.4%); tape recorder (64.3%); Radio player (61.2%); Internet (57.4%) and Telephone (50.4%) were assessed to be available, only three ICT resources computer (90.5%); internet (59.5%) and overhead projector (58.3%) were found to be available in the universities. On the whole, the information on Table 1 showed that ICT resources for teaching business education were more available in colleges of education than in the universities in South south Nigeria.

**Hypothesis 1**

There is no significant difference in the perceived mean scores of business educators in

Dr. (Mrs.) C.O. Nwadiani & Dr (Mrs) C.C. Okolocha

colleges of education and universities regarding the ICT resources that are available for teaching business education courses.

**Table 2:** t-test summary of business educators in colleges of education and universities regarding the ICT resources that are available for teaching.

Type of institution	No. of cases (N)	Mean (c)	SD	Df	t-cal.	T-cri
College of Education	129	5.43	3.581	211	1.786	.076
University	84	4.58	3.094			

The result in Table 2 revealed that the calculated t-value (1.786) is greater than the critical t-value (.076) at 211 degree of freedom and 0.05 level of significance. Therefore there was a significant difference in the mean scores of business educators in colleges of education and universities regarding ICT resources that are available for teaching business education courses. Therefore the hypothesis which states that there was no significance difference in the perceived mean scores of business educators in colleges of education and universities was not accepted. This indicated that ICT resources were not available for teaching in both colleges of education and universities.

**Hypothesis 2**

There is no significant difference in the perceived mean rating of male and female business educators regarding the available ICT resources for teaching of business education courses.

**Table 3:** t-test summary of male and female business educator's rating regarding available ICT resources for teaching business education courses

Gender	No. of cases (N)	Mean (c)	SD	Df	t-cal	t-cri
Male	122	44.36	9.249	211	.330	.742
Female	91	43.93	9.436			

**Table 3:** t-test summary of male and female business educators' mean ratings regarding the available ICT resources for teaching business education courses. The result in Table 3 showed that the calculated t-value (.330) was less than the critical t-value (.742) at 211 degree of freedom and 0.05 level of significance. Therefore the hypothesis was accepted. There was no significant difference in the perceived mean rating of male and female business educators regarding ICT resources that were available for teaching business education courses.

**Discussion**

The finding in Table 1 showed that colleges of education and universities in south south

Dr. (Mrs.) C.O. Nwadiani & Dr (Mrs) C.C. Okolocha

Nigeria do not have adequate ICT resources for teaching business education courses. The world of business and in short the society at large has become automated and only well trained graduates with ICT knowledge will be able to fit in with little or no difficulty. According to Akudolu, (2003) educators have to use ICT resources of the day to embrace new teaching roles such as interactive video, CD-ROM, computer, programming of instruction, teleprocessing machine and others. There is a technological revolution in the world today in terms of ICT usage. Nigerian educators cannot afford to be left behind while other countries embrace this innovation whole heartedly. This goes to confirm that availability determines utilization such that, if the ICT resources are not provided by the relevant authorities it becomes impossible for educators to access them in teaching. Supporting this finding, AduwaOgiegbean and Iyamu (2005) asserted that Nigerian students are being taught with obsolete facilities. This inevitably put the graduates on the disadvantage side as they are most times not able to meet up with the challenges of the automated office and world of work. At this point it is important to note that optimizing this ICT resources availability depends on the educational system and the educators' who are the principal implementers of curriculum. Therefore to ensure future job stability for business education graduates and at the same time adding value to business production function, ICT resources availability is the answer.

**Conclusion**

Based on the findings of the study, the following conclusions are drawn: That both colleges of education and universities operate in the same educational management environment and governmental political will towards education. Generally, tertiary education in many states and indeed Nigeria are underfunded. It is clear that ICT resources are not available for teaching, although colleges of education in this area have more ICT resources than universities.

**Recommendations**

In view of the findings of the study, the following recommendations are made for policy making:

1. Relevant and adequate ICT resources required to effectively teach business education courses should be provided on regular basis not only by federal and state government that established the institutions but also by other stakeholders or donors. Products (Alumni) of these business education departments who are well placed could be encouraged to assist in this direction.
2. Through well-organized institutional- employers' relationship, organizations that utilize products of business education programme can partner with tertiary institutions in the provision of ICT resources for teaching business education.
3. ICT agencies should assist with free distribution of resources to schools as their cooperate social responsibility to community where they are located.

## References

- Ajayi, I. A. & Ekundayo, H. T. (2009). The application of information and communication technology in Nigeria secondary schools. *International NGO Journal* 4(5) Retrieved on the 10<sup>th</sup> of Nov. 2011 from [www.academicjournals.org/ingoj/pdf/.../Ajayi% 20 Ekundayo.pdf](http://www.academicjournals.org/ingoj/pdf/.../Ajayi%20Ekundayo.pdf).
- Aduwa-Ogiegbaen, S. E. & Iyamu, E. O. (2005). Using Information and communication technology in secondary schools in Nigeria: *Problems and Prospects. Educational Technology and Society*, 8(1), 104112.
- Bolaji, L. (2001). *ICT the hopes and reality in school*. 1<sup>st</sup> ed. Ibadan: University Press.
- Ebijuwa, A. A. (2005). Information and communication technology in university libraries: the Nigeria experience. *Journal of Library and Information Science* 7 (1&2): 23- 30.
- Ezenwafor J. I. (2012). Adequacy of exposure to ICT by graduating business education students of tertiary institutions in Anambra State. *Business Education Journal* 6(2) 45-60.
- Federal Republic of Nigeria (2004). *National policy on education*, Lagos: NERDC Press.
- Hornby, A. O. (2002). *Oxford advanced learner's dictionary*, London: Oxford university press.
- Karisddappa, C. R. (2004). Library and information science curriculum for developing countries. A paper presented at IFLA General Conference and Council.
- Okwuanaso, S. I. (2004). Improving standards in business education in Nigeria. *Business Education Journal*. 4(2)12-23
- Okwudishu, C. H. (2005). Awareness and use of information and communication technology and secondary schools: First results from the ICTs in school survey, 2003-2004. Available on <http://www.stacan.ca/English/research/81-595>. MIE 2004 07.pdf.
- Okoro, L. B & Ndinechi, G. I.(2013). Assessment of ICT competencies possessed by polytechnic OTM lecturers in south south geo-political zone of Nigeria. *Journal of Vocational and Adult Education* 8 (1) 1-15.
- Okoye, K. R. E. & Eze, T. I. (2010). Enhancing quality in educational practice and instructional delivery by teachers technology and vocational education in Nigeria. African research review. *An International Multi-disciplinary Journal. Ethiopia* 4 (2) 355-69.
- Oladimi, B. & Oladipo, T.(2000). Information and technology in schools: the way forward: 1 (ed).
- Osuala, E. C. (1992). Vocational education and manpower development. Journal of vocational training in socio-economic development of Nigeria. *Journal of Nigeria Publication:University of Nigeria, Nsukka*.
- Titiloye, A. K. (2006). Business education and the challenges of globalization: An overview: Journal of office management and technology. *Multi-disciplinary Journal for managers and technology, secretaries. Office professionals, business educators and information management expert* 1(1)320-325.
- Wadi, sD. & Sonia, J. (2002). ICT for education potential potency: in W. Hadded & A. Drexler (Eds). Technologies for education: Potential parameters and prospects (Washington D. C.; Academy for educational development and Parris: UNESCO) Pp. 34-37.
- World Bank (2002). Constructing knowledge societies. *New challenges for tertiary education. Washington. World Bank*.