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Assessment of Adequacy of Available New Technologies in Business Education for Instructional Delivery in State-Owned Universities in Delta and Edo States

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ABSTRACT
The study assessed the adequacy of available new technologies in Business Education for instructional delivery in State-owned Universities in Delta and Edo States of Nigeria. A survey research design was adopted. The area of the study was State-owned Universities in Delta and Edo States of Nigeria. The population comprised 25 Business Educators in the institutions. Two research questions and two null hypotheses guided the study. The study used a four-point rating scale questionnaire with 20 items each in two clusters. The instrument was validated by three experts and it obtained a reliability coefficient of 0.86 after being tested with the use of Cronbach Alpha. Data collected were analysed using mean and standard deviation for answering the research questions and t-test for testing the null hypotheses at 0.05 level of significance. Result of the study revealed that new technologies in Business Education for instructional delivery are not adequately provided for, and as such discouraging Business Educators from effective utilization of these new technologies in teaching Business Education. Recommendations were made among others that Government should release enough funds for the acquisition of new technologies in Business Education needed for instructional delivery to enhance effective teaching and enable the students acquire the skills needed in this technological age.
Keywords: Adequacy, Available, New Technologies, Business Education, State-owned.

INTRODUCTION

The world has gone technological and this has permeated every field of endeavour including education. Education is a vital part of development of an individual's life, it opens door to excellent career opportunities. Formal education consists of systematic instruction, teaching and training by teachers. According to Adegbenjo (2014), for effective formal education to take place, there must be interaction between the teacher and the students through the use of resources (new technologies) that aid effective teaching and learning process. New technologies as part of the resources which aid the effectiveness of teaching and learning process have great potential for knowledge dissemination, effective learning, and the development of more efficient educational services. Technologies have been used to achieve success in delivery instructions in education system (Fasae and Olowe, 2014).

Business Education is an aspect of learning that prepares individuals for roles in business and offers them knowledge about business. Okolocha, Ile and Okolocha (2012) opined that Business Education has such options as accounting, secretarial technology, commerce-cooperative, economics, marketing/distributive education, and that it trains her students for office careers or occupations and for entrepreneurship, as distributors of goods and services, or as users of information. Business Education is a programme of instruction that is meant to prepare people for jobs requiring specialized training. According to Ogben and Amahi (2008) Business Education equips students with knowledge and skills that will enable them find a job after schooling across territorial boundaries or which they can use to create their own employment.

Ile (2008) asserted that to ensure optimum teaching and learning under the best conditions, Business Education Departments are expected to be adequately and sufficiently provided with requisite instructional facilities and

equipment. The author submitted further that where the requisite teaching and learning tools are non-existent or inadequate, effective instruction may not take place. The research findings of Okwuanaso (2004) revealed that in comparison with objectives in the National Policy on Education (FRN, 2004); Business Education as practiced in schools in Nigeria has so far failed to meet up the expected standards. The author attributed this poor state to the inability to adopt and utilize requisite new technologies in instructional process.

New technologies in Business Education could be seen as ICT devices that are used for instructional delivery. The term new technologies, according to UNESCO (2009) refer to the application of scientific knowledge, devices and systems to facilitate the information/communication driven activities. New technologies are seen as the scientific methods of utilizing modern equipment for the accomplishment of teaching goals and objectives in schools (Wole, 2012).

The use of new technologies for pedagogical delivery has undoubtedly affected teaching, learning and research, and its integration has helped revitalize teachers and students alike (Zakka and Morris, 2009). The application of new technologies in educational setting, by itself, acts as a catalyst in this domain and by their nature, they are tools that encourage and support independent learning, thereby giving way to new scenarios which favour both individual and collaborative learning. New technologies are logical and strategic approaches to achieving Nigeria's technological transformation; they are critical in implementing education road map designed to revamp the education sector (Sam, 2011).

Adu, Eze, Salako and Nyangahi (2013) contended that new technologies consist of computers, scanners, printers, internet, intranet, e-mail, videophone system, teleconferencing devices, wireless application protocol (WAP), radio and microwaves, television and satellites, multimedia computers and multimedia projectors. These new technologies are regarded as tools for instructional delivery through electronically-mediated, well-designed learner-centred and interactive learning environments to anyone, anyplace and anytime by utilizing the internet and digital technologies in connection with instructional design principles (Hedge and Hayward, 2004).

Statement of the Problem

One of the aims of new technologies in Business Education is to improve the quality and expand access to practical areas for which there has been neglect through use of the traditional method of 'talk and chalk'. This aim has not yet been realised in Business Education programme due to the challenges of somewhat available and somewhat adequate of these new technologies for instructional delivery, and this has generated serious concern among Business Educators and researchers in Business Education. Business Education programme in State-owned Universities in Delta and Edo States of Nigeria face the problem of lack of adequate new technologies in Business Education for instructional delivery. Therefore, this study tries to assess the level of availability and adequacy of new technologies in Business Education at the reach of Business Educators for instructional delivery in State-owned Universities in Delta and Edo States of Nigeria.

Purpose of the Study

The purpose of this study was to assess the level of availability and adequacy of new technologies in Business Education at the reach of Business Educators in State-owned Universities in Delta and Edo States of Nigeria for instructional delivery. Specifically, the study sought to:

1. Find out the available new technologies in Business Education for instructional delivery in State-owned Universities in Delta and Edo States.
2. Find out the adequacy of the available new technologies in Business Education for instructional delivery in State-owned Universities Delta and Edo States.

Research Questions

The following research questions were raised to guide the study.

1. What are the available new technologies in Business Education for instructional delivery in State-owned Universities in Delta and Edo States?
2. How adequate are the available new technologies in Business Education for instructional delivery in State-owned Universities Delta and Edo States?

Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance.

1. There is no significant difference in the mean responses of Business Educators in Delta State University, Abraka and Ambrose Ali University, Ekpoma, on the available new technologies in Business Education for instructional delivery in State-owned Universities in Delta and Edo States.

2. There is no significant difference in the mean responses of Business Educators in Delta State University, Abraka and Ambrose Ali University, Ekpoma on how adequate are the available new technologies in Business Education for instructional delivery in State-owned Universities in Delta and Edo States.

METHOD

The survey research design was used for the study. Two State-owned Universities in Delta and Edo States, namely Delta State University, Abraka and Ambrose Ali University, Ekpoma were used as the area of the study. The population comprised of all 25 Business Educators in both institutions. The entire population was studied; no sample was drawn because of the manageable size of the population. A structured questionnaire on a 4-points scale was used to collect data for the study. The questionnaire comprised of two sections: Section A requested for the bio-data of the respondents while section B contained items on the availability and adequacy of new technologies in Business Education at the reach of Business Educators for instructional delivery in State-owned Universities in Delta and Edo States of Nigeria with the following responses options: Research Question 1: Much Available (MA) 4 points; Available (A) 3 points; Somewhat Available (SA) 2 points; and Not Available (NA) 1 point. Research Question 2: Much Adequate (MA) 4 points; Adequate (A) 3 points; Somewhat Adequate (SA) 2 points; and Not Adequate (NA) 1 point.

Two experts from Business Education and one from Measurement and Evaluation Departments in University of Benin, Benin City, Edo State validated the questionnaire. The questionnaire was also subjected to a reliability test and a reliability index of 0.86 was obtained. Mean and standard deviation were used to answer the research questions while t-test was used to test the null hypotheses at 0.05 level of significance. Any item with a mean rating that was equal to or more than 2.50 was regarded as Available/Adequate while any mean score that is less than 2.50 was regarded as Somewhat Available/Adequate. The decision rule for testing the null hypotheses was that: if the calculated t-value of a given null hypothesis is less than the critical t-value, that null hypothesis was upheld. On the other hand, if the calculated t-value is greater than the critical t-value, the null hypothesis was rejected.

DATA PRESENTATION AND ANALYSIS

Research Question One

What are the available new technologies in Business Education for instructional delivery in State-owned universities in Delta and Edo States?

Table 1: Analysis of Mean Ratings Responses of Business Educators in Delta State University (DELSU), Abraka and Ambrose Ali University (AAU), Ekpoma on the Available New Technologies in Business Education for Instructional Delivery

S/N	New Technologies in Business Education	DELSU			AAU		
		Mean	STD	Decision	Mean	STD	Decision
1	Computers	2.81	0.86	A	2.57	0.68	A
2	Television	1.14	0.20	SA	1.31	0.56	SA
3	Tape Recorder	1.09	0.36	SA	1.13	0.38	SA
4	Overhead Projector	2.64	0.47	A	2.54	0.45	A
5	Digital Versatile Discs (DVDs)	2.21	0.54	SA	2.14	0.35	SA
6	Compact Discs (CDs)	2.08	0.37	SA	1.99	0.34	SA
7	Interactive White Board	2.73	0.75	A	2.55	0.63	A
8	e-learning Centres	1.01	0.10	SA	1.00	0.11	SA
9	e-library	1.17	0.37	SA	1.07	0.28	SA
10	Internet services/facilities	2.26	0.57	SA	2.18	0.50	SA
11	Printer	2.50	0.62	A	2.57	0.30	A
12	Video conferencing	1.03	0.25	SA	1.02	0.14	SA
13	Photocopiers	1.09	0.36	SA	1.07	0.28	SA
14	Dictating Machines	1.14	0.20	SA	1.13	0.38	SA
15	Electronic Typewriter	1.15	0.45	SA	1.09	0.53	SA
16	Local Area Network	2.17	0.80	SA	1.83	0.71	SA

17	Wide Area Network	2.37	0.48	SA	1.93	0.61	SA
18	Teleconferencing	1.42	0.63	SA	1.83	0.74	SA
19	Software packages	1.58	0.81	SA	1.98	0.61	SA
20	Franking machine	1.67	0.62	SA	1.01	0.82	SA
	Grand Mean	**1.76**	**0.49**		**1.70**	**0.47**	

KEY: A = Available; SA = Somewhat Available.

Research Question Two

How adequate are available new technologies in Business Education for instructional delivery in State-owned universities in Delta and Edo States?

Table 2: Analysis of Mean Ratings Responses of Business Educators in Delta State University (DELSU), Abraka and Ambrose Ali University (AAU), Ekpoma on how Adequate are Available New Technologies in Business Education for Instructional Delivery

S/N	New Technologies in Business Education	DELSU			AAU		
		Mean	STD	Decision	Mean	STD	Decision
1	Computers	1.56	0.56	SA	1.50	0.66	SA
2	Television	1.03	0.88	SA	1.05	0.70	SA
3	Tape Recorder	1.19	0.99	SA	1.10	0.54	SA
4	Overhead Projector	1.10	0.94	SA	1.09	0.45	SA
5	Digital Versatile Discs (DVDs)	1.10	1.01	SA	1.13	0.49	SA
6	Compact Discs (CDs)	1.03	0.89	SA	1.07	0.63	SA
7	Interactive White Board	2.57	0.96	A	2.50	0.91	A
8	e-learning Centres	1.07	0.85	SA	1.03	0.87	SA
9	e-library	1.02	0.72	SA	1.07	0.77	SA
10	Internet services/facilities	1.07	0.96	SA	1.07	0.94	SA
11	Printer	1.03	0.55	SA	1.03	0.45	SA
12	Video conferencing	1.00	0.00	SA	1.00	0.00	SA
13	Photocopiers	1.03	0.75	SA	1.77	0.77	SA
14	Dictating Machines	1.00	0.00	SA	1.00	0.00	SA
15	Electronic Typewriter	1.00	0.00	SA	1.91	0.95	SA
16	Local Area Network	1.09	0.36	SA	1.02	0.14	SA
17	Wide Area Network	1.14	0.20	SA	1.07	0.28	SA
18	Teleconferencing	1.00	0.00	SA	1.00	0.00	SA
19	Software packages	1.17	0.80	SA	1.09	0.53	SA
20	Franking machine	1.00	0.00	SA	1.00	0.00	SA
	Grand Mean	**1.16**	**0.57**		**1.23**	**0.50**	

KEY: A = Adequate, SA = Somewhat Adequate.

Table 2 shows the level of adequacy of available new technologies in Business Education for instructional delivery in State-owned universities in Delta and Edo States. The table shows that while only 1 of the items; interactive whiteboard, was considered as adequate, 19 of the items were considered to be somewhat adequate.

Testing of Hypotheses

Hypothesis One

There is no significant difference in the mean responses of Business Educators in Delta State University, Abraka and Ambrose Ali University, Ekpoma, on the available new technologies in Business Education for instructional delivery in State-owned universities in Delta and Edo States.

Table 3: t-test Analysis of Business Educators in Delta State University (DELSU), Abraka and Ambrose Ali University (AAU), Ekpoma on the Available New Technologies in Business Education for Instructional Delivery

Respondents	N	Mean	STD	DF	P	t-Cal.	t-Crit.	Decision
DELSU	14	1.76	0.49					
				23	0.05	0.30	2.07	Upheld
AAU	11	1.70	0.47					

Table 3 presents the t-test analysis of Business Educators in Delta State University, Abraka and Ambrose Ali University, Ekpoma on the available new technologies in Business Education for instructional delivery in State-owned universities in Delta and Edo States. The table shows that the calculated t-value of 0.30 is less than the t-critical value of 2.07. Therefore, the null hypothesis is upheld, implying that there was no significant difference in the mean responses of Business Educators in Delta State University, Abraka and Ambrose Ali University, Ekpoma on the available new technologies in Business Education for instructional delivery in State-owned universities in Delta and Edo States.

Hypothesis Two

There is no significant difference in the mean responses of Business Educators in Delta State University, Abraka and Ambrose Ali University, Ekpoma on how adequate are the available new technologies in Business Education for instructional delivery in State-owned universities in Delta and Edo States.

Table 4: t-test Analysis of Business Educators in Delta State University (DELSU), Abraka and Ambrose Ali University (AAU), Ekpoma on how Adequate are the Available New Technologies in Business Education for Instructional Delivery

Respondents	N	Mean	STD	DF	P	t-Cal.	t-Crit.	Decision
DELSU	14	1.16	0.57					
				23	0.05	0.35	2.07	Accepted
AAU	11	1.23	0.50					

Table 4 presents the t-test analysis of Business Educators in Delta State University, Abraka and Ambrose Ali University, Ekpoma on how adequate are the available new technologies in Business Education for instructional delivery in State-owned universities in Delta and Edo States. The table shows that the calculated t-value of 0.35 is less than the t-critical value of 2.07. Therefore, the null hypothesis was upheld implying that there was no significant difference in the mean responses of Business Educators in Delta State University, Abraka and Ambrose Ali University, Ekpoma on how adequate are the available new technologies in Business Education for instructional delivery in State-owned universities in Delta and Edo States.

DISCUSSION OF FINDINGS

The findings in Research question 1 revealed that while only 4 of the items such as computers, overhead projectors, interactive whiteboard and printers were considered as available, 16 of the items were considered to be somewhat available. The finding is in line with the study by Madu and Pam (2011) which found out that only few technologies/facilities were available for teaching and learning in Federal University of Technology, Minna, Niger State. Azih and Nwosu (2012) attributed low extent of utilization of new technology in Business Education to lack of access to the internet, lack of access to new technology hardware and software facilities like computers, multimedia projectors, laptops, video and satellite and other common problems inhibiting the effective use of new technology.

The findings in Research Question 2 showed that while only 1 of the items; interactive whiteboard was considered as adequate, 19 of the items were considered to be somewhat adequate. This finding is in line with

Aliyu (2008) who asserted that Business Education objectives seem not to have been achieved due to inadequate provisions and poor application of available modern technological equipment for teaching Business Education.

The results of the two null hypotheses tested showed that both were upheld, implying that there was no significant difference in the mean responses of Business Educators in Delta State University, Abraka and Ambrose Ali University, Ekpoma, on how adequate are available new technologies in Business Education for instructional delivery in State -owned universities in Delta and Edo States. The finding is also in line with the study of Zakka and Moris (2009) who observed that the facilities (new technologies) required for Business Education programme for instructional delivery are either grossly inadequate or not available in most of the institutions in Nigeria.

Conclusion

Business Education requires adequate new technologies for enhancing effective teaching and learning in Nigerian tertiary institutions. The availability and adequacy of these new technologies in Business Education is the bedrock for the growth of the national economy since it helps the recipients to acquire skills that enable them fit into the modern world of workplace. Also, the success of any academic programme, including Business Education, can be accomplished when facilities (new technologies) are available and adequate for instructional delivery. Therefore, the study concluded that new technologies in Business Education required to enhance instructional delivery and better the growth of the national economy are somewhat available and somewhat adequate in State -owned universities in Delta and Edo States of Nigeria.

RECOMMENDATIONS

Based on the findings and conclusion of the study, the following recommendations were made:

1. Government should release enough fund for the acquisition of new technologies in business education needed for instructional delivery to enhance effective teaching and enable the students acquire the skills needed in this technological age.
2. Issues of electricity should also be improved upon since these new technologies cannot function without electricity.
3. Internet services should be adequately provided by the institutions' authorities to enhance the usage of available new technologies.

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