



Issues and Trends in the Application of E-learning Technologies in Teaching Business Education in Universities in Niger Delta

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

The purpose of this study was to examine the issues and trends in the application of e-learning technologies in teaching Business Education in universities in Niger Delta Region. Two research questions and two null hypotheses guided the study. The entire population of 135 Lecturers was studied, and a census sampling technique was adopted. Data for the study were collected by means of questionnaire titled "Issues and trends in the application of e-learning technologies in teaching Business Education in universities (ITAETTBEU)". The questionnaire was validated by three experts. The questionnaire adopted a 4 point rating scale. Test-retest method was used for the reliability test, which yielded co-efficient index of 0.79. Mean rating and standard deviation were used to analysed the research questions, while z-test inferential statistics was used to test the null hypotheses. Findings revealed that e-learning technologies are accepted to a high extent in universities in Niger Delta, and that Business Education Lecturers utilize e-learning technologies to

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a moderate extent, for educational instruction. Based on the findings, discussion were made and conclusions drawn. Recommendations made amongst others were that managements of universities in Niger Delta region of Nigeria should provide electronic learning facilities such as computer studio with high speed internet access facilities to enable Business Education Lecturers and Students have adequate access to the web.

Keywords: Issues; trends; E-learning technologies teaching; business education.

1. INTRODUCTION

Business Education is an aspect of learning that prepares individuals for roles in business and offers them knowledge about business [1]. Business education according to [2] is a programme of instruction that consists of two parts, namely office education-a programme of vocation for office careers, and general business-a programme which provides the recipients with competencies and skills needed in managing personal business affairs and using the services of the business world. An individual who receives training in Business Education can easily develop potentials for entrepreneurship pursuits especially in this era of economic meltdown and unemployment [3].

Business Education therefore is a component of vocational technical programme that prepares an individual for career in business and also to be an intelligent consumer of economic goods and services. It provides students with the needed competencies, skills, knowledge, attitudes and understanding to perform as a worker in the industries, as well as a proprietor of a business. [4] defined Business Education as a tripartite programme of instruction which prepares the recipient or the learner either to be a teacher, an operator and to be self-reliant. Business Education which is offered at the universities and colleges of education is concerned mainly with the development of relevant and saleable skills and knowledge that would enable an individual to function effectively in the world of work. Business Education provides employment for her graduates as the programme, offer courses in entrepreneurship, marketing, management, accounting and office technology management. Business Education students are expected to possess the relevant skills, competencies and knowledge in these major aspects of Business Education graduation. For Business Education programme to sustain its relevance in providing the needs and aspirations of the individual and the general society, it must embrace current trend and issues in the application of e-learning technologies for instructional delivery. In the 21st

century in our institutions of higher learning Business Education should be delivered in the manner that the instructors training experiences will be good, better and more effective with the use of technologies such as e-learning. E-learning is said to be the use of electronic device to approach educational curriculum instead of dwelling on the old traditional classroom. E-learning is also seen as a virtual reality (VR). It is a course that is taught with the use of the internet to a learner other than the classroom the teacher is teaching. It is the application of computer technology to form an artificial environment. Unlike the traditional method VR puts the user inside an experience by modeling or duplicating as many senses as possible, such as vision, hearing, touch and smell, the computer is transformed into a gatekeeper to this artificial environment. The only limit to near-real VR experiences are the availability of content and cheap computing power. Technology brings in a change that can be part of getting significant improvement in technology. E-learning is used to aid both pedagogy in the inculcation of the needed skills which in turns increases students engagement, motivation and learning. E-learning is defined by [4] as the delivery of a learning training or education programme in tertiary institutions by electronic means. This implies that e-learning is the use of Information Communication Technology (ICT) to enhance and support learning in tertiary institutions. E-learning covers a wide range of the system, from students using e-mail and accessing work on-line while following a course on campus, to programmes offered entirely online. E-learning as a sub-system within ICT, it is the electronic process which enhances the delivery and administration of learning opportunities and support via computer, networked and web-based technologies to help individual performance and development. The basic principle of e-learning is the process by which computers are networked to share the information which can connect people [6]. This is provided for by what is often called the e-learning landscape or architecture, which refers to the hardware, software and connectivity components required to facilitate

learning [7]. E-learning technologies made up of information and communication technologies (ICTs) are represented by several tools such as cable satellite broadcast, internet and web-browsing, e-lecture, video/teleconferencing, e-workshop, e-drills, e-examination, e-books, e-library, e-mail and fax, e-sound books, e-trackers, personal computer, laptops, e-presentation (powerpoint), E-database etc. With e-learning, there is a shift from the traditional approach of teacher-directed didactic to modern methods where computer technology plays a significant role, thereby improving the quality, efficiency and effectiveness of teaching, learning, research and educational management. E-learning technologies have been found to possess the capacity to improve teaching and learning in the school classroom [8]. New technologies have the great potential to support education across the curriculum, (Business Education curriculum inclusive), and thus, provide opportunities for effective communication between teachers and students in ways that have not been possible.

The introduction of e-learning as an aspect of the e-world in the teaching and learning of Business Education program in Nigerian universities is likely to reduce the huge amount of Business Education content to mere interaction and discussion classes from around the world. E-learning technology has the potential to transform how and when students learn. E-learning delivers content via electronic information and communication technologies (ICTs). The e-learning technology has brought about two groups of people among the teachers; they are the technophile and the technophobe. Technophile refers to person who is very enthusiastic about technology, that is one who enjoys the advances in computer and media technology, while technophobe is a person who suffers from technophobia; somebody afraid of new technology. According to [9], "a technophile is a person to whom we attribute a naïve or uncritical enthusiasm for technology" [10]. Technophobia is described as the 'abnormal fear or anxiety about the effects of advanced technology', affecting one-third of the population, causing health problems and the inability to work efficiently [11].

According to [12], the use of these facilities includes various methods, including a systematic feedback system, a computer-controlled operation network, video conferences and audio conferences, global internet websites and

computer-assisted instruction. This delivery method increases the possibilities for how, where and when students can participate in lifelong learning. Teachers are particularly enthusiastic about the potential of e-learning for just-in-time learning. [13], who wrote about the challenges in applying e-learning for educational delivery to high schools in Onitsha Local Government Area, State of Anambra, Nigeria, revealed that acute shortage of e-learning materials such as e-mail facilities, internet connection. Computers multimedia computers, digital library and multimedia television were important limitations. It was also revealed that the few available such as computers, scanners, printers and ready-made courses were not used because the teachers lack the knowledge and skills of computer applications.

1.1 Statement of the Problem

The call for utilization of e-learning technologies in teaching Business Education in Nigerian universities is to infuse and inject efficiency and effectiveness in curriculum implementation. However, in third world countries like Nigeria, e-learning is challenged with the problem of acceptability and utilization of material devices such as digital library, digital classrooms, computer, computer laboratories, internet and e-mail facilities, videophone, systems and teleconferencing devices, fax and wireless applications, multimedia systems and the problem of multimedia course ware development among others by the technophobes for the fact that they are conversant with the old method, then accepting change is now a problem. Other studies indicated that there is dearth of trained teachers for e-learning, lack of facilities, infrastructures and equipment [14]. The problem is that e-learning in universities, particularly in Business Education, is challenged by the new technologies in terms of acceptability and utilization by the technophobes, while the technophiles are faced with the problem of lack of facilities, infrastructure and equipment. It is against this background that the present study is carried out to determine the issues and trend in the application of e-learning technologies in Business Education instructional delivery in Niger Delta Region. The scope of the study is limited to six (6) universities in Niger Delta offering Business Education. The objective of the study is to examine the issues and trends in the application of e-learning technologies in teaching of Business Education bearing in mind that while the technophiles love and embraces e-learning

technologies the technophobes dread and fight to avoid the new technologies. The study is based on constructivist learning theory propounded by [15]. It is one of the theories that are widely used by e-learning professionals. This theory states that learners interpret and encode the information on the basis of their own personal perception and experiences. Learners bring with them rich reserves of experiences that form the foundation of their learning. They analyse, rationalize, synthesize, and develop new ideas or tweak old ones through the filter of their experiences. This means that learners are better when they are able to attribute a personal meaning or connection to information. The theory is used in e-learning by giving real life perspectives to learners by using simulations though, providing learners with something they can relate or emotionally connect with.

1.2 Purpose of the Study

The main purpose of this study was to examine the issues and trends in the applications of e-learning technologies in teaching Business Education in universities in Niger Delta.

Specifically, the study examined.

1. The extent of acceptability of e-learning technologies for teaching Business Education programmes in universities in Niger Delta.
2. The extent of utilization of e-learning technologies for teaching Business Education programmes in universities in Niger Delta.

1.3 Research Questions

The following research questions guided the study

1. To what extent are e-learning technologies acceptable for the teaching of Business Education programmes in universities in Niger Delta?
2. To what extent are e-learning technologies utilized for teaching Business Education programme in universities in Niger Delta?

1.4 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 technophile and technophobe Business Education lecturers on the extent to which e-learning technologies are acceptable for teaching Business Education in universities in Niger Delta.
2. There is no significant difference in the mean responses of male and female Business Education lecturers on the extent to which e-learning technologies are utilized in teaching Business Education in universities in Niger Delta.

2. METHODS

The design adopted for the study was survey research design. The study area was the Niger Delta of Nigeria. The researchers are interested in the six core states of the Niger Delta that make up the south-south, geo-political zone. These states includes; Akwa Ibom, Bayelsa, Cross Rivers, Delta, Edo and Rivers. The population of the study comprised of 135 lecturers in the institutions within the core Niger Delta that offer degree programmes in Business Education. The researchers adopted census sampling technique where the entire population was studied because the number was considered small by the researchers. A structured questionnaire with 21 items in two clusters (B₁ and B₂) was used for data collection. The questionnaire adopted a modified four point rating scale with options: Very High Extent (VHE-4points), High Extent (HE-3points) Moderate Extent (ME-2points), and Low Extent (LE-1point). The 135 copies of questionnaires administered, were duly returned and used for data analysis. The initial copy of the questionnaire was subjected to faced and content validated by three (3) experts in business education, other than those used for the study. Test-retest method was used to test the reliability of the items and a reliability co-efficient of 0.79 was obtained. Mean and standard deviation was used to analyse the research questions, while Z-test was used to test the hypotheses. The decision rule states that a cut-off point of 2.50 was used to determine which item was accepted or rejected. Any item with the mean score of equal to or greater than 2.50 was accepted and any item less than 2.50 was rejected. The decision rule for hypotheses testing states that if the t-calculated is lesser than the t-critical, the hypotheses will be accepted, if greater the hypotheses will be rejected.

Table 1. Population distribution

S/N	State	Degree awarding institutions	Lecturers	Total
1.	Akwa-Ibom	University of Uyo (UNI-UYO)	10	10
2.	Bayelsa	Niger Delta University (NDU)	8	8
3.	Cross River	Cross River University of Technology	11	20
		University of Calabar	9	
4.	Delta	Delta State University Abaraka (DELSU)	8	8
5.	Edo	University of Benin (UNIBEN)	10	13
		Ambrose Ali University Ekpoma	3	
6.	Rivers	Rivers State University	11	76
		Ignatius Ajuru University of Education	65	
	Total		135	135

Source: Field survey (2019)

3. RESULTS

Research Question 1: To what extent are e-learning technologies acceptable for the teaching of Business Education programmes?

The data in Table 2 revealed the respondents rating of acceptability of e-learning technologies. The table shows that six (6) items out of eight (8) had mean values ranging from 2.76 to 3.40 which fell within the range of high extent. Two items fell within the range of moderate extent. However, with the aggregate mean of 2.99 which fell within the high extent range, it showed that the respondents affirmed that e-learning technologies are acceptable to a high extent in Universities in the Niger Delta. Additionally, cable satellite broadcast and video-teleconferencing had a mean score of 1.58 and a standard deviation value of 0.39 each. This shows how wide apart the opinions of the respondents were in rating the acceptability of e-learning technologies tools.

Research Question 2: To what extent are e-Learning technologies utilized for the teaching of Business Education Programmes in Universities in Niger Delta?

The data in Table 3 show that eight (8) out of 13 items of e-learning technologies utilized for Business Education instructional delivery had mean values of 1.50 to 1.80, which fell within the range of moderate extent. Four (4) items had mean value of 1.18 to 1.44 which fell within the range of low extent, this shows a wider range apart also the opinion and willingness of the technophobes in the rating of utilization of e-learning technologies which is a serious threat and one (1) item had mean value of 2.80 which fell within the range regarded as high extent. Nevertheless, with the aggregate mean of 1.62

which fell within the range of moderate extent, it shows that Business Education lecturers utilized e-learning technology tools for the teaching of Business Education programme to a moderate extent.

Hypothesis 1: There is no significant difference in the mean responses of technophile and technophobe Business Education lecturers on the extent to which e-learning technologies are acceptable for the teaching of Business Education in universities in Niger Delta.

The data in Table 4 reveal the Z-test of difference between the mean responses of technophile and technophobia Business Education lecturers on the acceptability of e-learning technologies for instructional delivery in Business Education. The z-cal-value stood at -8.40, while the z-critical value stood at 1.96, using 133 degree of freedom at 0.05% level of significance. The Z-calculated was less than the Z-critical value; hence the hypothesis of significance was upheld.

Hypothesis 2: There is no significant difference in the mean responses of male and female Business Education lecturers on the extent to which e-learning technologies are utilized in teaching business education in universities in Niger Delta.

The data in Table 5 show Z-test of difference between the mean response of male and female Business Education lecturers on the extent of utilization of e-learning technologies for instructional delivery in Business Education. The Z-cal-value stood at -0.35, while the Z-critical value stood at 1.96 using 133 degree of freedom, at 0.05 level of significance. The Z-cal was less than the critical value of Z, hence, the null hypothesis of significance was upheld.

Table 2. Extent of acceptability of e-learning technologies for the teaching of Business Education programmes (N=135)

S/N	Items on acceptability of e-learning technologies	\bar{X}	SD	Remarks
1.	Internet and web browsing	2.80	1.09	HE
2.	Personal computers, laptops	3.00	1.13	HE
3.	E-library and work shops	3.40	0.85	HE
4.	Video/teleconferencing	1.58	0.39	ME
5.	E-presentation (power point)	2.76	1.07	HE
6.	E-lectures and books	3.04	0.96	HE
7.	Cable satellite broadcast	1.58	0.39	ME
8.	E-mail, E-examination and trackers	2.84	1.01	HE
	Aggregate \bar{X} SD	2.99	0.98	HE

Table 3. Extent of utilization of E-learning tools for the teaching of Business Education Programmes (N=135)

S/N	Used for multimedia Tv for instructional delivery	\bar{X}	SD	remarks
1.	Use of multimedia Tv for instructional delivery	1.52	0.48	ME
2.	Use of E-learning presentation (power-point)	1.52	0.48	ME
3.	Use of multimedia computer for instruction delivery	1.80	0.25	ME
4.	E-mail facilities to enhance instructional delivery	1.60	0.18	ME
5.	Internet connected computers for instruction	1.40	0.60	LE
6.	Video/conferencing for delivery of instruction	1.44	0.50	LE
7.	Used of cable satellite broad cast	1.58	0.74	ME
8.	Use of digital library for research	1.13	0.34	LE
9.	Use of E-lectures	1.50	0.47	ME
10.	Use of E-books	1.60	0.67	ME
11.	Use of E-examination	1.78	0.66	ME
12.	Use of internet and web-browsing	1.38	0.26	LE
13.	Use of E-workshops	2.80	1.09	HE
	Aggregate \bar{X} and SD	1.62	0.52	ME

Table 4. z-test of difference between the mean response of technophile and technophobia Business Education lecturers on the extent of acceptability of E-learning technologies for instructional delivery

Status	N	\bar{x}	SD	DF	Z-Cal	Z-Tab	P-Value	Decision
Technophile	94	2.21	0.97	133	-8.40	1.96	0.05	Accepted
Technophobe	41	3.77	0.99					

Table 5. z-test of difference between the mean responses of male and female Business Education lecturers on the extent of utilization of E-learning technologies for instructional delivery

Status	N	\bar{x}	SD	DF	Z-cal	Z-crit	P-value	Decision
Male lecturers	89	1.33	0.49	133	-0.35	1.96	0.05	Accepted
Female lecturers	46	1.91	0.55					

4. DISCUSSION

The findings of the study in research questions are showed that Business Education lecturers in universities in the Niger Delta Region rated the

acceptability of e-learning technologies to a high extent. This finding is in agreement with the findings of [16] who reported that e-learning tools are available and acceptable to the high level in tertiary institutions in Nigeria. The acceptance of

e-learning in instructional delivery of Business Education will contribute to new knowledge because it will enhance exchange of ideas, practices and opinion among students. This exchange will concretize the learners' competency, enhance skills acquisition & development and also promote wider learning scope. Research question two in its findings showed that Business Education lecturers rated the utilization of e-learning technologies for Business Education instructional delivery to a moderate extent. This finding is in line with the finding of [17] who reported a moderate extent utilization of e-learning technologies in teaching and learning processes in South-East tertiary institutions in Nigeria. With reference to the first hypothesis, the findings revealed that technophile and technophobe Business Education lecturers do not differ significantly in their mean ratings of acceptability of e-learning technologies for Business Education instructional delivery. This finding is in line with the findings of [18] who found that technology does not have significant effect on teachers' use of e-learning tools to teach. The findings of hypothesis two revealed that male and female Business Education lecturers do not differ significantly in their mean rating of utilization of e-learning technologies for Business Education instructional delivery. This finding corroborate the finding of [19] who reported that age does not have significant effect on teachers use of e-learning tools for instructional delivery.

5. CONCLUSION

It is concluded from the findings that acceptability of e-learning technologies has not resulted in its utilization in the instructional process. The degree of acceptability of these e-learning tools is not matched with their utilization for class instruction in Business Education. This implies that instructional delivery in universities in Niger Delta Region is not structured around learners' interest as to allow the learners to seek appropriate resources and to support the development of learning outcome of contemporary learners. It was also concluded that young Business Educators who use e-learning technologies for instructional purposes are more than older Business Educators who do not want to embrace change. They see e-learning technologies as a serious threat in instructional delivery hence they are required to learn before they can deliver. This could be because the older Business Educators are digital immigrants who were not educated with these e-

learning tools. The implication is that it would be necessary to sensitize and train older Business Educators on the use of e-learning technologies for educational instruction.

6. RECOMMENDATIONS

In the light of the findings and conclusion of the study, the researchers proffer the following recommendations:

1. Management of Universities in Niger Delta Region of Nigeria should provide electronic learning facilities such as computer studio, with high-speed internet access facilities to enable Business Education lecturers and students have adequate access to the web.
2. Business Educators of all age brackets should keep abreast of emerging e-technologies available, accept and adopt same for instruction to effectively cater for the learning needs of tomorrow's learners. This is to ensure that all Business Educators are attuned with the current methods and application of e-learning technologies in education.
3. Government at all levels and stakeholders should intensify efforts on the provision of relevant e-learning technological devices to universities in Niger Delta Region in particular, and in Nigeria in general.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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