



Assessment of Constraining Factors to E-Learning Adoption by Business Educators in Tertiary Institutions in Anambra State

¹EZENWAFOR, Justina, I. & ²EMENTA, Christiana, N.

¹Department of Vocational Education
Nnamdi Azikiwe University, Awka, Nigeria

ji.ezenwafor@unizik.edu.ng

justed1998@yahoo.com

²Department of Vocational Education
Nnamdi Azikiwe University, Awka, Nigeria

cn.ementa@unizik.edu.ng

ngementa@yahoo.com

ABSTRACT

The need to adequately equip graduates of business education to suitably adapt to the workplace and business environment of the current era by using cutting-edge instructional method necessitated this study on assessment of constraining factors to e-learning adoption by business educators in Anambra State. Two research questions guided the study and four hypotheses were tested at 0.05 level of significance. Descriptive survey research design was adopted for the study. The population of 81 business educators in the area was studied without sampling because of its size. Data for the study were collected with a 22 item questionnaire structured on a 5-point rating scale. The instrument was validated by two experts from Nnamdi Azikiwe University, Awka. The reliability coefficients of 0.88 and 0.92 were obtained by administering the instrument to five business educators in Enugu State and analyzing the data with Cronbach alpha. The researchers administered the instrument with the help of their colleagues in the institutions. Mean and standard deviation were used to analyze data in respect of the research questions while z-test was used to test the hypotheses at 0.05 level of significance. The study found that lack of competencies and societal constrain e-learning adoption to a high extent. Gender did not significantly affect the respondents' assessment but type of institution did. Consequently, it was recommended among others that tertiary institutions' management should treat business teacher training with utmost seriousness to equip them with knowledge and competencies for e-learning adoption in classroom instruction.

Key words: Assessment, Constraining factors, e-learning adoption, business educators

INTRODUCTION

Education is a vital instrument that empowers individuals with appropriate mental, moral, physical and social abilities to live in and contribute positively to the society. In Nigeria, education is provided at three levels; primary, secondary and tertiary. Tertiary education is education given after senior secondary education in institutions such as universities, colleges of education, polytechnics, monotechnics and enterprise schools. Saint, Hartnett and Strassner (2003) posited that tertiary education is crucial to a

nation's competitiveness in the knowledge economy. Consequently, the Federal Republic of Nigeria (2009) stated that the goal of tertiary education shall be to acquire physical, intellectual, technical and professional skills which will enable individuals to be self-reliant and useful members of the society.

Business education, according to Osuala (2004), is a programme of instruction which consists of two parts – office education and general education. Osuala defined the office education component as a vocational programme meant for office career through initial or refresher courses and upgrading education that leads to employability and advancement in office occupation. On the other hand, the author defined general education component as a programme that provides students with information and competencies which are needed by all in managing business affairs. Contributing, Uwameiye and Ojo (2010) defined business education as a comprehensive discipline which encompasses the acquisition of knowledge and appropriate practical skills needed by all individuals to manage their personal businesses and make positive contributions to national development. Etonyeaku (2009) highlighted three key benefits of business education as:

- Empowering individuals with desirable skills, knowledge and values to perform specific functions in order to become self-reliant.
- Empowering individuals with intellectual capacity to make informed decisions in all spheres of life.
- Enabling individuals to understand the political framework of a nation and contribute to national economic development.

At the tertiary level of education, business education is a vocational education programme which encompasses the study of attitudes, methods, knowledge and practical skills acquisition to enable individuals participate actively in different aspects of national development. Aliyu (2006) stated the objectives of business education at the tertiary institutions as:

1. To develop a matured understanding of the general nature of business
2. To provide the needed background for teaching in business subjects.
3. To provide training for leadership in business.
4. To provide training in specialized phases of business activity.
5. To lay a cultural and ethical foundation for the development of the foregoing objectives.

The major aim of business education programme at this level of education is to empower its recipient for effective work performance on graduation.

Utilization of technology for instructional delivery in education is a growing trend in all fields of education in Nigeria as it leads to quality teaching and learning. Consequently, the Federal Ministry of Education (2010) articulated initiatives on information and communication technology (ICT) in education which include the introduction of e-learning to facilitate teaching and learning, enhance access to quality education, improve education delivery systems and ensure global competitive education. The contents of business education at the tertiary level are broad and the coverage causes concern to both lecturers and students. However, Utoware and Kren-Ikidi (2014) affirmed that utilization of e-learning will reduce the contents to mere interaction and discussion classes from all sides of the globe.

Hedge and Hayward (2004) defined e-learning as an innovative approach for delivering electronically mediated, well-designed, learner-centered and interactive contents to students any time and place through the internet and digital technologies according to instructional design principles. The Organization of Economic Co-operation and Development (OECD, 2005) referred to the concept as the use of ICT to support and enhance learning in educational institutions which covers students using e-mail and accessing work online while following a course in campus to programmes offered entirely online in virtual environments. Also Archibong and Ugwulashi (2012) defined e-learning as the electronic process which enhances the delivery and administration of learning contents via computer networks and web-based technology to enhance performance and development of individuals.

Jabli and Qahmash (2013) divided e-learning adoption into three phases, namely; the informative phase which covers provision of relevant information for programme specification in form of books, modules

and external resources; the integrative phase which deals with more dynamic interactions in place of direct face-to-face interactions between teachers and students and the transformative phase which is the actual adoption of the resources into the education system to create an online learning community. Furthermore, Adeoti and Adebayo (2014) grouped e-learning into two, synchronous and asynchronous. According to the authors, synchronous e-learning enables learners in different locations to interact with an instructor in real time while asynchronous e-learning allows learners to complete a course at their own time and schedule without interaction with the instructor.

Benefits of E-learning in tertiary education

E-learning is an important tool for tertiary institutions' lecturers and students. Ekesionye and Okolo (2011) outlined the benefits of e-learning for tertiary institutions to include enabling students to have equal access to quality education with the rest of the world, developing interesting and variety of instructional materials like lecture notes, diagrams, pictures and textbooks, entrenching lecturers and students to the global village, exposing them to international best practices in information technology, inculcating skills for on-line information sourcing for effective teaching, learning and research as well as facilitating knowledge creation and dissemination of information to a wider community. Nwokike (2011) affirmed that e-learning facilitates the task of the teacher by promoting performance, enables teachers and students to study at their own pace, reduces the stress inherent in the conventional classroom work for both teachers and students, facilitates access to existing knowledge and skills and saves teachers and learners time and energy.

In agreement to the foregoing, Olojo, Adewumi and Ajisola (2012) enumerated the benefits of e-learning to tertiary institution lecturers and students to include:

- Improving the quality of learning experiences and extends the reach of every lecturer.
- Helping to remove barriers to achievement by providing new and creative ways of motivating, inspiring and engaging learners of different ability levels to attain their potential.
- Differentiating learning to assist those with special needs the areas of literacy, numeracy and ICT.
- Providing a wide range of tools to enable lecturers become innovative, creative and resourceful in their activities.
- Creating online communities of specialists, experts, practitioners, teachers, learners and interest groups together to share ideas and good practice.
- Individualizing learning to cater for all types of learners irrespective of their locations.
- Providing online contents to help learners locate courses of their interest and register for them.
- Creating a virtual learning world where learners can creatively and actively participate through simulations, role play, remote control of real world tools and devices as well as online master classes or collaboration with education providers.

Constraints to e-learning adoption in tertiary institutions

Despite the numerous benefits of e-learning in education, its adoption in Nigerian tertiary institutions is faced with several setbacks. Ifinedo (2007) categorized the constraints to include:

- Human capital problems – These involve low literacy level, poor information technology skills and poverty.
- Institutional problems – These cover organizational problems, resistance, and lack of awareness.
- Infrastructural problems – These include poor internet access, low bandwidth, high cost of ICT services, inadequate investment in ICT by government and poor power generation.

Ekundayo and Ekundayo (2009) outlined the constraints to e-learning adoption in Nigerian tertiary institutions to include inadequate human resources, brain drain, staff-student ratio, lack of finance, poor infrastructural provision, electricity challenge, ICT and bandwidth constraints, highly bureaucratic management systems, digital divide and political instability. Gunga (2010) and Suleimann (2012) added to the above lists cost of laptops, software, poor liberalization of telecommunication market, poor licensing of internet service providers (ISPs) to use facilities to connect to the internet and boost bandwidth, high cost of permit to carry out internet café services, lack of training workshops, seminars

and conferences on e-technologies for lecturers. Contributing, Adelekan (2013) and Ilechukwu (2013) mentioned high cost of e-learning hardware and other gadgets, dearth of skilled manpower for the implementation of e-learning and management of ICT infrastructure, inadequate initial lack of relevant competencies by lecturers, inadequate funding of education as well as high cost of installation and maintenance of relevant e-learning gadgets as some of the constraints to its adoption by lecturers. Relating these constraints to online resources usage, Agber and Agwu (2013) noted high cost of access to online resources, non-subscription for relevant online resources by institutions and connectivity problems as constraints to e-learning adoption.

Different educational programmes in Nigerian tertiary institutions including business education face most of the aforementioned constraints. However, this study focused on the extent some of the highlighted factors constrain the adoption of e-learning by business educators in tertiary institutions in Anambra State.

Problem of the Study

Researchers agree that adoption of e-learning by tertiary institution lecturers of business education and other courses will lead to enhanced quality of the products to perform effectively in the workplace and business environment of the current era (Ekesionye & Okolo, 2011 & Olojo, Adewumi & Ajisola (2012). Despite the several benefits of e-learning adoption by tertiary institutions lecturers, Ezenwafor, Okeke and Okoye (2014) reported that technical and vocational education (to which business education belongs) lecturers in the south east zone of Nigeria utilize it to a low extent. The authors further reported that inadequate provision of these resources in the institutions as well as lack of skills for utilizing the resources were some of the major constraints of e-learning adoption by the lecturers. The current researchers are worried that if this ugly situation is not addressed, graduates of business education will be in a disadvantaged position in the world of work in the current era. Therefore, the study is considered imperative as it will provide data for prioritizing the constraints for adequate attention.

Research Questions

The following research questions guided the study:

1. To what extent does lack of competencies constrain e-learning adoption by business educators in Anambra State?
2. To what extent do societal factors constrain e-learning adoption by business educators in Anambra State?

Hypotheses

The following hypotheses were tested at 0.05 level of significance:

1. Gender has no significant effect on the opinions of respondents on the extent lack of competencies constrain their e-learning adoption.
2. There is no significant difference between the opinions of respondents from universities and colleges of education on the extent lack of competencies constrain their e-learning adoption.
3. Gender has no significant effect on the opinions of respondents on the extent societal factors constrain their e-learning adoption.
4. There is no significant difference between the opinions of respondents from universities and colleges of education on the extent societal factors constrain their e-learning adoption.

METHOD

Descriptive survey research design was adopted for the study. The design was considered suitable as recommended by Maduekwe (2011) and Uzoagulu (2011) for studies that use questionnaire to explore the opinions of a given population or its representative sample on existing phenomena. The study was carried out in Anambra State which is in the east of the River Niger and one of the states in the south east zone. The choice of the area was informed by the fact that there are several tertiary institutions offering business education and a large number of business educators. The total population of 81 business educators in the institutions was studied without sampling because of its size. Data for the study were collected with a 22 item questionnaire structured on a 5-point rating scale of very high extent (VHE) –

5 points, high extent (HE) – 4 points, moderate extent (ME) – 3 points, low extent (LE) – 2 points and very low extent (VLE) – 1 point. The instrument was validated by two experts from Nnamdi Azikiwe University, Awka. The reliability coefficients of 0.88 and 0.92 were obtained by administering the instrument to five business educators in Enugu State and analyzing the data with Cronbach alpha. The researchers administered the instrument with the help of their colleagues in the institutions and obtained a response rate 52%. The copies of the instrument returned which were properly filled were used for analysis. Mean and standard deviation were used to analyze data in respect of the research questions while t-test was used to test the hypotheses at 0.05 level of significance. For the research questions, real limits of numbers of 4.50- 5.00 (Very High Extent), 3.50 – 4.49 (High Extent), 2.50 – 3.49 (Moderate Extent), 1.50 – 2.49 (Low extent), 0.50-1.49 (Very Low Extent) was used. Standard deviation value close to 0 was an indication of homogeneity in opinion among the respondents while standard deviation value far from 0 is an indication that the agreement among the respondents was loose, wide apart or heterogeneous. In testing the hypotheses, the decision rule was to accept the null hypothesis where the p-value is greater than 0.05 and reject the null hypothesis where p-value is less than or equal to 0.05.

RESULTS

The results of the study are presented below;

Research Question 1

To what extent does lack of competencies constrain e-learning adoption by business educators in Anambra State?

Table 1. Respondents’ mean ratings and standard deviation on the extent lack of competencies constrain their e-learning adoption

S/N	Lack of competencies constraining e-learning adoption	Mean	SD	Remarks
1	Lack Computer Literacy	3.78	1.27	High Extent
2	Lack of internet skills	3.47	1.18	Moderate Extent
3	Ignorance of ways of utilizing e-learning for teaching	4.11	0.98	High Extent
4	Conservative attitude to technology utilization	3.56	1.11	High Extent
5	Insufficient exposure to ICT during training	3.81	1.09	High Extent
6	Lack of confidence for utilizing e-learning	3.50	1.03	High Extent
7	Inability to develop contents for on-line delivery	3.75	0.91	High Extent
8	Ignorance of the benefits of e-learning	3.28	1.37	Moderate Extent
9	Inability to procure relevant tools	3.78	1.12	High Extent
10	lack of skills to manage on-line instruction	3.61	1.08	High Extent
Mean of Means		3.67		High Extent

Data in Table 1 show that out of the 10 items listed indicating lack of competencies, only two (2 and 8) had mean ratings of 3.47 and 3.28 which means they constrain the respondents to a moderate extent while the remaining eight items with mean ratings ranging between 3.50 and 4.11 constrain their adoption of e-learning to a high extent. The mean of means of 3.67 shows that business educators in Anambra state rated lack of competencies as constraining their e-learning adoption to a high extent. Furthermore, the standard deviation which ranged between 0.91 and 1.37 indicates homogeneity in the opinions of the respondents.

Research Question 2

To what extent do societal factors constrain e-learning adoption by business educators in Anambra State?

Table 2: Respondents’ mean rating and standard deviation on the extent societal factors constrain their adoption of e-learning

S/ N	Societal factors on e-learning adoption	Mean	SD	Remarks
1	Inadequate availability of ICT experts	4.00	0.99	High Extent
2	Slow internet connectivity	4.22	0.68	High Extent
3	High cost of hardware facilities	4.00	0.86	High Extent
4	Inadequate institutional infrastructure	4.06	0.95	High Extent
5	Power supply problems	4.42	0.91	High Extent
6	Students' low ICT literacy level	3.81	0.98	High Extent
7	Non possession of personal computers by students	4.08	1.00	High Extent
8	Inadequate provision of e-learning resources in schools	4.25	0.84	High Extent
9	High cost of maintenance of e-learning resources	4.03	0.97	High Extent
10	Society's poor maintenance culture	3.61	1.02	High Extent
11	Insufficient time allocation for e-learning adoption	3.50	1.21	High Extent
12	Inadequate motivation by institutions' management	3.47	1.18	Moderate Extent
Mean of Means		3.95		High Extent

Data in Table 2 show that out of the 12 items on societal factors listed, only one item (12) with mean rating of 3.47 constrain e-learning adoption to moderate extent while the remaining 11 items with mean ranging between 3.50 and 4.25 constrain e-learning adoption by the respondents to a high extent. The mean of means of 3.95 indicates that societal factors constrain e-learning adoption by business educators to a high extent. The standard deviation which ranged between 0.68 and 1.21 indicates how homogeneous respondents were in opinions.

Hypothesis 1

Gender has no significant effect on the opinions of respondents on the extent lack of competencies constrain their e-learning adoption.

Table 3.T-test of difference in opinion of male and female respondents on the extent lack of competencies constrain their e-learning adoption.

Gender	N	\bar{X}	SD	DF	t-value	p-value	Remarks
Male	10	3.67	0.62	8	-0.07	0.94	Do not reject
Female	10	3.69	0.67				

The data in Table 3 reveal the t-test of difference in the opinion of male and female business educators on the extent lack of competencies constrain their adoption of e-learning. The p-value of the test is 0.94 which is greater than 0.05. This provides evidence that the null hypothesis of no significant difference is not rejected. This means that there is no significant difference between the opinion of male and female business educators on the extent lack of competencies constrain their e-learning adoption in Anambra State.

Hypothesis 2

There is no significant difference between the opinions of respondents from universities and colleges of education on the extent lack of competencies constrain their e-learning adoption.

Table 4. T-test of difference in opinion of respondents from universities and colleges of education on the extent lack of competencies constrain their e-learning adoption.

Gender	N	\bar{X}	SD	df	t-value	p-value	Remarks
Universities	10	4.03	1.34	8	-0.98	0.33	Do not reject
Colleges of Education	10	3.65	0.57				

The data in Table 4 reveal the t-test of difference in opinion of business educators in universities and colleges of education regarding the extent lack of competencies constrain their e-learning adoption. The p-value of the test is 0.33 which is greater than 0.05, provides evidence that the null hypothesis of no significant difference is not rejected. This means that there is no significant difference between the opinion of business educators in universities and colleges of education on the extent lack of competencies constrain e-learning adoption in Anambra State.

Hypotheses 3

Gender has no significant effect on the opinions of respondents on the extent societal factors constrain their e-learning adoption.

Table 5. T-test of difference in opinion of male and female respondents on the extent societal factors constrain their e-learning adoption.

Gender	N	\bar{X}	SD	DF	t-value	p-value	Remarks
Male	12	3.83	0.45	10	-0.62	0.54	Do not Reject
Female	12	3.95	0.57				

The data in Table 5 reveal the t-test of difference in the opinion of male and female business educators on the extent societal factors constrain their adoption of e-learning. The p-value of the test is 0.94 which is greater than 0.05. This provides evidence that the null hypothesis of no significant difference is not rejected. This means that there is no significant difference between the opinion of male and female business educators on the extent societal factors constrain their e-learning adoption.

Hypothesis 4

There is no significant difference between the opinions of respondents from universities and colleges of education on the extent societal factors constrain their e-learning adoption.

Table 6. T-test of difference between the opinion of respondents from universities and colleges of education on the extent societal factors constrain their e-learning adoption.

Type of institution	N	\bar{X}	S	df	t-value	p-value	Remarks
Universities	12	4.69	0.21	10	3.06	0.00	Reject
Colleges of education	12	3.82	0.48				

The data in Table 6 reveal the t-test of difference in opinion of business educators in universities and colleges of education regarding the extent societal factors constrain their e-learning adoption. The p-value of the test is 0.00 which is less than 0.05, provides evidence that the null hypothesis of no significant difference is rejected. This implies that there is significant difference between the opinion of business educators in universities and colleges of education on the extent societal factors constrain e-learning adoption in Anambra state.

DISCUSSION OF RESULTS

Findings of the study regarding the extent lack of competencies and societal factors constrain e-learning adoption by business educators in tertiary institutions in Anambra state, reveal that lack of competencies on the part of business educators in manipulating and using e-learning facilities and devices as well as different societal factors constrain their adoption of e-learning to a high extent. This finding is in line with the report of Adelekan (2013) and Ilechukwu (2013) who reported dearth of skilled manpower for implementation of e-learning, inadequate relevant competencies by lecturers, infrastructural, institutional and human capital problem as factors militating against adoption of e-learning in institutions.

The findings of the study also reveal that male and female business educators do not differ significantly in their opinions on the extent lack of competencies and societal factors constrain their adoption of e-learning. This finding is in accordance with the findings of Kasse and Balunywa (2013) established that gender does not affect adoption of e-learning as a technology for teaching.

The findings of this study showed no significant difference in the opinion of business educators in universities and colleges of education regarding the extent lack of competencies constrain e-learning adoption in tertiary institutions in Anambra state. The finding is in consonance with the findings of Okolocha (2010) who reported that type of institution do not significantly affect business educators perception on factors inhibiting adoption of e-learning in preparing business teachers.

The study further revealed a significant difference in the opinion of business educators in universities and colleges of education with respect to extent societal factors constrain e-learning adoption. The study revealed that business educators in universities rated societal factors as constrains to e-learning adoption more than business educators in colleges of education. The finding is in disagreement with the report of Agber and Agwu (2013) who reported no significant difference in perceived constraints to online resources use by lecturers in universities and colleges of education.

CONCLUSION

From the findings of this study, it is evident that lack of competencies on the part of business educators and societal factors constitutes great hindrance to adoption of e-learning in tertiary institutions in Anambra state. This implies that business education students are taught without effective utilization of e-learning components as challenges presented by these factors pose a clog to the wheel of effective teaching in an era of high-tech gadget usage and globalization.

RECOMMENDATIONS

From the conclusion drawn, the study recommends the following:

1. Tertiary institutions management at state and federal level in Nigeria should treat business teacher training and development with utmost seriousness and sincerity by organizing seminars, workshops and symposia to equip them with knowledge and competencies for e-learning adoption in classroom instruction.
2. Curriculum planners and policy makers should revisit the curriculum of business education programme as to incorporate electronic and information and technology applications as to provide a wide range of tools to enable lecturers as well as students to become innovative, creative and resourceful in their activities.
3. Business educators should strive to keep abreast of emerging electronic learning technologies and device valuable ways through which these technologies can be used to promote and enhance teaching.

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