



Influence of Modern Technology on the Teaching and Learning of Business Education Courses in Universities in Edo and Delta States

EWEMADE IYAMU

University of Benin, Benin City, Nigeria

AUGUSTINA NDIDI CHIEDU

Federal College of Education (Technical), Asaba, Delta State, Nigeria

Abstract. The study assessed the influence of modern technology on the teaching and learning of business education courses in universities in Edo and Delta States. Two research questions were raised to guide the study and two null hypotheses were tested at 0.05 level of significance for the study. The sample of the study was 226 final year students and 17 business educators out of the final year 539 students and 17 business educators in Delta State University and Ambrose Alli University using simple proportionate sampling technique. The survey research design was used for this study. The instrument used was validated by three experts. Chronbach Alpha method was used to compute reliability of the instrument which yielded a correlation coefficient of 0.87. Questionnaire was the instrument used for data collection. Data collected were analyzed using descriptive statistics. The t-test was used to test the hypotheses. From the results of the analysis, it was discovered that modern technology such as interactive television and multimedia projector highly influences the teaching and learning of business education courses. Business educators did not differ significantly on modern technology influence with respect to male & female business educators. Consequently, it was recommended that institutions should encourage training and retraining of business educators on the use of these modern technologies. Government at all levels should increase budgetary spending on education especially on procurement of modern/ICT related facilities. Furthermore, non-government organizations should provide both hardware and software of modern technology for adequate utilization.

1. Introduction

Business education as an aspect of Vocational Technical Education (VTE) is a specialized programme of instruction designed to provide individuals with knowledge, skills, understandings and attitude leading to employability and advancement in office occupations as well as teaching business subjects. According to National Policy on Education (FRN, 2013), business education is considered as a veritable instrument for preparing students for the enterprise as employees, employers and entrepreneurs. It also equips individuals with functional knowledge in the special area of human activities including methodologies of instruction.

Teaching and learning are transformational activities which involves two major variables – students and teachers. In teaching-learning process, emphasis is on students and their increasing potential to contribute to educational experience. According to Carlson & Gadio (2002) the student is a learner in a school or teaching environment who sits, listens and ask questions while the teachers are those whose responsibilities are to build the nation through their transfer of knowledge and skills acquired through education and training, the knowledge the teachers have on modern technologies equips them in the realization of the lofty responsibilities given to them especially in this technological age. If teaching does not result in learning it is futile and without sound capacity building the financial resources spent on building infrastructures will be a wasteful effort and business education curriculum objectives will not be attained. This is why NBTE (2004) allotted 75%

credit hour to practical exercise, which implies that teachers are expected to have adequate knowledge of these facilities and will make the utilization of technology by both teachers and students in business education a serious episode.

Therefore teaching and learning of business education courses requires the use of modern technology for the inculcation of these skills especially to match pace with changes already experienced globally in the way both office work and business activities are carried out. Modern technology helps in promoting opportunities of knowledge sharing throughout the world. These can help the educators and students have up-to-date information which is necessary for effective teaching and learning of business courses Amoor & Udoh (2008). With the invention of modern technology, teachers and students have secured skillful benefits and their level of knowledge on the use of these facilities have also improved. Many students can secure jobs due to the skillful experience they acquire which will give room for business education graduates to establish private businesses after graduation Akena (2017). According to United Nations economic and social commission for Asia and the Pacific (2004:4) stated that a student is said to be technologically empowered when he/she has in-depth awareness access to modern technology resources, motivated and knowledge to participate in the use of modern technology. Such modern technology include operating system, internet applications, mailing lists, web logs, online publishing systems, PowerPoint presentation, Microsoft word, Microsoft excel, cell phones, digital technologies, satellites, interactive television and multimedia projector.

The use of modern technology is widespread and regarded as an essential tool for the effective administration of any organization. The interaction of modern technology in the administration of education has been an antidote or remedy in providing effective solution to educational problems that would have been difficult to solve through human natural efforts. It requires the teacher or those in the learning process to look inward and make innovation a priority in the social system to improve the teaching and learning process of business education courses Mashau & Andriha (2016). Modern technology is one of the most contemporary factors shaping the global economy and producing rapid changes in the society, it has fundamentally changed the way people learn, communicate and do business. It has transformed the nature of education, where and how learning takes place and the roles of students and teachers in the

learning process. It is the improved product of the application of science which was designed to make works easier Breuleux, Laferriere & Lamon (2002). Modern technology in this context are interactive television and multimedia projector.

Interactive television refers to instruction occurring over broadcast television. It allows learners to receive live television instruction remotely, easy from the actual instructor. The instructor(s) are located at a broadcast studio and the learners view the instructor(s) on a television monitor. Interaction is provided by one or more additional components. They can ask questions and /or provide feedback to the instructor through a number of mechanisms that can be used either independently or in combination (Eme, 2015). Typically, an audio conferencing mechanism is used for real-time interaction. Additionally, a response pad can be used to link learners to a computerized instructor console in the broadcast studio. There are other asynchronous aids that can also be used such as e-mail and fax.

Multimedia projector is use to process a specific video signal and projects a corresponding image on a large screen using a lens system. Video projectors incorporate the image of a very bright light to display the image. The video signal rides a long special digitalized light that is then projected on thousands of reflection within the projector, which then shines the image onto screen. The learners have vivid pictorial imagination of what is been taught through this medium.

As wonderful as modern technology is to the business world, the business education graduates in Edo and Delta States seem to be lacking in the required competency for the manipulation of these technologies or some are probably not taught with these technologies. This seems to have led to high level of unemployment for business education graduates as their counterparts from business administration and accounting are preferred and perceived to be proficient in the use of modern technology for employment. Another problem is the wrong perception of students to the use of modern technology in learning business education courses as they prefer the traditional method of teaching and note taking which they seem to realize to be detrimental after graduation as they find it difficult to fit in the world of work. It is therefore pertinent to ascertain the influence of modern technology in the teaching and learning of business education courses in universities in Edo and Delta States in order to improve students' competency and graduates job prospects for employment purpose.

1.2 Purpose of the Study

The major purpose of this study was to determine the influence of modern technology on the teaching and learning of business education courses in universities in Edo and Delta State.

Specifically, the study found out;

- The influence of interactive television on the teaching and learning of business education courses.
- The influence of multimedia projector on the teaching and learning of business education courses.

1.3 Research Questions

The following research questions guide the study.

- To what extent does interactive television influence the teaching and learning of business education course?
- To what extent does multimedia projector influence the teaching and learning of business education courses?

1.4 Hypotheses

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

H₀₁ There is no significant difference in the mean rating between male and female educators on the

influence of modern technology in the teaching of business education courses.

H₀₃ There is no significant difference in the mean rating between of male and female students on the influence of modern technology in the learning of Business Education courses.

1.5 Scope of the Study

This content scope of the study is the influence of modern technology in the teaching and learning of business education courses in the universities and it covers areas such as interactive television and multimedia projector. The geographical scope of the study covered business educators and final year students of business education from Delta State University and Ambrose Alli University.

2. Methodology

The study utilized a survey research design. A survey research method involves surveying people and recording their responses for analysis. Leary (2010) observe that a survey design is preferable when developing information on opinions, attitudes and behaviours of individuals in a population.

The population of the study comprise all final year students of Delta State University and Ambrose Alli University studying business education and their business educators all in Edo and Delta State.

Table 1: Population of Students and Business Educators

S/N	School	No. Business Educators	No. of Students
1	Delta State University	8	121
2	Ambrose Alli University	5	418
Total		13	539

Source: HOD's office of the Schools, 2018.

Proportionate sampling technique was used for Ambrose Alli University students' i.e 25% only. Hence the sample of the study was 226 students and 13 lecturers.

The instrument used is a questionnaire titled "Questionnaire on Influence of Modern Technology on the Teaching/Learning of Business Education Courses (QIMTTLBE). The instrument had two parts; part A for teachers and part B for students. Each had two sections - I and II. Section I contained demographic information such as sex. Section II consists of a 12 items pertaining to the research questions as follows, Research question 1 had items 1-6, Research question 2 had items 7-12.

The instrument for data collection was subjected to face validity by three experts who have been involved in the construction of similar instruments. A 4-point rating scale was used as indicated below

Response Category	Rating
Very High Extent (VHE)	4
High Extent (HE)	3
Low Extent (LE)	2
Very Low Extent (VLE)	1

The reliability of the instrument was determined through split half on the basis of odd and even numbers and the instrument was administered to a sample of 30 students and 5 business educators in University of Benin. The Chronbach Alpha method

was used to measure the degree of consistency between two sets of scores and it was arrived at 0.87 which shows that the instrument was reliable. Questionnaire was administered to the respondents by the researchers. The completed copies of questionnaires were retrieved from the respondents after their responses and the exercise lasted for two weeks.

The research questions were analyzed using mean (X) and standard deviation (SD). The highest score of the 4-point scale was 4.00 and lowest score was 1.00. The value of 2.50 was considered as the mean criterion. Therefore, a calculated mean that is equal or greater than 2.50 was high extent of the statement

of the items by the respondents while the calculated mean below 2.50 was low extent. The hypotheses was tested using t-test statistical tool at 0.05 level of significance. Where calculated t-test exceeds the table or critical value, the null hypothesis was rejected otherwise accepted.

Data Presentation and Analysis

The Demographic information is as follows:

85 male students and 141 female students.
7 male business educators and 6 female business educators respectively.

Research Question 1: To what extent does interactive television influence the teaching and learning of business education courses?

The data collected in respect of this question is presented in table 2.

Table 2: Extent of Interactive Television

S/N	Items	Mean (x)	SD	Remarks
1	Helps students to get a pictorial representation of what is been taught.	2.57	1.28	HE
2	Improves students retentive memory on the subject matter	2.53	1.18	HE
3	Allows students to be participators in the learning process which will result in better learning.	2.82	1.13	HE
4	It improves the students' interest in learning the subject matter.	2.51	0.88	HE
6	It improves the psychology of students towards business education relevance in the world of work	2.74	1.00	HE
	It prepares students for SIWES placement and other job opportunities.	2.90	1.12	HE
Total		2.68	1.10	High Extent

Source: Field Study, 2018.

The data shown on table 2 revealed that mean opinions of the respondents ranged from 2.51 to 2.90. The table shows that all the variables (1-6) has high extent influence.

The result shows that the entire variables on interactive television influences the teaching and learning of business education courses to a high extent.

Research Question 2: To what extent does multimedia projector influences the teaching and learning of business education courses?

The data collected in respect of this question is presented in table 3

Table 3: Extent of Multimedia Projector

S/N	Items	Mean (x)	SD	Remarks
7	It improves perception of business education as a modern course of study for the 21 st century	2.94	0.99	HE
8	It aids retentive learning through visual displays	2.82	1.03	HE
9	It encourages students to be the author of their knowledge as they prepare slides for the multimedia projector.	3.10	0.96	HE
10	It improves the learning of shorthand through visual display rather than taking dictation.	2.90	1.07	HE
11	It creates a conducive ambience for learning through its lightning effects.	2.59	1.84	HE
12	It motivates students for lectures as it allows them to be fully involve not just its setup but also in its operations.	3.03	1.13	HE
Total		2.91	1.17	High Extent

Source: Field Study, 2018.

The data shown on table 3 revealed that mean opinions of the respondents ranged from 2.59 to 3.10. The table shows that all the variables (7-12) has high extent influence.

The result shows that the entire variables on multimedia projector influences the teaching and learning of business education courses to a high extent.

Hypotheses Testing

Two hypotheses were formulated and tested at 0.05 level of significance to provide useful information for the study.

Hypothesis 1: There is no significant difference in the mean rating between male and female business educators on the influence of modern technology in the teaching of business education courses.

The data meant to test the hypothesis 1 were calculated and the results are summarized in table 4.

Table 4: Summary of t-test of Difference in Mean Response Between Male and Female Business Educators on the Influence of Modern Technology.

Respondents	N	X	S.Dev	Df	t-Calculated	t-Critical	Decision
Male	7	3.09	0.91	15	-1.201	1.960	Accept Ho
Female	6	2.87	1.14				

Source: Field Study 2018

The data shown on table 4 revealed that the t-critical value indicated 1.960. The t-calculated value indicated -1.201. The mean response of male and female business educators showed 3.09 and 2.87 respectively. The standard deviation of male and female business educators showed 0.91 and 1.14 respectively. The degree of freedom showed 11. The number of male business educators showed 7 while the number of female business educators showed 6. The null hypothesis that there is no significant difference in the mean rating between male and female business educators on the influence of modern technology in the teaching of business education courses was accepted based on fact that the t-critical value of 1.960 was greater than the t-calculated value -1.201.

Hypotheses 2: There is no significant difference in the mean rating between male and female students on the influence of modern technology in the learning of Business Education courses.

The data meant to test the hypothesis 2 were calculated and the results are summarized in table 5.

Table 5: Summary of t-test of Difference in the Mean Response Between Male and Female Students on the Influence of Modern Technology.

Respondents	N	X	S.Dev	Df	t-Calculated	t-Critical	Decision
Male	85	3.24	0.89	224	1.336	1.960	Accept Ho
Female	141	2.76	1.23				

Source: Field Study 2018

The data shown on table 5 revealed that the t-critical value indicated 1.960. The t-calculated value indicated 1.336. The mean response of male and female students showed 3.24 and 2.76 respectively. The standard deviation of male and female students showed 0.89 and 1.23 respectively. The degree of freedom showed 224. The number of male students showed 85 while the number of female students showed 141. The null hypothesis that there is no significant difference in the mean rating between of male and female students on the influence of modern technology in the learning of Business Education courses was accepted based on fact that the t-critical value of 1.960 was greater than the t-calculated value 1.336.

3. Discussion of Findings

In view of the results obtained from the presentation and analysis of data, the discussions of the major findings of the study are as follows:

The result of analysis of research question one as shown in table 2 revealed that business educators and students rated that interactive television influences the teaching and learning of business education courses highly. Nwagwu (2006) posited that modern technology provides a more individualized self-spaced and self-directed learning experience. The findings of Okoli (2012) that when these ICT facilities are made available and maintained, the business educators and students utilize it for effective

learning. These are in consonance with the findings of this study.

The result of analysis of research question two as shown in table 3 revealed that business educators and students rated that multimedia projector influences the teaching and learning of business education courses highly. Nwagwu (2006) posited that modern technology provides a more individualized self-spaced and self-directed learning experience. Also Adomi & Ani (2006) stated that a major argument for the technology is that it enables learners to develop essential skills for knowledge based workers by embedding the use of information and communication technology with the curriculum. These positions are in consonance with the findings of the study.

The result of the t-test analysis showed that the two groups of respondents (business educators and students) did not differ significantly in their rating on the influence of modern technology on the teaching and learning of business education courses in Edo and Delta States based on gender hence the null hypotheses acceptance.

4. Summary of Major Findings

The major findings of the study based on the two research questions and the null hypotheses are summarized below:

- Interactive television has high extent influence on the teaching and learning of business education courses.
- Multimedia projector has high extent influence on the teaching and learning of business education courses.
- There is no significant difference in the mean rating between male and female business educators on the influence of modern technology on the teaching of business education courses.
- There is no significant difference in the mean rating between male and female students on the influence of modern technology in the learning of business education courses.

5. Conclusions

Based on the findings of the study, the researcher conclude that business educators and students in Edo and Delta States rated that modern technology such as interactive television and multimedia projector

have high extent influence on the teaching and learning of business education courses.

6. Recommendations

On the basis of the findings of this study, the following recommendations are made:

- Institutions should encourage training and retraining of business educators on the use of these modern technologies.
- Non-government organizations should provide both hardware and software of modern technology for adequate utilization.
- Government at all levels should increase budgetary spending on education especially on procurement of modern/ICT related facilities.

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