Lecturer Perception of Modern Technology Usage for the Teaching of Business Education Courses in Nigeria

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Abstract

The study was set out to empirically investigate Lecturers perception in the utilization of modern technologies in the teaching of business education courses in tertiary institutions in Nigeria. Two research questions were posed to guide the study, while one hypothesis was formed and tested at 0.05 level of Significance. A total of 124 lecturers from seven (7) Institutions in Nigeria were selected through the Judgemental sampling technique to form the Sample of the study out of the 187 lecturers that constituted the population of the study. The instrument for data collection for the study was titled 'Lecturers Technology Adaptation Questionnaire (LTAQ),' with a four point rating-scale ranging from strongly Agree to Disagree. Three (3) Business Education experts from three institutions validated the instrument and a reliability test using Pearson Product Moment correlation co-efficient yielded a reliability index of 0.68. Descriptive statistics (weighted mean) was used to answer the research questions, while inferential statistics (T-test and Anova) were used to test the hypotheses. Findings reveal among others that lecturers differ in their perception of utilization of modern technology in delivery of business education courses. It was also found that there was no effect of gender on lecturer's perception of the utilization of modern technology. Based on the findings, recommendation made among others were that lecturers should be trained on the use of modern technologies which should be both technical and pedagogical and also to use the basic computer knowledge possessed by them to integrate modern technologies in the teaching of business education courses in our schools for quality and functional skills development.

Keywords: Modern technology, Perception, Business education, Teaching

Introduction

Soon after political independence, most developing African countries began to embark on major reforms, virtually in every aspect of life of the nations. One of such major areas of reform has been the introduction of new educational systems aimed at meeting the needs, aspirations of the country concerned. As a developing country, Nigeria has had to reposition her educational systems to meet such needs, aspirations and expectations, given that education is an important ingredient for national development (Ehiametalor,1990 in Ubulom, 2014), as well as an instrument "par excellent," for effective development (Federal Republic of Nigeria; FRN 2004). The Nigerian Government in recognition of this, desired to attain the vision 20-20-20 and the Millennium Development Goal (MDG) by propelling the Nigerian Educational Research and Development Council to revise the education curriculum to meet the changing need of the society.

To provide the basis for the needed reform, renewal and modification resulting from the curriculum change, the Federal Government of Nigeria introduced the business education programme with a delivery system that relies on the extensive acquisition of vocational skills and competencies with the extensive use of equipment and relevant tools. Business Education encompasses a wide coverage of courses which includes; Secretarial Education (now Office technology and management Education (NBTE ,2010) 2. Accounting Education, 3. General Business (Management) Education, 4. Cooperative Education, 5. Purchasing and supply Education, 6 and 7. Distributive and Marketing Education. In fact one of the rationales for the emphasis on business education programme is the fact that it is a skill for gainful employment (Osuala, 1989; Oyenuga, 2003 in Ubulom, 2014). As Otamiri (2014) puts it, business education involves the study of technologies and related sciences and the acquisition of practical skills including teaching skills attitudes, understanding and knowledge related to occupation in various sectors of our economy and social life. For our educational systems to deliver on their mandates, the quality of the training given to individuals passing through a course or the other should be such that can give adequate skills and information needed in the real world sense.

Consequent upon the stipulations of the policy commission for business, and the provisions of the national policy on Education, several authors (Anao, 1986; Ubulom 1999; Aina, 2002; Otamiri, 2009 in Otamiri, 2004) enunciated the goals of business education to include:-

- To prepare effective management, secretarial, marketing, Accounting and Banking executives
- To produce lecturers and teachers who will handle business and related courses in our schools, colleges and universities
- To propagate the development of the business thought and philosophy in our daily existence
- To prepare and equip those who pass through the programme to be able to establish and run their own business ventures as self-employed citizens of the society

Despite this zeal shown by the government to produce a well-rounded business education graduate, there has been mounting criticisms in Nigeria that Business education graduates are not competent in the use of modern technologies. As noted by UNESCO (2002), the use of information and communication technology in teaching and learning process is still in its infancy in Nigeria. Faluyi (2002) observed that the curriculum is inadequate for meeting the needs of the 21st century. The use of the curriculum has led to the disappointment of both the employers and employees as a result of graduate's inability to meet up with modern technologies. Okoli; 2012; Inije 2012) noted that modern technologies

are devices or set of technological devises and resources used to communicate and to create, disseminate, store and manage information. These technological resources that are available for delivery of business education include; E-mail, cell phone, optical fibre technologies, internet, intranet, extranet, computer, radio, YouTube, interactive CDs, Interactive white boards, satellite TV, videophone system, PowerPoint video conferencing and teleconferencing.

The development of adequate, quality and functional skill is an important characteristic of Business Education. The major objective of business education in schools is to enable students possess the necessary skills for workplace; its emphasis is on exposure to and acquisition of knowledge and skills relevant and adequate for employment in specific business areas or for self-reliance. In the teaching of business education as a functional skill subject, lecturers are encouraged to provide opportunities for students to apply their knowledge and skills to real-life situations which gives more relevance to what is studied.

Recognising this fact, the National Educational Objectives stated that the acquisition of appropriate skills, abilities and competencies both mental and physical are important for all Nigerians to live and contribute to the development of the society. Recently, much attention and discussions has been evident in terms of the manner and process of providing education by lecturers. Albrecht and Sacks (2000) opined that there are various innovative instructional approaches that should be adopted to improve the educational aspect of business education. A substantial body of literature and evidence has shown that teacher's beliefs play critical and important roles in adopting instructional pedagogy. According to Pajares (1992), beliefs about teaching include perception about what it takes to be an effective teacher. The way lecturers view modern technology will to a large extent determine the level and degree of usage. Despite the availability and recommendation of innovative method of instruction which have been tested and found viable for the improvement of learning, male and female lecturers alike still exhibit absolute loyalty and dependence on the expository method in which they simply deliver a pre-planned instruction to the learner with or without the use of modern technologies. According to Abdelraheem (2004), lecturers form an impression which is favourable or otherwise, depending on specific traits they possess and what they attribute to the method. Their perception of instructional approach is predicated upon what they feel the method can do in the teaching-learning process. Lecturer's instructional approach, beliefs and utilization are influenced by their philosophy, resistance to adopting new technologies (Abdelkareem ,2004).

Theoretical and Conceptual Framework

The theoretical base of this study hinges on the model for the study of classroom teaching as developed by Dunkin and Biddle (1974). The model contains variables of the teacher, which includes personality, preparation, general characteristics, background, competencies and inadequacies, teacher's education, experiences and teacher properties. All these activities they considered as process variables. While those characteristics associated with the effects of instruction, they called product variables. The model recognizes presage variables as fundamental in understanding classroom environment, interaction between the teacher and the students and the effects of instruction. According to Wale (2005) lecturers needs to understand a subject enough to convince its essence to students. Wale observed that technology is an increasing influential factor in education which offers powerful learning tools that demand new skills and understanding of students including multimedia and provide new ways to engage students such as virtual learning environment.

The way a lecturer views the role of media in classroom teaching will to a large extent determine the level and degree of its usage. In recent years in Nigeria, most tertiary institution has shown a rapidly growing trend in integrating ICT into educational curricula

and is matching towards E-learning. Unfortunately, the utilization of these modern technologies in business education delivery in our tertiary institutions has remained a mirage due to a number of constraints (Nwokocha & Onwuchekwa 2014). This unsatisfactory manner of practice in the delivery of business education programmes in line with technological innovations has created a vacuum in the attainment of the national technology objectives and non-performance of the graduates in the business world. New technologies are seen as bedrock of national survival and development in a rapidly changing global environment.

Business educators today however face the challenge of utilizing and integrating computer and related technologies in their instructional delivery in a manner that enhance students learning and achievements. Appropriate use of these resources in Business education delivery in our classrooms can help equip future Business educators with the necessary knowledge and skills to use same tools effectively in their classroom (Miller, in Nwokocha & Onwuchekwa 2014). As noted by Hennessy, Harrison and Wamakote (2010), effectively introducing technology into schools is also largely dependent upon the availability and accessibility of modern technology resources (e.g. hardware, software and communications infrastructure). They observe that if technology cannot be accessed by the teacher, as in so many educational settings in Sub Sahara Africa, then it will not be used.

Eichoiz and Rogers (1994) suggested that there are psychological components in lecturer's perception of media. They found a significant personality difference between acceptor and rejecters of new media, other researchers have also said that some lecturers appeared to perceive media as threatening and perhaps in human. The success of modern technology utilization in business education depends on the development of various competencies throughout the educational system. This hinges on the lecturers professional development, competency of educational administrators in using the technology available and dedicated technical support specialists to ensure continued viability of modern technology tools in education.

According to Gulbaharha and Guven (2008) any successful transformation in educational practice requires the development of positive user attitude towards new technology. Teachers attitude are major predictors of the use of new technologies in instructional settings (Gulbahar & Guven 2008, Echoiz & Rogers 1994 & Rogers 1995). One of the major factors affecting people's attitude towards a new technology is related to the features of the technology itself. Rogers (1995) pointed out five basic features of technology that affects its acceptance and subsequent adoption. These are; relative advantage, compatibility, complexity, Observability and trainability. Thus a new technology will be increasingly diffused if potential adopters perceive that innovation has an advantage over previous innovations, is compatible with existing practise, is not complex to understand and use, shows observable results and can be experimented within a limited basis before adoption. There are further, important teacher-related factors influencing classroom use that become apparent. These are predominantly modern technologies literacy and confidence among teachers, and education of subject teachers to assist them in integrating modern technology into learning areas.

Statement of the Problem

The role of beliefs as an indicator of lecturer's behavioural change has received increasing attention among researchers and educators over the last few years. A substantial body of literature and evidence has emerged, during this time. Supporting that, lecturer's beliefs play critical and important roles in adopting instructional pedagogy.

In spite of documented evidence of the advantages of the multiple intelligence based instructional approach in many subject area in the development of psycho-motor skill, and a great amount of money, efforts and time expended on the use of technology in schools at all levels, most lecturers seem reluctant in integrating new technologies into their teaching, learning process. Many of the lecturers teaching business education courses seem to be showing apathy towards the use of modern technologies. Despite the potential of increased instructional effectiveness, economic financial investment, and the ability of modern technologies to enhance quality and functional skill development in business education, the utilization of modern technologies in tertiary institutions in Nigeria continue to remain a mirage.

It's on this premise therefore, that this study sort to investigate the use of modern technology and lecturer's perception in teaching business education courses in tertiary Institutions in Nigeria.

Purpose of the Study

The study was carried out to determine the use of modern technologies and lecturers perception in teaching business education courses in tertiary institutions in south- east and south- south Nigeria.
Specifically, the study sought to;

i. Determine lecturer's perception and utilization of modern technologies in teaching business education courses
ii. Establish factors affecting lecturer's utilization of modern technologies in teaching business education courses.

Research Question

The following research questions were formulated to guide the study

1. How do lecturers (male and Female) perceive utilization of modern technologies in teaching business education courses in tertiary institutions in Nigeria?
2. What are the factors affecting lecturer's utilization of modern technologies in teaching business education courses in tertiary institutions in Nigeria?

Hypothesis

The following null Hypotheses tested at 0.05 level of significance. There is no significant difference between lecturers (Male and Female) perception of utilization of modern technologies in teaching business education courses in tertiary institutions in Nigeria.

Method

This study adopted a descriptive survey design because it was aimed at ascertaining and establishing the status quo, facts of information concerning the population. The population of the study consisted of all lecturers in schools and departments of Business Education in tertiary institutions located in Akwa Ibom State, Delta State, Edo States, Imo State and Rivers State of the South- East and South- South Nigeria. Statistical information from the schools puts the figure at 187 lecturers. Through judgmental sample approach, 134 lecturers taking business education courses were selected for the study. The samples of lecturers were stratified into two: male (68) and female (56), according to their participation in the survey.

The data for this study were collected using a survey instrument titled "Lecturers Technology Adaptation Questionnaire (LTAQ)". The instrument was in two parts: Part A was made up of four (4) questions on demographic data. Part B was a (32) items questions on a 4- Point rating-scale format with response alternatives ranging from strongly Agree (SA) to Disagree (D) depending on the degree of agreement to each trait, the respondent scored 4, 3, 2 and 1 on the attitudinal traits, beliefs or perception description. The validation of the

instrument was done by three business education experts in three institutions which did not participate in the study. Additions and deletion to the attitudinal traits originally listed by the researcher were made before administering the instrument in the final form for the respondents. A reliability index of 0.68 was obtained when the instrument was trial tested on 45 Business education lecturers. The Pearson product moment correlation was used to establish the consistency and reliability of the instrument. The researcher and research assistants administered the questionnaire and also retrieved them. Except for minor discrepancies and unfilled sections, the bias level was not serious enough to undermine the results of the study. The rate of return stood at 124, out of 134 (92.5%). The statistical tool used for the study was mean, t-test and analysis of Variance (Anova). The hypotheses were tested at 0.05 level of significance. The mean were used for the research questions. Any variable that fell below 2.5 was negative and so rejected, while variables with 2.5 and above was positive and so accepted. The null hypothesis was rejected, if the calculated t-values or Anova was greater than the critical value, on the other hand, if the calculated t-value or Anova was less than the critical value, the null hypothesis was accepted.

Results

Research Question 1

How do lecturers perceive the utilization of modern technology?

S/NO	Statement/Options	SA	A	SD	D	∑fx	X	D
1	I feel comfortable using modern technology like computer aided tools.	80	90	76	36	282	2.29	R
2	Instructional technology increase student's interest and quality of courses.	140	87	52	34	313	2.52	A
3	Computer promotes the development of students in personal skills (ability to relate or work with orders).	108	93	72	30	303	2.44	R
4	Enhances professional development and ease pressure on teachers.	130	84	60	32	312	2.52	A
5	Instructional technologies motivates students to get involved in learning activities which improves learning	140	96	58	28	322	2.60	A
6	I am confident and comfortable using interactive white Board for instructional delivery	108	90	76	29	303	2.44	R
7	I am gaining a sense of self confidence in using computer for specific tasks and I am starting to feel comfortable using computer	156	96	72	17	341	2.75	A
8	I feel the use of modern technology does not make any difference when compared with the conventional approach.	128	105	60	27	320	2.58	A
9	I am not really computer literate to use computer aided tools in my classroom.	120	168	52	12	352	2.84	A
10	Given lecturers the opportunity to be learning facilitators instead of information providers.	80	99	76	33	288	2.33	R
11	It creates new options that makes instructional approaches in business education utilizable	130	60	84	32	323	2.52	A
12	Promotes the achievement of quality and functional skills development in Students	105	127	61	27	320	2.58	A
13	Using modern technologies can increase students attention span in classroom	128	105	60	27	320	2.58	A
14	Use of modern technology can facilitate the acquisition of basic skills through drills and practice	130	60	84	32	323	2.52	A
15	I don't really think modern technology has any serious impact on students achievement	140	96	58	28	322	2.60	A
16	Am not too sure if I can effectively use modern technology in my lesson delivery	128	87	66	30	311	2.51	A
	Grand Mean						2.54	A

Table 1: Lecturers Perception of Utilization of modern Technology

The results in Table 1 show that lecturers tend to have a positive perception towards the use of modern technology in the delivery of Business Education courses. This is shown in the grand mean obtained (2.54).

Research Question 2:
What are the factors affecting lecturers utilization of modern technology.

S/NO	Statement/Option	SA	A	SD	D	∑fx	X	DC
17	Most lecturers are inefficient in technical knowledge required to prepare instructional materials based on modern technology.	136	192	28	12	368	2.96	A
18	Most lecturers are not trained on delivering lectures with modern technology.	120	192	36	18	366	2.95	A
19	There is no provision of incentives for encouraging lecturer's technology usage.	200	144	60	6	410	3.31	A
20	Lack of interest of lecturers in modern technology usage	56	102	100	26	284	2.29	R
21	I really don't feel comfortable using computer aided tools to teach.	56	180	36	32	298	2.91	As
22	Deficiency in professional knowledge and skill on technology applications	120	168	52	12	352	2.83	A
23	Inability to adapt to the constant changes in technological tools.	156	96	72	17	341	2.75	A
24	Inadequate time to prepare and deliver lecture using modern technology	80	99	76	33	288	2.33	R
25	Lack of continuity in training in E-learning application software	56	180	36	32	298	2.91	A
26	Inefficiency of lecturers technical knowledge to prepare materials based on new technology	120	192	36	18	366	2.95	A
27	High cost of training and retraining of lecturers to acquiring new skill in modern technology	116	102	50	36	304	2.45	R
28	High cost of acquiring and installing modern technology in the classrooms	128	102	60	28	318	2.56	A
29	Inability of the government to implement policies on modern technologies usage	160	78	60	28	326	2.62	A
30	Lack of technological infrastructure and inefficiency of technology usage in institutions	144	114	52	24	334	2.69	A
31	Deficiency in professional development opportunities for gaining of knowledge and skill in modern technology	116	120	48	31	315	2.54	A
32	Lack of internet connectivity in the classrooms	136	111	58	24	329	2.65	A
33	Challenge of application of curriculum content to software's	128	105	50	27	320	2.58	A
	Grand mean **Table 2** **Factors affecting lecturers utilization of modern technology expressed by weighted mean(X)**						2.71	A

The analysis in Table 2 above shows factors affecting lecturer's utilization of modern technology in delivery of Business Education courses. With a grand mean of (2.71) which is above the (2.50), indicates that lectures inability to use modern technology hinges on a number of variables.

Testing of Hypothesis 1
Table 3 below shows computed T-value of (7.919) and T-critical value (1.96) at 122 degree of freedom tested at 0.05 level of significance. Since calculated T-value is greater that table-value, the null hypotheses is rejected, this implies that there is a significant difference between Lecturers Perception of Utilization of Modern Technologies in teaching of Business

Education Courses. The table also showed that lecturers with positive perception had a mean of 96.37 and those with negative perception had a mean of 27.63. The difference between their mean (68.74) was significant. This indicates that lecturer's utilization of modern technologies can be predicted on their perception.

Variables	N1 N2	∑x1 ∑x2	S1 S2	X1 X2	T	Decision
Positive perception	96.37	2602	1998.09	96.37	7.919	*S
Negative perception	28.63	746	384.55	27.63		
Total	124	3348				

Table 3: T-test Analysis of Utilization of Modern Technology and lecturers perception in teaching of Business Education Courses. N=124; T122 critical = 1.96; *S= significant @ P <0.05.

Table 4 below shows no significant difference between male and female lecturers in their perception of the Utilization of Modern Technologies in teaching of Business Education Courses. As shown in the table, the critical value of F-ratio @ 1 degree of freedom of the numerator mean square and 120 df for the denominator mean square at 0.05 alpha level (3.94) is greater than the calculated F-Value of 0.0001. We therefore retain the null hypothesis of no significant difference between male and female lecturers with positive and those with negative perception of utilization of modern technologies. This implies that sex has no influence on their perception of utilization on of modern technology.

Source of variation	Sum of squares	Degrees of freedom	Mean square	F-Ratio	Decision
Main effects					
Perception (C)	14.39	1	14.35	0.0292	*Ns
Sex (r)	0.03	1	0.03	0.0001	*Ns
Interaction					
Sex X perception	1.27	1	1.27	0.0026	*Ns
Within	59,072.28	120	492.27		

Table 4: summary of data for a 2x2 multi-factor analysis of variance classified by lecturers' perception (positive and negative) towards use of modern technology and gender (male and female).

F_1, 120 critical =3.94; *Ns = Not significant @ P<0.05

It was also shown in the table that perception had no significant effect as the calculated F-ratio of 0.0292 was far below the table values of F-ratio of (3.94).

Besides the main effects of Sex and Perception of Utilization of Modern Technologies, the interaction of sex and perception of modern technologies was also insignificant as the calculated F-ratio 0.0026 was far less than the f-critical of 3.94, it can therefore be concluded that the effect of gender on lecturers perception of utilization of modern technology does not depend on their perception of the technology.

Discussion

The findings of this study revealed that a significant difference existed between lecturers perception of utilization of modern technology in delivery of business education courses in tertiary institutions. Lecturers with positive perception had a mean response rate of 96.37 while lecturers with negative perceptions had a mean response rate of 27.63 the difference of 68.74 between their means was significant. This finding is in agreement with Gulbaharha & Guven (2008), who found a significant relationship between lecturer's attitude towards computers and successful integration of computers in the teaching of social studies in Turkey. They stated that lecturers who have a high perception of efficacy had to use computer related tools in classroom more frequently than others.

This study found no significant influence of lecturer's gender on their perception of utilization of modern technology in teaching of Business Education courses. This finding agrees with Yusuf (2005), who found no significant difference between male and female lecturers in their experience in using computers and other related tools, their level of proficiency in computer operations and their use of common software. This was reflected in the establishment of no significant difference for 15 out of 16 questionnaire items; also, in agreement with this finding is Taiwo (2009), who found that the effects of gender were not significant on the perception of lecturers about the two media options in classroom instructions. Consistent with this work is also the study of Yaratan & Caner (2007), who indicated that there is no significant difference between lecturers responses about the use of educational technology based on their gender.

Not in agreement with these findings however, is the work of Parker Leonie (2002) in Akpan (2010) in their work of cognitive style studies, held that female lecturers are field–dependent and technophobia, while their male counterparts are field independent, and prefer applications of media to instruction.

It was also found in this study that a lot of factors militate against the use of modern technology in the teaching of business courses by lecturers. This is in agreement with the findings of Okolocha (2010) who found that business education lecturers are faced with several challenges in the use of e-learning tools. These problems range from lack of skills and competency on the part of the lecturers, to the high cost of installations, non-availability of electricity, lack of management support among others. Also, in line with this finding, are Malcolm and Godwyll (2008) who saw teachers' confidence in their ICT competence as a major factor for integrating technology in teaching. They noted that if teachers are not confident in their ability or competence to handle computers, this may hinder their willingness to introduce technology in their classroom. This shows us that equipping schools with modern technology is not enough for attaining educational change. The introduction of modern technology into education requires an equal level of innovation in other aspects of education. The inadequacy of the technology courses offered to teachers and the lack of incentives for encouraging technology are further barriers to modern usage. Teachers' attitudes toward computer technologies are also related to teachers' computer competence. Teachers' computer competence is a significant predictor of their attitudes toward computers. Teachers who have difficulty using modern technologies maintained that the main barriers were lack of knowledge and skills with computers that would enable them to make "informed decisions".

Conclusion

From the reviews and discussion of this study, there is substantial evidence that, if modern technologies are placed in the right hands and used appropriately for specific purposes in specific contexts, it can be an effective tool in supporting teaching and learning. However, it is now firmly established that its introduction into schools does not by itself improve the quality of education or raise attainment. Encouragingly, there is growing and widespread awareness that the pedagogical and technical expertise of the teacher is absolutely critical here. In Nigeria, it is clear that the use of modern technologies in delivery of business education courses is an indispensable tool in modern instruction, and so its adoption will enhance quality instruction and enhance functional skill required in work places.

It is important that while thinking of integrating modern technology into our classroom, the lecturers' attitude towards adopting the technology must be considered and training for all must be crucial than ever. To provide graduates with the necessary knowledge and skills for evolving market places and sophisticated living environments and to prepare citizens for

lifelong learning, there is the need to promote quality of teaching and learning through adoption of modern technologies in classroom instructions and improve system management.

Recommendations

From the conclusion drawn, the following recommendations are proffered.

1. In drawing up curriculum for our school(s), curriculum developers should adopt the interdisciplinary approach and emphasis should be on the changing needs of the society through reliance on the understanding and application of new technologies

2. In view of the fact that modern technologies is an influential instrument for the development of quality and functional skills, in educational system, an effort need to be made by government towards creating an educational environment that will be ICT driven.

3. There should be training and retraining of lecturers on the use of modern technologies, which should be both technical and pedagogical by school management, this way, lecturers will show more commitment to its usage.

4. Government should also give serious consideration to the provision of adequate and functional new technologies facilities and infrastructures.

5. For Nigerian education to reap the full benefits of modern technologies in learning, it is essential that lecturers and students are able to use these tools for learning. To do this, Government and Management of Institutions should be visionary about conceiving a future state, which includes the picturing of where and what our education and graduates should be in the future without being constrained by such factors as funding or lack of resources .

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