

**CONSTRAINTS TO MULTIMEDIA APPLICATIONS IN BUSINESS  
EDUCATION PROGRAMME OF PUBLIC UNIVERSITIES IN SOUTH-EAST  
NIGERIA**

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**ABSTRACT:** *The main purpose of this study was to determine the constraints to multimedia applications in teaching business education courses in universities in south-East Nigeria. The study was guided by two research questions and two null hypotheses. A descriptive survey research design was adopted for the study. The population was 53 business education lecturers in the public Universities in South-East Nigeria. No sampling was carried out due to the manageable size of the population. A structured questionnaire was used for data collection. The questionnaire was validated by three experts and the reliability was determined using Cronbach Alpha which yielded 0.85. Out of 53 copies of the questionnaire distributed 51 were returned representing 96.23 percent return rate. Mean with standard deviation was used to answer the research questions and t-test statistics was used to test the null hypotheses at .05 level of significance. Some of the findings include: poor provision of multimedia, employment of unqualified staff and poor knowledge of available multimedia facilities. Based on the findings of the study, it was recommended among others things that lecturers should be retrained to equip them with the knowledge and skills of multimedia applications and government should provide fund to the public universities to enable them improve on staff and physical infrastructural development.*

**KEYWORDS:** Business education, Multimedia applications, Constraints.

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**INTRODUCTION**

Business education is a training programme designed to enable its recipients to acquire business and other occupational competencies for better performance in the society. According to Njoku (2006) business education is aimed at empowering one with employable competencies and value to perform specific functions so as to become self-reliant. Students of business education need to be adequately equipped with skills and knowledge for successful multimedia applications to enable them work effectively in the modern workplace.

Business education is offered as a course of study in tertiary institutions. Odah and Ogbaga (2010) opined that business education is conceived in a broad perspective as a programme of study, which is aimed at creating awareness in occupations, preparing youth in business offices, preparing recipients to become better citizens and consumers of goods and services, and preparing business teachers. Business education is that part of education which deals with business experiences both for specialized occupational uses and for general use.

Business education is offered in both private and public universities in South-East states of Nigeria. Private universities are owned, founded and controlled by private individuals or organizations. Public universities are universities owned, funded and controlled by the Federal and State governments. Federal universities are controlled and funded by the Federal government while state universities are controlled and funded by State government. There are public universities in South-East Nigeria. South-East is a geopolitical zone in Nigeria with five states namely, Anambra, Abia, Ebonyi, Enugu and Imo states. Some of the universities in these States run business education programme. The programme is supposed to be run with multimedia for effectiveness.

Multimedia simply means multiple media or a combination of media. According to Anderson (2006) the media can be still pictures, sound, motion, video, animation and/or text items combined in a process whose purpose is to communicate information. Fetterman (1998) in Oshinaike and Adekunmisii (2012) expressed that, multimedia which include one or more media such as graphic, video, animation, image and sound in addition to textual information are resources used for information.

There are four point characteristics of multimedia has been identified by the authors.

- Multimedia systems are computer controlled
- Multimedia systems are integrated
- The information content must be represented digitally.
- The interface to the final presentation of media is dynamic

It is obvious that multimedia used in teaching are electronically aided and it promotes digitalization of the educational instructional strategies. The power of multimedia lies in the fact that it is multimedia-sensory, stimulating the many senses of the audience. It is also interactive to the end of the applications to control the content and flow of information. This has introduced important changes in the way information is communicated to the learners (Neo and Neo 2000).

Further, Ogunbota, and Adesoye (2006) expressed that multimedia technology add new dimensions to learning experiences because concepts are easier to present and comprehend when the words are complemented with images and animation. It has been established that learners understand and retain more when a variety of senses are engaged in impacting

knowledge and skills; and the intensity of the experience aids retention and recalls by engaging social, emotional intellectual sense.

However, Babajide(2003) identified different types of multimedia communication, some of which includes computer hardware, computer softwares, public address system, slides overhead projectors, opaque projectors, video, cassettes, audiotapes, cassette recorders, flip, time sequence, stream charts diorama, still motion pictures among others.

Multimedia enriches teaching content and break teachers centered teaching patterns and fundamentally improve the class efficiency. Multimedia applications according to Patel (2013) improve interactive education between teachers and learners and provide flexibility of course content. It is pertinent to note that grasping information through various channels can equip the students with knowledge and bring about information sharing among students to make them actively participate in class discussion and communication. Teaching business education could be made to impact more into the students by adopting the use of multimedia. This is also necessary as the business environment has adopted the use of multimedia digitalized equipment in teaching business transactions and other activities. Despite the relevance of multimedia, lecturers in public and private universities still utilize only lecture method in teaching business education courses. With the rapid development of higher vocational education skill and continued improvement of instructional approaches, there is a growing need for business educators to apply multimedia for students to learn effectively. Vangham (2011) noted the advantages of multimedia and its combination of digitally manipulated text, photographs, graphic arts, sound animation and video elements in classroom instruction. Many multimedia applications provide efficient navigation through a larger resources of primary text-based information. Odah&Ogbaga (2010) opined that it is obvious that most business educators are yet to adopt this new technologies in teaching. This therefore, contributes to poor performance of business education students, the poor use of modern technologies to work even after graduation and this may be as a result of obsolete equipment.

Most universities according to Chukwurah (2011) are faced with obsolete equipment and poor funding. Even when some of these modern equipment are available, are they being utilized by lecturers? It is imperative to note that most of these universities have not made effort in order to equip their lecturers through retraining and instruction. Obviously these negate the achievement of effective business education programme. The challenges of business today is on the use of innovative instructional approaches to equip the students with contemporary knowledge and skills. The constraints seem to exist in the administration, lecturer's instruction and facilities.

Chukwurah (2011) noted that many students do not enroll in business education programme because of obsolete equipment and lack of modern or innovative teaching aid.

The researcher is worried that this situation has affected the quality of business education graduates as most of them cannot use the modern facilities in their working places. This situations needs to be addressed and controlled before more obsolete unskilled graduates would be produced. The graduates of business education need to be trained adequately. Nevertheless, there may be possible constraints to that and these constraints to the utilization of these multimedia facilities could lead to students performing below the acceptable standard. The constraints need to be highlighted in order that solutions be preferred for quality assurance especially in universities in South-East states of Nigeria. Therefore, this study is designed to ascertain constraints to multimedia applications in business education programme of public universities in South-East Nigeria.

### **Purpose of The Study**

The main purpose of the study is to determine the constraint to multimedia applications in business education programme of public universities in South-East Nigeria. Specifically the study sought to determine:

1. The lecturers' constraints to multimedia applications in teaching business education courses in public Universities in South-East Nigeria?
2. The institutional constraints to multimedia applications in teaching business education courses in universities in South-East Nigeria?

### **Research Questions**

The following research questions guided the study:

1. What are the lecturers' constraints to multimedia applications in teaching business education courses in public universities in South-East Nigeria?
2. What are the instructional constraints to multimedia applications in teaching business education courses in public universities in South-East Nigeria?

### **Hypotheses**

The following null hypotheses tested at .05 level of significance guided the study:

- H<sub>01</sub>: There is no significant difference between the mean ratings of federal and state universities lecturers on constraints to multimedia applications in teaching business education courses in public universities in South-East Nigeria.
- H<sub>02</sub>: A significant difference does not exist between the mean ratings of federal and state universities lectures on the institutional constraints to multimedia applications in teaching business education courses in public universities in South-East Nigeria.

### **METHOD**

The study adopted a descriptive survey research design. Descriptive survey research design according to Nworgu (2015) is one in which a group of people or items are studied by collecting and analyzing data from only a few people or items considered to be

representative of the entire group. The design was adopted for this study because results got from the respondents will be inferred to the entire population. South-East is one of the geo-political zones in Nigeria with many public universities. The public universities in South-East states offering business education are university of Nigeria Nsukka, Eboyi state university Abakaliki, Enugu state university of science and Technology Enugu, NnamdiAzikiwa university Awka, Anambra state university Uli, Michael Okpara federal university of Agriculture UmudikeAbia state and Federal university Ndufu- Alike Ikwo, Ebonyistate. The population of the study was 53 lecturers of business education in public universities in South East states of Nigeria. The study adopted no sampling due to the manageable size of the population.

The instrument used for data collection was a structured questionnaire validated by three experts, from business education option of the department of technology and vocational education Enugu State University of Science and Technology, Enugu. The reliability test of the instrument was carried out using 20 business education lecturers from South-South states of Nigeria. South-South was used because they have similar educational policies and administration with South-East Nigeria. The reliability of the instrument was determined using Cronbach Alpha and the reliability index yielded 0.85 indicating that the instrument is reliable. The copies of the questionnaire were distributed by the researcher and three trained research assistants. Out of 53 copies distributed, 51 were properly filled, and retrieved representing 96.23 percent return rate. Mean with standard deviation was used for data analysis while t-test was used to test the null hypotheses at .05 level of significance. The decision was based on upper and lower limits of the mean ratings. Thus;

- 3.50 - 4.00 Strongly Agree
- 2.50 - 3.49 Agree
- 1.50 - 2.49 Disagree
- 1.00 - 1.49 Strongly Disagree

The null hypothesis was significant if the calculated t- value is more than t- table value and not significant if the t- calculated value is less than the t – table value.

## **RESULTS**

The results of data analysis of the study are presented according to the research questions and null hypotheses that guided the study.

### **Research Question 1**

What are the Lecturers constraints to multimedia applications in teaching business education courses in public universities in South-East Nigeria?

**Table1. Mean ratings with standard deviation of federal and state university Lecturers on the Lecturers constraints to multimedia applications in teaching business education courses in public universities in South East Nigeria.**

S/N	Item Description	Federal N = 35		State N = 16		Overall $\bar{X}$		Decision
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
1	Poor knowledge on the part of lecturers on the available multimedia facilities.	3.27	0.81	3.25	0.84	3.26	0.83	Agreed
2	Non availability of multimedia to related lesson content.	3.38	0.52	3.46	0.53	3.43	0.51	Agreed
3	Laziness on the part of lectures in utilizing multimedia for instructional delivery.	3.37	1.06	3.54	0.78	3.48	0.87	Agreed
4	Non attendances of workshops for up to date/retraining on the modern multimedia for instructional delivery.	3.50	0.76	3.31	0.75	3.38	0.74	Agreed
5	Stubbornness on the part of lectures to use the multimedia for instructional delivery even where they are available.	3.63	0.74	3.38	0.77	3.48	0.75	Agreed
<b>Grand Mean and Standard Deviation</b>		<b>3.43</b>	<b>0.78</b>	<b>3.39</b>	<b>0.73</b>	<b>3.41</b>	<b>0.74</b>	<b>Agreed</b>

The result of data analysis presented in Table 1 shows that the mean ratings of the respondents ranges from 3.26 to 3.48. This means that the respondents agreed that the itemized are the Lecturers constraints to multimedia applications in teaching business education courses in public universities. The grand mean of 3.41 concurs with the agreement. The low standard deviation of 0.74 depicts that the respondent's opinions are homogenous.

### **HYPOTHESIS 1**

There is no significant difference between the mean ratings of federal and state Universities Lecturers on the lecturers' constraints to multimedia applications in teaching business education courses in public universities in South-East Nigeria.

**Table 2.t-test statistics on the mean ratings and standard deviation of federal and state university Lecturers on the lecturers' constraints to multimedia application in teaching business education courses in public Universities in south-East States of Nigeria**

Variables	X	SD	N	P	Df	t-cal	t-tab	Decision
Federal	3.43	0.78	35	0.05	49	0.154	2.009	Not
State	3.39	0.73	16					Significant

**t- cal. (0.154) < t-table (2.009) = Ns**

The result of t-test analysis indicates that the t-calculated at .05 level of significance and 49 degree of freedom is 0.154 while the t-table value is 2.009. Since the result of t-calculated is less than the t-table value, the null hypothesis is not rejected. This implies that no significant difference exist in the mean ratings of federal and state university Lecturers on the lectures constraints to multimedia applications in teaching business education causes in public universities in South-East Nigeria.

### Research Question 2

What are the institutional constraints to multimedia applications in teaching business education courses in public universities in south-East Nigeria?

**Table 3. Mean ratings of federal and state universities Lecturers on the institutional constraints to multimedia applications in teaching business education courses in public universities in South East Nigeria**

S/N	Item Description: The following are the institutional constraints' to multimedia applications in teaching business education courses	Federal N = 35 $\bar{X}$	SD	State N = 16 $\bar{X}$	SD	Overall $\bar{X}$	SD	Decision
6	Lack of infrastructural facilities to support the multimedia usage.	3.46	0.51	3.36	0.50	3.42	0.51	Agreed
7	Poor provision of multimedia facilities.	2.96	0.89	3.46	0.54	3.23	0.73	Agreed
8	Lack of workshops for lectures for training on multimedia applications.	3.27	0.45	3.64	0.92	3.46	0.69	Agreed
9	Employment of unqualified staff in the use of multimedia equipment.	3.23	0.43	3.55	0.69	3.39	0.6	Agreed
10	Lack of maintenance of the available multimedia equipment.	3.38	0.53	3.58	0.52	3.48	0.53	Agreed
11	Inadequate alternative power supply for the use of multimedia equipment as Nigeria experience epileptic power supply.	3.58	0.50	3.36	0.67	3.47	0.59	Agreed
<b>Grand Mean and Standard Deviation</b>		<b>3.31</b>	<b>0.55</b>	<b>3.49</b>	<b>0.64</b>	<b>3.41</b>	<b>0.61</b>	<b>Agreed</b>

The result of data analysis in table 3 shows that the mean ratings of the respondents' ranges from 3.23 to 3.48 indicating agreed. Grand mean of 3.41 depicts that the respondents agreed that the items in the table are the institutional constraints to multimedia applications in teaching business education courses in public universities in South-East Nigeria. The low standard deviation of 0.61 shows that the respondents have similar opinions to the itemized as the constraints to multimedia applications in teaching business education courses in public universities in South East Nigeria.

## HYPOTHESIS 2

A significant difference does not exist between the mean ratings of federal and state university Lecturers on the institutional constraints to multimedia applications in teaching business education courses in universities in South-East Nigeria.

**Table 4.t-test statistics on the mean ratings of federal and state universities Lecturers on the institutional constraints to multimedia applications in teaching business education courses in Universities in South-East Nigeria.**

Variables	X	SD	N	P	Df	t-cal	t-tab	Decision
Federal	3.31	0.55	35	0.05	49	0.763	2.009	Not
State	3.49	0.64	16					Significant

**t- cal. (0.763) < t-table (2.0009) = Ns**

The result of t-test analysis indicated that the value of t-calculated at .05 level of significance and 49 degree of freedom is 0.763. The null hypothesis is therefore not significant since the t-calculated value is less down t – table value of 2.009. The Implication is that no significant difference exists between the mean ratings of federal and state university lecturers on the itemized as the institutional constraints to multimedia applications in teaching business education course in universities in South-East Nigeria.

## DISCUSSION OF FINDINGS

The findings of the study with respect to research question one showed the lecturers constraints to multimedia applications in teaching business education courses in universities in South East Nigeria. Among the identified constraints include; poor knowledge of the available multimedia facilities, non-availability of multimedia related to lesson content, laziness on the part of the lecturers to utilize the multimedia, poor power supply and stubbornness of the lecturers on the use of multimedia. The result of the study projects that these constraints are hindering the applications of multimedia in teaching business education courses. The findings of the study is in agreement with Babajide (2003)

who noted that lack of knowledge of multimedia and its availability hinders the effective use of the multimedia in teaching. The findings of the study further indicated that some of the available multimedia are not related to the instructional content. The null hypothesis depicts that there is no significant difference on the mean responses of federal and state university lecturers on lecturers' constraints to effective multimedia applications in teaching business education courses in South-East Nigeria.

Further, the result of the study identified the institutional constraints to multimedia applications in teaching business education courses. Some of these identified institutional constraints include lack of infrastructural facilities to support the multimedia usage, poor provision of multimedia facilities, employment of unqualified staff, lack of maintenance of available multimedia equipment and inadequate alternative power supply for the use of multimedia in teaching. The findings are supported by Odah and Ogbaga (2012) who noted that lack of ICT infrastructural facilities hinder the effective use of multimedia and other new technologies in teaching business education programme. The submissions are also supported by Chukwurah (2011) who noted that most institutions are faced with obsolete equipment and poor funding. These according to the author hinder the utilization of multimedia in teaching the students especially the contemporary issues. The result of the study portrays that the institutional constraints hinder the applications of multimedia in teaching business education courses. The hypothesis inferred that no significant difference exist in the opinions of federal and state universities lecturers on the findings with respect to the institutional constraints to multimedia applications in teaching of business education courses in Universities in South-East Nigeria.

## **CONCLUSION**

Multimedia applications in teaching have been identified as a tool for meeting the contemporary needs of the learners. Multimedia provides learning opportunities that takes care of individual learning difficulties. The study identified the constraints to its applications by lecturers and this will help in achieving smart applications when the challenges have been addressed. The lecturer's constraints need to be considered paramount as the students equally see them as role models. Addressing the identified constraints of lecturers and institutions will help in propagation of knowledge in this computer age.

## **RECOMMENDATIONS**

Based on the findings of the study, the following recommendations are hereby made:

1. Lecturers should be retrained to equip them with the knowledge and skills of multimedia applications.
2. Institutions need to provide enough funds for multimedia applications and build infrastructures that will enable its application.
3. Government should provide fund to the public universities to enable them improve on staff and physical infrastructural development.

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