

Business Educators' Rating of Adequacy of Benchmark Minimum Academic Standards requirements for Physical Facilities and Equipment used in Training Undergraduates in Business Education Programmes

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Abstract

This study adopted survey research design to study the adequacy of the Benchmark Minimum Academic Standard (BMAS) requirements for physical facilities and equipment used by universities for undergraduate business education programmes. Two research questions were raised to guide the study, while two hypotheses were tested. The population of the study comprised 148 business educators in the universities that offer business education programmes as an academic programme in their undergraduate programmes in South-South and South-East geo-political zones of Nigeria. No sampling was done. For effective investigation, a 26 item questionnaire was designed, and used to collect data from the respondents. The instrument was validated by three experts. The instrument had reliability coefficient of 0.83. Data collected were analyzed using weighted mean scores and standard deviation scores for the research questions. Hypotheses were tested at 0.05 level of significance using t-test statistics. The findings of the study reveal, among others, that the Bench-mark Minimum Academic Standard requirements for physical facilities and equipment are adequate for preparing the undergraduates in the business education programmes. Based on the findings, it was recommended, among others, that the NUC's BMAS should be revised every five years in line with National Universities Commission's provisions.

Keywords: minimum, academic, standards, equipment, physical, facilities

Introduction

Business Education programme is a relevant programme for human growth, development and sustainability. According to Ajuluchukwu and Duruamaku-Dim (2014), Business Education programme is education for and about business and vocations showing that the programme introduces the theoretical and practical aspects of a business or occupation. Individuals in Business Education are not only encouraged to acquire knowledge but also use the knowledge. This assertion is supported by the second objective of Business Education programmes in the National Universities Commission's (NUC) Benchmark Minimum Academic Standards (BMAS) document. This objective has it that Business

Education programmes are aimed at producing manpower gifted with analytical and critical knowledge of the foremost factors in contemporary business world to inspire the development of a virile economy.

Business education programme is very important for a country's human resources development and utilization. As indicated by Ajuluchukwu (2015), business education programme is an integral part of general education aimed at changing individuals in some desirable ways and help produce positive 'can do it' attitude in a people. It is an enormous educational programme aimed at producing sizable number of self-reliant citizens. It is thus a means through which individuals are formally educated in business facts and practices. In other words, business education programme is a type of education that helps an individual to learn facts, acquire skills, develop abilities, solve problems and be able to acquire business-like attitudes that are useful for success in business occupations and entrepreneurship.

In recognition of its importance to a country's growth, development and employment generation, the Nigerian government introduced business education programmes into the secondary curriculum as reflected in the second edition of the National Policy on Education (Federal Republic of Nigeria (FRN), 2004). The importance of the business education programme is further driven home by the fact that it has been made a choice subject in most Colleges of Education and in a number of universities, both Federal, State and Private (Ajuluchukwu, 2013). The National Universities Commission (NUC) was set up in 1974 and it exists as a quality academic regulatory and supervisory agency for all academic programmes run in the universities in Nigeria. The commission is assigned with the responsibility to orderly develop and uphold standards in university education. Act 1 of 1974 gave legal mandate to NUC in this regard. Okebukola (2005) stated that Act 16 of 1985 authorized the commission to draw up minimum academic standard, accredit degrees and other academic awards of Nigerian Universities. The goal of the NUC also includes getting the Nigerian universities to levels that are comparable to or even surpass the level of the best universities in the world.

As part of fulfilling its mandate, the NUC in 1989, according to Okojie (2008), came up with Minimum Academic Standards for the different programmes offered in the universities. The provision of Minimum Academic Standards (MAS) by the NUC was aimed at providing uniform national academic programmes in the universities. These academic programmes are meant to meet the national economic and development goals on various areas of human endeavours. In 2004, the commission reviewed the MAS which had been in use since 1989 and eliminated obsolete information and introduced new developments in technology and knowledge. Subsequently, the revised document, which also defined benchmarks and renamed Benchmark Minimum Academic Standards, was introduced in 2008. The Benchmark Minimum Academic Standards (BMAS) was developed by NUC and used by universities in their programmes for the education and training of undergraduate and postgraduate students.

The importance and value of instructional resources in the teaching-learning process, particularly in tertiary institutions, caused the National Policy on Education (2004) to stipulate that for an educational institution, secondary or tertiary level to be established, such an institution must first put in place learning and recreational facilities. These must be in their proper quantity and quality, and they must be in their right places. Njoku (2004) pointed out that the Nigerian government recognized the important roles and benefits of instructional facilities in the teaching and learning processes. This led the Federal Ministry of Education, Science and Technology in 1985, the National Board for Technical Education in 1989 and the National Commission for Colleges of Education in 1996 to set minimum standards in classroom facilities. Availability of facilities is an important factor in business education teaching and learning. Learning should take place where the learner would feel most comfortable. This affirms the assertion by Denga (2010) that for any academic department to function effectively as the life giving cell to the educational programmes, it must strive to furnish an enabling environment. This is done through provision of adequate and effective physical facilities and equipment.

Ali (2011) in Ajuluchukwu (2012) opined that over the last two decades, the human and material resources of Nigerian Universities have shown considerable decline in quality, quantity and variety. This decline is unfair considering that students' enrolments, number of academic programmes offered to students have increased in leaps and bounds. This students' increase is in both on-campus academic programmes and out-reach programmes offered outside the campuses. Physical facilities for teaching, learning, research and development have not keep pace with the increased demands arising from large students' enrolment, public service functions and university consultancy services. Nwaoku and Tom (2009) opined that some universities lack equipment to be used to provide proper instruction in any academic field. They cited the issue of teaching subjects like Secretarial Studies, Accounting, Financial Management and Mathematics without computer equipment thus making those graduates not relevant in the modern society.

Agun (1982), cited in Ajuluchukwu (2012), stated that classrooms should be spacious enough with good seats and lights since some learners may have problems with their eye-sight. Thus learning facilities such as physical sitting arrangements, size of the rooms, learning aids and equipment such as audio visual and audio devices like television, radio, microphones and so on should be adequately provided. He thus recommends that like special education programme, business education classroom should be at least far larger than regular education classrooms. They should be properly equipped with business facilities, which aid and facilitate business education learning at all times. There should be adequate sitting arrangements to avoid crowding among the learners during class sessions. Asoegwu (2006) carried out a study and the finding showed that materials, tools and equipment were relevant to the prevailing employment requirements.

Ajuluchukwu (2012) conducted a study on assessment of universities designed minimum academic standards adopted by universities in South-East and South-South for Undergraduate Business Education programmes as the NUCs' BMAS document was then

not given to the departments for use. Thus the lecturers design what they use in training the students. The study found out among others that the universities' designed MAS for physical facilities and equipment requirement were adequate for preparing the undergraduate business education programmes' MAS. Igbinoba (2000) and Ile (2000) found out that instructional facilities and equipment in business education departments were inadequate. The inadequacy of facilities is also seen in Essien's (2007) study. Essien carried out a study and found out that basic teaching and learning facilities are not adequate and suitable for the technical education programmes. Ile (2000) conducted a study and his finding indicated that instructional facilities in the business education department were inadequate. Oriola (2007) conducted a study whose findings showed that the prescriptions of equipment and physical facilities were rated as fairly adequate.

This study was designed to rate the adequacy of the National Universities Commission's designed benchmark minimum academic standards requirement for physical facilities and equipment currently used by universities for training of undergraduates in business education programmes. According to Amjad (2021), physical facilities for education include all material resources that are needed to impart formal education. It includes land, building, furniture, laboratory and library. Equipment is the set of necessary tools, clothing, apparatus, and sports equipment, the implements used in an operation or activity for a particular purpose. This study is necessitated by the level of unemployment in the country. Describing the unemployment situation in Nigeria, Denga (2010) affirmed that looking for a job in Nigeria is fast becoming a job itself. This clearly portrays the inability of graduates from the different educational programmes and levels in the country to engage in creative ability that will lead to self-reliance. There is an urgent need to arrest the situation and allow sustainable development to take place.

This can best be done by building and promoting human resources through the different programmes offered at the various educational levels in the country. Prominent among them is the business education programme that enhances the ability of the learners to view an environment and come up with suitable employment opportunities available in such an area. The business education programmes enhance capacity building initiatives and opportunity management. These help to target resources needed to sustain and improve the economy. Indeed, the importance of business education programmes towards employment generation is further authenticated by the fact that it has, observably, become a choice subject in many institutions of higher learning. As already indicated, the National Universities Commission (NUC), as a regulatory body for university education in Nigeria, prescribes minimum standards for all degree programmes in Nigerian universities. Part of the goal of the NUC is to get Nigerian universities to levels that are comparable to, if not surpass, the enviable level of the best universities in the world and also meet the national economic and development areas of human endeavours. The end point of which is eradication of unemployment.

To achieve this, the NUC has designed and produced this document called benchmark minimum academic standards (BMAS) which is being used in the universities. However,

in spite of the NUC's designed BMAS used by the different educational programmes, many graduates from Nigerian universities are seen looking for jobs, including the business education graduates that are supposed to be job creators by virtue of their training. This increases the unemployment level in the country. The researchers are thus concerned; is it that the NUC's designed BMAS used in preparing the business educators is inadequate? This brings the need to embark on this study.

Purpose of the study

The purpose of the study was to establish business educators' rating of the adequacy of NUC's designed benchmark minimum academic standards requirements for physical facilities and equipment used in training undergraduates in business education programmes. Specifically, the study sought to determine:

1. The adequacy of NUCs' designed BMAS for equipment requirements for the training of undergraduates in business education programmes.
2. The adequacy of NUCs' designed BMAS for physical facilities requirements for the training of undergraduates in business education programmes.

Research questions

Two research questions were posed to guide the study:

1. How adequate is the NUC's designed BMAS for equipment requirements for training undergraduates in business education programmes?
2. How adequate is the NUC's designed BMAS for physical facilities requirements for training undergraduates in business education programmes?

Hypotheses

The following null hypotheses were formulated for the study and were tested at 0.05 level of significance:

Ho1: Business educators in South-East and those in South-South geo-political zones of Nigeria do not differ significantly in their mean ratings on the adequacy of the NUC's designed BMAS for equipment requirements for training undergraduates in business education programmes.

Ho2: There is no significant difference in the mean ratings of Business educators in South-East and those in South-South geopolitical zones of Nigeria on the adequacy of the NUC's designed BMAS for physical facilities requirements for training undergraduates in business education programmes.

Methodology

This study used survey research design. The study was conducted in the eleven states that make up the South-East and South-South geo-political zones of Nigeria. The population of the study consisted of 148 business educators in the NUC accredited federal, states and private Universities in the area of study. The entire population was used. The instrument for data collection was a questionnaire constructed by the researchers, structured on a four point rating scale of Very Adequate, Adequate, Inadequate and Very Inadequate. The

instrument has three sections, A, B and C. Section A sought demographic information on the respondents. Sections B and C contained 18 and eight items as NUC's designed BMAS requirements for equipment and physical facilities respectively. The instrument was validated by three experts. The reliability of the instruments was established using test-retest method. The reliability coefficient was determined using Pearson Product Moment Correlation analysis. The instrument had reliability coefficient of 0.83

Copies of the questionnaire were administered on the respondents by the researchers with the help of personally selected and tutored two research assistants. The researchers and their assistants administered the instrument and those who could respond to the instrument on the spot were encouraged to do so. Those who could not were given one week before a return visit for retrieval. 140 copies of the questionnaire were retrieved and used for data analysis. The data obtained from the administered instrument were analyzed using weighted mean scores to answer the research questions. Hypotheses were tested at 0.05 level of significance using t-test statistics. The decision rule for the mean ratings followed limits of numbers which were used to interpret the mean values attracted by each item of the questionnaire: Very Adequate scored 4 points, 3.50 - 4.49; Adequate with 3 points, 2.50 – 3.49; Inadequate had 2 points, 1.50 – 2.49; and Very Inadequate with 1 points, 0.05 – 1.49. For the tested hypotheses, the decision was to reject the null hypotheses where the t-test calculated value is greater than the table value. If otherwise, do not reject. The researchers used Statistical Package for the Social Sciences (SPSS) version 2020 for the analysis.

Presentation of results

Research question 1: How adequate is the NUC's designed BMAS for equipment requirements for training undergraduates in business education programmes?

Table 1: Respondents' mean ratings on equipment requirement

S/N	Equipment requirement	\bar{x}	SD	Remark
1	Word processors	3.16	.642	Adequate
2	Electric typewriters	3.22	.691	Adequate
3	Computers of various makes installed with different applications	3.21	.585	Adequate
4	Photocopying machines	3.11	.524	Adequate
5	Duplicating machines	3.41	.646	Adequate
6	Calculating machines	3.16	.614	Adequate
7	Punching machines	3.14	.614	Adequate
8	Adding/listing machines	3.07	.504	Adequate
9	Dictating machines	3.08	.647	Adequate
10	Scanning machines	3.22	.658	Adequate
11	Stop watches	3.19	.645	Adequate
12	Tape recorders	3.18	.626	Adequate
13	Headphones	3.30	.559	Adequate

14	Multi- Purpose projectors	3.11	.613	Adequate
15	Demonstration stand	3.10	.608	Adequate
16	Swivel typing chair	3.27	.644	Adequate
17	Convertible desk	3.24	.607	Adequate
18	Overhead projectors	3.19	.667	Adequate
Mean of Means		3.19	.616	Adequate

Table 1 shows that the NUC’s designed BMAS for equipment requirements had all the items rated in the range of adequate. The cluster mean value of 3.19 is also in the range of adequate. The indication is that the equipment requirements designed by the NUC are adequate for preparing the undergraduates in the business education programmes. The standard deviation values were below 1.00. This is an indication that the scores are closely scored.

Ho1: Business educators in South-East and those in South-South geopolitical zones of Nigeria do not differ significantly in their mean ratings on the adequacy of the NUC’s designed BMAS for equipment requirements for training undergraduates in business education programmes.

Table 2: Summary of t-test of significant difference between business educators in universities in South- South and those in South-East on the adequacy of the NUC’s designed BMAS for equipment requirements for training undergraduates in the business education programmes

Location	N	\bar{x}	SD	df	t-cal	t-crit	Remark
South-South	71	57.72	7.40	138	.578	1.98	Not Sig
South-East	69	57.06	6.02				

The analysis on table 2 reveals t-test statistical result on the adequacy of the NUC’s designed BMAS for equipment requirements for training undergraduates in business education programmes. The result showed t-calculated as .578 and t- critical as 1.98 at 138 degree of freedom and 0.05 level of significance. Since the calculated t-test value is less than the critical t-test value, the null hypothesis was not rejected.

Research question 2: How adequate is the NUC’s designed BMAS for physical facilities requirement for preparing the programmes’ undergraduates?

Table 3: Respondents' mean ratings of physical facilities requirements

S/N	Physical facilities requirements	\bar{x}	SD	Remark
1	Physical sitting arrangement and size of the classrooms should be larger than regular education classrooms	3.31	.589	Adequate
2	At least 8 staff rooms	3.31	.658	Adequate
3	One staff room office space per staff member	3.36	.691	Adequate
4	One staff student common room	3.31	.656	Adequate
5	One conference hall	3.25	.613	Adequate
6	At least two laboratories	3.28	.551	Adequate
7	One business education workshop	3.31	.658	Adequate
8	One storage room	3.16	.664	Adequate
	Cluster Means	3.29	.635	Adequate

The data in table 3 reveals that all the items were rated adequate for preparing the undergraduate students in business education programmes. The cluster had a cluster mean value of 3.29 thus showing that the NUCs' designed BMAS for physical facilities requirements for undergraduate business education programmes, in the opinion of the respondents, are adequate for preparing the undergraduates. The standard deviation values were below 1.00. This is an indication that the scores are closely scored.

Ho2: There is no significant difference in the mean ratings of Business educators in South-East and those in South-South geopolitical zones of Nigeria on the adequacy of the NUC's designed BMAS for physical facilities requirements for training undergraduates in the business education programmes.

Table 4: Summary of t-test of significant difference between business educators in universities in South- South and those in South-East on the adequacy of the NUC's designed BMAS for physical facilities requirements for training undergraduates in the business education programmes

Location	N	\bar{x}	SD	df	t-cal	t-crit	Remark
South-South	71	26.37	3.09	138	.240	1.98	Not Sig
South-East	69	26.25	2.81				

The analysis on table 4 reveals t-test calculated value of .240 and t- test critical value of 1.98 at 138 degree of freedom and 0.05 level of significance. Thus, as the calculated t-value is less than the t-critical value, the null hypothesis was not rejected. The implication is that the lecturers irrespective of their geo-political zone did not differ in their opinion that the NUC's designed BMAS for undergraduate business education programmes' physical facilities requirements for training undergraduates in the business education programmes is adequate.

Discussion of the findings

The questionnaire cluster for adequacy of NUC designed BMAS for equipment requirements for preparing undergraduates in Business Education Programmes had a cluster mean value of 3.19. An indication that the NUCs' designed BMAS for equipment requirements is adequate for preparing the programmes' undergraduates. The finding of this study is supported by the postulation by Agun (1982), cited in Ajuluchkwu (2012), that learning aids such as equipment like audio visual and audio aids such as television, radio, microphones and so on should be adequately provided. He thus recommended that business education classroom should be properly equipped. The assertion by Denga (2010) is of relevance to the finding of this study. Denga noted that for any academic department to function effectively as the life-giving cell to the educational programmes, it must strive to furnish an enabling environment. This is done through provision of adequate and effective equipment. This finding is contradicted by the statement by Nwaoku and Tom (2009). They opined that some universities lack equipment to be used to provide proper instruction in any academic field. They cited the issues of teaching subjects like Secretarial Studies, Accounting, Financial Management and Mathematics without computer equipment thus making those graduates not relevant in the modern society.

The result of the first hypothesis showed that business educators in universities in South-South and those in South-East did not differ significantly in their ratings that the NUC's designed BMAS for equipment requirements is adequate for preparing the undergraduates in the programmes. This finding is in line with the finding of Asoegwu (2006). In 2006, Asoegwu carried out a study and the finding showed that materials, tools and equipment were relevant to the prevailing employment requirements. The finding by Ajuluchukwu (2012) gave credence to the finding of this study. Ajuluchukwu conducted a study and found out that the universities' designed MAS for equipment requirements was adequate for preparing the undergraduate business education programmes' Minimum Academic Standard. Also, the finding of the study by Igbinoba (2000) is not in line with the finding of this study. The study's finding was that instructional equipment in business education department was inadequate. The study by Oriola (2007) is at variance with the finding of this study. Oriola conducted a study whose finding showed, among others, that the prescriptions of equipment was rated as fairly adequate

The finding from the second research question revealed that the identified eight items for NUC's designed BMAS for physical facilities requirements were adequate for preparing the undergraduates in business education programmes. This result had relevance in the recommendation of the National Policy on Education (FRN, 2004). The importance and value of instructional resources in the teaching-learning process particularly in tertiary institutions caused the National Policy on Education (2004) to stipulate that for an educational institution, secondary or tertiary level to be established, such an institution must first put in place learning and recreational facilities. The statement by Njoku (2004) supports the finding of this study. Njoku pointed out that the Nigerian government recognized the important roles and benefits of instructional facilities in the teaching and

learning processes. This led the Federal Ministry of Education, Science and Technology in 1985, the National Board for Technical Education in 1989 and the National Commission for Colleges of Education in 1996 to set minimum standards in classroom facilities.

The observation by Ali (2011) in Ajuluchukwu (2012) did not support the finding of this study. Ali opined that over the last two decades the human and material resources of Nigerian universities have shown considerable decline in quality, quantity and variety. That this decline is unfair now that students' enrolments, number of academic programmes offered to students have increased in leaps and bounds. This increase is in both on-campus academic programmes and outreach programmes offered outside the campuses. Facilities for teaching, learning, research and development have not keep pace with the increased demands arising from large students' enrolment, public service functions and university consultancy services.

Considering the second hypothesis, the analysis revealed that the business educators irrespective of their geo-political zones did not differ in their opinion that the NUC's designed BMAS for physical facilities requirement is adequate. The finding of the study by Ajuluchukwu (2012) is similar to the finding of this study. Ajuluchukwu's finding included that the universities' designed MAS for physical facilities is adequate for preparing the programmes' MAS. This study's finding did not agree with Ile's (2000) finding. His finding showed that instructional facilities in the business education department were inadequate. This finding is contradicted by that of Essien (2007) whose finding showed that basic teaching and learning facilities are not adequate and suitable for technical education programmes.

Conclusion

Based on the findings of the study, it is concluded that the NUC's designed BMAS for equipment and physical facilities requirements used in training undergraduates in Business Education programmes are of good quality thus the undergraduate business education programmes in the universities are run with quality standards. This clearly shows why the undergraduate business education programmes in the universities do not have denied accreditation status as found in the area of the study.

Recommendations

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

1. Since the BMAS is only a minimum standard, it is pertinent that facilities for business education programmes be stepped up to be in line with modern trends in industries.
2. The BMAS document should be made available to the department of vocational education and other departments in the universities. Lecturers should be allowed access to the BMAS document to enable them do self-evaluation of their teaching thus encouraging programme auditing.

3. The NUC's BMAS should be revised every five years in line with NUC's provisions. This will help to get the business education programmes to a level that is comparable to, if not better than, the enviable level of the best universities' programmes in the world.

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