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# ACADEMIC STANDARDS BENCHMARK AND ESTATE MANAGEMENT PROGRAMME IN NIGERIAN UNIVERSITIES: COMPLIANCE OR DEVIATION?

Ayotunde O. Oni, Samuel A. Oloyede, Caleb A. Ayedun, Omolade A. Akinjare

*Department of Estate Management, Covenant University (NIGERIA)*

## Abstract

The National Universities Commission (NUC) was empowered by Act No. 48 of 1988 to lay down minimum standards for academic disciplines in Nigerian universities. The aim of this study is therefore to examine the curriculum of Universities offering Estate Management course of study. This is with a view to determining compliance with or deviation from the set minimum standards. In attaining the aim, a process of comparison and inferences was followed in examining the NUC Benchmark Minimum Academic Standards for undergraduate programme in Estate Management. Data were obtained from the reports of Estate Surveyors and Valuers Registration Board of Nigeria (ESVARBON) Accreditation Teams to the Universities between 2010 and 2013. Statgraphic statistical software was used to determine the degree of variation from or compliance with the standards. The study found wide deviation of the observed from the expected standards, while less than 40% of the studied Universities truly met the standards on staff/student ratio, facilities, staff composition, minimum space requirements, and staff qualifications. This confirms deviation of some universities from complying with the benchmark standards. The findings provide better understanding of the academic standards as obtained in Departments running real estate course, and recommends that the accreditation teams of should adopt more rigorous approach in enforcing compliance with set minimum standards.

Keywords: academic, accreditation, benchmark, estate, management, standards, university.

## 1 INTRODUCTION

In Nigeria, the National Universities Commission (NUC) amended Decree (now Act) No. 48 of 1988 empowers the Commission to set minimum standards for academic programmes in the Universities. The minimum academic standards were subsequently approved by the Federal Government in 1989, and Minimum Academic Standards (MAS) documents initiated in 2001 before it was subsequently revised to become Benchmark Minimum Academic Standards (BMAS). The BMAS enunciates the learning outcomes and competences expected of graduates in each academic programme without being overly prescriptive while at the same, providing the requisite flexibility and innovativeness consistent with a milieu of increased institutional autonomy.

Furthermore, a survey named "Needs Assessment Survey of Labour Market for Nigerian Graduates" was conducted to determine the ability and skills of the graduates to fit into the requirements of new national and global economy. In this regard, the BMAS documents cover Administrative, Management and Management Technology; Agriculture, Forestry, Fisheries, and Home Economics; Arts; Basic Medical and Health Science; Education; Engineering and Technology programmes. Others are: Environmental Sciences; Law; Pharmaceutical Sciences; Medicine and Dentistry; Social Sciences; and Veterinary Medicine. According to the BMAS, the Environmental Sciences programme includes Architecture, Building, Environmental Management (Toxicology, and Management Resource), Estate Management, Fine Arts, Industrial Design, Survey and Informatics, Landscape Architecture, Quantity Surveying, and Urban and Regional Planning.

The basic expectations of ESVARBON are related to the academic content as set by the NUC but also include professional aspects. This was specifically recognized in Section 2.5.12 of Act No. 48 of 1988 where ESVARBON is recognized and ascribed the duty of regular accreditation of the Estate Management programme to ensure feedback from the professionals in the industry. On the strength of the Act, the NUC developed a set of Minimum Academic Standards (MAS) to guide Nigerian Universities in the development, implementation and evaluation of their curricula. The MAS was reviewed by the NUC in 2004 and resulted in the development of Benchmarks Minimum Academic Standards (BMAS).

The aim of this paper is therefore to examine the academic standards benchmark set by the National Universities Commission (NUC) and the Estate Surveyors and Valuers Registration Board of Nigeria (ESVARBON), specifically as related to Estate Management programme in Nigerian Universities. This is with the main objective of determining the compliance or otherwise of the universities offering the programme with the set standards and quality through accreditation process. This is with a view to providing better understanding of the academic standards on offer by the Universities and serving as pointers to the Accreditation Teams of the NUC and the ESVARBON. In attaining the aim, the study was rested on the platform of the ESVARBON accreditation visitation exercises conducted severally between 2010 and 2013.

## 2 REVIEW OF LITERATURE

Academic standards are public, written statements of expectations which are published documents that apply to institutions of learning and guide what is being taught. Academic standards make the most difference in programmes that such institutions offer, the entry requirements, and facilities to be provided, and refer to the expected achievement of students which could either be the standards set (to be met or surpassed) or the standard achieved by a student before graduation.

According to Harvey (2006)<sup>1</sup>, academic standard is one of the broad areas in higher education where quality is set and assessed, and relates to intellectual abilities of students, tutors and Faculty members. It is the demonstrated ability to meet specified level of academic attainment, usually relating to objectives or stated outcomes, operationalised via performance on assessed pieces of work. However, Thompson-Whiteside (2011)<sup>2</sup> differs, stating that academic standards are largely unknown, especially to those outside of teaching and learning practice or outside of particular discipline. As a result, employers' understanding of quality and standards differ considerably to those within the university. It argued that an academic standard is an abstract, multi-dimensional concept, used and interpreted in a variety of ways by different stakeholders. The study concluded that the setting and judgment of a good standard was largely bound in the context of what was being judged and who was judging it.

In the opinion of the United Kingdom Higher Education Quality Council (HEQC, 1997)<sup>3</sup>, academic standards are explicit levels of academic attainment applied to measure academic requirements and achievements of individual institutions and students. Similarly, the Australian Learning and Teaching Council (ALTC) (2010)<sup>4</sup> developed the Learning and Teaching Academic Standards Project, which has similarities with the UK benchmarking. It regards academic standards as "learning outcomes described in terms of discipline-specific knowledge, discipline-specific skills including generic skills as applied in the discipline and discipline-specific capabilities". This definition actually dovetails into benchmarks and benchmark statements.

Sadler (1989)<sup>5</sup>, Middlehurst (1996)<sup>6</sup>, Harvey (2002a)<sup>7</sup>, Alderman (2009)<sup>8</sup>, and Coates (2010)<sup>9</sup> emphasized that definitions of academic standards are various, conceptually complex, and difficult to define. For instance, Middlehurst (1996)<sup>6</sup> described the term as composite input, process and output elements; Harvey (2002b)<sup>10</sup> distinguished academic standards from standards of competence, service standards, and organisational standards, and underpinned the definition on academic attainment. This definition is similar to that of Alderman (2009)<sup>8</sup> that described academic standards as "discrete levels of intellectual performance, the attainment of which results in the award of academic credit"; while it is a designated degree or level of performance or excellence (Sadler, 1989)<sup>5</sup>; and "the level of achievement (i.e. the threshold) that a student has to reach to gain a particular degree or other academic award" (UUK, 2008)<sup>11</sup>.

In relation to academic standard is "quality assessment" which is usually set to determine the level of quality of inputs, processes and outputs, and form a judgment of the overall quality of an institution or programme or of specified component elements, research performance and output. This not only provides public rating of research for higher institutions but also in the allocation of significant government funding to such institutions on the basis of their rating; as the higher the rating, the more money is allocated to them. Assessment could be "institutional assessment" which is the evaluation of the quality of teaching that the higher institutions provide or "program assessment" referring to the core activities, which are education, research and community service. It is also a diagnostic form of quality review and evaluation of teaching, learning, and programs based on detailed examination of curricula, structure, and effectiveness of the institution, its internal review, and quality control mechanisms. It consists of the techniques, mechanisms, and activities carried out by an external body in order to evaluate the quality of the higher education processes, practices, programs, and services.

In this regard, the concept of quality assessment encompasses the national, institutional context; the methods (self-assessment, assessment by peer review, site visits); the levels (system, institution, department, and individual); the mechanisms (rewards, policies, structures, cultures); pedagogical values that focus on staff and their teaching skills and classroom practice. Others are: quality values such as academic values and traditional values (focusing upon the subject field), managerial values (focusing on procedures and practices); and employment values which emphasize graduate output characteristics and learning outcomes (Staropoli, 1991<sup>12</sup>; HEFCE/SHEFC/HEFCW, 1993<sup>13</sup>; Ripier, 1995<sup>14</sup>; CHEA, 2002<sup>15</sup>; Vlăsceanu *et al.*, 2007<sup>16</sup>).

Accreditation may be used to signify the official approval granted by an accrediting agency to an accredited institution at the end of a successful assessment exercise. The accrediting agencies are usually set up by the Government through the Ministry of Education or by professional organizations. In carrying out accreditation, however, quality assessment and benchmarking are carried out as a legitimate device for controlling and regulating universities and other higher institutions of learning to enhance accountability, performance and continuous improvement. Furthermore, a benchmark is a point of reference against which something may be measured. In the higher education context, it is usually either at a level of performance, resources, or outcome against which an institution or group might be compared, or the specification, or codification of comparable processes (Vlăsceanu *et al.*, 2007<sup>16</sup>; Leite *et al* 2006<sup>17</sup>; Oladosu, 2011<sup>18</sup>; Cardoso *et al*, 2012<sup>19</sup>; Campbell and Rozsnyai, 2002<sup>20</sup>)

Green (1994)<sup>21</sup> opined that standard is “a basis for measurement, or a ‘yardstick’ and neutral term to describe a required characteristic of a product or service and follows basic principles about quality assurance and guidelines” and emphasized the primary responsibility for the quality of their provision and its assurance; safeguarding the interests of society in the quality and standards of higher education need; development and improvement of the quality of academic programmes for students and other beneficiaries of higher education. Furthermore, it emphasized the need to have efficient and effective organizational structures within which the academic programmes are provided and supported. This is in addition to high level of transparency and use of external expertise in quality assurance processes. Closely connected to accreditation is the concept of “quality assurance” which has been described as the process of monitoring quality and ensuring that standards are not only continuously sustained but equally improved upon. Quality assurance may be “External Quality Assurance” if it is conducted by an external agency from outside the educational institution to find out the extent of institution’s compliance with established standards or “Internal Quality Assurance” when effected internally to ensure that a particular institution, programme, profession or discipline continues to achieve its spelt-out objectives and maintain standards expected of a higher education.

### 3 ACADEMIC AND PROFESSIONAL STANDARDS FOR ESTATE MANAGEMENT PROGRAMME IN NIGERIA

In this Section, the academic and professional standards set by the NUC and ESVARBON respectively are considered. The NUC takes care of the academic accreditation while the ESVARBON covers the professional accreditation.

#### 3.1 The NUC Minimum Academic Standard for Estate Management Programme

The minimum standards set for accreditation of Estate Management programme in Nigeria are on general skills, admission requirements, credit units required, performance evaluation criteria, credit level attainment, personnel and students’ population, physical facilities, and course and graduation requirements as detailed in Table 1

**Table 1: Minimum Academic Standard Requirements.**

S/N	Basic Standard Requirements	Details
1	Curriculum/ Admission Requirements	For any student to be admitted to study Estate Management, the minimum admission requirements are: Five (5) Credits in Senior School Certificate Examination (SSCE) or General Certificate Examination (GCE) in English Language, Mathematics, Economics, and ANY other two subjects from Chemistry, Physics, Business Studies or Commerce, Geography, Biology, Agricultural Science, and Technical Drawing

2	General Skills	Student is expected to possess written and oral communication skills; problem-solving skills, relating to both qualitative and quantitative information and especially where information is limited; computational and numeracy skills; information-retrieval skills, in relation to primary and secondary information sources including information retrieval through on-line computer searches; information technology skills such as word processing and spreadsheet use, data-logging and storage, internet communication et cetera; interpersonal skills relating to working in multi-disciplinary teams; time-management and organizational skills; study skills needed for continuing professional development and research;
3	Credit Units	It is expected that a student will cover 180 Credit Units in 5 years with a minimum of 15 Credit Units of workload per Semester required, while individual Universities are to work out details of credit units
4	Performance Evaluation	It is compulsory that candidates satisfactorily complete course work set in each course in the form of Term Papers, Continuous Assessments, Short Quizzes or Short Tests, Compulsory Field Trip and Industrial Attachment programme. The Continuous Assessment is expected to be between 30% and 40%, and Semester Examinations carrying 60% to 70%
5	Attainment Levels	In addition to content in Performance Evaluation, the final year degree examination is expected to be moderated by an External Examiner who would assess the quality of the students' performance as well as the overall standard of the course.
6	Personnel	The number of staff to be based in the Department would depend on a number of variables such as students' population and the number of service courses which other available departments offer the students. Nevertheless, the categories of staff required are: Professor, Reader, Senior Lecturer, Lecturer, Technical Staff, Junior non-technical staff and drivers.
7	Maintenance of Curricula Relevance	The programme is to be constantly reviewed to incorporate emerging techniques. Internal departmental review is expected to be undertaken every year. The relevant professional regulatory bodies are to regularly accredit the programme to ensure feedback from the industry. The employers are also expected to send assessments to the department every two years
8	Physical Facilities	Specific standards of office accommodation expected are: Professor's Office – 24m <sup>2</sup> ; Head of Department - 24m <sup>2</sup> ; Senior Lecturer - 16m <sup>2</sup> ; Lecturer -12m <sup>2</sup> ; Assistant Lecturer - 8m <sup>2</sup> ; Senior Technical Staff - 12m <sup>2</sup> ; Senior Administrative Staff - 12m <sup>2</sup> ; Junior Technical Staff - 5m <sup>2</sup> ; Studio Space - 4m <sup>2</sup> per student; Lecture Hall – 0.5m <sup>2</sup> per student; Senior space - 0.5m <sup>2</sup> per student; Departmental Library equipped with relevant texts in addition to General University Library.
9	Course Requirements	The courses that students are expected to offer may be divided into three – those domiciled in the Department, those offered in cognate Departments, and those offered in Departments of General Studies. The principal course components are Property Valuation, Feasibility and Viability Studies, Property Management, Building Technology, Law, Economics, Land Economics, and Town Planning. Compulsory core courses taught in Departments of Estate Management are: Introduction to Estate Management, Introduction to Valuation, Principles of Town and Country Planning, Taxation and Rating, Principles of Valuation, Land and Resources, Applied Town Planning, Arbitration and Awards, Property Management, Advanced Valuation, Feasibility and Viability Appraisals, Estate and Development Finance, Project Dissertation, Land Economics, and Professional Practice. The compulsory ancillary courses are: General Mathematics, Architectural Graphics, Principles of Economics, Principles of Agricultural Production, Principles of Accounting, Building Construction, Building Materials, Economic Theory, Land Surveying, Basic Statistics, Basic Computer Programming, Building Services and Maintenance, Economics of Agriculture, Public Health Engineering, Nigerian Land Law, Law of Contract and Tort, Entrepreneurship Studies, Information Technology, and Plant and Machinery Valuation
10	Requirements for Award of Degree	Award of a degree is subject to scoring minimum credit of 180 units, one semester practical experience, passing all compulsory examinations and successful completion of project dissertation.

**Source:** NUC Benchmark Minimum Academic Standards for Undergraduate Programmes in Nigerian Universities for Environmental Sciences, April 2007<sup>22</sup>

Apart from the foregoing, universities and programmes are evaluated and accredited based on the criteria of staffing, academic content, physical facilities, library, funding, and employers' rating as shown in Table 2:

**Table 2: Criteria and Scoring Used by the NUC in Accreditation of Nigerian Universities.**

S/N	Criteria	% Score
1	Staffing	32%
2	Academic Content	23%
3	Physical Facilities	25%
4	Library	12%
5	Funding	5%
6	Employers Rating	3%
<b>Total</b>		<b>100%</b>

Source: Oladosu (2011)<sup>18</sup>

Furthermore, universities are rated on the institutional accreditation level according to the overall score and the accreditation status awarded may be full accreditation, interim accreditation, probationary, or outright denial as detailed in Table 3

**Table 3: Score, Grade and Decision in Accreditation of Nigeria University.**

S/N	Range of Score	Accreditation Grade	Evaluation Remark	Accreditation Status	Accreditation Life-Span
1	65 – 69%	B+	Good	Full Accreditation	8 years
2	60 – 64%	B	Good	Full Accreditation	8 years
3	55 – 59%	C+	Fair	Interim Accreditation	5 years
4	50 – 54%	C	Fair	Interim Accreditation	3 years
5	45 – 49%	D	Poor	Probation	2 years
6	40 – 44%	E	Poor	Probation	1 year
7	Below 40%	F	Fail	Denied Accreditation	0

Source: Oladosu (2011)<sup>18</sup>

Apart from institutional accreditation, programmes are accredited based on six criteria in which at least 70% must be score in each to attain full accreditation status (See Table 4).

**Table 4: Accreditation Status Requirements and Decision.**

S/N	Accreditation Status	Requirements	Decision
1	Full Accreditation Status	(i) Total overall score of 70% and above (ii) 70% score in each of Core Areas of Staffing, Academic Content, Physical Facilities, and Library	A programme with Full Accreditation is formally revisited after 5 years
2	Interim Accreditation Status	Overall score less than 70% or 70% but with a score of less than 70% in any of the four core areas	Interim accreditation status that lasts for two years after which a re-visitation is conducted
3	Denied Accreditation Status	A programme that scores less than 60% overall score	Denied accreditation status implies that no further student enrolment until the programme is revisited and re-accredited

Source: Oladosu (2011)<sup>18</sup>



### 3.2 The ESVARBON Minimum Standard for Estate Management Programme in Nigeria

The Estate Surveyors and Valuers Registration Board of Nigeria (ESVARBON) accredit the universities based on twenty-five criteria shown in Table 5

**Table 5: Criteria Adopted by ESVARBON in Accreditation of Estate Management Programme.**

S/N	Criteria	Explanation and Maximum Scores Obtainable
1	Course Philosophy and Objectives (CPO)	For clearly defined philosophy and objective, 5 points are awarded; where it is not well stated, 3 points; and where no philosophy and objectives are stated, no point.
2	Curriculum (CRR)	Where the curriculum is very adequate, 10points are awarded; for curriculum that is adequate, 7points; fairly adequate 5points; and not adequate, 2points.
3	Admission Requirements (ARQ)	Where all enrolled students meet the admission requirements, 10points; where at least 80% of students meet the admission requirements, 7points; at least 50% of students meeting the admission requirements, 4points; and when less than 50% meet the requirements, 1point is awarded.
4	Academic Regulations/Students Handbook (ARH)	Where handbooks are available and issued to all students, 5points; where they are available and not issued to all enrolled students, 3points; where they are not available, 0points
5	Evaluation of Past Question Papers (EPQ)	Questions cover syllabus with minimal editorial errors, good and acceptable standard, 10points; fairly acceptable standard with some editorial errors, 5points; poor standard with substantial editorial errors, 2points
6	Assessment of Marking Scheme (AMS)	Good marking schemes with model answers exist and there is evidence of compliance, 10points; marking scheme exists but not well developed, 6marks; and marking scheme does not exist, 0point.
7	Assessment of Final Year Projects (AFP)	Range covers wide areas, minimal editorial errors, good and acceptable standard, 10points; range covers narrow areas, minimal editorial errors, good and acceptable standards, 7points; fair quality with some editorial errors, 5points; and poor quality with substantial editorial errors, 2points.
8	Assessment of Student Industrial Work Experience (SIWES)	All students did their industrial attachment in appropriate place and have written reports, 10points; all students did their industrial attachment in appropriate place but have no written reports, 7points; some of the students did not do their industrial attachment in appropriate place but have written reports, 5points; and some of the students did not do their industrial attachment in appropriate place and have no written reports, 2points.
9	Evaluation of Examination Moderation (EEM)	There is thorough and critical assessment, assessors are academically and professionally qualified, 10points; not thorough and critical but assessors are academically and professionally qualified, 7points; assessors are academically qualified but do not possess professional qualification, 3points; where there was no evaluation, 0 point.
10	Assessment of Full Time Lecturers' Professional Qualifications (LAQ)	All staff are professionally qualified, 10points; at least 80% of staff are professionally qualified, 8points; at least 50% of staff are professionally qualified, 5points; and less than 50% of staff are professionally qualified, 2points
11	Assessment of Full Time Lecturers' Academic Qualifications (LPQ)	In this case, a PhD is defined as higher degree. Where all the staff have higher degree, 10points; at least 80% have higher degree, 8points; at least 50% have higher degree, 5points; and less than 50% of staff have higher degree, 2points.
12	Assessment of Full Time Lecturers' Teaching Experience (LTE)	All staff are Senior Lecturers and above, 10points; At least 80% of staff are Senior Lecturers above, 8points; at least 50% of staff are Senior Lecturers and above, 5points; and where less than 50% of staff are Senior Lecturers and above, 2points.
13	Assessment of Lecturers/Students Ratio (L-SR)	For this purpose, two Associate/Visiting/Part-Time Lecturers are counted as 1 Full-Time Lecturer. Where there is one Lecturer to maximum of 15 students - Very Adequate, 10points are awarded; Fairly Adequate - one Lecturer to between 16 and 20 students, 6points. Not Adequate - one Lecturer to 21 or more students, 3points are awarded.

14	Assessment of Non-teaching Staff (ANTS)	Where there are three or more non-teaching staff –Very Adequate, 5points; for Fairly Adequate – either 2 or 3 non-teaching staff, 2points; and Inadequate - only one or no staff is servicing the Department, 1point.
15	Staff Development Programme (SDP)	Where there is a well-implemented staff development programme, 10points; Development programme exists but fairly implemented, 6points; Development programme exists but not implemented, 3points; and development programme does not exist at all, NO point is awarded
16	Report on Physical Facilities-Classrooms, Studios, Lecture Theatres, etc (PHF)	The facilities are Adequate in size and well equipped,10points; Inadequate in size but well equipped, 7points; Adequate in size but poorly equipped, 5points; Inadequate in size and poorly equipped, 2points; and where there are no studios and equipment facilities, NO point is awarded.
17	Report on Departmental Office and Office Equipment (RDE)	Adequate and well equipped, 5points; Adequate but poorly equipped, 3points; and Not adequate and poorly equipped, No point is awarded.
18	Report on Environmental Sanitation (RES)	Where the learning environment is clean and tidy, 5points are awarded; for Fairly clean and tidy environment, 3points; and for Dirty and unkempt environment, NO point is awarded.
19	Report on Funding of the Department RFD)	Where the Department is well funded, 10 points; Fairly funded, 6points; Poorly funded, 2points; and where no fund is provided NO point is awarded.
20	Report on Departmental Reading Room (RDL)	Adequate in size with stock of good textbooks and journals, 5points; Adequate in size but poorly stocked with books and journals, 2point; while No point is given if there is no Departmental Reading Room
21	Report on Central Library (RCL)	If the Central Library contains at least 10 different titles books in the core area and 3 of current foreign journals and 1 of current local journals, 10points are awarded; contains at least 10 different titles of books in the core area but less than 3 of current foreign journals and 1 of current local journals, 7points; contains less than 10 different titles of books in the core area and 3 of current foreign journals and 1 current local journals, 5points; and if the Library contains less than 10 different titles of books in the core area and less than 3 of current foreign journals and 1 of current local journals, 2points are awarded.
22	Report on ICT Facilities (ICT)	Where there is adequate facilities for computer training and Internet at the Departmental and University levels, 10points; where facilities for computer training and Internet exist only at the central University level, 5points; Where the facilities for only computer training exists, 3points; and where ICT facility does not exist, 0point.
23	Rating of Graduates by Employers (RGE)	If the employers' rating of graduates is high, 5points is awarded; when the rating is fair, 3points; and poor rating attracts 1point
24	Report on Office Accommodation for Lecturers and Non-teaching Staff (RLOff)	If the offices are adequate in size and well furnished, 10points; adequate in size but poorly furnished, 5points; and where it is inadequate in size and poorly furnished, 2points
25	Administration of the Programme – this includes the Headship, Staff Relationship, Relationship with the Nigerian Institution of Estate Surveyors & Valuers NIESV and Estate Surveyors & Valuers Registration Board of Nigeria ESVARBON, and Estate Management Students Association EMSA Activities (PAdmin)	<p>(i) The academic and professional qualifications of the Head of Department are considered. Where the Head is academically and professionally qualified. 5points are awarded; where the Head is not professionally qualified but has academic qualifications, 2points; but where the Head is neither professionally qualified nor academically qualified, No point is awarded.</p> <p>(ii) Where regular Departmental meetings are held, 5points; regular Board meetings, 2 points; where no board or departmental meetings hold, 0point.</p> <p>(iii)Where the relationship with the NIESV and (ESVARBON) are cordial and up-to-date payment of annual subscription, attendance at Conferences and meetings of Branch of NIESV,etc is very adequate, 5points; adequate, 3points; not adequate, No point is awarded.</p> <p>(iv)The activities of the (EMSA) are considered. Where there is active EMSA, 5points; not too active EMSA, 3points; and where there is no student association, No point is awarded.</p>

**Total Marks Obtainable      225**

**Source:** Estate Surveyors & Valuers Registration Board of Nigeria

From Table 5, the maximum score obtainable is 225 points across all the set criteria and on which the actual score obtained is rated in percentages and accreditation decision is made as shown in Table 6.

**Table 6: Details of Accreditation Scores and Decision.**

S/N	Range of Score Obtainable	Percentage of Actual Score over Total of 225	Decision
1	169 and above	75% and above	5 years - Full Accreditation
2	146 – 168	65% - 74%	4 years – Accreditation
3	124 – 145	55% - 64%	3 years – Provisional Accreditation
4	113 – 123	50% - 54%	2 years – Provisional Accreditation
5	0 – 112	Below 50%	Non-Accreditation

**Source:** ESVARBON Accreditation of Academic Programme of Nigeria Tertiary Institutions Scoring Form

#### 4 MATERIALS AND METHODS

In carrying out this study, data on the Nigerian Universities and Polytechnics offering Estate Management programme were obtained from the list of accredited Institutions by Estate Surveyors & Valuers Registration Board of Nigeria (ESVARBON). There are twenty-eight higher institutions accredited to offer Estate Management programmes in Nigeria, out which fourteen (50%) are Universities and fourteen (50%) are Polytechnics; 17 belong to the Federal Government of Nigeria, 10 to State Governments, while only one is privately owned; however, the focus of this study is on the universities to the exclusion of Polytechnics.

Sample was taken based on the Bartlett et al (2001)'s model<sup>23</sup>, which recommends the appropriate sample size for a given population at 95% confidence level. In this regard, eight (57.14%) of the entire number of universities offering Estate Management represent sufficient sample size. Consequently, Covenant University, Ota (CU); University of Lagos, Akoka-Lagos (UNILAG); Federal University of Technology, Akure (FUTA); Nnamdi Azikiwe University, Akwa (UNIZIK); River State University of Science & Technology, Nkpolu, Port Harcourt (RSUST); Enugu State University of Science & Technology, Enugu (ESUST); Imo State University, Owerri (ISU), and Cross River University of Technology, Calabar (CRUT) were selected for study.

In respect of data analysis, items set by the ESVARBON were assigned maximum scores ranging stated in the standards. The ESVARBON-set standards thus represent the *expected standard* while the actual scores awarded based on available facilities in each University represent the *observed standard*. The observed (*o*) and expected (*e*) standards were consequently analyzed with the aid of Statgraphic statistical software set at 95% confidence level. This is with the aim of resolving two hypotheses, which are: "there is no significant difference between the expected and observed standards in compliance with the ESVARBON set standards"; and "there is no deviation of the observed standards from the ESVARBON expected benchmarks".

In resolving the hypotheses, data on maximum expected scores and scores as observed scores awarded by ESVARBON team on each items of accreditation were analyzed and compared as detailed in Table 7.

Table 7: Details of Observed and ESVARBON Accreditation Scores.

S/N	Criteria Codes	Expected Score	Universities and Researcher's Observed Scores								Average Score
			CU	UNILAG	FUTA	UNIZIK	RSUST	CRUT	ESUST	ISU	
1	CPO	5	5	4	4	5	4	4	4	4	4.25
2	CRR	10	9	7	6	7	6	5	6	6	6.5
3	ARQ	10	9	9	8	9	6	6	6	9	7.75
4	ARH	5	5	4	4	4	4	3	3	4	3.875
5	EPQ	10	9	8	7	8	6	6	7	7	7.25
6	AMS	10	8	8	7	8	6	5	6	6	6.75
7	AFP	10	8	8	8	8	6	6	7	8	7.375
8	SIWES	10	9	9	9	8	8	6	7	7	7.875
9	EEM	10	9	8	9	8	8	7	8	8	8.125
10	LAQ	10	9	7	6	8	6	5	5	5	6.375
11	LPQ	10	9	8	8	8	6	5	6	7	7.125
12	LTE	10	9	7	6	7	6	6	7	7	6.875
13	L-SR	10	10	6	3	6	4	4	6	6	5.625
14	ANtS	5	4	3	3	4	1	4	4	4	3.375
15	SDP	10	9	6	6	6	5	6	6	6	6.25
16	PHF	10	9	7	7	7	7	2	7	7	6.625
17	RDE	5	5	4	4	4	4	1	4	4	3.75
18	RES	5	5	4	3	4	3	3	4	3	3.625
19	RFD	10	9	7	7	7	6	5	4	6	6.375
20	RDL	5	4	4	3	4	3	3	4	3	3.5
21	RCL	10	8	8	8	7	7	6	7	6	7.125
22	ICT	10	9	8	8	8	8	4	7	7	7.375
23	RGE	5	4	4	4	4	3	3	3	3	3.5
24	RLOff	10	8	7	7	7	7	6	7	4	6.625
25	PAdmin	20	17	17	17	17	17	14	16	16	16.375
ESVARBON Total		225									
ESVARBON Accreditation			84.33%	81.51%	81.69%	84.11%	68.59%	73.03%	75.11%	73.22%	
Status Decision			5years	5years	5years	5years	4years	4years	5years	4years	
Researcher's Score			199	172	162	173	147	125	151	153	
Researcher's Percentage Score			88.44%	76.44%	72.00%	76.89%	65.33%	55.56%	67.11%	68.00%	

## 5 ANALYSIS AND DISCUSSION

The analysis of data in Table 7 using the Simple Regression of the ESVARBON scores obtainable and average scores across the Universities was based on the linear model:

$$Y = a + b \cdot X$$

... Eqn 2

The highest scores obtainable (ESVARBON' Expected Scores) are the dependent variable and average of total scores in each of the accreditation criteria being the independent variables. The analysis resulted in the summary statistics shown in Tables 8 and 9

Table 8: Coefficients of the Model.

Parameter	Least Squares Estimate	Standard Error	T-Statistic	P-Value
Intercept	1.3427	0.471559	2.84737	0.0091
Slope	1.19459	0.0683454	17.4787	0.0000

**Table 9: Analysis of Variance**

Source	Sum of Squares	Degree of freedom	Mean Square	F-Ratio	P-Value
Model	232.496	1	232.496	305.50	0.0000
Residual	17.5036	23	0.761027		
Total (Corr.)	250.0	24			

Correlation Coefficient = 0.964358; R-squared = 92.9985 percent; R-squared (adjusted for d.f.) = 92.6941 percent; Standard Error of Est. = 0.872369; Mean absolute error = 0.713714 Durbin-Watson statistic = 2.19153 (P=0.6561); Lag 1 residual autocorrelation = -0.176688

The output shows the results of fitting a linear model to describe the relationship between ESVARBON Scores Obtainable and Average Score across Universities, while the equation of the fitted model is

$$ESVARBON \text{ Scores Obtainable} = 1.3427 + 1.19459 * \text{Average Score across Universities} \quad \dots \text{Eqn 3}$$

In resolving the first hypothesis that "there is no significant difference between the expected and observed standards in compliance with the ESVARBON set standards", P-value in the Table 9 is less than 0.05 implying that the null hypothesis is rejected, namely, there is a statistically significant difference in ESVARBON Scores Obtainable and Average Score across Universities at 95.0% confidence level. The R-Squared statistic indicates that the model as fitted explains 92.9985% of the variability in ESVARBON Scores Obtainable. The correlation coefficient equals 0.964358, indicating a relatively strong relationship between the variables, while the standard error of the estimate indicates that the standard deviation of the residuals is 0.872369, and the mean absolute error (MAE) of 0.713714 is the average value of the residuals.

Furthermore, in respect of the second hypothesis that "there is no deviation of the observed standards from the ESVARBON expected benchmarks" a comparison of the Means returned the following statistics:

95.0% confidence interval for mean of ESVARBON Scores Obtainable: 9.0 +/- 1.33224 [7.66776, 10.3322]

95.0% confidence interval for mean of Average Score across Universities: 6.41 +/- 1.07548 [5.33452, 7.48548]

95.0% confidence interval for the difference between the means assuming equal variances: 2.59 +/- 1.66799 [0.922013, 4.25799]

Applying t-test to compare the means, that is:

$$H_0: \text{mean1} = \text{mean2}$$

$$H_1: \text{mean1} \neq \text{mean2}$$

Assuming equal variances: t = 3.12206, P-value = 0.00303974

Reject the null hypothesis for alpha = 0.05.

This option runs a t-test to compare the means of the variables and constructs confidence intervals or bounds for each mean and for the difference between the means. The confidence interval for the difference between the means, which extends from 0.922013 to 4.25799. Since the interval does not contain the value 0, there is a statistically significant difference between the means of the two samples at the 95.0% confidence level. In addition the t-test was used to test the specific hypothesis that the difference between the two means equals 0.0 versus the alternative hypothesis, that the difference does not equal 0.0. In this case, the test was to determine whether the computed P-value is less than 0.05, and since it is so, the null hypothesis is rejected. That is the mean of ESVARBON standard and mean of observed standards across the universities are not equal, there is deviation from the set standards and universities are not really complying.

To determine the level of compliance with the benchmark by individual universities, a regression of the ESVARBON and observed standards in individual universities was carried out resulting in details shown in Table 10.

**Table 10: Summary Regression Output of Set Accreditation and Observed Standards in Universities.**

S/N	University	Statistics	Finding
1	Covenant University	F-ratio = 644.43; Correlation Coefficient = 0.982619; R-squared = 96.5539 percent R-squared (adjusted for d.f.) = 96.4041 percent; Standard Error of Est. = 0.612023; Mean absolute error = 0.487622; Durbin-Watson statistic = 1.39611 (P=0.0564); Lag 1 residual autocorrelation = 0.264182	Since the P-value in the ANOVA table is less than 0.05, there is a statistically significant difference between ESVARBON Scores Obtainable and Covenant University at the 95.0% confidence level. The standard error of the estimate <b>shows the standard deviation of the residuals to be 0.612023</b>
2	University of Lagos	F-ratio = 258.60; Correlation Coefficient = 0.958292; R-squared = 91.8324 percent R-squared (adjusted for d.f.) = 91.4773 percent; Standard Error of Est. = 0.942222; Mean absolute error = 0.756537; Durbin-Watson statistic = 1.74141 (P=0.2332); Lag 1 residual autocorrelation = 0.112166	Since the P-value in the ANOVA table is less than 0.05, there is a statistically significant relationship between ESVARBON Scores Obtainable and University of Lagos at the 95.0% confidence level. The <b>standard deviation of the residuals is 0.942222</b>
3	Federal University of Technology, Akure	F-ratio = 101.49; Correlation Coefficient = 0.902906; R-squared = 81.524%; R-squared (adjusted for d.f.) = 80.7207%; Standard Error of Est. = 1.41713; Mean absolute error = 1.07192; Durbin-Watson statistic = 1.91453 (P=0.3823); Lag 1 residual autocorrelation = 0.0119879	Since the P-value in the ANOVA table is less than 0.05, there is a statistically significant relationship between ESVARBON Scores Obtainable and Federal University of Tech at the 95.0% confidence level. The standard error of the estimate shows the <b>standard deviation of the residuals to be 1.41713.</b>
4	Nnamdi Azikiwe University, Akwa	F-ratio = 240.07; Correlation Coefficient = 0.955285; R-squared = 91.257%; R-squared (adjusted for d.f.) = 90.8769 %; Standard Error of Est. = 0.974848; Mean absolute error = 0.765363; Durbin-Watson statistic = 2.17455 (P=0.6406); Lag 1 residual autocorrelation = -0.169023	Since the P-value in the ANOVA table is less than 0.05, there is a statistically significant relationship between ESVARBON Scores Obtainable and Nnamdi Azikiwe University at the 95.0% confidence level. <b>The standard deviation of the residuals is 0.974848</b>
5	River State University of Science & Technology, Port Harcourt	F-ratio = 118.58; Correlation Coefficient = 0.915177; R-squared = 83.7549%; R-squared (adjusted for d.f.) = 83.0486%; Standard Error of Est. = 1.32882; Mean absolute error = 1.09085; Durbin-Watson statistic = 1.5562 (P=0.1111); Lag 1 residual autocorrelation = 0.166937	Since the P-value in the ANOVA table is less than 0.05, there is a statistically significant relationship between ESVARBON Scores Obtainable and RiverState Univ of Sci and Tech at the 95.0% confidence level. The standard <b>deviation of the residuals to be 1.32882.</b>
6	Cross River University of Science & Technology, Calabar	F-ratio = 66.16; Correlation Coefficient = 0.861411; R-squared = 74.2029%. R-squared (adjusted for d.f.) = 73.0813%; Standard Error of Est. = 1.67452; Mean absolute error = 1.2; Durbin-Watson statistic = 2.33113 (P=0.7700); Lag 1 residual autocorrelation = -0.230601	Since the P-value in the ANOVA table is less than 0.05, there is a statistically significant relationship between ESVARBON Scores Obtainable and Cross River Univ of Tech at the 95.0% confidence level. <b>The standard deviation of the residuals is 1.67452</b>
7	Enugu State University of Science & Technology	F-ratio = 126.02; Correlation Coefficient = 0.9196; R-squared = 84.5663%; R-squared (adjusted for d.f.) = 83.8953%; Standard Error of Est. = 1.29521; Mean absolute error = 0.950232; Durbin-Watson statistic = 2.60253 (P=0.9270); Lag 1 residual autocorrelation = -0.340359	Since the P-value in the ANOVA table is less than 0.05, there is a statistically significant relationship between ESVARBON Scores Obtainable and Enugu State Univ of Sci of Tech at the 95.0% confidence level. The standard <b>deviation of the residuals to be 1.29521</b>
8	Imo State University, Owerri	F-ratio = 111.11; Correlation Coefficient = 0.910222; R-squared = 82.8504%; R-squared (adjusted for d.f.) = 82.1048%; Standard Error of Est. = 1.36531; Mean absolute error = 1.01285; Durbin-Watson statistic = 2.42712 (P=0.8505); Lag 1 residual autocorrelation = -0.246017	Since the P-value in the ANOVA table is less than 0.05, there is a statistically significant relationship between ESVARBON Scores Obtainable and Imo State Univer at the 95.0% confidence level. The standard <b>deviation of the residuals to be 1.36531.</b>

The analysis in Table 10 reveals that there is significant deviation of the observed standards from the expected, thereby implying that universities offering Estate Management programme do not fully comply with the laid down standards. This assertion is corroborated by the standard deviation ranging between 0.612023 and 1.67452. Out of the eight universities, only three universities (37.5%) have calculated standard deviations that are less than 1.0 while five (62.5%) have deviations greater than 1.0. This implies that about 63% of the universities offering the programme do not fully comply with the set standards.

## 6 RECOMMENDATIONS AND CONCLUSION

From the result of the analysis, it suffices to recommend as follows:

(i) There is need for the NUC and ESVARBON to adopt more strict approach to accreditation in order to ensure full compliance with the minimum benchmarks. In this regard, in assuring that the affected universities actually have the number of lecturers and their categories or status, the accreditation bodies must instruct universities to provide list of Faculty and Staff including their qualifications. The list would form a Directory of all Faculty and Staff in Nigerian universities, including the departments and contact details. As part of the process, it should be mandatory for Faculty or Staff moving from one University to another to so notify the bodies, while there should be a regulation to enforce that no Faculty could be appointed as Visiting Lecturers at more than one University at a time. The same conditions should be imposed on universities employing "roving" Visiting Lecturers. This will give clear picture of the actual Staff/Student Ratio and prevent falsification of information which they embark upon in order to make full accreditation at all cost. The Directory should be updated every session to give room for the inclusion of newly appointed Faculty.

(ii) There is need to upgrade the existing standards by adopting common core of international benchmark. This will ensure that students are equipped with necessary knowledge and skills in order to be relevant in the globally competitive real estate industry. This recommendation is premised on the fact that international benchmarking provides an additional tool for making the existing university education policy and improvement process to become more effective, and will offer insights and ideas that cannot be garnered by the NUC and ESVARBON within Nigeria. Furthermore, adoption of strategies in practice by international best practice to the existing range of ideas adopted by the two bodies would act as a critical and well-integrated component of the regulatory process. The Nigerian standard would be measured on the global scale and ensure that the Nigerian academic quality is founded on the global standards since Nigeria is part of the global village.

(iii) Adequate funding of university education is very important. This will enable adequate provision of physical facilities and attract quality personnel into the educational sector. Quality is a hallmark of good accreditation and assurance of quality is germane to the very existence of the higher institutions generally and specifically those offering Estate Management programme. Apart from this, quality assurance will be enhanced with adequate funding which must be channeled into staff capacity building and development with a view to encouraging Faculty embark on impactful research and impartation of current knowledge to students.

(iv) The accreditation scores are usually determined by a team consisting of four or more members, each scoring based on the range of ESVARBON Scores. It is therefore recommended that the scoring by individual accreditation team members should be more guided to prevent faulty accreditation decision. The current scoring by individual members gives room for wide variation in accreditation scores, since it is subjective although the average may tend to move near but not accurate to the correct status. To ensure accurate scoring and accreditation decision, therefore, members may have to justify the points so awarded in order to ensure equitable accreditation decision.

In conclusion, accreditation is a signpost to global relevance so the Federal, State and Private entrepreneurs who are principal actors in providing quality university education in Nigeria should abide by the rules. Certainly, the NUC and ESVARBON are engaged to ensure high teaching quality and help low-performing universities improve their teaching quality. The recommendations will assist towards the attainment of global relevance through properly harnessed human and capital resources that abound but have remained latent. Apart from this, the extension of the study to all universities and polytechnics has become essential to truly obtain the actual prevailing situation for reliable policy formulation and implementation.

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