Quality Control Measures as Predictors of Quality University Education in Nigeria

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Abstract

Education is the leading factor out of the potentials of the individuals in the society and the acquisition of skills, aptitudes and competences necessary for self-realisation and coping with life's challenges. University education is seen to be the largest repositories of certified knowledge for the improvement, advancement and development of the society and the nation as a whole. Enhancing quality in university education therefore must be based on developing educational systems that are integrated and responsive to the obstacles of academic achievement. The eight quality control measures when combined, have a positive multiple correlation with quality of graduates (R=0.34). Furthermore, 33.9% of the total variation in quality of graduates is accounted for by the 8 quality control measures. The benefit and impact of quality education also make invaluable contributions to all areas of human development and helping to eradicate poverty. Recommendations are also made to enhance quality of university education because of its strategic position in educational system

Keywords: University accreditation, institutional ranking, quality university education

Introduction

Education is the bedrock of development of any nation and the greatest instrument man has devised for progress. Indeed, it is the leading factor out of individual potentials in the society and the acquisition of skills, aptitudes and

competence necessary for self-realisation and coping with life's challenges (Osokoya, 2003). An educational system that is worth its salt therefore is one which emphasises quality, relevance and equity. This implies that educational system which is adequately equipped with the necessary knowledge, skills and competence required to function effectively in the competence world and to be able to face the realities of life.

Abdul-Kareem (2001) stresses that education has been universally recognised as investment in human capital which increases the productive capacity of the people which later yields economic benefits and contributes to future national wealth. Also, Aghanta (2001) argues that education is the most powerful and dynamic instrument for social, political, economic, scientific and technological development of nations. It follows therefore, that no nation can be self-reliant or recognised among the comity of developed nations without financial and good quality education at the primary, secondary and tertiary levels.

The quality of graduates produced from Nigerian universities is undoubtedly a research area of great concern to educationists. In their attempt to investigate what determines academic outcomes of learners, educationists have come up with more questions than answers. In recent times, prior literature has shown that learning outcomes that is, quality of graduates have been determined by such variables as family, school, society and motivational factors (Aremu and Sokan, 2003; Aremu and Oluwole, 2001. and Aremu, 2000). Beyond any doubt, the quality of graduates is important for the successful development and progress of any nation. Research has shown that students who do well in school are better able to make the transition into adulthood and achieve occupational and economic success (Akinwumi and Adelabu, 2008).

Quality control in higher institutions around the world are now increasingly becoming commonplace. The move from compliance to improvement purpose by means of using self-evaluation is becoming a common phenomenon. In many countries, quality control is based on self-evaluation of one kind or another. Self-evaluation is widely used because of its cost-effectiveness and, more importantly, the high degree of ownership inheres: in it cultivates its acceptance by the academics. Indeed, it is widely believed

that if quality control has to result in improvement, self-evaluation by the academics is a crucial step in the process. Improvement or accountability is the primary purpose of quality. External quality control agency can determine and enforce these purposes.

Fundamentally, the significance of quality control in education is exemplified by the need for society to achieve the purpose for which education is provided at various levels especially in tertiary institutions. Such purpose, as explicitly defined by its goals and objectives, signifies the desirable ends or outcomes for which quality control measures and processes are adopted as a means of satisfying public expectations. Therefore, quality control measures are more readily factored in to be able to get the targeted quality from the educational system.

There are several measures being put in place by the National Universities Commission (NUC) which is responsible for the management and control of higher education in Nigeria. Some of these measures include:
(i)   Accreditation of programmes and courses
(ii)   Institutional raking
(iii)   Staff strength
(iv)   Student demographic characteristics
(v)   Existing facilities and equipment
(vi)   Benchmarks, periodic review and minimum standard
(vii)   External moderation system
(viii) External programmes for lecturers and students; and
(ix)   Post- UTME examination.

All these are quality assurance indicators for which control measures are put in place to achieve institutional objectives.

Statement of the Problem

The quality of education at the primary and secondary school levels has dropped precipitately. Thus, the inputs to the tertiary level are of very low quality and arguably unteachable. Further, there is unprecedented level of cheating in various examinations required for admission into

higher institutions, a problem that deepens the quality of inputs into our universities. These developments largely informed the introduction of post-UTME (Unified Tertiary Matriculation Examination) and other quality control measures to ensure good quality of students admitted into higher institutions. Apparently, most of the attempts for improved quality inputs have not been effective.

Second, the universities" environment, particularly until lately, has been deplorable and not conducive for the expected high quality output. In this regard, there are the following problems: high teacher/students ratio; general poor educational infrastructural facilities; poor funding: the brain-drain in the university community not too long ago, that saw seasoned and high profile scholars exit the system; unavailability of affordable tertiary education books and a host of others.

Arising from the foregoing, there is the need to investigate the impact (effectiveness) or otherwise of the quality control measures put in place to enhance the quality of graduates produced in Nigerian universities.

Literature Review

Concept of Quality Control

Oluwole and Awokoya (1991) see quality education to be that which is relevant and adopted to the needs of the community in a complex and integrated world, of living in a technological age where standards of housing, health, clothing, transformation, information, industralisatioi etc. are set.

Akinwumi (2000) suggests that in the analysis of quality education, it B imperative to relate the input of the school system to the output of the system. The relationship of input and output of a school system is necessary because the output of a school system is the finished product through which quality in education can be explained.

Factors Affecting Quality Education

Aligning with Adelabu and Akinwumi (2008), factors militating against

quality education includes: personnel (the human resource utilised such lecturers, students, parents etc.), materials, laboratory equipment, facilities (such as school building and furniture etc.), various constraints maintenance of quality and high academic standards such as inadequate funding, dramatic increase in students" intake etc.

To ensure quality, there should be inclusive and non-discriminatory classrooms that encourage equal participation of learners. The behaviour of teachers within classrooms affects students' actual safety as well as perception of security which is essential for effective learning (Akinwumi, S). Clearly articulated and enforced policies on discipline and classroom management can help regulate and ensure that teachers' behaviours meet acceptable norms and facilitate quality learning.

University Education and the Problem of Quality Control

The main problem facing the country's higher education system is how to maintain the high rate of expansion and still achieve the desired quality in the system. Adesina (2004) had, however, pointed out that the criterion of quantitative goal realisation is not the most important criterion for educational development, but the criterion of how well a country's educational output measures up to the needs of its own aspiration, drive for development and utilisation of the products of its programmes. The realisation of this objective depends, however, on how the input factors in educational programme are adequately addressed by the policy makers. These factors as earlier mentioned are: learners, teachers, curriculum, timing environment (including the physical facilities and the social environment) and funding.

Processes of Quality Control in Nigerian Higher Education

(i) Accreditation of programmes and courses

As pre-requisite for various awards and degrees in higher institutions of earning in Nigeria, accreditation of programmes and courses are carried out. This is targeted at providing and achieving quality control and to maintain equality in all the relevant institutions in accordance with set standards. The

focus is to ensure and guarantee that the awards and degrees are not only attained but sustained by awarding universities. Accreditation provides opportunities to advise the service providers (government or private owner) on how to revitalise their institutions in line with the set objectives. This exercise is an effective instrument to provide an institution with an avenue for staff evaluation not only in terms of available academic infrastructure but also in terms of quality of the available personnel and resources (Isyaku and Akale,2003).

(ii) Institutional ranking in terms of performance of undergraduate and postgraduate courses and programmes

Ranking of institutions is carried out by relevant agencies or commissions (NUC, NCCE). This is done on the basis of aggregate quality and performance of institutional programmes and courses. Using this instrument involves the compilation and computation of the total aggregate scores of academic courses offered by each institution, the product of this computation yields mean quality index score which provides a quality measure of the general position of the programmes offered by the institution. The result of this analysis and relative standing of each institution is then published.

Hypotheses

The following hypotheses were tested in the study:
i.   There is no significant relationship among the quality control measures and quality of graduates in Nigerian universities.
ii. There is no significant composite contribution of all the quality control measures to quality of graduates in Nigerian universities.
iii. There is no significant relative contribution of each of the quality control measures to quality of graduates in Nigerian universities.

Objective of the Study

The objective of the study is to analyse the impact of identified quality control measures on the quality of graduates produced by universities in Nigeria.

Methodology
The study adopts the survey description of the ex-post facto type.

Population

The study population comprised all directors of planning, heads of departments and the lecturers of all the federal and state-owned public conventional universities in Nigeria. From each of the universities, all deputy vice-chancellors (academics) and deputy vice-chancellors (administration), heads of departments in the selected faculties and lecturers were covered in the study. This is due to the fact that the kind of information required for this study can only be captured from these offices.

Sample and Sampling Technique
The study adopted a multistage sampling procedure. First, Nigeria was stratified into six geopolitical zones. The proportional to size, random sampling technique was then used to select university for each zone based on the total number of universities existing in each zone. In all, out of the 44 conventional universities, 15 were selected which represent 35 per cent (ratio 1:3 from zones) of the total number of universities. In all, 15 universities were sampled (Table 1).

Table 1: Distribution of Universities Selected Based on Geopolitical Zones

Geopolitical zone	No of universities	No. of universities selected	Universities
North Central	9	3	
North West	5	2	University of Abuja University of Jos Benue State University Usman Dan Fodiyo University, Sokoto Bayero University , Kano
North East	6	2	University of Maiduguri Abubakar Tafawa Balewa University, Bauchi
South West	1 1	4	University of Ibadan Lagos State University Obafemi Awolowo University, Ife Olabisi Onabanjo University, Ago Iwoye
South East	. 9	3	University of Nigeria, Nsukka Ebonyi State University, Abakaliki Nnamdi Azikiwe University, Awka
South South	4	1	Ambrose Ali University, Ekpoma
Total	44	15	

The study used three faculties in each university (Education, Social Science and Arts) from humanities and five departments were then selected from each selected faculty. A total number of five lecturers were selected from each department using the purposive sampling technique. This gives a total of 75 lecturers in each university making a sum of 1,125 lecturers in all the universities. The study also sampled the HODs from each department selected. This makes a total number of 15 HODs from each university and a sum total of 225 HODs in all the universities.

Instruments

Two instruments were used for data collection in this study. They are:
1. Quality Control Questionnaire on Accreditation and Universities Ranking (QCAARQ)
2. Quality of Graduates' Records Format (QGRF)

Validity of Instruments

For validity, face and content validity of the instruments were ensured by giving the questionnaires to experts in educational management and evaluation. Criticisms and suggestions offered were used to improve the draft items of the questionnaires.

Reliability of the Instruments

A field test was conducted in order to establish the reliability of the instruments. This was done by administering 50 questionnaires to lecturers HODs and DVCs in Nigerian universities which were not part of the selectee samples for the study. These were subjected to reliability analysis using Cronbach method. This tool also established the internal consistency of the instruments. This is based on item correlation. It also produced the reliability indices for each of the instruments.

The Questionnaire on Quality Control Questionnaire on Universities Ranking and Accreditation produces a Cronbach coefficient of 0.77 while Quality of Graduates' Records Format was prepared for the universities

records officers to enter the results of the students who graduated in the immediate past academic sessions.

Method of Data Analysis

Descriptive and inferential statistics were used to analyse the data collected.

Its and Discussion

Hypothesis 1: There is no significant relationship among the quality control leisures and quality of graduates in Nigerian universities.

The correlations between each of the independent variables and quality of graduates are presented on Table 2.

Table 2: Pearson Product Moment Correlation of the Quality Control Measures and Quality' of Graduates

Correlations		Quality of gradu ates	Acer edita tion	Rank ing	Benchm arks	Staff / stude nts	Facilit ies	Capac ity buildi ng	Exchan ge progra mme	Post-UME
Quality of Graduate	Pearson Correlation (2	1	.125*	.090*	.463*	-.077*	-.129	-.076*	.364*	.366*
			.000	.000	.000	.000	.000	.000	.000	.000
	N	1125	1125	1125	1125	1125	1125	1125	1125	1125
Accredit ation	Pearson Correlation Sig- (2 tailed)	.125*	1	-.136*	.076* .287	-.012 .001	-.067* .002	-.063* .143	.023	.000 .068* .001
			.000	.000						
	N	1125	1125	1125	1125	1125	1125	1125	1125	1125
Ranking	Pearson Correlation Sig- (2	.090* .000	-.136* .000	1	.037'' .257	-.014 .012	-.049* .191	-.019 .413	-.005	.045 .103* .000

	N	1125	1125	1125	1125	1125	1125	1125	1125	1125
Benchmarks	Pearson Correlation	.463*	.481*	.037*	1	.363*	.119*	.306*	.187*	-.406*
	Sig.(2 tailed)	- .000	.000	.045		.000	.000	.000	.000	.000
	N	1125	1125	1125	1125	1125	1125	1125	1125	1125
Stait/Students	Pearson Correlation	-.077*	-.012	-.014	.363*	1	.120*	.214*	.292*	-.464*
	Sig.(2 tailed)	- .000	.287	.257	.000		.000	.000	.000	.000
	N	1125	1125	1125	1125	1125	1125	1125	1125	1125
Facilities	Pearson Correlation	-.129	.067*	-.049	.119*	.120*	1	.204*	.366*	-.133*
	Sig. (2 tailed)	- .000	.001	.012	.000	.000		.000	.000	.000
	N	1125	1125	1125	1125	1125	1125	1125	1125	1125

Table 2 shows that there is a significant positive relationship between accreditation of programmes and courses of the universities and quality o: graduates produced by the universities (r=0.125; P<0.05). The positive relationship implies that the better the accreditation status of the universities, the better the quality of graduates of the schools.

The Table shows that institutional ranking has a weak, positive and significant relationship with quality of graduates (r = .090; p<0.05). This implies also that ranking by various local and international bodies and organs of government helps to improve quality of graduates. Benchmarks arc periodic reviews, on its own, has a slightly strong, positive and significant relationship with quality of graduates (r = .463; p<0.05). This means that quality of graduates is influenced to a large extent by prescription of benchmarks, periodic reviews and minimum standards.

Further, Table 2 shows that staff strength and students' distribution has a negative, weak relationship with quality of graduates (r = -.077; p<0.05). To this end, the higher the ratio of students to staff, the poorer the quality of graduates. Also, existing facilities and equipment have a negative

relationship with quality of graduates (r = -. 129; p<0.05). This shows that the existing facilities and equipment did not tend towards a good level of performance among students. Capacity building for teaching and non-teaching personnel also has a negative relationship with quality of graduates = - 076; p<0.05). This connotes that the level of capacity building does not measure up to be able to improve quality of graduates.

This is in accordance with Alani (2007) that close monitoring and accreditation of academic programmes run by the universities will enhance quality of university education in Nigeria. It is therefore imperative for eminent, professional bodies, university teachers and other stakeholders continue to support the accreditation process.

Spothesis2: There is no significant composite contribution of all the quality control measures to quality of graduates in Nigerian universities.
Table 3 presents the summary of regression analysis on the composite effect independent variables on quality of graduates.

Table3: Summary of Regression Analysis Showing Composite Contribution of Quality Control Variable on Quality of Graduates

R R Square Adjusted R Square Std. Error					
= .584 = .339 = .132 = 3.3014					

ANOVA[b]					
Model	Sum of Squares	df	Mean Square	F	Sig-
1 Regression	278.823	8	34.853	22.339	.000*
Residual	1741.189	1116	1.560		
Total	2020.012	1124			

* = Significant at P<0.05

Table 3 shows that the quality control measures when combined, have a positive multiple correlation with quality of graduates (R = .341). This means that the relationship among the variables is quite great and positions the two quality control measures in a stance that can effectively influence quality of graduates in the selected Nigerian universities.

The Table also shows that the adjusted R square value for the regression is .339. This indicates that 33.9% of the total variations in quality of graduates are accounted for by the quality control measures. This leaves the remaining 66.1 % to other factors and residuals.

A multiple linear regression was calculated to predict quality control measures on quality of graduates. A significant regression equation was found [$F_{(8,1116)}$ = 22.339, F<.05].

Hypothesis 3: There is no significant relative contribution of each of the quality control measures on quality of graduates in Nigerian universities.

Table 4: **Relative Contributions of the Quality Measures to Quality of Graduates**

Coefficients[3]						
		Unstandardised Coefficients		Standardised Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.197	.259		4.625	.000
	Accreditation	.386	.060	.224	6.447	.000''
	Ranking	.121	.098	.051	1.228	.22 -
	Benchmarks	-.518	.104	-.205	-4.955	.000''
	Staff/Students	-.042	.049	-.029	-.861	.390ns
	Facilities.	.100	.038	.080	2.617	.009''
	Capacity Building	.022	.069	.014	.319	.750ns
	Exchange Programme	.134	.072	.084	1.859	.063ns
	Post UME Examination	.382	.047	.270	8.177	.000''

Table 4 reveals that accreditation (t=6.447, p = .224, P<0.05), benchmarks <t=-4.955, p = -.205, P<0.05), facilities (t=2.617, P = 0.08, P<0.05) and Post UME examination (t=8.177, p = .270, P<0.05) had significant relative contribution each to quality of graduates in Nigerian universities. Ranking *r=1.228, p = .051, P>0.05), staff/students (t=-.861, p = -.029, P>0.05), capacity building (t=.319, p = .014, P>0.05) and exchange programme (i=l.8598.177, p = .270, P<0.05) had no significant relative contribution to quality of graduates. This is line with postulations of Olaleye (2006), Awokoya (1991), Okeke (2001) and Fryl and Utuiz (1999).

Conclusion

To the effect that the two quality control measures tested in the study exert a great influence both jointly and independently on the quality of academic endeavour in the universities, indeed, much improvement would be made if each of these quality control measures are taken care of, and effectively too.

In essence, they are potent change agents for producing better public - Diversities in Nigeria. This is with a view therefore to moving the country along the right path of development in the 21st century and this requires funding, committal, focus and constant evaluation of educational policy and implementation.

Recommendations

Quality university education is necessary and requires the development of both manpower and physical facilities by the administrators, planners and all stakeholders of education: developing enabling policy therefore requires that government policies should align with the educational objectives to achieve a stipulated goal.

In developing a system of quality university education therefore, it is important the federal, state and even international agencies should ensure that the set goal of building self-reliant graduates be achievable through their support with the National Universities Commission (NUC) to carry out the regulatory function of quality control.

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