

Heads of Departments' Perception of the Accreditation Roles of National Board for Technical Education in Quality Assurance in Nigerian Polytechnics

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Abstract

This study was conducted to investigate the heads of departments' perception of the accreditation roles of National Board for Technical Education (NBTE) in quality assurance in polytechnics in South West, Nigeria. The study adopted a descriptive research of survey design. The population for the study consisted of 307 Heads of Departments in five federal and 12 state Polytechnics in South West, Nigeria. The study covered eight out of the 17 Public polytechnics. Census technique was used to select 140 Heads of Departments from the polytechnics. The instruments used for data collection were two sets of questionnaire titled "Accreditation Roles of National Board for Technical Education Questionnaire (ARNBTEQ) and "Quality Assurance Questionnaire (QAQ)" with reliability coefficient of 0.61 and 0.88 respectively. The mean and standard deviation statistics were used to answer the four research questions raised while t-test statistics and Pearson product moment correlation coefficient (r) were employed to test the hypothesis formulated at 0.05 level of significance. The findings of the study revealed a moderate level of NBTE performance of accreditation roles and a positive relationship with quality assurance in public polytechnics in Nigeria. It was therefore recommended among others that, the National Board for Technical Education should improve on its accreditation roles to improve quality assurance in public polytechnics.

Keywords: Accreditation, Quality Assurance and National Board for Technical Education

Introduction

Polytechnic education in Nigeria faces a lot of challenges such as inadequate funding, poor facilities, curriculum issues, insufficient human resources, increased in students' enrolment, low quality graduates and incessant strike actions (Oduma, 2016). There is no gain saying the fact that, the need for improved quality assurance in Nigerian polytechnics cannot be underestimated. Anugom (2016) posited that to enhance quality in tertiary institutions, the government has employed various strategies such as accreditation, quality assurance and audit to address the question of quality in educational institutions in Nigeria

NBTE established in 1977 is the principal arm of Federal Ministry of Education (FME) vested with power to accredit polytechnics and their academic programmes. It also ensures proper monitoring of same for adequate adherence, be it Federal, State or Private Polytechnics. The NBTE plays its role in conjunction with some designated professional bodies and agencies that assess and accredit the professional contents of some programme such as the Institute of Chartered Accountants of Nigeria (ICAN) that assesses and accredits the professional contents of Accountancy and the Council for Registration of Engineers in Nigeria (COREN) that assesses and accredits the professional contents of Engineering programme in Nigerian polytechnics and Chartered Institute of Bankers of Nigeria (CIBN) that regulates banking and finance programme in Nigerian polytechnics.

Accreditation in the Nigerian Polytechnic system according to Agholor (2017) has three stated objectives: (1) to ensure that the provisions of Minimum Academic Standards (MAS) documents are attained, maintained and enhanced. (2) to assure employers, and other members of the community that Nigerian Polytechnics graduates from all academic programmes have attained an acceptable level of competency in their areas of specialization, and (3) to certify to the international community that the programme offered in Nigerian Polytechnics are of high standards and their graduates have sufficient intellect of employment and for further studies.

Meanwhile, the components of accreditation exercise of NBTE in the polytechnic in Nigeria include (1) Academic matters (the philosophy and objectives of the programme, the curriculum, admission requirements, course evaluation, student course evaluation and external examination system) (2) Staffing (adequacy of quality and quantity of teaching staff, competence and standard of instructions; Non-academic staff, Head of Department/ discipline and Staff development) (3) Physical facilities (provision of buildings, staff offices, classrooms/lecture halls/theatre, hostels, staff quarters-Junior/Senior, health centres (clinics)/workshops/laboratories/ studios /equipment, store/ departmental store, ICT centres, sport facilities .(4) Library (currency of the textbooks, number of copies available, journals and other resource materials for the programme) (5) Funding of the programme (allocation in the budget for capital expenditure in respect of new programme, personal emolument, overhead cost and consumables.

In view of the aforementioned components, accreditation exercise enhances quality assurance in the sector. The components of quality assurance according to Kastelliz, Kohler and Strassing (2014) include evaluation of polytechnics through accreditation exercise, quality audit and quality assessment. Nicholson (2011) supported this view that improvement in polytechnic education is linked with internal quality processes. Ewell (2009) believed that accountability which is a key component requires the entity to conform to the established standards. To Ali and Shajtri (2010), accountability is necessary for preserving the compact between higher education and society. For instance, it requires higher educational institutions to demonstrate that public funds are spent effectively and that the public purposes for funding higher education are fulfilled. Summing up the views, Swanzy (2015) believed that improvement and accountability are vital in higher education.

Any programme offered by a polytechnic or monotechnic which leads to the award of a National Diploma (ND) or Higher National Diploma (HND) must be accredited by NBTE before the award is made, an exercise through which NBTE adjudges the adequacy or otherwise of the relevant programme quality indices.

Statement of the Problem

It was observed that in some public polytechnics in Nigeria, quality assurance in laboratories, physical facilities, lecturing facilities, funding and adequacy of lecturers has not been encouraging, despite that, accreditation exercise is meant to ensure that all these are adequately put in place in the institutions. To buttress this statement, Agholor (2017) asserted that some public polytechnics in Nigeria are yet to meet the minimum academic standard. While some seem to be grossly underfunded, some lack the basic infrastructural facilities like laboratories, workshops, lecture facilities, libraries, e-library, internet facilities and conducive working environment. Researchers have carried out studies which are related to the variables of this study. Agholor (2017) examined the impact of NBTE accreditation exercise on office technology and management programme of polytechnics in Nigeria,

Mensah (2016) investigated the implementation of internal quality assurance in polytechnics: evidence from Ghana. Obadara and Alaka (2013) conducted a study on accreditation and quality assurance in Nigerian universities. However, none of the previous studies examined the perception of Heads of Departments on NBTE accreditation roles in public polytechnics in South West, Nigeria. This is the gap which this study filled.

Purpose of the Study

The main purpose of the study was to investigate the perception of Heads of Departments on accreditation roles of NBTE and its relationship with quality assurance in Public Polytechnics in South West, Nigeria. Specifically, the study sought to:

1. examine the perception of the Heads of Departments in federal polytechnics on the NBTE accreditation roles ;
2. determine the perception of the Heads of Departments in state polytechnics on the NBTE accreditation roles ;
3. examine the perception of the Heads of Departments in federal polytechnics on quality assurance ;
4. determines the perception of the Heads of Departments in state polytechnics on quality assurance;
5. ascertain the difference between the perception of the Heads of Departments in the federal and state polytechnics on NBTE accreditation roles in South West, Nigeria; and
6. examine the relationship between accreditation roles of NBTE and quality assurance in public polytechnic in South West, Nigeria.

Research Questions

1. What is the perception of the Heads of Departments in federal polytechnics on NBTE accreditation roles in South West, Nigeria?
2. What is the perception of the Heads of Departments in state polytechnics on NBTE accreditation roles in South West, Nigeria?
3. What is the perception of the Heads of Departments in federal polytechnics on quality assurance in South West, Nigeria?
4. What is the perception of the Heads of Departments in state polytechnics on quality assurance in South West, Nigeria?

Research Hypotheses

Ho₁: There is no significant difference between the perceptions of Heads of Departments in federal and state polytechnics on NBTE accreditation roles in South West, Nigeria.

Ho₂: There is no significant relationship between NBTE accreditation roles and the quality assurance in public polytechnics in South West, Nigeria

Literature Review

It is an axiomatic fact that licensing of polytechnics is not the only yardstick to set up and operate a polytechnic system. For the polytechnics to take off effectively, some quality indices such as setting standards, operational guides and discipline need to be ensured. However to ensure quality assurance, accreditation exercise must be carried out.

Akomolafe and Adesua (2019) conceptualized accreditation as the act of granting approval to an institution of higher learning by an official review board after the institution has met certain requirements, for example a forward looking government , irrespective of the cost will ensure that its citizens are educated, not just with any kind of education but foster

on qualitative one. Obadara and Alaka (2013) believed that accreditation standards and guidelines in Nigerian educational system are aimed at strengthening programme for quality assurance and quality improvement.

Therefore, accreditation is a process that aids institutions in developing and sustaining effective educational programme and assures the educational community, the general public and other organizations that the accredited institution has meet high standards of quality and effectiveness. Similarly, the Council for Higher Education Accreditation (CHEA) in Washington, US, defines accreditation as a process of external review used by higher education to scrutinize colleges, polytechnics, universities and educational programme for quality assurance and quality improvement. Adiagbonya, Agbaye and Suberu (2013) stated that accreditation is an evaluation of whether an institution or a programme meets the threshold standards and qualities for a certain status. It could also refer to the process by which the quality and standard of educational institutions are assessed. The accreditation exercise always follows a set of minimum standard against which programme are evaluated.

Oladosu (2011) established the function of accreditation as a measure of academic programme. It is a system of evaluating academic programme to determine whether they have met the conditions in the minimum academic standard. Highlighting the roles of accreditation, Okebukola (2010) perceived accreditation as a process leading to the granting of neither approval nor authority to a programme or institution after meeting set minimum standards and criteria. It discharges its duties by monitoring the internal and external quality assurance mechanisms of the Polytechnics and by assessing the standards of their programme and educational delivery through some processes.

Quality Assurance

Quality assurance has been an issue of educational system for some decades. The thrust behind polytechnic training is on the acquisition of the relevant skills required to perform specific professional tasks without ignoring the underlying theoretical knowledge necessary for a proper understanding of the tasks to be performed. Agholor (2017) asserted that NBTE is responsible for both accreditation exercise and quality assurance in Nigerian polytechnics. Mensah (2016) opined that polytechnic education emphasizes the application of knowledge rather than the search for new knowledge. Swanzy (2015) perceived quality assurance as mechanisms, procedures and processes in place to guarantee that the desired quality which is defined and measured is delivered. To achieve quality assurance in Polytechnic, institution must guarantee with confidence and certainty that the standards and quality of its educational provision are being maintained and enhanced.

Obadara and Alaka (2013) believed that quality assurance is about consistently meeting product specification or getting things right the first time and every time. Nicholson (2011) pointed out five approaches to achieving quality in tertiary education which include quality as exceptional (excellence), quality as perfection or consistency (Zero errors) quality as fitness for purpose (mission orientation and consumer orientation), quality as value for money and quality as transformation. The scholar added for instance that an institution that sets high entry requirements for their academic programme, owns state-of-the-art teaching and learning facilities, recruit academic staff with outstanding credentials and record task is tagged as a quality institution

Ajayi and Akindutire (2007) perceived quality assurance in tertiary institutions as ability of the institutions to meet the expectations of the users of manpower in relation to the quality of skills acquired. It is the ability of the polytechnics to meet certain criteria relating to academic matters, staff-student ratios, staff mix by rank, funding, self-development, library facilities and physical facilities. Vlasceanu (2007) described quality assurance as an all-embracing term referring to an ongoing, continuous process of evaluating (asserting, monitoring, guaranteeing, maintaining, and improving) the quality of a higher education system, institutions or programme.

Accreditation and Quality Assurance: The Roles of NBTE

It is no doubt that higher education is the tool to national technological and industrial development of any nation, a good government therefore would not expose its citizens to just any kind of education, but a qualitative one irrespective of the financial implication. Globally, according to Malik, Nawab, Naeem and Danish (2010), governments are making efforts to provide its citizens with quality tertiary education. It is necessary to point out that in Nigeria, the National Board for Technical Education (NBTE) is the recognized regulatory body that ensures quality assurance in the polytechnic system through accreditation exercise.

NBTE is the body or agency saddled by the Federal Republic of Nigeria to regulate and act as a catalyst for positive change and innovation for the delivery of quality polytechnic education in Nigeria. The agency or board has always been rising up to its statutory roles or functions by educating or enlightening the society on the NBTE accredited institutions and programme as well as their courses. For any new polytechnic to take off smoothly and effectively, such polytechnic must pass through NBTE . The NBTE comprises experts who are in various departments and units. The board is established to ensure the orderly development of a well coordinating and productive polytechnic system that will guarantee quality and relevant education for industrial and technological development of Nigeria (NBTE Establishment Act 1977)

Since one of the major goals of the polytechnic education is to produce middle-level manpower needed for industrial and technological development of Nigeria, the quality of polytechnic education would invariably determine the quality of polytechnic graduates

(output) in a nation, Therefore the board is charged with the responsibility of ensuring quality assurance in Nigerian polytechnics through accreditation exercise.

Methodology

This study investigated Heads of Departments' perception of the accreditation roles of NBTE in quality assurance in polytechnics in South West, Nigeria. The study employed a descriptive research design. The population for the study consisted of 307 heads of departments in the five federal and 12 state polytechnics in South West, Nigeria. The study covers eight out of 17 public polytechnics. The target population was 140 Heads of Departments (HODs) in the sampled institutions and states. Multi-stage sampling technique was used in order of states, institutions and respondents. Simple random sampling technique was used to select four out of the six states (Ekiti, Lagos, Ogun, Ondo, Osun & Oyo States) in South West, Nigeria. The sampled states were Ekiti, Ogun, Osun and Oyo states. Stratified sampling technique was employed to categorize the polytechnics into two strata: Federal and State. Also, simple random sampling technique was used to select two federal and five state polytechnics in the sampled states. Census technique was used to select all the 140 HODs in the sampled institutions because of the small population. A researcher-designed instrument titled "Accreditation Roles of the National Board for Technical Education Questionnaire" (ARNBTEQ) and "Quality Assurance Questionnaire" (QAQ) were used to collect data for the study.

The instrument consisted of 45 items that elicited information on NBTE accreditation roles and quality assurance. The questionnaires were validated and tested for reliability. The reliability of the instrument was ascertained using the Cronbach Alpha method and reliability coefficients of 0.61 and 0.88 were obtained.. The research questions raised in the study were answered using descriptive statistics of mean and standard deviation. Hypotheses 1 and 2 were tested using t-test and Pearson product moment correlation statistics respectively at 0.05 level of significance.

Results

Research Question 1: what is the perception of the Heads of Departments in federal polytechnics on NBTE accreditation roles in South West, Nigeria?

Table 1: Perception of the Heads of Departments in Federal Polytechnics on NBTE Accreditation Roles in South West, Nigeria

Level	F	Percentage
Low: (\bar{X} - SD)	6	8.6
Moderate: 1.28494-1.89626	53	75.7
High: (\bar{X} + SD)	11	15.7
Total	70	100

To respond to the research question, heads of departments in federal Polytechnic respondents on NBTE accreditation roles was computed using section A of the

ARNBTEQ . The mean and standard deviation were used to categorize subjects into three groups representing levels of performance. Using the mean score of 1.5906 and standard deviation of 0.30566, respondents that ranged from the difference between the mean and standard deviation i.e $1.5906 - 0.30566 = 1.28494$ were grouped into low level performance, also respondents that ranged from the sum of mean and standard deviation i.e $1.5906 + 0.30566 = 1.89626$ were grouped into high level performance while the respondents that falls between low and high level of performance i.e $1.28494 - 1.89626$ were grouped into moderate level of performance. The findings revealed that the accreditation roles of NBTE was at a moderate level with 75.7% of the respondents adjudging the accreditation roles in federal polytechnics in South West, Nigeria as moderate

Research Question 2: What is the perception of the heads of departments in State polytechnics on NBTE accreditation roles in South West, Nigeria?

Table 2: Perception of the Heads of Departments in State Polytechnics on NBTE Accreditation Roles in South West, Nigeria

Level of NBTE accreditation	F	Percentage
Low: ($\bar{X} - SD$)	10	14.3
Moderate: $1.29032 - 1.83868$	44	62.9
High: ($\bar{X} + SD$)	16	22.9
Total	70	100

To respond to the research question, heads of departments in federal Polytechnic respondents on NBTE accreditation roles was computed using section A of the ARNBTEQ . The mean and standard deviation were used to categorize subjects into three groups representing levels of performance. Using the mean score of 1.5645 and standard deviation of 0.27418, respondents that ranged from the difference between the mean and standard deviation i.e $1.5906 - 0.27418 = 1.29032$ were grouped into low level performance, also respondents that ranged from the sum of mean and standard deviation i.e $1.5906 + 0.30566 = 1.83868$ were grouped into high level performance while the respondents that falls between low and high level of performance i.e $1.29032 - 1.83868$ were grouped into moderate level of performance. The findings revealed that the accreditation roles of NBTE was at a moderate level with 62.9% of the respondents adjudging the accreditation roles in state polytechnics in South West, Nigeria as moderate.

Research Question 3: What is the perception of the heads of departments in Federal polytechnics on quality assurance in South West, Nigeria?

Table 3: Perception of the Heads of Departments in Federal Polytechnics on Quality Assurance in South West, Nigeria

Level of Quality assurance	F	Percentage
Low: (\bar{X} - SD)	18	25.7
Moderate: 0.9139-1.9503	42	60
High: (\bar{X} + SD)	10	14.3
Total	70	100

To respond to the research question, heads of departments in federal Polytechnic respondents on NBTE accreditation roles was computed using Section B of the QAQ. The mean and standard deviation were used to categorize subjects into three groups representing levels of performance. Using the mean score of 1.4321 and standard deviation of 0.5182, respondents that ranged from the difference between the mean and standard deviation i.e $1.4321 - 0.5182 = 0.9139$ were grouped into low level performance, also respondents that ranged from the sum of mean and standard deviation i.e $1.4321 + 0.5182 = 1.9503$ were grouped into high level performance while the respondents that falls between low and high level of performance i.e 0.9139-1.9503 were grouped into moderate level of performance. The findings revealed that the quality assurance was at a moderate level with 60% of the respondents adjudging the quality assurance in federal polytechnics in South West, Nigeria as moderate.

Research Question 4: What is the perception of the heads of departments in state polytechnics on quality assurance in South West, Nigeria?

Table 4: Perception of the Heads of Departments in State Polytechnics on Quality Assurance in South West, Nigeria

Level of Quality assurance	F	Percentage
Low: (\bar{X} - SD)	4	5.7
Moderate: (1.1731-1.8411)	58	82.9
High: (\bar{X} + SD)	8	11.4
Total	70	100

To respond to the research question, heads of departments in federal Polytechnic respondents on NBTE accreditation roles was computed using Section B of the QAQ. The mean and standard deviation were used to categorize subjects into three groups representing levels of performance. Using the mean score of 1.5071 and standard deviation of 0.3340, respondents that ranged from the difference between the mean and standard deviation i.e $1.5071 - 0.3340 = 1.1731$ were grouped into low level performance, also respondents that ranged from the sum of mean and standard deviation i.e $1.5071 + 0.3340 = 1.8411$ were grouped into high level performance while the respondents that falls between low and high level of performance i.e $1.1731 - 1.8411$ were grouped into moderate level of performance. The findings revealed that the quality assurance was at a moderate level with 83% of the respondents adjudging the quality assurance in state polytechnics in South West, Nigeria as moderate.

Testing of Hypotheses

H₀₁: There is no significant difference between the perceptions of Head of Departments in federal and state polytechnics on NBTE accreditation roles in South West, Nigeria.

Level of significance: 0.05

Decision Rule: Reject the null hypothesis if t_{cal} is greater than the t_{tab} otherwise do not reject.

Table 5: T-test Showing the Perception of Head of Departments in Federal and State Polytechnics on NBTE Accreditation roles in South West, Nigeria

Group	N	Mean	SD	df	t-cal	t-tab	Decision
Federal	70	4.2284	.98072	138	.732	1.994	Accept
State	70	3.9810	.88547				

Decision: Since t_{cal} (0.732) is less than the table value (1.994), the hypothesis was therefore not rejected. This shows that there is no significant difference between the perceptions of head of departments in federal and state polytechnics on NBTE accreditation roles in South West, Nigeria.

H₀₂: There is no significant relationship between NBTE accreditation roles and quality assurance in public polytechnics in South West, Nigeria.

Level of significance: 0.05

Decision Rule: Reject the null hypothesis if t_{cal} is greater than the t_{tab} otherwise do not reject.

Table 6: Pearson Correlation Analysis on NBTE Accreditation Roles and Quality Assurance in Public Polytechnics in South West, Nigeria

Variable	N	Mean	SD	r-cal	r-tab	Decision
NBTE Accreditation Roles	140	5.3219	.9228	0.536	0.159	Reject
Quality Assurance	140	4.9938	.8881			

Decision: Since r_{cal} (0.536) is greater than the r_{tab} (0.159), the hypothesis was therefore rejected. This shows that there is significant relationship between NBTE accreditation roles and quality assurance in public polytechnics in South West, Nigeria.

Discussion of Findings

The findings of the research questions 1 and 2 revealed the perception of the Heads of Departments on NBTE accreditation roles in federal and state polytechnics in South West, Nigeria. The results in tables 1 and 2 revealed that the NBTE accreditation roles in federal and state polytechnics in South West, Nigeria were adjudged to be moderate. This is in line with the findings of Ibijola (2014) who maintained that, the federal and state university staff also adjudged National Universities Commission's (NUC) performance of its accreditation process as moderate.

The findings negated Oduma (2018), Iyaba and Atueyi (2017) that NBTE has failed to reposition the nation's polytechnic. The findings also contradicted the submission of Nzewi, Ebele and Alaba (2017) and Jahul (2017) remarks on the deception with regards to accreditation roles of NBTE, which according to them had resulted to establishment of state polytechnics based on political reason void of proper assessment. However, the established moderate level of NBTE performance of its accreditation roles may not be fair enough for the system as noted by UNESCO (2005) when it opined that the success of education be assessed according to what was aimed at in advance.

The findings of the research questions 3 and 4 revealed the perception of the Heads of Departments on quality assurance in federal and state polytechnics in South West, Nigeria. The results in tables 3 and 4 revealed that the quality assurance in federal and state polytechnics in South West, Nigeria was adjudged to be moderate. This finding supports that of Ibijola (2014) that the perception of staff on quality assurance in universities in Nigeria was moderate.

The result in table 5 revealed that there was no significant difference between the perception of Heads of Department in Federal and State Polytechnics on NBTE accreditation roles in South West, Nigeria. This finding supports that of Akomolafe and Adesua (2019) that there was no significant difference in the perception of the impact of accreditation by academic staff based on their status. It also supports that of Ibijola (2014) that there was no significant difference between the perception of Federal and State universities staff on NUC performance of accreditation roles.

The result in table 6 showed that there was significant relationship between NBTE accreditation roles and the quality assurance in public polytechnics in South West, Nigeria. This is in line with the finding of Ibijola (2014) that there was a significant relationship between the performance of NUC accreditation roles and quality assurance. Also, the finding supports that of Obadara and Alaka (2013) that there was relationship between accreditation and the dependent variable: quality assurance. They believed that quality assurance is a set of activities or procedures that an organization undertakes to ensure that standards specified are met.

Conclusion

Accreditation of polytechnics be it institutional or programme is a way of examining the state of the institution in relation to where it ought to be. It is a quality assurance process. However, the study revealed that the NBTE performance of the accreditation roles was not as bad as some stakeholders in Nigerian polytechnics have perceived it today. Also, the moderate level of NBTE performance of its accreditation roles and the moderate level of the quality assurance established by them was an indication that the quality of education could improve with the improvement in NBTE performance of its accreditation roles. Therefore, this pre-suggests that there is need for accreditation agencies such as NBTE to carry out their roles strictly, by ensuring compliance with the set standard.

Furthermore, the study asserts that the more effective and efficient an accreditation agency is, the high the quality of education attained in Nigeria and that is why Federal government through the Federal Ministry of Education (FME) and accrediting agency such as NBTE builds a cooperative relationship in which government relies on them to confirm the quality of institutions and programmes. In conclusion, the implication of these research findings in Nigerian tertiary education is reflected in the way the system is funded. No doubt, the polytechnics system is capital intensive and it should be well funded.

Recommendations

In the light of established findings of the study, the following recommendations were made:

Accreditation exercises and conduct should be properly carried out and supervised to enhance education standards and quality for purpose of attaining the goals of polytechnics in Nigeria.

Secondly, National Board for Technical Education, a regulatory body charged with the statutory responsibility of ensuring competitive polytechnics education in Nigeria should improve on its accreditation roles.

Lastly, quality assurance should be a continuous process aimed at encouraging attitudinal change and team work.

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